

SAFRAN SAFAR ALMAKATY, PH.D.

Riyadh, Saudi Arabia
+966 55453 5728 • safran93@hotmail.com

Curriculum Vitae

Accomplished academic leader with 20+ years' experience across higher education and demonstrated expertise overseeing instructional programs and student support services; poised to excel in a senior leadership role.

Extensive administrative and leadership background complemented by track record of building and inspiring growth of academic success and wellbeing for diverse groups of students.

Proven budget development, strategic planning, and faculty training skills to ensure highest standards in student services, diversity, and inclusivity while meeting target objectives.

EDUCATION

Ph.D. in Communication, Media & Political Sciences, and International Relations, 1995
University of Kentucky – Lexington, Kentucky

Master of Arts in Telecommunications, 1990
Michigan State University – East Lansing, Michigan

Post Graduate Certificate in Islamic Laws and Studies, 1985
Umm Al-Qura University – Makkah, Saudi Arabia

Bachelor of Arts in Mass Communications (Radio-Television), 1984
King Abdul Aziz University – Jeddah, Saudi Arabia

ACADEMIC EXPERIENCE

Imam University – Riyadh, Saudi Arabia

PROFESSOR OF COMMUNICATION & MEDIA (October 2010 to Present)

Teach graduate and undergraduate students wide range of communications and media-related coursework. Develop interactive lessons in collaboration with other department members. Demonstrate classroom management skills and promoted character development among students. Supervise students regarding degree path and course loads. Conduct research while serving in consulting roles for private and public Saudi Arabian organizations.

Key Contributions:

- **Strategic Planning:** Researched and suggested upgrades to College of Media & Communication that were accepted and implemented.

Umm Al-Qura University – Makkah, Saudi Arabia

PROFESSOR OF COMMUNICATION & MEDIA (September 2006 to October 2010)

Instructed undergraduate and graduate coursework in communications and media. Prepared continuing education curriculum, conduct presentations, engage in conversational exercises, and participate in curriculum development. Achieved and hold classroom interest, motivation, participation, and discipline through creative teaching techniques.

Key Contributions:

- **Curriculum Development:** Spearheaded efforts to develop engaging curriculum based on industry trends, best media practices, and student needs.

Umm Al-Qura University – Makkah, Saudi Arabia

continued...

SAFRAN SAFAR ALMAKATY, PH.D.

CHAIR, ASSOCIATE PROFESSOR - DEPARTMENT OF MASS COMMUNICATION (August 2004 to September 2006)

Coordinated key tasks involved with managing department affairs for faculty, staff and students. Led efforts to design and develop Mass Communication courses and training programs. Administered planning, implementation, and evaluation of a comprehensive academic curriculum. Collaborated with Subject Matter Experts and visiting professors to build and enhance department.

Key Contributions:

- **Gender Equality:** Served in leadership role when female students were accepted into Department for first time in Saudi Arabian history; several students became leaders in media and academia.
- **Department Leadership:** Served as department representative in college console and for university administration.

Umm Al-Qura University – Makkah, Saudi Arabia

ASSOCIATE PROFESSOR OF COMMUNICATION & MEDIA (October 2003 to October 2008)

Led efforts to prepare syllabus and course outcomes for course instruction. Collaborated with senior leaders to foster strong student performance through coordination of academic activities, program management, and experiential learning. Tutored and advised for career path and various courses.

Key Contributions:

- **Teaching Excellence:** Received positive evaluations from students regarding lecture delivery style.

Umm Al-Qura University – Makkah, Saudi Arabia

CHAIR, ASSISTANT PROFESSOR - DEPARTMENT OF MASS COMMUNICATIONS (January 1996 to October 2000)

Promoted academic excellence, addressed student needs, and encouraged student success by working closely with full-time and part-time instructors to develop best practices in curriculum and instruction. Effectively managed administrative duties and represented department at various meetings.

Key Contributions:

- **Student Support:** Counseled students relative to their academic progress and success.
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PROFESSIONAL EXPERIENCE

Saudi Cultural Bureau – Dublin, Ireland

ADMINISTRATOR | ACADEMIC & COMMUNICATION ADVISOR

Fully accountable for overseeing Saudi student's affairs study in Ireland. Supervised all Saudi Cultural Bureau communication with Irish educational institutions. Served as communication and cultural consultant for Saudi Cultural Bureau.

Key Contributions:

- **International Relations:** Effectively interfaced with Irish colleagues to ensure clear communications.

Ministry of Interior, KSA – Riyadh, Saudi Arabia

CONSULTOR | DIRECTOR OF CONSULTERS AT MINISTER'S OFFICE

Held bottom-line responsibility for drafting official correspondence, managing sensitive and confidential information, developing strategical reports, conducting presentations, and offering recommendations. Led efforts to analyze, review, and present strategic reports to senior governments officials and leaders. Organized and directed international conferences on development issues.

Key Contributions:

- **Leadership:** Built reputation as trusted adviser and professional amongst senior government officials.

SAFRAN SAFAR ALMAKATY, PH.D.

ACADEMIC COMMITTEES

Imam University, College of Media & Communication – Riyadh, Saudi Arabia

CHAIR OF POST GRADUATE STUDIES & SCHOLARSHIP AFFAIRS COMMITTEE (November 2018 to June 2018)

Imam University – Riyadh, Saudi Arabia

MEMBER, COLLEGE OF MEDIA & COMMUNICATION COUNCIL (December 2016 to June 2018)

COURSES TAUGHT

1. Introduction of Communication
2. Introduction of Mass Communication
3. Introduction of Journalism
4. Introduction of Public Relation
5. Introduction of Radio & TV Broadcasting
6. Introduction of Public Opinion
7. Introduction in Social Media
8. History of Mass Media; History of Saudi Media
9. Arts of Public Relation
10. Principles of Public Relations
11. News Agencies
12. Media Industry
13. Media Polices and Regulation
14. Mass Communication Theories
15. Mass Communication Methodologies
16. International/Global Communication
17. Media and Societies
18. Writing for Public Relations
19. Writing for Radio and TV Broadcasting
20. Media Globalization
21. Training in Broadcasting
22. Training in Journalism
23. Training in Public Relation
24. Special Topics in Mass Media
25. Mass Media Policies and Regulations
26. Communication Texts in English

SAFRAN SAFAR ALMAKATY, PH.D.

27. Research Seminar

28. Applied Research in Media

PERSONAL SKILLS

I think I have the following personal skills: Professionally communicating with staff, managers, clients and the publics. Writing and editing reports, articles, news, press release, and etc. Ability to work under Pressure, can make the best decision based in rules and regulations of the institution/organization work for and based on human norms. I can manage my time to serve the best interests and priorities for the institution/organization with adaptability, self-motivation and leadership in all situations, including the of conflict resolution.

ACCOMPLISHMENTS

1- As, a Chair of the Department of Mass Communication, Umm Al-Qura University, Makkah, Saudi Arabia. 17 August 2004 — 5 September 2006; female students were accepted to the Department for the first time in history in Saudi Arabia. Accepted students most of them became leader in Media industry and academia and hire talents faculty and staff some of the became department Chairs, College Deans, Cultural attachés, and General Managers.

2- As, Full time Consultor and Director of Consulters at Minister Office, Ministry of Interior, Riyadh, Saudi Arabia, 20 March 2008 — 10 January 2011; previous Saudi Minister of Interior endorse the Custodian of the Two Holy Mosques Program for External Scholarship based in my team recommendation.

3- Also, as, full time Consultor and Director of Consulters at Minister Office, Ministry of Interior, Riyadh, Saudi Arabia, 20 March 2008 — 10 January 2011; I developed Periodically Strategic Report and Daily Statically indicator about public opinion articles published in Saudi Daily Newspaper.

4- As, a Chair of the Scientific Committee at The Department of Communication and Media at Imam University, Riyadh, Saudi Arabia, 8 October 2010 — 28 May 2013; the Department upgraded to the College of Media & Communication with new six departments based on my team recommendation.

5- As, Administrator and an Academic & Communication Advisor at Saudi Cultural Bureau in Dublin, Ireland, 4 November 2013 — 14 October 2015; previous Saudi Minister of Higher Education visit Ireland for the first time in Jun 2014 and signed formal serval cooperation's agreements with Irish Minister of Education in education and training based on my recommendation.

PUBLICATIONS

1. Almakaty, S., "The Role of the Private Sector in the Development of Media Education and Training in the Kingdom of Saudi Arabia: An Exploratory Study on a Sample of Specialists," Journal of Human Sciences, Fifth Year Issue No. 36. 2008. <http://www.ulum.nl/d4.html>
2. Almakaty, S., "Public Attitudes toward Saudi Media Coverage of Terrorist Attacks in the Makki Society: A Field Study." Accepted for publication in the Journal of Security Research, King Fahd Security College, Riyadh.
3. Almakaty, S., "Factors affecting the formation of mental image of the Saudi institutions based on the Hajj: an applied study on pilgrims 1426" e. Umm Al-Qura University Journal of Educational, Social and Human Sciences, vol. 20, No. 12, January 2008, pp. 426-479.

SAFRAN SAFAR ALMAKATY, PH.D.

4. Almakaty, S., "Western Media Campaigns against Saudi Arabia: A Survey Study from the Point of View of Opinion Leaders of the Arab Communities in the West during the Hajj Season 1425." AH / 2005. Umm Al-Qura University Journal of Educational, Social and Human Sciences, vol. (18), (2), Jamadi Al-Akhra, July 2006, pp. 218-252.
5. Almakaty, S., "The role of direct television broadcasting in activating communication between Islamic countries and their communities: descriptive study." Accepted for publication in the Institute of Scientific Research and Revival of Islamic Heritage, Umm Al Qura University.
6. Almakaty, S., "The Image of the Islamic World in the Western Media: A Field Study on the Pilgrims of Europe, America, and Australia during the Hajj Season." Journal of Human and Social Sciences, Volume 20, No. 2, United Arab Emirates University: Al Ain, United Arab Emirates, pp. 115-145.
7. Almakaty, S., "Cultural communication: exposure to the media and its impact on the feelings of isolation among students at the University of Umm al-Qura." Cooperation No. 56, Seventeenth Year, Media Affairs, General Secretariat of the Gulf Cooperation Council: Riyadh, pp. 230-264.
8. Almakaty, S., "Precursors of Globalization: Review and discussion of media globalization." Paper presented at the Seventh Annual AUSACE/ BIMA International Conference, Lebanese American University, Beirut, Lebanon 31 October- 3 November 2002. Also, Published at Journal of Humanities and Social Sciences, 9, (May 2004), (<http://www.uluminsania.net/a108.htm>)
9. Almakaty, S., "Advertising and Media Industry in the Arab World: A Descriptive Study. Journal of Media Research, No. 14, Al-Azhar University, pp. 126-154.
10. Almakaty, S., "Information Technology and Institutions: The role of e-mail in change and institutional development." Social Sciences Research Series (51), Social Research Center, Institute of Scientific Research and Islamic Heritage Revival, Umm Al Qura University: Makkah Al Mukarramah.
11. Almakaty, S., Boyd, D., & Tubergan, G., (1997, Summer). "A Q-Study of reactions to Direct Broadcasting Satellite (DBS) television programming in Saudi Arabia" *Journal of South Asia and Middle Eastern Studies*, xx(40), 50-64.
12. Almakaty, S., Van Tubergen, G., Whitlow, S., & Boyd, D., (1996, May/June). Attitudes toward advertising in Islam . *Journal of Advertising Research*, 36 (3), 16-26.
13. Almakaty, S., S., Boyd, D., & Van Tubergen, G. (1994). Source credibility during the Gulf War: A Q-study of rural and urban Saudi Arabian citizens. *Journalism Quarterly*, 71 (1), 55-63.

SAFRAN SAFAR ALMAKATY, PH.D.

ACADEMIC & PROFESSIONAL ASSOCIATIONS

Arab-US Association for Communication Educators (AUSACE).

Saudi Association for Media and Communication (SAMC).

Saudi Association for Public Relation & Advertisement (SAPRA)

Association for Education in Journalism and Mass Communication (AEJMC).

Broadcast Education Association (BEA).

International Communication Association (ICA).

The International Society for the Scientific Study of Subjectivity (ISSSS)

International Studies Association (ISA).

World Communication Association (WCA).

Completed list of References

- 1- Dr. Abdullah N. Alhumood He was my previous College Dean of Communication at Imam University and my General Manager at Saudi Ministry of Interior, Riyadh, Saudi Arabia (email: alhumoodmail@yahoo.com. Phone +966504410644).
- 2- Prof. Douglas A. Boyd. He was my PhD committee Chair and Academic advisor and was the previous Dean of College of Communication and Information at University of Kentucky, Lexington, KY, the USA (email: boyd@email.uky.edu. Phone +18592577809).
- 3- Dr. Ibrahim M. Althagafi. He is Assistance Professor at College of Media and Communication & Vice-dean of Libraries Affairs at Imam University, Riyadh, Saudi Arabia (email: imalthagafi@imamu.edu.sa. Phone +966504107375).
- 4- Prof. Abdullah Mohammed Refae. He was my College previous Dean of Media and Communication at Imam University, Riyadh, Saudi Arabia (email: d.refae@gmail.com. Phone +966505682681).
- 5- Dr. Ahmad Yahya Alghamdi. He was my Collage previous Dean of Social Sciences at Umm al-Qura University, Makkah. Saudi Arabia. (email: ayghamdi@uqu.edu.sa. Phone +966555540200).
- 6- Dr. Abdullah A. Alassaf. He was my Department of Communication Chair at Imam University, Riyadh, Saudi Arabia (email: aassaf@imamu.edu.sa. Phone +966500099499).
- 7- Dr. Nasser Nafe Albarraq. He is my Department of Journalism and Electronic Publishing Chair at Imam University, Riyadh, Saudi Arabia (email: na44er@hotmail.com. Phone +966505153330).
- 8- Dr. Saud A Alsahli. He is my Department Chair at Imam University, Riyadh, Saudi Arabia (email: Sss9sss9@hotmail.com. Phone +966555259991).

SAFRAN SAFAR ALMAKATY, PH.D.

Hello recruiter,

The following application has been submitted from The Chronicle of Higher Education Jobs

Candidate name: Safran Almakaty

Candidate email: safran93@hotmail.com

Job title: President

Job link: <https://jobs.chronicle.com/job/323576/president/>

Recruiter: Florida State University

Application date: 3/9/2021

CV file: CV2.docx

Other information:

Covering Message : Dear FSU's President Search Committee,

It is my pleasure to communicate with you to indicate my interest in applying for the above position. Since I am having a lot of experiences and expertise specifically in higher education and Media and Communication fields. My career history in the field is almost 40 years as a college student, graduate student, faculty, administrator, and Consultant at six higher education institutions in Saudi Arabia, the United States, and Ireland. This allowed me to be fully involved, participated in several managements and administrations levels at these institutions which gave me global human perspective and realistic views about the people and world, as well as almost 35 years' experience in teaching, administrating, conducting research, supervisor and consulting private and public organizations in Saudi Arabia and Ireland and experience of interacting with "Think Tanks" worldwide; let me gain personal and professional skills, including but not limited to: Thinking strategically and professionally communicating with staff, managers, clients and the public in Saudi Araba and Ireland.

I think I can work under pressure and make the best decision based on rules and regulations of the organization I work with and based on human norms. I can manage my time to serve the best interests and priorities for the organization with self-motivation and leadership in all situations, including in the case of conflict resolution.

In addition, my administrative philosophy is committed to achieving the objectives of the institution I work with via others as teamwork, including but not limited to supporting and maintaining an integral culture of diversity, equity, and inclusion along with advancing the process of fundraising and budget management.

Sincerely,

Safran Safar Almakaty, PhD,

Professor of Communication, Media & Political Sciences

Imam University (www.imamu.edu.sa/en/Pages/default.aspx),

Riyadh, kingdom of Saudi Arabia

The Honorable James H. Anderson, PhD

703.980.6714 (cell)

andersonbear22@rocketmail.com

PROFESSIONAL PROFILE

**Academic Leader • National Security Executive
Proven Crisis Manager • Collaborative Team-BUILDER
Skilled Strategic Planner • Experienced w/Complex Budgets • Proven Fundraiser
Committed to Diversity • Accomplished Public Speaker**

PROFESSIONAL EXPERIENCE

OFFICE OF THE SECRETARY OF DEFENSE, PENTAGON—WASHINGTON, DC

DEPUTY UNDER SECRETARY OF DEFENSE FOR POLICY

Presidential Appointment with Senate Confirmation (4-star equivalent)

June 2020 – Nov 2020

- Advised the Secretary of Defense and the Under Secretary of Defense for Policy on all matters pertaining to the development, execution, and assessment of U.S. national defense policy and strategy.
- Served as Acting Under Secretary of Defense for Policy, March 2020-Nov 2020.
- Received *Defense Medal for Distinguished Public Service*, the Department's Highest Award, Nov 2020.

ASSISTANT SECRETARY OF DEFENSE FOR STRATEGY, PLANS, AND CAPABILITIES

Presidential Appointment with Senate Confirmation (4-star equivalent)

Sept 2018 – June 2020

- Responsible for advising the Secretary of Defense and the Under Secretary of Defense for Policy on national security and defense strategy; the forces and contingency plans necessary to implement defense strategy; nuclear deterrence and missile defense policy; and security cooperation plans and policies.
- Ensured that the Department's program, budget, and posture decisions support and advance senior DoD leaders' strategic direction.

MARINE CORPS UNIVERSITY—QUANTICO, VA

VICE PRESIDENT (ACADEMICS AFFAIRS)

2015-2018

DEAN OF ACADEMICS & DEPUTY DIRECTOR (WAR COLLEGE)

2012-2015

- Oversaw the professional education of 60,000 Marines (officers and enlisted) annually
- Supervised leadership team of 30 military and civilians; oversaw recruitment and hiring of key civilians
- Lectured on strategy and great power competition
- Directed the Marine Corps Brute Krulak Center for Applied Creativity
- Authored of the 2016-2021 Strategic Plan Goals and Objectives
- Spearheaded first-ever PhD program for elite Marine Officers

GEORGE C. MARSHALL CENTER FOR SECURITY STUDIES—GERMANY

2009-2012

DIRECTOR, ADVANCED SECURITY STUDIES

- Developed and executed the interdisciplinary program for 130+ international military officers & defense officials
- Spearheaded the Marshall Center outreach throughout Europe—exchanges, site visits, exercises, symposia

INTERNATIONAL SECURITY AFFAIRS, MIDDLE EAST POLICY—DIRECTOR 2006-2009
OFFICE OF THE SECRETARY OF DEFENSE, PENTAGON—WASHINGTON, DC

- Directed decision analyses for the top rank of US policymakers on the full spectrum of US-Middle East defense issues
- Briefed the Secretary of Defense, Deputy Secretary of Defense, Under Secretaries and other senior officials on numerous occasions
- Researched and prepared effective senior level action memoranda, interagency briefs, strategies and plans, and international negotiation positions & meeting books

INTERNATIONAL SECURITY AFFAIRS—COUNTRY DIRECTOR, ISRAEL 2003-2006
OFFICE OF THE SECRETARY OF DEFENSE, PENTAGON—WASHINGTON, DC

- Prepared analyses and action memoranda for senior US policymakers regarding the complete range of US-Israel defense issues
- Initiated and drove incisive, forward-looking Top Secret paper for senior OSD leaders on potential implications of a third-party strike on Iran's nuclear program, and US options
- Produced numerous read-aheads and coordinated background materials to help prepare senior US policymakers for meetings with high-ranking Israeli officials
- Extensive coordination with State Department and DSCA counterparts

LEGISLATIVE AFFAIRS—SPECIAL ASSISTANT 2001-2003
OFFICE OF ASSISTANT SECRETARY OF DEFENSE, LEGISLATIVE AFFAIRS—PENTAGON, WASHINGTON, DC

- Consistently identified controversial legislative issues in advance of critical leverage points in the Congressional decision-making process—and developed solutions
- Prepared comprehensive analyses on major Congressional actions, plans, perceptions, and current or potential problems re OSD programs and initiatives

DFI INTERNATIONAL—PROJECT MANAGER 2000-2001
WASHINGTON DC

- Led the \$400K project for the Defense Threat Reduction Agency (DTRA) on multilateral arms control of nuclear weapons
- Delivered projects on-time and under budget

HERITAGE FOUNDATION—RESEARCH FELLOW 1997-1999
WASHINGTON, DC

- Authored 10 major research papers—Heritage Backgrounders, 13 Executive Memorandums and 16 Op-Eds on wide-ranging policy papers on national security topics Authored *America at Risk—A Citizen's Guide to Missile Defense*

MILITARY SERVICE

UNITED STATES MARINE CORPS (Active & Reserve Duty) 1986-1998

- Intelligence Officer (S-2), multiple overseas deployments
- Commissioned 2nd Lieutenant, August 1986; Promoted to 1st Lieutenant, August 1988; Captain (Reserves), June 1991; Major (Reserves), October 1996.
- Honorable Discharge, January 1998

EDUCATION

- **PHD, INTERNATIONAL RELATIONS—FLETCHER SCHOOL OF LAW & DIPLOMACY, TUFTS UNIVERSITY, 1993**
 - Dissertation: *National Decision-Making and Quick- Strike Intervention During the 1980's*
- **MASTER OF ARTS IN LAW AND DIPLOMACY (M.A.L.D.)— FLETCHER SCHOOL OF LAW & DIPLOMACY, TUFTS UNIVERSITY, 1991**
- **B.A., PHI BETA KAPPA, MAGNA CUM LAUDE—AMHERST COLLEGE, 1985**

PUBLICATIONS

- Authored more than 80 articles addressing a broad range of foreign and defense issues
- Published in numerous venues, including *The New York Times*, *Defense News*, *Military Review*, *Proceedings Magazine*, *Marine Corps Gazette*, *Strategic Review*, *The Christian Science Monitor*, *Crisis Magazine*, and *World Affairs Journal*
- Co-authored with Andrew Bellenkes, *Leading Dynamic Seminars: A Practical Handbook for University Educators* (Palgrave, 2013)
- Authored *America at Risk: A Citizen's Guide to Missile Defense* (The Heritage Foundation, 1999)

LIFETIME PROFESSIONAL ASSOCIATIONS

- American Political Science Association
- U.S. Naval Institute
- Navy League

SELECTED AWARDS

- *Defense Medal for Distinguished Public Service*, Department of Defense, 2020
- *Defense Medal for Superior Civilian Service Award*, Department of the Army, 2012
- *Defense Medal for Exceptional Public Service*, Office of the Secretary of Defense, 2009
- “*The Neglected Dimension of Leadership*,” *Proceedings*, June 1996 (Winner, Vincent Astor Memorial Leadership Essay Contest, United States Naval Institute)
- “*New World Order and State Sovereignty: Implications for U.N.-Sponsored Intervention*,” *The Fletcher Forum of World Affairs*, 1992 (Winner, Essay Contest, The Fletcher Forum)
- *Edward Jones Prize*, 1985 (Winner, Essay Contest, Amherst College)

FUNDRAISING EXPERIENCE

- President, Bryce Foundation, 2006-2018

Penny Brown Reynolds, J.D., Ph.D.

4860 Regency Trace Atlanta, Georgia 30331
Tel: 404-368-8662 | Email: judgepenny@att.net

Transformational executive leader with over 27 years of extensive experience as a strategist, both in the public and private sectors, with proven expertise in strategic planning and implementation, academic governance, fundraising, donor relations, budget development, budget management, marketing and branding, corporate engagement; providing overall direction and oversight for operations and staff development for law departments and numerous state agencies. Specialized executive experience in advancing goals and objectives in the areas of public administration, public finance, higher education, legislative regulations, change management and public policy. Exemplary internal and public relations acumen with an ability to motivate and engage constituencies.

PROFESSIONAL EXPERIENCE

University System of Georgia, Atlanta, GA 2018 - Present
Dual Appointment

- **Georgia State University, Andrew Young School of Policy Studies, Atlanta, GA**
Instructor (Teaching Areas: Criminal Law & Race and Criminal Justice, Criminal Procedure)
2020 Outstanding Instructor, Department of Criminal Justice & Criminology Award
- **Albany State University, Albany, GA** 2018 - 2019
Policy Consultant, Office of the President
Oversaw the coordination and development of the Student Transformation Success Initiative's strategic plan and related operational plans, budgeting, programming and policy changes. In addition, consulted on establishing higher education priorities, policies, agendas, produces briefing materials, and drafting papers on behalf of the Office of the President.

Supreme Court of Georgia's Office of Dispute Resolution 2006 – Present
Registered Mediator and Arbitrator

- Conducts hundreds of mediations and arbitrations in a wide variety of legal disputes such as complex business litigation, contracts, education, personal injury, business torts, employment, government enforcement actions, product liability, professional malpractice, family, consumer, and divorce actions

Divine Destiny, LLC., Atlanta, GA 2008 - Present
Chief Executive Officer

- A diversified management consulting firm providing services to both public and private sectors in the areas of public policy, higher education leadership, organization strategy, public finance, change management, civil rights and criminal justice
- Manage crisis management, business and legal consulting
- Manage the development and execution of the organization's long-term strategy
- Overseeing non-profit consulting in operational assessment, training and engagement
- Assisting higher educational institutions address strategic issues such as performance improvement, operating efficiency, cost management, and reduction, growth strategy, organizational effectiveness and funding strategy
- Conducted a year-long self-study as a part of the Strategic Planning Task Force to study an institution's first year experience
- Collaborated with members of president's cabinet in the coordination and development of student transformation success initiative strategic plan

The JP Foundation, Inc.

2008 – Present

Chief Executive Officer

A 501(c)(3), non-profit organization dedicated to strengthening families, women, youth, and children and providing a voice for the poor through education and advocacy. Works directly for the Board of Directors to provide the direction in fulfilling the mission and vision of the organization; provides timely and accurate information to the Board of Directors regarding operations and budgeting

- Manage the development and execution of the foundation's long-term strategy
- Manage research and development of white papers on various policy issues
- Collaborate and partner with corporate, government entities and other non-profits
- Chief fundraiser, specifically motivating and facilitating supporters to maximize giving; inspiring new supporters to raise money, while maintaining, energizing and developing relationships with existing supporters
- Oversaw the coordination and development of a Women's Entrepreneur Initiative for over 100 women to launch business in partnership with *The Coca-Cola Foundation*
- Founded an Annual Women's Empowerment Conference drawing over 5000 attendees from 24 states and 3 countries
- Directing the strategy for recruiting, organizing and managing volunteers to carry out various functions within the foundation. Manage both contract staff and volunteer staff of over two hundred
- Manage official communication and marketing efforts; develops and maintains relationships with the national and local media

State Court of Fulton County, Atlanta, GA

2000 - 2008

Judge

- Responsible for all facets of the civil and criminal trials and judicial administration
- Presided over proceedings including both bench and jury trials and hearings
- Presided over cases involving medical and legal malpractice, pharmaceutical litigation, wrongful death, personal injury, business and employment litigation, contracts, product liability, class actions, and misdemeanor criminal offenses
- Oversaw court management of operations and budgetary issues and supervised staff. Served on numerous committees, including courthouse security, case management, law clerk recruitment, communications and E-filing committees
- Stood for re-election without opposition. Never reversed by an appellate court on any criminal decision

Office of the Governor, State of Georgia, Atlanta, GA

1998 - 2000

Executive Counsel to Hon. Roy E. Barnes, 80th GA Governor

- First African American in Georgia's history to serve as legal counsel to the Governor
- Served as the chief legal officer and managed office legal department of attorneys and administrative staff
- Served on Governor's senior management team as a senior policy advisor on civil rights, criminal justice, gender equality, transportation, education, business, and fiscal policy issues
- Provided daily advice and guidance to the Governor and heads of 15 state agencies (direct reports) regarding civil rights, litigation, outside litigation and budgetary matters
- Responsible for a wide array of issues including official legal opinions, use of executive power, litigation, judicial matters, civil rights protection against discrimination, developed and recommended adoption of civil rights regulations, policies, public finance, organization strategy

- Managed federal program compliance, media inquiries, legislation, regulatory, contracts, executive appointments, investigations, law enforcement, military affairs, intellectual property, open records, all aspects of employment law

Office of Lieutenant Governor, State of Georgia, Atlanta, GA

1997 - 1998

Chief of Staff and General Counsel to Hon. Pierre Howard

- First African American in Georgia's history to serve as chief of staff and legal counsel to a Lieutenant Governor
- Responsible for all facets of the day-to-day operations, administration, legislative and financial affairs of the office
- Developed, reviewed and prepared an annual budget of \$8.1 million, overseeing operations, coordinating the development of administrative and legislative agendas
- Directed the coordination with Senate committees, developed legislation for higher education, gender issues, education, transportation, environmental and criminal justice
- Supervised the Senate offices of research, administrative support personnel, press secretary's office, legislative counsel, constituent and community services division, and legislative personnel

Georgia Attorney General's Office, Atlanta, GA

1994 - 1996

Assistant Attorney General

- Served as legal counsel to various agencies and boards of state government
- Issued legal opinions as requested by heads of state agencies and other officials
- Defended challenges to state laws against state agencies
- Drafted and reviewed contracts and subpoenas, conducted investigations, subpoenas, evidentiary hearings; managed all legal aspects of receiverships of the Department of Insurance
- Represented state agencies/clients on transactional civil litigation, management of discovery, provided legal opinions, drafted legislation and provided legal and policy advice on matters related to assigned cases
- Successfully tried 200 plus administrative hearings

Office of the DeKalb County District Attorney, Decatur, GA

1996

Assistant District Attorney

- Responsible for all facets of criminal prosecution, evaluation of criminal cases, investigation, subpoenas, indictment; the office on arraignments and hearings, oral arguments
- Prepared cases for pre-trial and trials
- Advised and worked with law enforcement personnel on issues, including obtaining necessary evidence to prosecute crimes, handled plea negotiations with defense attorneys

Court of Appeals of Georgia, Atlanta, GA

1996

Law Clerk to the Hon. John, H. Ruffin

- Conducted legal research, preparing bench memos, drafting orders and draft opinions, proofreading, verifying citations, communicating with counsel regarding case management and procedural requirements, and assisting the judge during oral arguments

Nelson Mullins Riley & Scarborough, LLP, Atlanta, GA

Summer 1992 & 1993

Summer Associate, 1L & 2L

- Researched and analyzed the law on complex issues, prepared memoranda, drafted documents including briefs for submission analyzed and summarized complicated legal documents, including contracts and litigation related matters, performed discovery of various electronically stored data in preparation for litigation, contracts and mergers and acquisitions

Georgia State University College of Law, Atlanta, GA 1992 - 1994
Law Research Assistant to Associate Dean Corneill A. Stephens

- Conducted research and critically examined legal research on the Uniform Commercial Code Article 2 in preparation for, *Georgia Methods of Practice, Vol. 1*. Performed the research for the updated supplement to *Georgia Methods of Practice*, Chapters 1-9 (Volume 1) and Chapters 63-67, *Georgia Methods of Practice, Vol. 2*

EDUCATION

Georgia State University College of Law, Atlanta, GA 1994
Juris Doctor

Nova Southeastern University, Fort Lauderdale, FL 2021
Ph.D., Criminal Justice
Honors: Phi Kappa Phi; GPA: 4.0/4.0

Interdenominational Theological Center, Atlanta, GA 2008
Master of Arts, Religious Education
Honors: Top Graduate in Class, GPA: 4.0/4.0

Georgia State University, Atlanta, GA 1991
Bachelor of Science, Criminal Justice
Honors: cum laude; Top 5% of Class, Honors College

Harvard Kennedy School, Cambridge, MA 2018
Certificate; Women and Power Executive Education Program

TEACHING EXPERIENCE

Part-Time Instructor 2018 - Present
 Georgia State University, Andrew Young School of Policy Studies, Atlanta, GA
 Teaching Areas: Criminal Law & Race and Criminal Justice, Criminal Procedure).
2020 Outstanding Instructor, Department of Criminal Justice & Criminology Award

Guest Lecturer 2000 - 2020
 Spelman College, Morehouse College, Georgia State University, Xavier University, Clayton State College and University, Florida State University, Troy University, Florida Memorial College, Clark Atlanta University, Interdenominational Theological Center, Bethune-Cookman University and Alabama A&M University

SELECTED ACADEMIC HONORS/AWARDS/ACTIVITIES

- APEX Museum, Atlanta, GA, *2020 Scholar-in-Residence Academic Fellowship*
- Law School and Ph.D. Honors/Awards:***
- Member of The Honor Society of Phi Kappa Phi, 2020
 - Recipient of the *Chancellor Fellows Endowment Scholarship*, 2019
 - The Georgia State University Distinguished Student Award, The University's highest student service award, (first GSU law student to have received this distinguished award), 1994
 - Who's Who Among Students in American Universities and Colleges, 1993-94
 - National Association of Women Lawyers Outstanding Female Student Award, 1994
 - Vice President Student Bar Association, 1992-93
 - Vice-President, Reading, Writing, Advocacy, Moot Court Society

- Staff Reporter, Black Letter Law Newsletter
- Spring Graduating Hooding Committee Chairperson
- Founder, African American Heritage Celebration
- Top 5% First Year Moot Court Competition, Semi-Finalist
- Faculty Recruitment Committee, Student Chair
- Black Law Students Association
- Delta Theta Phi Legal Fraternity

Graduate School Honors

- Presidential Scholar's Award
- Achievement Honor Graduate Award in recognition of the high scholastic achievement, Highest GPA (4.0) in graduating class
- I.T.C.'s Costen Award for Leadership

Undergraduate Honors/Awards

Cum laude, graduating after only three years of study, top 5% of class

- Dean's list eight-consecutive quarters
- The Department of Criminal Justice Scholarship Award, 1992
- Member of the Georgia State University Honors Program
- Mortar Board Senior Honors Council
- Member Alpha Kappa Alpha Sorority, Inc.
- Certified in Family and Community Service in the Field of Sociology

SELECTED ARTICLES & PUBLICATIONS

- *Women and the Law: A Guide to Women's Legal Rights in Georgia*. Brown Reynolds, Penny and Jacquelyn Saylor. Ed. Carrollton: Runnymede Press, 1995. Print.
- Brown Reynolds, Penny. (2008), "Getting Through the Holidays During Difficult Financial Days" *Huffington Post*. Print.
- "Domestic Violence: The Role of the Courts & Religious Community," Presentation and article, Morehouse School of Medicine: Violence Prevention Conference: Promoting Healthy Communities, 2006.
- *My Mother Told Me*. Atlanta: Sparrow House Publishing. 2017. Print.
- *Real Talk for Real Sisters: Wisdom & Truth for Today's Women and Teens*. Atlanta: Sparrow House Publishing. 2015. Print.
- Brown Reynolds, Penny. *7 Steps to Peace of Mind*. Atlanta: Divine Destiny Publishing, 2010. Print.
- Editor-in-Chief, *The Fulton Court Reporter Newsletter*. Atlanta: Fulton County Courts, 2005. Print

SELECTED PROFESSIONAL & COMMUNITY HONORS/AWARDS

- First African American Appointed as Executive Counsel to a Governor in State of Georgia
- First African American Appointed as Chief of Staff & General Counsel for a Lieutenant Governor in the State of Georgia
- Honorary Doctorate, Doctor of Humane Letters, Interdenominational Theological Center, 2019
- Honorary Doctorate, Doctor of Philosophy, Ohio Christian University, 2017
- Honored by the Atlanta City Council for social justice advocacy and community service, 2019
- Inducted in the Gate City Bar Association's Hall of Fame for distinguished legal career.
- Founding Chair, Judicial Section of the Gate City Bar Association, an affiliate of the National Bar Association
- Life Fellow, Georgia Bar Foundation, Fewer than three percent of Georgia lawyers invited to become members of this elite group, Inducted 2003

- National Urban League 2009 Women of Power Award: National award given for accomplishments and distinguished service.
- National Council of Negro Women, National Community Leader of the Year, 2000
- SCLC 2016 Women of Power Award, 58th National Convention, Atlanta, GA., 2016
- Rainbow Push Coalition, Trombone Award outstanding national business leaders, 10th Annual Creating Opportunity Conference. 2009

SELECTED LECTURES, CONTINUING PROFESSIONAL DEVELOPMENT, CONFERENCES & MEDIA/ PRESS APPEARANCES

- “10 Keys to Success,” Women’s Entrepreneurial Empowerment Summit, Atlanta, GA., 2019
- “Diversity in Higher Education,” Faculty Development, Nova Southeastern University, 2020
- Keynote Speaker, The Coca-Cola Company, Atlanta, GA. Women in Technology, 2018
- Keynote Speaker, Albany Civil Rights Institute, Albany Georgia, 50th Anniversary of the Assassination of Dr. Martin Luther King Jr. King Day Celebration, 2018
- Commencement Speaker, Albany State University, Albany Georgia, 2018 Spring Commencement Exercises, 2018; Interdenominational Theological Center, 2019; Ohio Christian University, 2017
- Honored as one of America’s leading intellectuals by CNN and Essence Magazine for the ground-breaking series, *Reclaiming the Dream*, with the Black in America CNN special, 2009
- Speaker, 50th Anniversary March on Washington: S.C.L.C. and Rainbow Push Town Hall Meeting on *Poverty in America*, Washington, D.C. 2013
- Attendee, The White House Meeting for Clergy and Lay Persons in commemoration of the 50th Anniversary March on Washington, 2013
- Keynote Speaker, United Negro College Fund, Anderson County Martin Luther King, Jr. Celebration, Anderson, South Carolina, 2017
- Keynote Address, 54th Annual Conference of National Association of Student Affairs Professionals, 2012
- “Saving Our Black Boys: What Every Parent Needs to Know,” Panelist, Essence Music Festival, New Orleans, LA, July 2009-2010
- Keynote Address, “How to Encourage and Lead Future Generations,” 14th Biennial Conference, National Coalition of 100 Black Women, Atlanta, GA, 2009
- Keynote Speaker, National Bar Association Women Lawyers Division’s 2018 Awards Breakfast, 2018
- Florida Memorial University, Andrew Young Legacy Lecture Series, Miami, Florida, February 2017

BAR ADMISSIONS/ SELECTED MEMBERSHIPS & PROFESSIONAL AFFILIATIONS

State Bar of Georgia

Registered Mediator with the Supreme Court of Georgia’s Office of Dispute Resolution

National Bar Association Judicial Council

American Bar Association

Atlanta Bar Association

Gate City Bar Association

DeKalb Lawyers Association

Georgia Association of Women Lawyers

The Georgia Association of Black Women Attorneys

Apex Museum, Board of Directors

Silver Life Member, NAACP

S.C.L.C. Women, Board of Directors

Alpha Kappa Alpha Sorority, Inc.

Penny Brown Reynolds, J.D., Ph.D.

4860 Regency Trace, SW
Atlanta, Georgia 30331
404-368-8662

April 1, 2021

Alberto Pimentel, Managing Partner
Will Gates, Partner
Sal Venegas, Jr., Principal
SP&A Executive Search
6512 Painter Avenue
Whittier, CA 90601

“Re: FSU-President”

Dear Executive FSU-President Search Committee:

Florida State University has a rich history and traditions that affirms and fosters excellence in higher education and achievement. With a legacy of excellence, it is poised to expand its reach and impact within and beyond the landscape of higher education for future generations to come. The presidency of Florida State University will require a strategist and devoted leader eager and prepared to provide intellectual leadership, integrity and one who understands and appreciates the story that makes Florida State University so very valuable. Please accept this as my letter of interest to serve as Florida State University’s next president.

After the pandemic, higher education will never be the same and will necessitate a president able to bring a different perspective while understanding the value of tradition. The new president must be a transformational leader motivated by an interest in service, possess strong executive leadership experience and completely appreciate the intrinsic value of being professionally challenged while being confident in her leadership abilities to succeed. With over 27 years of executive leadership experience in the academic, public, private and non-profit sectors, I bring strong academic skills and a high record of scholarship with combined legal, administrative and teaching experience in higher education. Most importantly, I bring a wide, unique and diverse array of expertise and demonstrated record of achievement for getting things done.

Florida State University’s next president will need to gain the credibility and acceptance of the academic community. Having had a dual appointment from the University System of Georgia, and currently serving as a part-time faculty member at Georgia State University, I understand the importance of the president partnering with the academic community, students, faculty and stakeholders to tell the Florida State University story. As an academic with a high record of scholarship, I believe with all confidence that I could aptly advance Florida State University’s institutional objectives and outcomes as the next president due to my leadership style and transferable experience as an executive, educator, general counsel, chief operating officer, scholar and a resource reallocation expert with financial acumen.

My vision includes continuing in the great momentum of strengthening the academic stature of the faculty while supporting in its continued development. It is important to expand data-driven decision making by utilizing institutional research, marketing and communications capabilities to determine creative strategies to continue raising Florida State University's profile. The era of higher-education is now giving way to leaders who has a sophisticated grasp of data and analytics. As a researcher, I have the ability to oversee market research and tap in the data about market share, demographic forecasts, employment demand and population shifts to access game changing information that will benefit and increase student enrollment.

The unique culture of Florida State University will greatly benefit from a president who is as unique as the institution. Florida State University needs a great communicator who not only believes in the institution and its mission but will help define the value of a Florida State University education with regional, national and international audiences. As one of the premier institutions for entrepreneurial and innovation, I bring my extensive experience as an entrepreneur with a national reputation. Value should be placed on engaging with students and colleagues as I would seek to foster an environment of respect, empathy and cross-cultural competence. I am a leader that will create a climate of transparency and accountability. As president, I will bring to the position nearly three decades of substantive legal and academic research and scholarship having served as a CEO, overseen a legal department, the Georgia Senate Research Office, served as a research assistant conducting and critically examining legal research in law school and as a prestigious law clerk for the Georgia Court of Appeals.

Moreover, it is critical to creatively and strategically leverage the University's resources to continue enrolling a high-quality student body. Understanding the value of excellence in education, my vision of life-long learning and continuing development has allowed me to broaden my professional experience in higher education. Having recently earned a Ph.D. in Criminal Justice, my perspective of research is a significant aspect of what I bring to the position as a scholar, educator and former jurist.

I have built trust with higher education administrators while serving as an educational policy consultant. My roles have included the ability to understand and identify the resources required to improve performance at the institution and system level. I have an appreciation for the demands of the academy and the classroom environment as I am in the classroom as an instructor and was named the 2020 Instructor of the Year by the Criminal Justice Department at Georgia State University, Georgia's largest university. In this role, I have learned much about the needs and challenges of the faculty and the students.

As president of Florida State University, it will require a firm understanding of the ever-changing technical and fiscal landscape of higher education. I bring extensive experience with online education, including outreach and transfer articulation relationships, and in the development of enrollment pipelines through innovative dual credit relationships. Tuition over the years has become an even larger share of revenue for universities. The growing competition for private funding and grants as a result of the changing landscape has added to fiscal challenges. I do, however see this period as an extraordinary opportunity. As such, there must be clear strategies to mitigate the reality of unstable funding in institutions and having a president who is a collaborator with entrepreneurial acumen is a valuable asset I bring to the position.

My background in public governance, elected office, higher education and teaching in the classroom provide a unique perspective on leadership. As the first African American in Georgia's history to serve as legal counsel to the Governor and Lieutenant Governor and as a former distinguished member of the judiciary, having served in all three branches of state government, it cannot be overstated the importance of the long standing professional relationships I have developed over my thirty years throughout the country. My professional circle is comprised of a large number of diversified stakeholders and constituents in the United States. The demographic and economic diversity of Florida positions the University's initiatives to serve as a major catalyst for desired change in the community.

Florida State University's new president will be required to have experience with business and industry. While serving as legal counsel to the Governor, I worked as the executive lead for the policy and development of the Governor's collaborative with business, corporate and philanthropic communities for a \$1 billion public-private initiative for the establishment of a comprehensive National Cancer Institute in Georgia, specifically working on the business and legal development framework for the project and was responsible for working on a team which coordinated and managed relationships with local and national stakeholders. I coordinated public policy strategies as a member of the Governor's cabinet, served as a resource on the interpretation of existing and proposed local, state or federal laws and regulations, and arranged and supervised outside attorney. I directed operations in the executive counsel's office, served as the executive in charge for state agencies and constitutional officers.

Significantly, I bring a proven track record of fundraising. In 2016, The Coca-Cola Foundation, through a major sponsorship, partnered with my foundation to develop, coordinate and implement a highly innovative Women's Entrepreneur Initiative whereby over 100 women were trained, mentored and coached and later launched businesses and non-profits. I developed partnerships and engaged in various aspects of fundraising and resource development with partners in connection with the conference including, The Coca-Cola Company, Microsoft SunTrust, Wells Fargo, Chick-Fil-A Foundation, BB&T, AT&T, City of College Park, City of Atlanta, The Atlanta Dream, multiple law firms, etc., as well as policy makers, political leaders, lawmakers and other advocacy organizations.

The opportunity to serve at Florida State University is appealing to me for both professional and personal reasons. Over the past few years, I have been honored to teach at Georgia State University, Andrew Young School of Policy Studies in the Department of Criminal Justice. I am one of a few individuals in the entire United States to hold both a Juris Doctor and Ph.D. in Criminal Justice. I am the person I am because I was able to benefit from an affordable education. As a policy consultant in the Office of the chief of staff at Albany State University, I was able to learn first-hand the needs of first generation students in the development of the Student Success Initiative. There is a tremendous need for highly skilled and experienced professionals who can re-imagine a different way of manifesting success. In my capacity, while working with the institution's administrators, I came to learn the importance of building a new framework for higher education.

In my various executive roles, it has been my responsibility to build new strategies. I learned the value that institutions of higher learning bring to regions. I see a clear connection between my leadership style for change, collaborations and transformational vision as major contributions that I can bring to benefit Florida State University.

In the role as the University's chief executive officer, I recognize the benefit of not having to go it alone because I deeply value the concept of shared governance. In this new era, the University can benefit from my experience and ability to seek partnerships and co-ventures with other institutions to leverage resources, reduce duplication and minimize vulnerability. All of this must be done by making hard decisions and doing so with a spirit of compromise, trust and collaboration.

Having reviewed the position qualifications prospectus, I believe with all confidence that I could serve Florida State University well. The University is deserving of an experienced executive, devoted leader and strategist with tremendous energy, optimism, and enthusiasm, who will hit the ground running. Florida State University's noteworthy mission, vision and story is one that I embrace. It is my story. I would be honored to continue with the legacy in transforming lives through the application of my knowledge and experience, synonymous with an exemplary leader. I am available at your convenience to provide greater insights and look forward to hearing from you.

Sincerely,

A handwritten signature in cursive script that reads "Penny Brown Reynolds". The ink is dark and the signature is fluid, with the first name "Penny" being the most prominent.

Penny Brown Reynolds, J.D., PH.D.

CURRICULUM VITAE



Dr. Charalabos (Haris) C. Doumanidis

Marie Curie Chair and Deputy Provost

CDIC University College Dublin

Dublin, Ireland



2021

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SHORT BIOGRAPHY

Dr. Charalabos C. Doumanidis,
Marie Curie Chair and Deputy Provost – CDIC University College Dublin
Dublin, Ireland

Prof. Charalabos (Haris) Doumanidis holds his Ph.D. from the *Massachusetts Institute of Technology (MIT)*, Mechanical Engineering (1988), his M.S. from *Northwestern University, Mechanical & Nuclear Engineering* (1985), and his Diploma in Mechanical Engineering from the *Aristotelian Univ. of Thessaloniki* (1983). He has been Distinguished Professor and Founding Dean, college of Engineering & Computer Science at *Vin University*, Hanoi, Vietnam (2019-20); Vice Provost for Research and Interim Dean of Mining & Geosciences at *Nazarbayev University*, Astana, Kazakhstan (2018-19); Marie Curie Professor and Interim Chair of Civil Infrastructure and Environmental Eng. at *Khalifa University*, Abu Dhabi, UAE (2015-2018), Chair of Mechanical Engineering at the *University of Nevada Reno*, NV (2013-14); Founding Director of the *Nanomanufacturing Program* at the *National Science Foundation (NSF)* in Arlington, VA (2001-03, 2006-07 and 2010-11). He has also been Founding Director of the *Hephaistos Nanotechnology Research Center* (2006-2009), Visiting Professor/Research Engineer at *MIT* (2005-07), and Founding Head of the Mechanical and Manufacturing Engineering Department at the *University of Cyprus* (2004). His earlier career was as a Professor of Mechanical Engineering and Director of the *Thermal Manufacturing Laboratory* at *Tufts University* in Medford, MA (1991-2000), and Chief Scientist with *Axcelis Technologies* (Thermal Processing Systems) in Beverly, MA (2000-01). He has previously been a Lecturer-elect at the *Aristotelian University of Thessaloniki* (1991), Squadron Sergeant for the *Hellenic Air Force* (1990-91), and Postdoctoral Associate with *MIT Laboratory for Manufacturing and Productivity* (1989). Dr. Doumanidis serves as consultant for the automation, optoelectronics, biomedical and automotive industry.

His research and teaching interests include advanced manufacturing, nanoscale engineering, composite materials, thermal processing of materials, deposition and joining, rapid prototyping, laser annealing of semiconductors, distributed parameter system modeling and control, robotics and biomedical instrumentation. His recent research work focuses on fractal reactive nanoheaters, featherlike composite materials and intestinal tissue engineering. He is Guest/Associate Editor of international scientific journals for ASME, Elsevier, Hindawi and IASTED; research reviewer for over 30 technical journals and research funding institutions; organizer and chair of over 40 symposia for ASME, IEEE, NSET, NSF etc; speaker of over 30 keynote/plenary lectures and over 100 invited seminars; the author of over 300 refereed papers, distinguished by four best paper awards (ASME, ACC, ISNM, ICMCTF), five patents and five book chapters. He was coordinator of the *Marie Curie Excellence Team* (2006) and recipient of the *Marie Curie Chair of Excellence* (2004) by the European Commission, the *ASME Blackall Award* (2002), the *Presidential Faculty Fellow Award* by the White House (President W.J. Clinton, 1996), the *NSF Young Investigator* (1994) and the *Research Initiation Award* (1992), as well as several grants from NSF, SME, DoE, NIST, Honda R&D Americas, European Commission, Research Promotion Foundation etc, totaling over \$ 18 million as a PI/co-PI. He teaches courses in manufacturing processes and materials, mechatronics, controls and robotics, and has set up ten research/teaching laboratories at Tufts and UCY. He serves as Technical Officer in 7 small businesses established by his former students, and he mentors the research planning of many junior investigators, postdocs, graduate students (over 40 graduated), along with his three children.

Besides management of his own research Center, Prof. Doumanidis has research administration experience as the founding director of the *Nanomanufacturing Program* at the *National Science Foundation (NSF)*. At NSF he also worked with the *Nanoscale Science and Engineering Program*, to support nanotechnology research funding via the *US National Nanotechnology Initiative (NNI)*. He formulated research proposal solicitations in Manufacturing at the Nanoscale, coordinated the review of over 1,000 research proposals and supervised a portfolio of over 130 active research projects at all levels, including 3 major *Nanoscale Science and Engineering Centers* (NSEC – at UC Berkeley, Univ. of Illinois at Urbana-Champaign and Univ. of Massachusetts Amherst), with a total research investment of over \$120 M. He has also served as the *National Contact Point for Nano-technology (NMP)* for the *European Commission* in Cyprus. He still guides the research of many CAREER investigators and other young faculty across the globe, directing their activities to scholarship and innovation.

CHARALABOS C. DOUMANIDIS

Curriculum Vitae

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Home Address:

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Natick, MA 01760, USA

and

20 Dios Street, Apt 202
1056 Nicosia, Cyprus
hdoumani@gmail.com

PERSONAL

<i>Date/Place of Birth:</i>	Thessaloniki, Greece	<i>Citizenship:</i>	USA, EC (Greece)
<i>Family Status:</i>	Married, three children	<i>Languages:</i>	English, French, Greek, Italian
<i>License:</i>	Professional Engineer (PE)		

EDUCATION

Doctoral Studies.

<i>University:</i>	Massachusetts Institute of Technology, Cambridge, Massachusetts
<i>Degree:</i>	Ph.D. in Mechanical Engineering, February 1988. GPA: 5/5
<i>Field of Studies:</i>	Major in Manufacturing Automation. Minor in Biomedical Engineering
<i>Dissertation:</i>	Modeling and Control of Thermal Phenomena in Welding
<i>Supervisor:</i>	Prof. David E. Hardt, Laboratory for Manufacturing and Productivity

Graduate Studies.

<i>University:</i>	Northwestern University, Evanston, Illinois
<i>Degree:</i>	M.S. in Mechanical Engineering, June 1985. GPA: 4/4
<i>Field of Studies:</i>	Major in Control Theory. Minor in Computer Science and Robotics
<i>Dissertation:</i>	Numerical Techniques for Designing Output Feedback Robust Controllers
<i>Supervisor:</i>	Prof. William E. Schmitendorf

Undergraduate Studies.

<i>University:</i>	Aristotelian University of Thessaloniki, Greece
<i>Degree:</i>	Diploma in Mechanical Engineering, July 1983. GPA: 9.74/10
<i>Dissertation:</i>	Computational Simulation Method for Fusion Welding
<i>Supervisor:</i>	Prof. Alexander A. Tzavaras
<i>High School:</i>	Experimental School of University of Thessaloniki (Π.Σ.Π.Θ)

WORK EXPERIENCE

<i>Institution:</i>	University College Dublin, CDIC Ireland
<i>Capacity:</i>	Marie Curie Chair of Excellence and Deputy Provost
<i>Duties:</i>	Establishment and implementation of Changan Dublin International College
<i>Accomplishments:</i>	Curriculum and infrastructure development, alignment of regulations, team building
<i>Period:</i>	Jan. 2021-present

<i>Institution:</i>	Vin University – VinGroup/VinAcademy
<i>Capacity:</i>	Distinguished Professor /Founding Dean, College of Engineering & Computer Science
<i>Duties:</i>	Establishment and implementation of university governance and college operation

<i>Accomplishments:</i>	Hire of faculty, admission of students, campus facility design and implementation
<i>Period:</i>	Oct. 2019-Jan. 2021
<i>Institution:</i>	Nazarbayev University, Office of the Provost
<i>Capacity:</i>	Vice Provost for Research, Interim Dean of the School of Mining and Geosciences, Director of Research Training
<i>Duties:</i>	Establishment and implementation of Nazarbayev University research strategy
<i>Accomplishments:</i>	Planning of research initiatives, establishing the School of Mining & Geosciences
<i>Period:</i>	Jan. 2018-Sept. 2019
<i>Institution:</i>	Advanced Materials Design & Manufacturing (AMDM Ltd)
<i>Capacity:</i>	Senior Technical Officer
<i>Duties:</i>	Design and manufacturing of advanced nanofabric and nanocomposite materials
<i>Accomplishments:</i>	Research & development and patenting of ultrasonic nano-welding processes
<i>Period:</i>	Jan. 2016-present
<i>Institution:</i>	Khalifa University of Science, Technology & Research
<i>Capacity:</i>	Marie Curie Professor, Mech. Eng; Interim Chair, Civil Infr. & Env. Eng. (2016-17)
<i>Duties:</i>	Research in dynamic fractal manufacturing processes, welding, rapid prototyping
<i>Accomplishments:</i>	Growing of CIVE department; Research and teaching in design and manuf. controls
<i>Period:</i>	Jan. 2015-Jan. 2018
<i>Institution:</i>	University of Nevada Reno, Dept. of Mechanical Engineering
<i>Capacity:</i>	Marie Curie Professor and Chair (2013-14)
<i>Duties:</i>	Research in random fractal nanomaterials and manufacturing, academic administration
<i>Accomplishments:</i>	Initial progress in departmental research, educational and infrastructure planning
<i>Period:</i>	July 2013-Jan. 2015
<i>Institution:</i>	University of Cyprus, Dept. of Mechanical & Manufacturing Engineering
<i>Capacity:</i>	Professor (2003-13), Marie Curie Chair (2004-07), Founding Dept Head (2004-6); Founding Director, Hephaistos Nanotechnology Research Center (2006-09)
<i>Duties:</i>	Teaching and research in advanced/nanoscale design & manufacturing technologies
<i>Accomplishments:</i>	Education, research in nanoheaters, nanoconsolidates, nanocomposites and bioscaffolds
<i>Period/Work:</i>	July 2003- June 2013
<i>Institution:</i>	National Science Foundation, Div. of Design, Manufacture & Industrial Innovation (ENG/DMII); Div. of Civil, Mech. & Manuf. Innovation (ENG/CMMI)
<i>Capacity:</i>	Founding Program Director, Nanomanufacturing Program
<i>Duties:</i>	Proposal solicitation, award administration, nanomanufacturing outreach
<i>Accomplishments:</i>	Establishment of new program, portfolio of ~100 awards (incl 12 CAREER, 3 NSEC)
<i>Period:</i>	Jul. 2001-June 2003, Oct. 2006-Oct. 2007, Oct. 2010- Oct. 2011
<i>Institution:</i>	Massachusetts Inst. of Technology, Dept. of Mechanical Eng.- Manufacturing Institute
<i>Capacity:</i>	Visiting Professor/Research Engineer of Mechanical Engineering
<i>Duties:</i>	International collaboration and IR&D in nanomanufacturing technologies
<i>Accomplishments:</i>	Co-organization of annual International Symposium on Nanomanufacturing (ISNM)
<i>Period:</i>	Oct 2005– Oct. 2007
<i>Institution:</i>	Research Promotion Foundation (Cyprus)-Research Executive Agency (EU)
<i>Capacity:</i>	National Contact Point (Cyprus) for FP6 Nanotechnology-Materials-Processes (NMP)
<i>Duties:</i>	Outreach, solicitation and submission of research proposals to Framework Program 6
<i>Accomplishments:</i>	FP6 research grants to Cyprus investigators, including Marie Curie mobility, Interreg...
<i>Period:</i>	Oct 2003– Oct. 2006

<i>Institution:</i>	Axcelis Technologies Inc., Beverly, Massachusetts
<i>Capacity:</i>	Chief Engineer of Thermal Processing Systems
<i>Duties:</i>	Design and prototyping of new rapid thermal processing reactors (RTP)
<i>Accomplishments:</i>	New lamp- and laser-based line of RTP reactors; publication of basic research
<i>Period:</i>	Oct. 2000 – July 2001
<i>Institution:</i>	Tufts University, Dept of Mechanical Eng, Medford, Massachusetts
<i>Capacity:</i>	Director, Thermal Manufacturing Laboratory (Sep. 1992-Sept. 2003) Professor (Sept. 2002-2003), Associate Professor (Sept. 1996 – Aug. 2002). Assistant Professor (July 1991- Aug. 1996)
<i>Duties:</i>	Teaching and research in thermal manufacturing, robotics and controls
<i>Accomplishments:</i>	Funded education and research in micro- rapid prototyping, nanoscale manufacturing
<i>Period:</i>	July 1991–Dec. 2003 [on leave Oct. 2000-Dec. 2003]
<i>Institution:</i>	Aristotelian University of Thessaloniki/Hellenic Vehicle Industry, Greece
<i>Capacity:</i>	Lecturer of the Manufacturing Sector, Dept. of Mechanical Engineering
<i>Duties:</i>	Research and development in system dynamics and vehicle active damping systems
<i>Accomplishments:</i>	Research publications in controls and vibrations, radiator dynamic testbed
<i>Period:</i>	June 1990 - June 1991
<i>Institution:</i>	Greek Airforce, Airport of Micra, Greece
<i>Capacity:</i>	Squadron Sergeant (mandatory service)
<i>Duties:</i>	Telecommunications Engineering
<i>Accomplishments:</i>	Development of an automated barometric altimetry Radiosonde system
<i>Period:</i>	May 1989 - June 1991
<i>Institution:</i>	Massachusetts Inst. Of Technology, Lab. for Manuf. & Productivity, Cambridge, MA
<i>Capacity:</i>	Postdoctoral Research Associate
<i>Duties:</i>	Research in modeling for automation of welding geometry
<i>Accomplishments:</i>	Research Publications in macroscale thermal manufacturing processes
<i>Period:</i>	February 1988 - January 1989
<i>Institution:</i>	Massachusetts Inst. Of Technology, Lab. for Manuf. & Productivity, Cambridge, MA
<i>Capacity:</i>	Graduate Research Assistant
<i>Duties:</i>	Research in thermal modeling and adaptive control of welding processes.
<i>Accomplishments:</i>	Thesis and publications in modeling and control of thermal phenomena in welding
<i>Period:</i>	September 1985-January 1988

OTHER SHORT-TERM/UNSALARIED APPOINTMENTS

- * *Polymeric Composites Laboratory/FREEDOM*, Seattle, WA, Mechanical Engineering
Professor and Head, on IPA to NSF Nanomanufacturing, nanocomposites IR&D, Jun 2010-Oct 2011
- * *University of Texas at Arlington*, Arlington, TX, Dept of Industrial & Manufacturing Systems Eng.
M&P Greene Professor, co-PI for STARS grant for nanomanufacturing equipment, Sep2010-Aug 2011
- * *State University of New York (SUNY)*, Stony Brook, NY, Dept of Materials Science & Engineering
Visiting Professor, IR&D research in nanofiber electrospinning, April 2009-March 2012
- * *Northeastern University*, Boston, MA, Dept of Mechanical & Industrial Engineering
Adjunct Professor, collaborative IR&D research- ultrasonic powder consolidation, Jan 2006-Dec 2008
- * *Worcester Polytechnic Institute*, Worcester, MA, Dept of Mechanical and Manufacturing Engineering
Affiliate Professor, nanoscale manufacturing controls IR&D collaboration, Oct 2004-Sep 2008
- * *University of Massachusetts Lowell*, Lowell, MA, Dept of Mechanical Engineering
Adjunct Professor, IR&D research on nanoheaters, Sep 2004 – Dec. 2006

GRANTS, AWARDS AND PRIZES

- Total of over \$18 million in grants and awards as a PI/co-PI.

- * *VinGroup-Hanoi, Vietnam, August 2020, \$ 1,650,000 (PI)*
Vin University Seed Fund Program
- * *Vin Innovation Funf (VinIF),-Hanoi Vietnam, August 2020, \$180,000 (co-PI)*
Design & Fabrication of Hybrid 3D Bioprinter for Tissue Engineering
- * *Ministry of Investment & Development/Ministry of Education-RKZ, July 2019, 85.46 Bil. KZT (co-PI)*
Order of Financing R&D by Subsoil Users
- * *TengizChevrOil JSC (Chevron Corporation), March 2019-Dec. 2021, \$ 585,000 (PI)*
Nondestructive Testing of Chloride Stress-Corrosion Cracks in Small-Diameter SS Piping
- * *Khalifa University CIRA (PI: Prof. S. Sgouridis), Jan. 2018-Jan. 2021, AED 1,324,200 (co-PI)*
Integration of Renewable Energy in Key Industrial Sectors for UAE
- * *Khalifa University Internal Research Fund (KUIRF-Level 1), Jan. 2016- Dec. 2016, AED 64,000 (PI)*
Automated Underwater Manufacturing and Inspection
- * *Emirates Global Aluminium Center of Excellence (UAE), AED 999,803 (PI)*
Aluminium Welding Under Magnetic Field (under negotiation)
- * *Emirates Global Aluminium Center of Excellence (UAE), AED 574,840 (co-PI)*
Review of Current Degasser System (under negotiation)
- * *Nevada Governor's Office for Economic Development, Knowledge Fund, March 2014-Feb. 2016,*
\$3,000,000 (co-PI), Nevada Advanced Autonomous Systems Innovation Center (NAASIC)
- * *NSF Partnerships for Innovation Grant IIP-1430328, Sep 2014- Aug 2017, \$800,000 (PI)*
Enhanced Situational Awareness Using UAS for Disaster Remediation
- * *University of Nevada Reno Acquisition of Instructional & Research Equipment Program, March 2014,*
\$ 140,000 (PI), Advanced Manufacturing Laboratory
- * *General Secretariat of Research & Technology (GGET Greece), July 2013-June 2015, € 253,000*
(co-PI): International Cooperation for Active Deformable Micro Cutters with Nano Abrasives
- * *Research Promotion Foundation (Cyprus) Strategic Research Infrastructure, Jan. 2010-Dec. 2014, €*
1,999,687 (co-PI), Molecular Electronics and Photonics Center
- * *Research Promotion Foundation (Cyprus) Didaktor Grant, Sep. 2010-Aug. 2013, € 144,785 (PI)*
Impact Resistance and Conductivity of CFRPComposites with Reinforced SMA Wires and CNT
- * *State of Texas STARS Award, Sep. 2010-Feb. 2012, \$ 500,000 (co-PI),*
Research Infrastructure for Multi-scale Nanomanufacturing of Random Fractal Architectures
- * *EU –FP7 ICT 224594, Jun. 2008-May 2011, € 285,580 (PI) – out of total € 2,400,000*
Nano-Actuators and Nano-Sensors for Medical Applications (NanoMA)
- * *EU-Interreg IIIA (Greece-Cyprus), Nov. 2006-Oct. 2008, € 105,000 (PI) –out of € 250,000*
Tissue Engineering Scaffolds by Rapid Prototyping & Nanofiber Electrospinning (NanoSpin)
- * *EU-FP6 Integrated Projects, Sep. 2006-Aug. 2010, € 143,120 (PI) –out of ~ € 5,000,000*
Direct Ultraprecision Manufacturing (ManuDirect)
- * *EU-FP6 Marie Curie Excellence Team Award, Jan. 2006-Dec. 2009, € 1,586,749 (PI)*
Heat Sources by Reactive Thin Films (NanoHeaters)
- * *EU-FP6 Marie Curie Excellence Chair Award, Sep. 2004-Aug. 2007, € 490,879 (PI)*

Nanocomposite Materials Manufacturing by Ultrasonic Welding (UltraNanoMan)

- * *NSF Intergovernmental Personnel Act (IPA) Grant, Oct. 2010-Oct. 2011, \$ 293,507 (PI)*
Service as Program Director, Nanomanufacturing Program, NSF
- * *NSF Intergovernmental Personnel Act (IPA) Grant, Sep. 2006-Aug. 2007, \$ 265,766 (PI)*
Service as Program Director, Nanomanufacturing Program, NSF
- * *NSF Intergovernmental Personnel Act (IPA) Grant, Aug. 2001-Sep. 2003, \$ 512,033 (PI)*
Service as Program Director, Nanomanufacturing Program, NSF
- * *NSF Research Grant EEC-0738253 Sep. 2007-Aug. 2009, \$ 589,776 (Participant)*
Industrial Safety of Nanoheaters
- * *Research Promotion Foundation (Cyprus) Research Grant, Jan. 2009-Dec. 2010, € 146,436 (PI)*
Nanofiber Electrospinning and Rapid Prototyping for Intestinal Tissue Engineering
- * *Research Promotion Foundation (Cyprus) PENEK Grant, Dec. 2008-Nov. 2011, € 89,870 (PI)*
Nanosensor for nitrates/nitrites in water based on capillary electrophoresis & capacitive sensor
- * *Research Promotion Foundation (Cyprus) Res. Infrastructure, Dec. 2004-Nov. 08, CYP 249,986 (PI)*
Research Infrastructure for Nanotechnology Sensors in Cyprus (NanoCyprus)
- * *Research Promotion Foundation Res. Coop. Dist. Sci. Abroad, Jan. 2006-Dec.08, CYP 99,100 (co-PI)*
MEMS Based Vestibular Implants for Balance Restoration (TMVIBR)
- * *Research Promotion Foundation (Cyprus) PENEK, Jan. 2006-Dec. 2008, CYP 39,490 (PI)*
Polymer Nanocomposite Materials by Ultrasonics (NanoPlasi)
- * *Research Promotion Foundation (Cyprus) MERA, Jan. 2005-May 05, CYP 1,600 (co-PI)*
Students in Research: Study of Old Nicosia by St. Antonios Grade School Students
- * *University of Cyprus, Internal Research Programs, April 2006-Feb. 2010, CYP 240,000 (PI)*
Nanosensor Materials and Networks (ThermoNanoNets)
- * *University of Cyprus, Research Startup Program, Sep. 2004-Aug. 2006, CYP 48,000 (PI)*
Thermal Nanomanufacturing Technologies
- * *NSF Research Grant DMI-0531127, Sep. 2005-Feb. 2007, \$ 150,000 (co-PI):*
SGER: Nanoheater Systems for Thermal Nanomanufacturing
- * *NSF Research Grant DMI-0423228, Sep. 2004-Aug. 2007, \$ 255,000 (co-PI):*
Droplet-Based Processing of Quasicrystalline Magnesium Alloys
- * *NSF Research Grant DMI-0114309, Aug. 2001-Aug. 2004, \$ 412,575 (PI),*
Ultrasonic Rapid Manufacturing of Meso-Microscale Functional Devices.
- * *SME Education Foundation Grant #00-1055-1225, June 2000-May 2001, \$ 59,960 (PI)*
Software for Tufts Prototyping Shop program.
- * *NSF Research Grant DMI-9820790, Sep. 1999-Aug. 2002, \$ 253,777 (PI)*
Composite Coatings from Layered Precursors by Welding Techniques.
- * *Lufkin Foundation, Sep. 1999-Aug. 2002, \$ 330,000 (co-PI), Instrumentation and Equipment*
of the Materials Characterization Laboratory.
- * *SME Education Foundation Grant #599-1225, June 1999-May 2000, \$ 149,728, (PI)*
Hardware for the Tufts Prototyping Shop program.
- * *Tektronix Corporation, April 1999, \$ 12,000, (PI) Phaser 380 of the Tufts Prototyping Shop projects.*

- * *Honda Initiation Grant, Jan. 1999 - Dec 1999, \$ 63,680, (PI)
Rapid Prototyping of Active Deformable Surfaces.*
- * *Maxwell Burstein Grant, Nov. 1998-Oct. 1999, \$ 150,000 (co-PI), Establishment and Instrumentation
of the Prototype Development Center at Tufts University.*
- * *SME Manufacturing Education Plan Grant, Oct. 1998-Sept. 2000, \$ 182,921, (PI)
Tufts Prototyping Shop with Polaroid and Lucent.*
- * *NSF Research Grant DMI-978-3556 (with Boston Univ.), Sep. 1998-Aug. 2001, \$ 54,000 (PI)
Integrated Plasma Deposition Processing for Advanced Control of Coating Structure*
- * *SME Education Foundation Grant #598-2455, June 1998-May 1999, \$ 13,500 (PI)
Software, faculty and student development in Manufacturing Program.*
- * *NSF Research Exp. for Undergrad. Site Grant EEC-9732073, Dec. 1997-Nov. 2000, \$ 254,640 (co-PI)
Thermal Analysis of Materials Processing and Manufacturing .*
- * *Honda Initiation Grant, August 1997-Dec. 1999, \$ 25,000, (PI)
Rapid Prototyping by Laser and Ultrasonic Bonding of multiple material foil.*
- * *SME Education Foundation Grant #597-2435, June 1997-May 1998, \$ 66,885, (PI)
Software, faculty and student development in Robotics and Controls.*
- * *NSF Combined Res. & Curric. Dev. Grant EEC-9700731, June 1997-May 2000, \$ 379,132 (co-PI)
Tufts-Rensselaer Thermal Manufacturing Program (with RPI).*
- * *National Academy of Engineering Travel Grant, September 1996, \$ 2,000 (PI), Participation to
the 2nd Frontiers in Engineering Conference, Newport Beach, CA.*
- * *NIST Grant 70NANB6H0112 (Optical Technology Division), Aug. 1996-July 1998, \$ 63,442 (PI)
Design of a Precise Aperture Area Measurement System.*
- * *SME Education Foundation Grant #596-2319, June 1996-May 1997, \$ 609,185 (PI)
Thermal Analysis & Manufacturing.*
- * *Lufkin Foundation, June 1996-May 1999, \$ 300,000 (co-PI)
Robotic Laser Workstation of the Thermal Manufacturing Laboratory.*
- * *White House Presidential Faculty Fellowship DMI-9553038, Oct. 1995-2000, \$ 400,000 (PI)
Thermal Manufacturing and Prototyping Program.*
- * *SME Education Foundation Grant #595-2178, June 1995-May 1996, \$ 268,350, (PI)
Scanned Thermal Rapid Prototyping.*
- * *NSF Young Investigator Award DMI-9457206, Oct. 1994-Sep. 1995, \$ 290,000, (PI)
Scanned Thermal Rapid Prototyping Processes modeling and control.*
- * *NSF Travel Grant, July 1994, \$ 1,250 (PI), Organizing session on Control of Thermal Processes
at the ASME Japan-USA Symposium on Flexible Automation, Kobe, Japan, July 1994.*
- * *SME Education Foundation Grant #594-2020, June 1994-May 1995, \$ 215,000, (PI)
Software for Thermal Manufacturing Project.*
- * *DOE subcontract to Mass. General Hospital-Schepens Eye Research Institute, March 1994 -
February 1997, \$ 37,080, (PI): Scanned Laser Ophthalmoscope.*
- * *Tufts Faculty Research Award, September 1993-August 1994, \$ 4,000 (PI),
Scan Welding Optimal Adaptive Control.*

- * *Tufts Program Development Fund*, July 1993-June 1994, \$ 18,270 (PI), *Prototyping Home Robots* (ES-95 AS and END-9 ME). (PI)
- * *SME Education Foundation Grant #593-1860*, June 1993-May 1994, \$ 45,950, (PI)
Flexible Robotic Repair, Mechatronics Lab. and Material Testing Lab.
- * *NSF Research Initiation Award DDM-9209141*, Sep. 1992-Feb. 1996, \$ 95,589, (PI)
Scan Welding process modeling and adaptive control.
- * *Tufts Program Development Fund*, July 1992-June 1993, \$ 7,000 (PI), *Computer-Controlled Systems* (ME-180). (PI)
- * *SME Education Foundation Grant #592-1689*, June 1992-May 1993, \$ 157,895, (PI)
Software for Scan Welding and faculty development travel expenses.
- * *ASME-NSF Travel Grant*, October 1991, \$ 3,000 (PI), *Participation to the ASME Bioprocess Equipment Design Program*, Charlottesville, VA, October 1991.
- * *MIT-DOE Research Assistantship* at the Laboratory for Manufacturing and Productivity, Sep. 1985-Dec. 1987, *Research in modeling and control of welding processes.*
- * *Fulbright Foundation Fellowship*, September 1984-August 1985, *Graduate studies at Northwestern University in control systems.*
- * *Bodosakis Foundation Scholarship*, September 1984-August 1986, *Graduate studies in control systems and manufacturing automation.*
- * *Technical Chamber of Greece (TEE)*: Annual 1st Prizes, years 1978-1983, for academic performance in the Dept. of Mechanical Engineering, Aristotelian Univ. of Thessaloniki.
- * *National Scholarship Foundation (IKY)*: Annual 1st Awards, years 1978-1983, for academic performance in the Dept. of Mechanical Engineering, Aristotelian Univ. of Thessaloniki.

- Other Prizes and Distinctions:

- * *Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC 2015)* - UAE University Students Competition – SPE 1st Prize for *Underwater ROV Inspection Project* (with A. Alzaabi et al).
- * *ICMCTF2011 Graduate Student Gold Medal Award Winner*, for “The effect of interface quality on Self Propagating Exothermic Reactions (SPER) in Ni-Al multilayer foils”, *38th International Conference on Metallurgical Coatings and Thin Films* – San Diego, CA 2011 (with K. Fadenberger)
- * *ISNM 2005 Best Paper Award*, for “Mesh-Free Modeling and Control of Thermal/Diffusion Fields Created by Nano-Sources”, *Proc. 3rd Intl. Symp. on Nanomanufacturing* (by M. Alaeddine)
- * *ASME 2002 Blackall Best Paper Award*, for “Geometry Modeling and Control by Infrared and Laser Sensing in Thermal Manufacturing with Material Deposition” (with Y.M. Kwak)
- * *ACC 1998 Best Student Paper Award*, for "Thermal Distribution Control in Scanned Processing of Materials", *Proc. of the ACC 1998*, Vol. 3, Philadelphia, PA (with N. Fourligkas)
- * Listed in: *Who's Who Among America's Teachers*, 4th ed., Educ. Communications 1996
Who's Who in Science and Engineering, 4th Edition, Marquis 1997-
Who's Who in the East, 27th Edition, Marquis 1997
Who's Who in America, 9th Edition, Marquis 1998-
Who's Who in the World, 7th Edition, Marquis 1998

American Men and Women of Science, 20th Edition, Bowker 1998

- * *Hellenic Association for Mathematics*, two Prizes for years 1977 and 1978, at the Annual Panhellenic Competitions in Mathematics.
- * *Ministry of National Education & Religion*, Annual 1st Prizes, years 1972-1978, for academic performance in the Experimental School of the University of Thessaloniki.

SCIENTIFIC ACTIVITIES

- * *Guest Editor, Journal of Nanotechnology in Engineering and Medicine, Special Issue on Fractal Engineering and Biomedicine, ASME (2015-)*
- * *Lead Guest Editor, Reactive Energetic Nanomaterials, Journal of Nanomaterials, Hindawi (2012-)*
- * *Associate/Guest Editor in CAD Journal-Nano/Micro Technologies Applications in CAD/CAM/CAE (2006-)*
- * *Associate Editor of the International Journal of Modelling and Simulation, IASTED (1994-2000)*
- * *Keynote/Plenary Lectures:*
 - Sustainable Industrial Processing Summit and Exhibition (SIPS) – Paphos, Cyprus, Oct. 2019*
“Constrained Crystal Growth during Solidification of Particles and Splats”
 - VII Eurasian Higher Education Leaders Forum, Astana, Kazakhstan, June 2018*
“Mineral and Petroleum Engineering Education in the Age of Disruption”
 - Parliament of Cyprus, Industry 4 Conference, Nicosia Cyprus, June 2017*
“Nanomanufacturing Innovation in the USA and Entrepreneurship in Cyprus”
 - Oman Research Council & British Council, Innovation Policy Dialogue, Muscat, March 2017*
“Robotic Construction for Hyperloop Transportation in the GCC”
 - ICSOBA 2016 Intl. Comm. For Study of Bauxite, Alumina & Aluminium, Dubai UAE, Nov 2015*
“Ignitable Reactive Al-Ni-Me_xO_y Composites by Ball Milling & Ultrasonic Consolidation”
 - ICON 2013 International Conference on Nanotheranostics, Larnaca CY, September 2013*
“Engineered Nanoparticles for Biomedical Applications”
 - JAPMED’8 Japanese Mediterranean Workshop, NCSR Demokritos, Athens Greece, June 2013*
“Multiscale Manufacturing of Fractal Structures”
 - CHInano Conference & Expo, NanoTrends 2012, Suzhou, China, September 2012*
“The Nanoworld as a Manufacturing Exploratorium”
 - International Conference on Nanotechnology 2011 (ICN11), Al Ain, UAE University Nov 2011*
“Nanomanufacturing: International Collaborations”
 - NSF/ASMEDSC Workshop on Frontiers in Dynamic Systems & Control, Arlington, Nov 2011*
“The Nanoworld as a Manufacturing Playground: Controlling the Game”
 - 14th Intl Conf Advances in Materials & Proc. Techn (AMPT 2011), Istanbul, Turkey, July 2011*
“The Nanoworld as a Manufacturing Playground: International Collaborations”
 - Workshop in Sustainable Nanomanufacturing, NAMRC/Oregon State Univ, Corvallis, Jun 2011*
“New Directions in Nonmanufacturing Research, Education and Innovation”
 - International Inst. for Multifunctional Materials For Energy Conversion, Doha Qatar, Feb. 2011*
“The Vision of Nanomanufacturing at NSF”
 - Arab School of Science & Technology, Kuwait Fdn for Advance of Sci, Kuwait, November 2010*
“Nanomanufacturing: Synthetic Views of the Nanoworld”
 - Arab School of Science & Technology, Kuwait Fdn for Advance of Sci, Kuwait, November 2010*
“Nanomedicine: Medical Applications of Nanotechnology”
 - Demokritos National Center for Scientific Research, Athens, Greece, July 2010*
“The NanoWorld as a Manufacturing Playground”

Erasmus Intensive Program on Organic Electronics & Applications, Chania Greece, July 2010
 “Nanomanufacturing: Multi-scale Products from the Nanoworld”

Ierokepeion Open University of Cyprus-Paphos Branch, Paphos, Cyprus, October 2009
 “Nanomedicine: Applications of Nanotechnology to Medical Sciences”

Aegean Nanoscience & Nanotechnology Workshop, Rhodes, GR, July 2009:
 “Manufacturing for Multiscale Functionality”

Volkswagen Foundation, 1st Intl. Symp. On Functional Surfaces, Bremen, Germany, June 2008
 “The Portfolio of the NSF Nanomanufacturing Program”

Foundation of Research & Technology Hellas (FORTH) Annual Retreat, Rethymnon, Oct. 2007
 “Nanomanufacturing Research Funding by the NSF”

5th Japanese-Mediterranean Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano-Materials (JAPMED’5), Larnaca, Sep. 2007:
 “Nanomanufacturing Research at NSF and at the University of Cyprus”

4th Inter-Hospital Seminar on Respiratory Insufficiency and Restoration, Thessaloniki, Greece February 2007: “Nanotechnology Applications in Medicine”

Greek Armed Forces, Medical Corps Intensive Care Units, Athens, Greece, July 2006:
 “Nanotechnology: Biomedical Perspectives”

Open University of Cyprus-Limassol Branch, Limassol, Cyprus, May 2006
Nanotechnology in Cyprus

Student Robotics Contest Conference, Laniteion Lyceum, Limassol Cyprus, Feb. 2006
Nanorobotics

Info Day on Marie Curie Excellence Programs, Nicosia, Cyprus Nov. 2005
The MC-EXC UltraNanoMan Programme

Natl. Center for Scientific Research Demokritos, Summer School, Athens Greece, July 2005
Nanotechnology: Manufacturing Applications and Research Challenges

Intl Workshop on Application of Nanotechnologies for Biosensor Development, JRC Ispra, Italy, Dec. 2004: *Biomanufacturing at the Nanoscale: Research Challenges and Opportunities*

Info Day on European FP6 Program-Human Resources and Mobility, Nicosia Cyprus Dec. 2004
Marie Curie Chairs of Excellence: Participation in the Action

ASME IMECE 2003 - NANOT 9-10, Washington, DC, November 2003
State of the Art in Nanomanufacturing Technologies

Mexico-US MEMS Workshop, Puerto Vallarta, Mexico, Sep. 2003
Integration of Nanotechnologies in MEMS: NSF Activities and Collaborations

Commercialization of Micro and Nanosystems COMS 2003, Amsterdam, Netherlands, Sep. 2003
NSF Initiatives Towards Commercialization of Nanotechnologies

Nanotechnologies and Nanomaterials Conference (NN 2003), Heraklion, Crete, Aug. 2003
International Partnerships in Nanoscale Manufacturing Technologies

Policy and Infrastructure for the Exploitation of Micro- and NanoTechnology, Cranage Hall, UK
The U.S. Policy in Micro- and Nano-Technology (invited by House of Lords, June 2003)

International Conference on Semisolid Processing, Las Vegas, NV, June 2003
Research Opportunities in Mixed-Phase Nanomanufacturing Processes

International Symposium on MEMS and Nanotechnology, SEM 2003, Charlotte, NC, June 2003
Infrastructure for Integration of Nanotechnology in MEMS

New England Nanomanufacturing Workshop, Boston, MA, June 2003
Frontiers and Breakthroughs in Manufacturing at the Nanoscale

International Inst. of Welding, 5th Intl. Seminar, Technische Univ. Graz, Austria, 1999,
Thermal Modeling and Microstructure Control in Scan Welding

* Organizer/Co-Organizer/Chair of the following Conferences/Sessions/Panels:

Research Proposal Writing Workshop for Seed Funding, Hanoi, Vietnam, September 2020
Foundational Teaching Program: Philosophy of Education, Hanoi, Vietnam, December 2010
Open Research Workshop: Getting Your Research Started, Hanoi, Vietnam, October 2019
Research Day, Nazarbayev University, Astana, Kazakhstan, October 2018
3rd Annual Conference on Academic Integrity and Internationalization, Astana KZ, May 2018
ASCE Chapter Annual Meeting, Khalifa University, Abu Dhabi UAE, September 2016
UAE Graduate Students Research Conference, UAEU Al Ain, UAE, April 2016
Intl. Conf. on Metallurgical Coatings & Thin Films (ICMCTF), San Diego, CA 2013-2015
NSF Workshop on Faculty Development Needs for Adv. Manufacturing, Arlington VA, 2014
Workshop on Advanced Automotive Technologies, University of Nevada, Reno January 2014
Multifunctional Composite Materials for Energy Conservation and Conversion, RPF Cyprus
 Limassol, Cyprus, October 25, 2013
2nd International Forum on Trends in Nanomanufacturing, Suzhou, China November 2012
Session on Trends on Nanomanufacturing
3rd Intl. Conf. from Nanoparticles & Nanomaterials to Nanodevices & Nanosystems (IC4N)
Session on Nanomanufacturing: Hersonissos, Greece, June 2011
Cretan Workshop on Global Challenges and Opportunities for Nanotechnology (NSF)
 Hersonissos, Crete, June 2011
NSF CMMI Grantees Conference, Atlanta, GA, January 2011
Session on New Directions of Nanomanufacturing Program at NSF
NSF Nanoscale Science and Engineering Grantees Conference, Arlington VA, December 2010:
Scalable Nanomanufacturing Initiative
Nanotheranostics: Fabrication and Safety Concerns, Ayia Napa, Cyprus, April 2010
Session on NanoMA Project
2nd Intl. Conf. from Nanoparticles & Nanomaterials to Nanodevices & Nanosystems (IC4N)
Nanofabrication & Nanomanufacturing, Rhodes, Greece, June 2009
Aegean Nanoscience & Nanotechnology Workshop (NSF), Rhodes, Greece, June 2009
Session on Nanomanufacturing
US-Cyprus Collaboration in Nanotechnology Symposium, US Embassy of Cyprus
 Nicosia, Cyprus, February 2009
6th Intl. Symp. On Nanomanufacturing (ISNM6) (Nanotubes & Nanofibres)
 Athens, Greece, November 2008
1st Intl. Conf. from Nanoparticles & Nanomaterials to Nanodevices & Nanosystems (IC4N)
Nanofabrication & Nanomanufacturing, Halkidiki, Greece, June 2008
3rd Pacific International Conference on Applications of Lasers and Optics (PICALO)
 Beijing, China, April 2008
Biomanufacturing at the Nanoscale Workshop (NSF),
 Arlington, VA, April 2008
5th International Symposium on Nanomanufacturing (ISNM 2008),
 Singapore, January 2008
26th International Congress on Applications of Lasers and Electro-Optics (ICALEO 2007)-
Nanomanufacturing Conference, Orlando, FL, USA, October 2007
4th International Symposium on Nanomanufacturing (ISNM 2006),
 MIT, Cambridge MA, USA, November 2006
3rd International Symposium on Nanomanufacturing (ISNM 2005),
 University of Cyprus, Limassol, Cyprus, November 2005
IEEE ISIC 2005/ MED 2005, Limassol, Cyprus, June 2005
Session on Controls in Nanomanufacturing
IEEE ISIC 2005/ MED 2005, Limassol, Cyprus, June 2005

Session on Is Feedback a Mediterranean Invention?
NSF Workshop on Mechanical Engineering at the Nanoscale
 National Science Foundation, Arlington, VA, June 2003
NSF Workshop on Research Needs for Thermal Aspects of Material Removal Processes,
 Stillwater, OK, June 2003, *Session on Thermal Aspects of Nanomanufacturing Processes*
ASME National Manufacturing Week, Chicago IL, March 2003
Advanced Nanomanufacturing Technologies
NSF-DMII Grantees Conference, Birmingham, AL, January 2003
NSF Workshop on 3D Nanomanufacturing: Partnering with Industry
ASME IMECE Nanotechnology Track, New Orleans, LA, November 2002
Nanomanufacturing Advances and Applications
ASME International Mechanical Engineering Congress & Exposition, November 2002:
Session of Committee for Research and Technology Development
EC-NSF Workshop on Nanoscale Instrumentation, Grenoble, France, June 2002
Nanomanufacturing Infrastructure
Nanoscale Science, Engineering and Technology (NSET) Meeting-, Arlington, VA, May 2002
Grand Challenge in Manufacturing at Nanoscale
NSF Workshop – SBIR Program, Arlington, VA, March 2002
Small Businesses Move To Nanotechnology
NSF-DMII Grantees Conference, San Juan, Puerto Rico, January 2002
NSF-EC Workshop on Nanomanufacturing and Processing
5th Thermal Manufacturing Workshop, Tufts University, Medford, MA, June 2001
Session on Modeling Thermal Spray and Deposition Coatings
3rd Thermal Manufacturing Workshop, Tufts University, Medford, MA, June 1999
Session on Challenges in Thermal Process Control
ASME International Mechanical Eng. Congress & Exposition, Anaheim CA, Nov. 1998:
Session on Concurrent Design of Product and Manufacturing Process.
Society of Engineering Science 35th Annual Technical Meeting, Pullman WA, Sep. 1998
Session on Research Opportunities in Materials Processing
IASTED 5th Intl. Conf. on Robotics and Manufacturing, Cancun, Mexico, May 1997
Session on Robotic Systems.
ASME International Mechanical Eng. Congress & Exposition, Atlanta GA, November 1996:
Session on Intelligent Manufacturing and Materials Processing.
ASME Japan-USA Symposium on Flexible Automation, Boston, MA, July 1996:
Session on Modeling and Control in Thermal Manufacturing
IASTED Intl. Conf. on Applications of Controls and Robotics, Orlando FL, January 1996:
Session on Manufacturing and Automation.
IEEE 3rd Mediterranean Conference on New Directions in Control and Automation,
 Limassol, Cyprus, July 1995: *Session on Process Control.*
ICMCM 10th Intl Conf. on Mathematical and Computer Modeling, Boston MA, July 1995:
Session on Manufacturing I.
IASTED Intl. Conf. on Applied Modelling, Simulation and Optimization, Cancun, Mexico,
 June 1995: *Session on Optimization.*
ASME Japan-USA Symposium on Flexible Automation, Kobe, Japan, July 1994:
Session on Control of Thermal Processes.
ASME 3rd Intl. Workshop on Advanced Motion Control, Berkeley, CA, March 1994:
Session on Industrial Applications II
IASTED Intl. Conf. on Modelling and Simulation, Pittsburgh, PA, May 1993:
Session on Manufacturing Process Modelling
IASTED Intl. Conf. on Modelling and Simulation, Vancouver, Canada, August 1992:

Session on *Artificial Intelligence in Manufacturing*.

** Member of the International Program Committee (IPC) for:*

Int. Conf. Nanoparticles & Nanomaterials to Nanodevices & Nanosystems, Greece, 2012-15
Nanotheranostics: Fabrication and Safety Concerns, Ayia Napa Cyprus, April 2010
Intl. Conference on Micro/Nano-Eng (MNE2005), Vienna, 2005, Barcelona, 2006, Athens 2008
4th International Symposium on Nanomanufacturing (ISNM2006), MIT, Cambridge, Nov. 2006
21st Panhellenic Conference on Solid State Physics and Materials Science, August 2005
5th GRACM Intl Congress on Computational Mechanics, Limassol, Cyprus, June 2005
ISIC'05 & MED'05 IEEE Mediterranean Conf. On Control & Automation, Limassol, June 2005
2nd International Symposium on Nanomanufacturing, KAIST-Daejeon, Korea, Nov. 2004
Indo-US Forum on Futuristic Manufacturing, Kanpur, India, March 2004
2003 International Conference On Nanotechnology and PM2, Providence RI, Sept. 2003
IASTED Technical Conference Program Committee, 2001-2003
IASTED Intl. Conf. on Robotics and Manufacturing, Cancun, Mexico, June 1995 & 1997
IASTED Intl. Conf. on Applications of Control and Robotics, Orlando, FL, Jan. 1996
IASTED Intl. Conf. on Modelling and Simulation, Pittsburgh, PA, 1994-1997
ASM Joining Council, Sensing and Control Committee, Idaho Falls, ID, 1993-1995

** Reviewer of articles for the following journals:*

International Journal of Engineering Science, since 2016
Powder Technology, 2016
ASME Journal of Nanotechnology for Engineering and Medicine, since 2015
Journal of Applied Physics, since 2015
Applied Physics Letters, since 2015
Journal of Energetic Materials, since 2014
Energy Technology and Policy, since 2014
Ultrasonics Sonochemistry, since 2013
International Journal of Sustainable Energy, since 2013
Surface Coatings & Technology, since 2012
Journal of Surface Engineered Materials and Advanced Technology, since 2012
Journal of Materials Science, since 2011
Powder Metallurgy, since 2011
Microelectronics Engineering (Elsevier), since 2010
Biomedical Engineering Gateway, since 2008
Nanotechnology (IOP), since 2007
International Journal of Robotics, since 2007
Journal of Robotics and Computer Integrated Manufacturing (Elsevier), since 2007
Journal of Nanoengineering and Nanosystems, since 2006
Journal of Numerical Heat Transfer, since 2006
Journal of Computer-Aided Design (Elsevier), since 2006
Taylor & Francis Numerical Heat Transfer, since 2006
Journal of the Franklin Institute, since 2005
IMEchE Journal of Systems and Control Engineering, since 2005
ASME Journal of Dynamic Systems, Measurement and Control, since 1989
ASME Journal of Engineering for Industry, since 1993
ASME Journal of Manufacturing Science & Engineering, since 1997
IEEE Control Systems Magazine, since 1993
IEEE Transactions on Control Systems Technology, since 1995

IASTED International Journal of Modelling and Simulation, since 1994

** Panelist for research proposal panels- committees:*

Abu Dhabi Education Council Research Evaluation Process for HEIs, UAE, 2016
European Commission Framework Prog. 7 (Research to Benefit SMEs), 2011-2014
ORAU/Nazarbayev University Commercialization Proposals, 2013
Czech Science Foundation GACR Program, 2013
European Commission REA ORBITAL Program, 2013
European Commission COST MP1206 Program, 2013
ARISTELA Program, Ministry of Education, Greece, since Feb. 2012, 2013
NSF Nanosystems Engineering Research Centers (NREC), March 2012
NSF Nanoscale Science & EngCenter (NSEC) Site Visit Review, Berkeley CA, July 2008
European Science Foundation Physical & Eng. Sci. Committee (PESC), since 2006.
European Science Foundation (ESF) Exploratory Workshops, since 2005
NSF Nanoscale Science & Engineering Centers (NSEC), since 2003.
Dept. of Energy Office of Industrial Technology, SBIR Program, since 2003
Honda Initiation Grant Research Proposal Panel, Columbus OH, since 2002
New York Office of Sci. Tech. & Acad. Res. (NYSTAR) Fac. Dev. Prog, Albany NY, since 2002
NIST Advanced Technology Program, Gaithersburg MD, since 2002
Hellenic Ministry of Education, EPEAEK Program (Athens, Greece), since 2002
Oak Ridge Associated Universities (ORAU), since 1999.
NSF Division of Design, Manufacture & Industrial Innovation (DMII), since 1993.
Israel Science Foundation, 1995 and 1996.

** Invited Lectures to the following institutions:*

American University of Ras Al Khaimah, RAK City, UAE, February 2020
“An Engineering World-Class Transformation Model”
VinGroup/Vin University, Hanoi, Vietnam, December 2019
“Philosophy of Education: A Touchstone for Pedagogy”
Vin University Project, Hanoi, Vietnam, June 2019
“Nanomanufacturing Implications to Industry Applications”
American University of Beirut, Beirut, Lebanon, March 2019
“Visionary Technology Research as a Contemporary Renaissance”
Cyprus Univ. of Technology, Molecular Electronics & Photonics, Limassol, Cyprus, Oct. 2018
“Research Portfolio and Collaborations at Nazarbayev University”
Northeastern University, Advanced Materials Processing Lab, Boston, MA, April 2018
“The Mechanics of Materials in Ball Milling of Bimetallic Powders”
Nazarbayev University, SIAM, Department of Physics, Astana, KZ, April 2018
“Statistical Mechanics and Energetics of the Ball Milling Process”
Nazarbayev University, American Chemical Society Student Chapter, Astana, KZ, March 2018
“The Mechanochemistry of Nanomaterials”
Skolkovo Institute of Science and Technology, Moscow, Russian Federation September 2017
“Chaotic Processing for Fractal Structures in Nanoheaters, Composites and Bioscaffolds”
Nazarbayev University, Astana, Kazakhstan, May 2017
“Nano-Enabled Manufacturing as an Engineering Playground”
Khalifa University, Mechanical Engineering, Abu Dhabi, UAE, January 2017
“Teaching Creativity in Technology: Engineering Analysis vs Synthesis in Design”
MIT Laboratory for Manufacturing and Productivity, Cambridge MA, November 2016
“Modelling of Ball Milling for Nanoheater Particulates”
Khalifa University, College of Engineering, Abu Dhabi, UAE, May 2015

“Research Proposal Writing Workshop”
University of Nevada, Las Vegas, Mechanical Engineering, Las Vegas NV, October 2014
 “Research opportunities at the Nanoworld for Humanitarian Engineering”
ASME Comstock Section, Reno NV, Oct. 2014
 “The Role of Mechanical Engineers in the Global Society”
Purdue University, Industrial Engineering, W. Lafayette IN, March 2013
 “Multiscale Manufacturing of Fractal Structures”
Florida Institute of Technology, Mechanical & Aerospace Eng. Melbourne, FL, Feb 2013
 “Fractal Art Science for Humanitarian Engineering”
University of Nevada Reno, Mechanical Engineering, Reno NV, Feb 2013
 “The Nanoworld as a Manufacturing Lab: Prelude to Humanitarian Engineering”
Materials Research Society, Winter Annual Meeting, Tutorial OO, Boston MA, Nov. 2012
 “Nanoheater Reactive Materials for Thermal Manufacturing Applications”
Northeastern University, Mechanical and Industrial Eng, Boston MA, Nov. 2012
 “Manufacturing of Fractal Materials”
University of Central Florida, Mechanical Engineering, Orlando FL. Nov. 2012
 “The NanoWorld as a Manufacturing Exploratorium-Humanitarian Engineering”
Indiana University-Purdue University Indianapolis, Indianapolis IN, October 2012
 “The Nanoworld as Land of Opportunity for Engineering and Medicine”
Indiana University-Purdue University Indianapolis, Indianapolis IN, October 2012
 “The National Nanotechnology Initiative and the NSF Nanomanufacturing Program”
Indiana University-Purdue University Indianapolis, Indianapolis IN, October 2012
 “Competitive Proposal Writing Workshop”
Purdue University, Dept. of Industrial Engineering, W. Lafayette IN, October 2012
 “Fractal Nanomanufacturing for Engineering and Medicine”
University of Florida, Nanoscale Inst. For Medical & Engineering Techn, Gainesville, May 2012
 “The Nanoworld as a Playground for Engineering and Medicine”
American University of Sharjah, Mechanical Engineering, Sharjah, UAE, March 2012
 “Manufacturing Functional Fractals for Renewable Energy”
Scientific Chamber of Doctoral Candidates of Cyprus (ESYDIK), Nicosia, Cyprus, Nov 2011
 “Finding a Research Job Abroad”
Radio-Broadcasting Institution of Cyprus (RIK), Sin-Plin Television Program, November 2011
 “Nanotechnology Panel: Future Perspectives”
3rd IC4N International Conference, Hersonissos, Crete, Grece, June 2011:
 “Biomedical Challenges and Opportunities for Nanomanufacturing”
ASME/SME/JSME-MSEC/NAMRC/ICMP Conference, Corvallis, OR, June 2011:
 “Manufacturing in the Nanoworld-The Future of Manufacturing”
MIT Dept. of Aeronautics & Astronautics and Materials Proc Ctr, Cambridge, MA, May 2011:
 “New Directions in Materials Research for Nanomanufacturing”
Polymeric Composites Laboratory, Seattle, WA, March 2011
 “Public-Private Partnerships in Nanomanufacturing Innovation”
University of South Florida, Mechanical Eng. Seminar, March 2011:
 “The NSF Vision in Nanomanufacturing”
SUNY Stony Brook, Dept of Materials Science & Engineering, Stony Brook NY, Dec 2010:
 “Nanostructured Materials for Nanoscale Manufacturing”
University of Massachusetts Lowell, Mechanical Eng, Lowell MA, November 2010:
 “Nanomanufacturing: Synthetic Engineering at the Nanoscale”
University of Maryland Baltimore County, Mechanical Eng, Baltimore MD, October 2010:
 “Mechanical Challenges in Nanomanufacturing”
University of Texas at Arlington, Industrial & Manuf. Sys. Eng, Arlington TX, September 2010

“Geometrical Vs Material Aspects in Nanoscale System Manufacturing”
Foundation for Research and Technology (FORTH), Herakleion, Greece, July 2010:
 “Research Activities in Nanomanufacturing at Cyprus”
National Science Foundation, CMMI Division, Arlington VA, May 2010:
 “The Nanoworld as a Manufacturing Playground”
University of Cyprus Renewable Energy Sources and Tech for Sustainability, Nicosia Apr 2010
 “Nanosensor Technology in the Portfolio of the NSF Nanomanufacturing Program”
University of Texas at Arlington, Materials Sci. & Eng. Dept, Arlington TX, February 2010
 “Fabrication of Multiscale Random Branching Tree Material Architectures”
University of Texas at El Paso, Industrial Engineering Department, El Paso TX, February 2010:
 “Nanomanufacturing: Production System Challenges and Research Opportunities”
Florida Institute of Technology, Dept. of Mech. & Aerospace Eng, Melbourne FL, Feb 2010:
 “Nanocomposite Material Foils for Aerospace and Automotive Applications”
Tufts University, Dept. of Biomedical Engineering, Medford MA, February 2010:
 “Nanomanufacturing for Biomedical Applications: the NSF Portfolio”
University of Texas at Dallas, Dept of Mechanical Engineering, Richardson TX, January 2010:
 “Nanomanufacturing Challenges and Opportunities for Mechanical Engineers”
Texas A&M University, International Materials Institute, College Station TX, January 2010:
 “Materials Processing and Manufacturing: International Cooperation Opportunities”
McGill University, Department of Mechanical Engineering, Montreal Canada, January 2010:
 “Modeling and Control in Multi-Scale Manufacturing”
Kuwait University, Graduate Studies Program, Kuwait City, December 2009:
 “Manufacturing for Multiscale Functionality: The Portfolio of NSF Nanomanufacturing”
Kuwait University, School of Engineering, Kuwait City, December 2009:
 “Nanomanufacturing of Random Fractal Materials and Architectures”
Intl. Conference on Nanotechnology (IC4N), Rhodes Greece, June 2009:
 “Nanomanufacturing of Random Branching and Fractal Material Structures”
St. Neophytos Lycaeum, Pafos, CY, February 2009:
 “Nanotechnology in Cyprus: Opportunities and Challenges”
Intercollege University, Nicosia CY, Nov. 2008:
 “Nanotechnology: Risk Management Perspectives”
Micro- & Nano- Engineering Conference (MNE), Athens Greece, Sept. 2008
 “Nanomanufacturing: From Laboratory to Production”
Intl. Conf. on Metallurgical Coatings and Thin Films, San Francisco, CA, April 2008
 “Nanoheater Reactive Heterostructures as Sources for Thermal Nanomanufacturing”
Electronic Infrastructure for Thalassemia Research Network (ITHANET) Gen. Assembly Mtg.
 Cyprus Inst. For Neurology & Genetics, Nicosia, Nov. 2007:
 “Vascularization of Nanostructured Scaffolds for Tissue Engineering”
University of Cyprus, Dept. of Mechanical & Manufacturing Engineering, October 2007:
 “Medical Applications of Nanotechnology”
University of Crete Workshop in Multifunctional Nanostructured Materials, Herakleion, Greece
 July 2007: “Nanotechnology Products on the Market and Related Research”.
NSF CMMI Meeting, Arlington, VA, February 2007:
 “Research Needs in Manufacturing”
National Science Foundation, DMI, Arlington, VA, July 2006:
 “Nanomanufacturing: Lessons Learned and Emerging Visions”
COST Workshop on Magnetic Nanofluids and Composites, Romanian Academy, Timisoara, RO
 July 2006: “Magnetic Nanocomposite Foils by Ultrasonic Welding”
Sigma Public Media, TV panel, Feb. 2006:
 “Research at the University of Cyprus”

Northeastern University, Advanced Materials Laboratory, Boston, MA, November 2005:
 “Nanoscale Heat Sources by Reactive Multilayers”

European Commission- Research Directorate General, Brussels, Belgium, October 2005:
Marie Curie Team Leaders and Chair Holders Meeting- “UltraNanoMan ”

JRC Round Table, Larnaca Cyprus June 2005: Panel on
 “Promoting Collaboration between the JRC and Cypriot Research Organizations”

Romanian Academy-Polytechnic University of Timisoara, Timisoara, Romania, May 2005:
 “Research on Nanocomposite Materials at UCY”

IEE and IEEE Cyprus Branch, Nicosia Cyprus, May 2005: Seminar in
 “Nanotechnology Products on the Market Shelf”

University of Cyprus, Department of Electrical and Computer Eng, May 2005:
 “Manufacturing Issues in Nanoelectronics ”

Radio-Television Institution of Cyprus (PIK-1), TV interview, May 2005:
 “Nanotechnology in Cyprus”

EC- Workshop on Research Training in Nanosciences & Nanotechnologies, Brussels, April 2005
 “The 21st Century Machine-Shop: An Educational Platform for Nanotechnology”

Foundation for Research and Technology (FORTH), Herakleion, Greece, March 2005:
 “Laser Beam Nanomanufacturing ”

Archimedes Center of Innovation and Creation, Athens Greece, Jan. 2005:
 “Nanotechnology Research Challenges and Opportunities ”

Samsung Electromechanics, Seoul Korea, November 2004: “Nanotechnology Products on the
Market: Research Developments and Opportunities in Nanomanufacturing ”

KAIST, Department of Manufacturing Eng, Daejeon, Korea, November 2004:
 “Nanotechnology Research at the University of Cyprus ”

University of Cyprus, Department of Chemistry, October 2004:
 “Nanomanufacturing Research, Markets and Opportunities for UCY ”

UCLA-Scalabe and Integrated Nanomanufacturing (SINAM), Los Angeles CA, Sept. 2004:
 “Vision in Nanomanufacturing”

Univ. of Illinois Urbana Champaign, Dept. of Electrical Eng, IL, September 2004:
 “Nanoelectronics: Research and Technology Transfer ”

Swiss Federal Institute of Technology (ETH), Dept. of Mechanical Eng, Zurich, June 2004:
 “Manufacturing Across Dimensional Scales”

Univ. of Massachusetts Amherst, Dept. of Mechanical & Industrial Eng, Amherst, MA, Nov. 2003
 “Industrial Engineering Research Opportunities in Nanomanufacturing”

Pennsylvania State University, Dept. of Industrial Eng, University Park, PA, November 2003
 “Nanoscale Biomimetic Design and Bioinspired Manufacturing”

Johns Hopkins University, Dept. of Electrical Eng, Baltimore, MD, September 2003
 “Biomufacturing Technologies at the Nanoscale”

Univ. of Nebraska Lincoln, Dept. of Electrical Eng, Lincoln, NE, September 2003
 “Nano- and Bio-Manufacturing: Convergent Technologies for Production”

Univ. of Cincinnati, Dept. of Mechanical Eng, Cincinnati, OH, April 2003
 “The Quest for Nanomanufacturing Machines”

Purdue University, Dept. of Mech. And Industrial Eng, W. Lafayette, IN, April 2003
 “Recent Advances and Outstanding Challenges in Nanomanufacturing”

Texas A&M University, Dept. of Mech. And Aerospace Eng, College Station, TX, March 2003
 “Nanomanufacturing Technologies for Aerospace Applications”

Univ. of Maryland, Dept. of Mech. Eng, SME Chapter Meeting, College Park, MD, Feb. 2003
 “ Making the Quantum Leap: The NSF Nanomanufacturing Portfolio”

CIRP Winter Meeting, Session S (Surface Eng. and Design), Paris, France, Jan. 2003
 “The Nanomanufacturing Program at the US National Science Foundation”

CIRP Winter Meeting, Session O (Nontraditional Machining), Paris, France, Jan. 2003
 “3D Nanomachining Technologies: Research Directions”

Hell. Medical Soc. Of New York, Manhattan, NY, January 2003:
 “Nanomanufacturing Applications in Biomedical Technologies”

Materials Research Society, Symposium Y: Nanopatterning, Boston, MA, December 2002:
 “Nanomanufacturing Infrastructure: Challenges and Opportunities”

MIT, Dept of Mechanical Engineering, Lecture in 2.830, Cambridge, MA Nov. 2002:
 “From Macro- To Nanomanufacturing and Beyond: Making the Quantum Leap Happen”

Honda Initiation Grant Symposium, Columbus, OH, November 2002:
 «Nanomanufacturing Research Directions and Opportunities for Automotive Industry”

ASME IMECE Panel on Education Issues in MEMS (TMMS-9), New Orleans, LA, Nov. 2002:
 “Educational Opportunities in Nanotechnology for MEMS”

ASME IMECE Panel on Future Dir. In Mach. Sensing & Control, N. Orleans LA, Nov. 2002:
 “Nanomanufacturing Processes for Material Removal”

Louisiana Conf. On Comm. Appl. of Microsystems, Materials & Nanotechnologies, Ruston, LA
 Oct. 2002: “Fundamental Nanomanufacturing Research for Commercial Application”

Arch. Adv. Comm. On Sci. & Tech. (AACST) Conference, Brookline, MA, Oct. 2002
 “Subcommittee III: Natural Sciences and Advanced Technologies”

Univ. of Illinois at Urbana-Champaign, Dept. of Mechanical Eng, Urbana IL, Oct. 2002:
 “Challenges and Opportunities in Nanomanufacturing Research and Education”

Univ. of Missouri Rolla, Dept. of Mechanical Eng, Missouri, Rolla, Oct. 2002
 “Nanomanufacturing Research: The NSF Portfolio”

Univ. of Washington, Dept. of Chemical Engineering, Seattle, WA, Oct. 2002
 “Global Networking Opportunities in Nanotechnology”

Univ. of Nevada Reno, Dept. of Mechanical Eng, Reno, NV September 2002:
 “Manufacturing Across Dimensional Scales: Nanotechnology Advances in MEMS”

MIT, Laboratory for Manufacturing and Productivity, Cambridge, MA, August 2002:
 “NSF Initiative in Nanoscale Science and Engineering Centers”

Univ. of South Florida, College of Engineering, Tampa, FL, May 2002:
 “Nanoscale Research Opportunities in Microelectronic Materials”

Univ. of Massachusetts Amherst, Dept. of Physics, Amherst, MA, May 2002:
 “Nanoscale Polymer Science and Engineering”

MIT, Laboratory for Manufacturing and Productivity, Cambridge, MA, May 2002:
 “Nanotechnology Infrastructure Initiatives at NSF”

North Carolina State Univ, Dept. of Mech. & Aerospace Eng, April 2002:
 “From Micro-To Nano-Manufacturing: Making the Quantum Leap Happen”

Univ. of Southern California, Dept. of Computer Science, April 2002:
 “Research Opportunities in Manipulation at the Nanoscale”

Univ. of California Los Angeles, Dept. of Mechanical Eng, April 2002:
 “Nano-Solid Freeform Fabrication: 3D Manufacturing at the Nanoscale”

MIT, Dept. of Mechanical Engineering Retreat, Dedham, MA, February 2002:
 “From Macro- To Nano-Manufacturing: Current NSF Initiatives”

Univ. of Massachusetts Lowell, Dept. of Mechanical Eng, Lowell, MA, November 2001:
 “Nanomanufacturing Opportunities in Polymer Nanocomposites”

Materials Research Society, Symposium Y: Nanopatterning, Boston, MA, November 2001:
 “NSF Funding Opportunities in Nanoelectronics Fabrication”

American Vacuum Society, San Francisco, CA, October 2001:
 “Nanomanufacturing Issues in Microelectronics”

Rensselaer Polytechnic Institute, Dept. of Mechanical Eng, Troy, NY, October 2001:
 “Rapid Prototyping: Past, Present and Future”

Worcester Polytechnic Institute, Dept of Mechanical Eng, Worcester, MA, October 2001:
 "Nanomanufacturing: Research Opportunities and Application Challenges"
CMP Cientifica Trends in Nanotechnology, Segovia, Spain, Sep. 2001:
 "The Nanomanufacturing Program at NSF"
National Science Foundation, Arlington, Virginia, May 2001:
 "From Micro to Nano-Manufacturing and Beyond: Taking the Quantum Leap"
University of Cyprus, Dept of Mechanical Eng, Nicosia, Cyprus, Jan. 2001
 "Thermal Rapid Manufacturing at Tufts University"
University of Peloponnese, Dept. of Mechanical Engineering, Tripoli, Greece, October 2000
 "Rapid Prototyping Technologies and Materials: New Developments"
Holy Synod of Church of Greece, Science Challenges in the 21st Century, Oct. 2000
 "Materials Technology: Modern Research in Nano-Processing"
PRI Automation, Billerica, Massachusetts, October 2000:
 "Wireless Power Transfer for Untethered Transportation Vehicles"
Axcelis Technologies, Beverly, Massachusetts, September 2000:
 "New Developments in Modeling and Control of Rapid Thermal Processing"
NSF, Div. Of Design, Manufacturing and Ind. Innovation, Arlington, VA, June 2000:
 "Thermal Rapid Manufacturing: Future Directions in Research and Education"
Axsun Technologies, Billerica, Massachusetts, April 2000.
 "Ultrasonic Bonding: Materials and Technologies for Optoelectronics"
Worcester Polytechnic Institute, Dept. of Mechanical Eng, Worcester, MA, November 1999
 "Intelligent Plasma, Laser and Ultrasonic Rapid Prototyping Techniques"
University of Rhode Island, Dept. of Mechanical Engineering, Kingston, RI, Sept. 1999
 "Distributed-Parameter Control in Rapid Prototyping Technologies"
IEEE Control Society-Boston Section, Boston, MA, May 1999, "Distributed-Parameter Control Applications in Thermal Manufacturing Processes".
Worcester Polytechnic Institute, Dept of Mechanical Eng, Worcester, MA, November 1997
 "Infinite-Dimensional Scanned Regulation in Thermal Rapid Prototyping"
Northeastern University, Dept. of Mech., Ind. & Manuf. Eng, Boston, MA, October 1997
 "Distributed-Parameter Modeling and Control of Thermal Manufacturing"
NIST, Optical Technology Division, Gaithersburg MD, April 1997
 "Thermal Scanning Techniques in Materials Processing"
Penn State University, Dept. of Mechanical Eng, University Park, PA, March 1997
 "Thermal Modeling and Control in Rapid Prototyping Processes"
University of California at Irvine, Mechanical Engineering, Irvine, CA, September 1996
 "Thermal Manufacturing: From Forge Welding to Rapid Prototyping"
Volpe National Transportation Systems Center, Cambridge, MA, May 1996
 "Robotic Welding Repair of Austenitic Manganese (Hadfield) Rail Steels"
University of Thessaly, Dept. of Mechanical & Industrial Engineering, Volos, March 1996
 "Scan Welding and Thermal Rapid Prototyping"
Boston University, Dept. of Manufacturing Engineering, Boston MA, March 1996
 "Distributed-Parameter Control Techniques for Thermal Manufacturing Processes"
Aristotelian Univ. of Thessaloniki, Greece, Dept. of Mechanics, December 1993:
 "Thermomechanical Analysis of Scan Weldments"
National Research Institute "Demokritos", Dept. of Microelectronics, Athens, Dec. 1993:
 "Analysis and Control of Scanned Thermal Processing of Materials"
Demokritian University of Thrace, Dept. of Electrical Eng, Xanthi, December 1992:
 "Historical Origins of Automatic Control in Hellenic Antiquity"
Boston University, Dept. of Manufacturing Engineering, Boston MA, October 1992:
 "Distributed-Parameter Control of Thermal Processing of Materials"

University of Crete, Dept. of Production Management, Chania, March 1991:
"Thermal Modeling and Control of Welding Processes"

PROFESSIONAL ACTIVITIES

** Member of the following scientific and professional associations:*

American Society of Civil Engineers, since 2016
American Association for the Advancement of Science (AAAS), since 1997
American Society for Materials (ASM), since 1992
American Society of Mechanical Engineers (ASME), since 1991
American Welding Society (AWS), since 1995
Intl. Assoc. of Science and Technology for Development (IASTED), since 1992
MIT Alumni Association (MITAA), since 1988
New York Academy of Sciences (NYAS), since 1996
ΠΤΣ Mechanical Engineering Honor Society, since 1994
Samuel G. Howe Hellenic Tufts Faculty Association, since 1992
Society of Manufacturing Engineers (SME), since 1993
Technical Chamber of Greece (TEE), since 1983

** Participation in Organization of the following professional activities:*

Space Technology Research Center, Ghalam Satellites LLC, Astana KZ, September 2018
Republic of Tatarstan, Catalyst Production for Petrochemical Industry, Astana KZ, Aug. 2018
Fesenkov Astrophysics Institute, Tien Shan/Assy Turgen Observatories, Almaty KZ, June 2018
TengizChevrOil Corp, Chloride Stress Corrosion Cracking Meeting, Astana KZ, May 2018
3D Printing Applications to Delivery, Dubai UAE, April 2016
BRE Pan Industry/University Research Centre, Abu Dhabi UAE, 2015
Federal Aviation Administration Awards Program, Washington DC, June 2014
Society of Mining Engineers Annual Meeting & Expo, Salt Lake City, UT, 2014
Erasmus Mundus Swap & Transfer Program, Bangkok, Vietnam, Sep. 2013
IIMEC Consortium Meeting, Metz, FR, May 2013
Intl. Workshop on Innovation & Tech Transfer for Sust. Devel in Emerg. Econ, Trento IT, 2011
Nano-Actuators and Nano-Sensors in Medical Applications (NanoMA), Boston, MA, April 2009
Direct Ultraprecision Manufacturing (ManuDirect), Santa Maria Di Sala, Italy, Oct. 2008
Nano-Actuators and Nano-Sensors in Medical Applications (NanoMA), Nice, France, Sep. 2008
Open Day in Engineering & Nanotechnology for the National Guard, Nicosia, Jan. 2008
Design and Manufacturing Exhibition, Latsia, Cyprus, January 2007, February 2008
Honda Initiation Grant Symposium 2006, Cambridge, MA, November 2006
Open Day in Mechanical Engineering and Nanotechnology, Nicosia, Cyprus, Sept. 2006-8
MANUDIRECT Programme Kick-Off Meeting, Venice, Italy, Sept. 2006
Harvard Medical School, Beth Israel Deaconess Medical Center, Boston, MA Nov. 2005
Honda Initiation Grants Symposium 2005, Chicago, IL, November 2005
Intercollege Meeting on Building the Research Capacity in Cyprus, Nicosia, October 2005
Info Day on Structuring the Research Potential of Cyprus, RPF, Nicosia, Cyprus, October 2005
Joint Research Centre Round Table-Collab. With Cyprus Res. Inst, Larnaca CY, June 2005
Info Day on Respiratory Diseases and the Environment, Nicosia CY, December 2004
Honda Initiation Grants Symposium 2004, Hollywood, CA, November 2004
European Framework Programme 6-NMP STEF-NANO-ACC, Poznan, Poland June 2004
NNI Workshop on Metrology and Instrumentation at Nanoscale, NIST, Gaithersburg Jan. 2004
Nanoscale Electronics and Optics Workshop, Dresden, Germany 2002

Gordon Research Conference on Nanostructure Fabrication, Tilton, NH 2002
Nanoscale Science, Engineering & Technology (NSET) Meeting, Arlington, VA 2002
Archdiocesan Ad. Com. On Sci. & Technology Meetings, New York, NY, 2001-2
ASME Manufacturing Engineering Division Annual Meeting, New York, NY 2001
ASM International TMS Nanotechnology Committee, Indianapolis, IN 2001
NSF Program Management Training Program, Washington, DC, 2001
CMP Cientifica Trends in Nanotechnology 2001, Segovia, Spain, 2001
NSF Industrial Tour Arrangement for NSF-DMII Grantees Conf, Puerto Rico, 2001
NRC Natl Materials Advisory Board Workshop on Nanomaterials, Washington DC, 2001
Honda R&D Americas Initiation Grantees Meeting, Columbus, OH, 1999
SME Manufacturing Education Plan Workshop, Dearborn, MI, July 1998
NSF Workshop on Axiomatic Design for Professors, MIT, Cambridge MA, June 1998.
NSF-Tufts Life Cycle Analysis Workshop, Medford, MA, May 1997
NAE 2nd Conference on Frontiers in Engineering, Newport Beach, CA, September 1996
SME Seminar on Fundamentals of Rapid Prototyping, Austin, TX, December 1994
NASA Marshall Space Flight Center visitation, Huntsville, AL, June 1993
NIST Laboratory Open House, Gaithersburg, MD, December 1992
Tufts Environmental Literacy Institute (TELI), Medford, MA, May 1992
ASME Bioprocess Equipment Design Program, Charlottesville, VA, October 1991

CONSULTING AND INDUSTRY

- * *ADROV LLC*, Abu Dhabi UAE (2016 -): Underwater remotely operated vehicle design.
- * *Fibrtec Inc*, Atlanta TX (2014-): Technical consultant on fractal composite materials.
- * *Stonewedge Corp*, Andover, MA (2011-): Biomedical robotics-technical research advisor.
- * *Neumitra Corporation*, Cambridge MA (2010-): Wireless medical devices – technical advising.
- * *Dendrigen Corp*, Athens Greece (2010-): Dendrimeric nanocapsules for targeted drug delivery
- * *Eco Green Power Ltd*, Athens Greece (2010-): Ecological construction materials and fuels (CTO).
- * *Unification Engineering Corporation*, Santa Clara CA (2009-): Electric vehicle charging (CTO).
- * *Advanced Technologies Development (ATD Nano)*, Nicosia Cyprus (2009-): Nanofiber electrospinning
- * *Honda R&D Americas*, Raymond OH (2003-): Honda Initiation Grant (HIG) expert review.
- * *Breakaway Imaging*, Sudbury, MA (2002): Scientific advisor for biomedical imaging instruments.
- * *Axcelis Technologies*, Beverly, MA (2001): Laser annealing of semiconductor structures.
- * *Axsun Technologies*, Billerica, MA (2000): Ultrasonic bonding for optoelectronics packaging.
- * *Varian Semiconductor Equipment Assoc.*, Gloucester, MA (2000): Profiling of ion beam.
- * *CoreTek Inc*, Wilmington, MA (2000): Thermal regulation of laser bonding in optoelectronics
- * *Visualization Technologies*, Wilmington, MA (2000): Design of nonmetallic calibration robot
- * *Cambridge Applied Systems*, Medford, MA (1999): Design of a high-temperature viscometer.
- * *PRI Automation*, Billerica, MA (1999): Design of a semiconductor transfer robot enclosure.
- * *SCAE Associates*, Waltham, MA (1999): Injection molding tooling for a construction element.
- * *ADE Inc.*, Westwood, MA (1997-): Motion control of an atmospheric transfer 3 dof robot.
- * *Transenic Inc.*, Cambridge, MA (1994-95): Motion signal processing of an inertial platform.
- * *Visya Inc.*, Boston, MA (1993-94): Design and actuation of variable-power presbyopic lenses.
- * *Computer Sports Medicine*, Waltham, MA (1992-1993): Control of flexible exercising machines.
- * *Hellenic Vehicle Industry*, Sindos, Greece (ELBO, 1990-1): Dynamic testbed for vehicle vessels.
- * *Hellenic Technology*, Athens, Greece (ET, 1990-91): Dynamic testing of biomedical devices.
- * *Anonymous General Cement Company-Hercules*, Volos (AGET, 1991): Safety control systems.
- * *General Dynamics Corp*, Schenectady, NY (1988-9): Hybrid modeling of weld geometry.

RESEARCH PROGRAMS AND INTERESTS

- * *Nanoscale materials & manufacturing*– nanocomposite aerospace materials by ultrasonic welding, reactive thin film nanoheaters, nanosensor materials and networks, electrospinning of nanofiber scaffolds, laser and ultrasonic consolidation of nanopowders.
- * *Biomedical Devices and Materials* – rapid fabrication of electrospun fibrous scaffolds for tissue engineering, nanocapsules for targeted drug delivery via block copolymer micelles, AAO templated nanorods and coaxial nanofiber electrospinning, nanoheater-based implants for hyperthermic treatment of cancers, signal processing and electrocardiographs, scanned laser ophthalmoscopy, rapid prototyping of medical models and aids.
- * *Renewable energy conversion device fabrication* – fractal structured and random branching solar trees (photodendra), solar nanofabrics, self-cooling foils; featherweight nanocomposites with electrospun fibers and carbon nanotubes for wind turbines, photocatalysis membranes for biofuels and water.
- * *Microelectronics and optoelectronics processing*- ion implantation, rapid thermal processing (RTP), and precision assembly and packaging of MEMS using ultrasonic and laser techniques.
- * *Fabrication of active and smart materials*, with embedded active elements (sensors, actuators, microprocessors) and intelligent connection structures (mechanical, thermal, fluidic, electronic, optical etc), such as in *active deformable sheets* and *active deformable cutters*, reformative and auxetic materials for biomimetic structures, functionally graded materials and coatings.
- * *Thermal processing of materials* - redesign, implementation, modeling and automatic control, heat transfer and material deposition using laser, plasma, and arc welding and thermal deposition, infrared pyrometry and laser profilometry sensing and feedback.
- * *Rapid prototyping and manufacturing* - development of new technologies for multi-material layered fabrication, using laser, ultrasonics, EDM, micromachining & microbonding methods.
- * *System dynamics and controls*- system identification and adaptive control, optimization and optimal control, distributed-parameter system control and observation, hardware implementation.
- * *Robotics and machine vision*- applications in intelligent robotic repair, autonomous untethered vehicles, power transfer to autonomous transportation systems, optical metrology, nanorobots.

SUPERVISION OF THESES AND PROJECTS

* *Ph.D. Theses supervised (main advisor):*

Tariq Al Zarooni	Gas Turbine Failure Mode Identification For Maintenance Optimization	(pending)
Yiannos Ioannou	Fractal Ti Nanochannel Structures by Stress Corrosion Cracking for DSSC Photovoltaics	(pending)
Annita Christophidou	Nanocomposite Material Manufacturing by Ultrasonic Welding	September 2015
Vassilis Drakonakis	Polymer Nanocomposites with Electrospun Nanobiber Reinforcements: Process Control	July 2012
Marios Alaeddine	Modeling & Control of Reactive Fabrication of Intermetallic Coatings from Layered Precursors	September 2004
Hiep Tran	Implementation, Analysis and Control of Flexible Machining Tools	September 2003
Olga Vayena	Distributed-Parameter Modeling and Control	August 2003

Artemis Agelaridou	Of Scanned Laser Annealing of Semiconductors Numerical and Experimental Design of Microstructure in Stainless Steel Welding	April 2002
Nikos Fourligkas	Thermal Modeling and Control of Scanned Rapid Prototyping Processes	June 1999
Yong-Min Kwak	Geometrical Modeling and Control of Scanned Rapid Prototyping Processes	April 1999
Ravi Durvasula	Measurement of Ocular Wavefront Distortion with Spatially Resolved Refractometer	Sept. 1998

** M.S. Theses supervised (main advisor):*

Abdelaziz Alzaabi	Predictive Modeling and Simulation of Underwater Robot Prototype	June 2018
Aseel Hussien	Underwater Welding with Nanoheaters	June 2017
Polydoros Hadjidemetriou	Design, Manufacture and Mechanical Analysis Of a Coated Polymeric Spinal Disk Implant	December 2016
Kyriakos Christodoulou	Biofuel Combustion and Emissions in ICE	June 2016
Ivan Sobakin	A Centrifuge-based Directional Gravitational Percolation of Microchannels in Soft Matter	December 2015
Chris Reede	Two-Phase Flow and Thrust in Lineshaft Pumps in Geothermal Engineering	June 2015
Irene Leonidou	Electrical Properties of CFRP Composites	June 2014
Vasos Hadjisofokleous	Fabrication and Ignition of Ultrasonically Compacted Reactive Powder-Foil Sandwiches	June 2014
Eugenios Eugeniou	Energy-Efficient Building Design Assessment Methods and Technology	Sept 2013
Costas Sophocleous	Ultrasonic Imaging-Guided Robotic Manipulation Of Ultrasonic Scanner Probe	May 2012
Antonia Tryfonos	Biocompatibility Study of Oxide-Coated Polymer Scaffold Nanomaterials for Tissue Engineering	Dec 2011
Georgia Ioannou	Pharmacokinetics of Drug Delivery from Electrospun Fiber and AAO Membranes	Dec 2011
Kyriakos Roushia	Ultrasonically Activated Stress Corrosion Cracking Of Ti Foils for Photovoltaic Applications	June 2010
Marios Stylianou	Computational & Experimental Study of Cooling Water Injection in HCCI Internal Combustion Engine	Dec 2009
Theopisti Christoforou	Electrospinning of Nanofiber Scaffolds for Cardiac Tissue Engineering	May 2009
Rajarsh Chowdhury	Ultrasonic Consolidation of Mg-Alloy Powders Made by Uniform Droplet Spaying	March 2006
Emily Shattuck	Implementation and Analysis of Microscale Ultrasonic Welding of Metals	November 2004
George Papanikolaou	Ultrasonic Rapid Manufacturing of Meso- Microscale Functional and Active Structures	Aug. 2002
Alex Tsai	Ultrasonic Welding of Polymer Parts for Rapid Prototyping	Aug. 2002
Joey Mansour	Modeling and Control of Dry EDM for Microscale Rapid Prototyping	Dec. 2001

Anastasia Paskaleva	Distributed-Parameter Control of Thermal Field in Composite Coating by Welding Methods	Dec. 2001
Marios Alaeddine	Distributed Parameter Thermal System Controllability and Observability by Green-Galerkin methods	Dec. 2001
Ioannis Martinos	Autonomous Helicopter Robot: Construction, Modeling and Control	July 2001
Shailendra Yadav	Thermal Modeling of Ultrasonic Welding of Metals in Rapid Prototyping	July 2001
Eleni Skordeli	Analytical Modeling of Material Deposition Geometry in Solid Freeform Fabrication	July 2000
Olga Vayena	Thermal Distribution Control in PAW Processing of Composite Coatings	July 2000
Robert Lind	Active Deformable Surfaces: Implementation Modeling and Control	June 2000
Glory Hardjadinata	Laser Cutting and Bonding of Foil Material for LOM Rapid Prototyping	May 2000
Yuan Gao	Analytical and Numerical Modeling of Ultrasonic Welding Processes	Oct. 1999
Norbert Johnson	Rapid Prototyping Method Using Ultrasonic Welding	June 1998
Hiep Tran	Flexible Robotic Repair System for Planar Electromechanical Devices	January 1998
George Yiannelis	Scanned Deposition of Hardfacing Material on Internal Combustion Engine Valves	(withdrawn)
George Korizis	Dynamic Flow Analysis of Material Deposition in Free-Form Fabrication Methods	(deceased)
Brian Marquis	Scan Welding: Numerical Simulation of Thermal and Material Distribution	Sept. 1995
John Angelis	Scanned Orbital Welding: Experimental Testing and Thermal Control	June 1995
Harry Sfetsos	Scanned Orbital Welding: Numerical Simulation and Thermal Analysis	June 1995
Nikos Fourligkas	Scan Welding: Experimental Implementation and Dynamic Analysis	January 1995
Dirie Herzi	Object Oriented Simulation for Discrete Manufacturing Systems	May 1993

** Graduate independent projects supervised:*

Ravindra Subhiya	Feedback Control of a Shake Table	Summer 2000
Gregory Altman	Tissue Engineering of Knee Ligament	Fall 1997
Pavel Lopatin	Force Feedback for Collision Avoidance in Robots	Fall 1996
Christopher Russo	Modeling & Control of a Cogeneration Plant	Fall 1994
Yong-Min Kwak	Design of an Ultrasonic Robot Echolocator	Fall 1994
Harry Sfetsos	Design of Robotics Lab Demonstrations	Summer 1994
Kyriakos Skalkeas	Safety System for Automotive Ni-Cd Batteries	Fall 1993
Loukas Paraschis	Biomedical Imaging Techniques	Spring 1993

** Undergraduate independent projects and theses supervised:*

Nurgeldy Praliyev	Current Green Energy Systems in Kazakhstan	August 2018
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Banu Abdikadirova	Aluminum Smelter Mechatronic Systems	September 2018
Khalifa Alshamsi	Polymer Composites with Electrospun Fibers	May 2016
Khatera Farzanah	Experimentation of Ni and Al Sheet BM	May 2016
Mira Hassan	Ball Milling of Ni-Al Nanoheater Particulates	May 2016
Rauda Al Muhairi	BM Analogy with Nuclear Reactor Radiation	May 2016
Amani Bin Amro	Diwheel Vehicle Suspension Design	May 2016
Naser Al Saadi	Emergency Evacuation System Design	May 2016
Amal Alhameli	Coaxial Core-Shell Electrospinning	May 2016
Aesha Almansoori	Hollow Electrospun Fibers for Drug Delivery	May 2016
Faisal Al Maamari	Optical Observation of Ball Milling Motion	May 2016
Hamad Al Ali	Computational Simulation of Ball Milling	May 2016
Aishah Al Hefaity	Nuclear Engine for Satellites & Space Stations	May 2016
Hamda Al Kaabi	Stirling Cycle Model for Nuclear Powerplant	December 2015
Najlaa AlMehairi	Thermal Study of Resistive Meltdown in Bushbars	December 2015
Abdulla Alawadhi	Four-Probe IV Resistance Testing of Al Bushbars	December 2015
Ahmed Alkhatiri	Kinematic Simulation of Concentric Tube Robot	December 2015
Khaled Albaloushi	Cartesian Traverse for Ultrasonic Spot Welder	December 2015
Abdulla Aloufi	Thermal Simulation of USW with Nanoheaters	December 2015
Omran Alteneiji	Electrostatic Focusing Device for Arc Welding	December 2015
Mohamed Naqi	Design of Passive Shields for Arc Welding	September 2015
Abdulrahman Jadrani	Active control of Welding Arc in Magnetic Field	September 2015
Vasilios Tsiogkas	Mixing of Biofuels in HCCI Engines	Summer 2012
Irene Leontidou	Ultrasonic Stress Corrosion Cracking in Ti Alloys	Winter 2011
Panayiota Vasileiou	Stress anodization of Ti Foils in Fuel Cell Electrode	Winter 2011
Leftheris Eleftheriou	Optical Lithography by Projection Microscopy	Summer 2011
Spyros Michaelidis	Dendrimeric Nanofiber Membranes for Water Filter	Winter 2010
Aris Poullis	Chitosan Drug Delivery Capsules by Electrospinning	Winter 2010
Dimitris Parpas	Coaxial electrospinning of Hollow Fibers for Drugs	Winter 2010
Nikolaos Nanas	Culturing of Artificial Erythropoietic Tissue	Winter 2010
Andreas Ioannou	Gear inspection by Robotic Machine Vision	Winter 2010
Demetris Hadjigeorgiou	Temperature & X-Ray Analysis in Friction Weld	Winter 2010
Stefanos Vougioukas	Design of Friction Welded Pipe Coupling	Summer 2010
Socratis Arnos	Sensor-Based Robotic Multi-Object Packaging	Summer 2009
Nikos Constantinou	Optical Field-Driven Guidance of SCARA Robot	Summer 2009
Anna Rouvi	Nanocomposites by Robotic Diode Laser Welding	Summer 2009
Eleni Andreou	Design and Implementation of Safety in ICE Lab	Summer 2009
Demetrios Peditas	Maskless Projection Micro-Lithography by DLP	Summer 2008
Giannakis Iacovou	Modification of RPG Rocket Launcher	Summer 2008
Gary Terzian	Redesign of ICE for Improved Performance	Summer 2008
Michael Ramp	DPS Control and Observation by Green Galerkin	Summer 2008
Angelos Mytillos	Aluminum MMC with Magnetic Nanoparticles	Summer 2008
Giannakis Pantelidis	Malfunctions of Browning Machine Gun 0.50"	Summer 2007
Epam. Kalogiannis	Laser Welding with CNT Bead Reinforcements	Summer 2007
Kyriakos Roushia	High-Freq Metal Ultrasonic Welding for MMC	Summer 2007
Alex Metzaviorian	Design of Injection Mold for Temp and Pressure	Summer 2007
Adam Blake	Design of a High Temperature Viscometer	Summer 2000
George Papanikolaou	Experimental Protocols on a Robotic PAW Station	Spring 2000
Morgan Hynes	Design of an Autofocus System for Laser Station	Fall 1999
Ioannis Martinos	Design and construction of a Balancing Robot	Fall 1999
Alice Su	Tufts Prototyping Shop: Internet Dissemination	Summer 1999

Scott McNamara	Design and Control of the Alexi Firefighter Robot	Spring 1999
Janine Draper	Microscopic Analysis of PAW and Laser Welds	Summer 1998
Leonardo Grimaldi	Paper-Based LOM Rapid Prototyping Projects	Summer 1997
Elijah Van Houten	Dynamic Model of Blood Flow in Artificial Heart	Fall 1996
Leslie David	Architectural Models by Rapid Prototyping	Summer 1996
Yoni Garbourg	Analysis and Use of a 6 dof Articulated Robot	Summer 1996
Shannon Rea	Inverse Conduction Problem in Thermal Manuf.	Spring 1996
George Hatzigeorgiou	Scan Thermal Rapid Prototyping Processes (ME 19)	Fall 1995
Emmanuel Roble	Experiments of Thermal Rapid Prototyping (ME 19)	Summer 1995
Brian Verminski	Design of a Robotic Welding End Effector (ME 43)	Spring 1995
Panayotis Kamvyselis	3-D Laser Scanning System for Rapid Prototyping	Fall 1994
Bradley Felix	Pool-Playing Robot with Machine Vision (ME 43)	Fall 1994
George Korizis	Control System for Plastics Extrusion Machine	Fall 1994
Panayotis Kamvyselis	All About Calculators (Explorations course develop)	Summer 1994
Panayotis Kamvyselis	Computer Simulation of Robot Locomotion (ME 19)	Summer 1994
Thomas Melesky	Software for Lab. Robotic Vision System (ME 19)	Spring 1994
Thomas Melesky	Software for Machine-Shop Job Management	Fall 1993
Robert Park	Robotic OLP Multimedia Demonstration on Sun	Spring 1994
Vincent DiFilippo	Scan Welding Lab. Setup Development (ME 19)	Fall 1993
David Zasloff	Implementation of 3-dof Cartesian Robot (ME 19)	Fall 1992

** Ph.D. Theses supervised as Committee Member:*

Nicos Kostoglou	(with Prof. C. Rebholz)	May 2015
Panos Epameinonda	(with Prof. C. Rebholz)	May 2014
Andreas Tjirkallis	(with Prof. A. Kyprianou)	Dec 2013
Anastasia Hadjiafxenti	(with Prof. C. Rebholz)	May 2013
Marios Neofytou	(with Prof. S. Choulis – CUT Cyprus)	Nov. 2012
Nick Tapoglou	(with Prof. A. Antoniadis – T.U. Crete)	June 2012
Fotis Kossyvas	(with Prof. A. Kyprianou)	June 2011
Evagoras Xydas	(with Prof. L. Louca)	Sep 2010
Petri Papafilippou	(with Prof. T. Krasia)	Sep 2010
Hiroki Fukuda	High-Melting Point Metal Rapid Solidification Processing in UDS Deposition (T. Ando)	Sep 2010
Suresh Kumar	Integrated Heat Transfer and Material Transform Model for RSP in UDS (T. Ando)	Sep. 2008
Euroula Hapeshii	Synthesis and Study of Mixed Phase Oxides Of Mn-Ce and Ceria for Catalysis (K. Patrikios)	May 2007
Rajesh Ranganathan	Rapid Solidification Processing of Uniform Droplet Spray Splats (T. Ando)	May 2006
Ibrahim Gunduz	Ultrasonic Consolidation of Mg Micropowders (T. Ando)	July 2006
Volha Bialiauskaya	Intermetallic Coatings on Steel Substrates Deposited by Uniform Droplet Spraying (T. Ando)	May 2005
Charles Tuffile	Incremental Epitaxial Crystal Growth by Controlled Droplet Deposition (T. Ando-NWU)	June 2001
Upendra Ummenthala	Control of Heat Conduction via a DPS Approach: Applications to Manufacturing Processes (D. Hardt-MIT)	Jan. 1997
Steven Ainley	Modeling and Control of Turbulent Flows in Aerodynamic Section Applications (C. Rogers)	May 1997
Mehran Asdigha	Active Vibration Control (R. Greif)	June 1995

Peter Wong	Processing Uniformity in Thin-Film Manufacturing by Thermal Radiative Heating (I. Miaoulis)	May 1995
Haris Papamichael	Thermal Analysis of Optical Fiber Manufacturing Process: Cooling and Heating Regions (I. Miaoulis)	May 1995

** M.S. Theses supervised as Committee Member:*

Antonis Kyriakou	(with Prof. C. Rebholz)	June 2014
Evgenios Evgeniou	(with Prof. A. Kyprianou)	Dec. 2013
Panos Epameinonda	(with Prof. C. Rebholz)	June 2012
Eleni Spanou	(with Prof. A. Kyprianou)	Dec 2009
Maria Demetriou	(with Prof. T. Krasia)	June 2009
Nikos Toumbas	(with Prof. T. Kyratsi)	June 2009
Ria Demosthenous	(with Prof. S. Kassinos)	Dec 2008
Andreas Tsiappos	(with Prof. T. Kyratsi)	Dec 2008
Antonis Hadjigeorgis	(with Prof. A. Kyprianou)	Dec 2008
George Vessiaris	(with Prof. A. Kyprianou)	June 2008
George Katsambas	(with Prof. A. Alexandrou)	June 2008
David Cloutier	(with Prof. J. Chen)	Dec 2007
Gokce Gulsoy	Ultrasonic Consolidation of Reactive Bimetallic Powders for Bulk Nanoheaters (T. Ando)	August 2007
Jogdand Harshawardhan	Electronic Microscopic Analysis of Ni-Al Multilayers as Heat Sources (J. Chen-UML)	August 2006
Hiroki Fukuda	High-Temperature Reactor for UDS with Splat Collection System (T. Ando)	May 2005
Suresh Pillai	Modeling of Nucleation and Growth Kinetics In RSP of Uniform Droplet Sprays (T. Ando)	April 2004
Rajesh Ranganathan	Ni-Al Metal Matrix Composite Fabrication from Layered Precursors (T. Ando-Northeastern)	March 2002
Ravindra Subhiya	Feedback Control of a Dynamic Shake Table for Earthquake Simulation (M. Sanayei)	May 2001
Orestis Grigoropoulos	Design and Dynamic Analysis of an Earthquake Platform for Laboratory Simulations (M. Sanayei)	May 2000
Dorothea Amanti	A Robotic Compliance Control System for Handicapped Assistance (W. Crochetiere)	July 1998
Charles Tuffile	Calorimetric Enthalpy Measurement of Traveling Uniform Droplets (T. Ando)	May 1997
Tyler Hooper	Active Vibration Control Using Modal Techniques with Limited Actuators (R. Greif)	May 1997
Daming Jiang	Kinetic Study of Crystal Size Distribution in a Twin Crystallizer (G. Botsaris)	May 1997
Alfred DiVenuti	Modeling of In-Flight Solidification of Uniform Droplets (T. Ando)	June 1996
Stephen Shaw	Active Vibration Control of a Beam (R. Greif)	Sept. 1995
Robert Smith	A Dynamically Adjusted Hybrid Force-Position Manipulator Using Stiffness Control (W. Crochetiere)	April 1994
Paul Sabin	A Maximum Power Exercise Machine (W. Crochetiere)	Nov. 1993
Panagiotis Kavlakonis	Simultaneous Transport in Immobilized Liquid Membranes of Alkaline Solutions (J. Meldon)	Nov. 1993

Anna Cushman	Flow Visualization in Thermal Silicon Wafer Reactor (C. Rogers)	Sept. 1993
Sharon Yoon	The Effects of the Solidification Front during ZMR of Thin Silicon Films (I. Miaoulis)	May 1992

** Postdoctoral Research Associate Supervision*

Dr. Maria Kokonou, NCSR Demokritos, Greece	since April 2006
Dr. Kyriaki Polychronopoulou, University of Cyprus	since Jan. 2006
Dr. Suresh Kumar Pillai, Northeastern University	since May 2009
Dr. Emre I. Gunduz, Northeastern University	since Jan. 2009
Dr. Katerina Sofokleous, Univ. of Surrey	since May 2009
Dr. Vassilis Drakonakis	since Dec 2013

** Hosting of Visiting Faculty*

Dr. James Seferis, GloCal Investment Venture Enterprises	2014
Prof. Athanasios Mamalis, Athens Academy & Kurchatov Institute	2014
Dr. Jonathan Wolfe, Fractal Foundation	2014
Prof. Palaniappa Molian, Iowa State University	2014
Prof. Claus Rebholz, Bosch GmbH	2013, 2016
Prof. Panos Charalambides, Univ. of Maryland Baltimore County	2009
Prof. Andreas Christoforou, Kuwait University	Summer 2005
Prof. Mark Kachanov, Tufts University	Summer 2005
Prof. Andreas Polycarpou, UIUC	Summer 2005
Dr. Nikolaos Fourligas, McLean Hospital, Harvard University	Spring 2005
Prof. Perena Gouma, SUNY Stony Brook	Summer 2004
Prof. Zhang Yanhua, Beijing Univ. of Aeronautics & Astronautics	Fall 2001
Prof. Manolis Christodoulou, Technical University of Crete	Summer 2001

** Faculty Electoral, Tenure & Promotion Committees (2001-2016)*

ASPAITE, Greece (1)	Frederick University, Cyprus (3)
Khalifa University, UAE (2)	National Technical University Athens, Greece (2)
Technical University of Crete, Greece (2)	Technological University of Cyprus (3)
TEI Serres, Greece (2)	University of Cyprus (8)
University of Nevada Reno, USA (5)	University of Western Macedonia, Greece (1)

TEACHING INTERESTS AND COURSES

The curricular repertoire includes new or renewed courses, spanning the range from materials and manufacturing, energy conversion devices, rapid prototyping, thermal processing of materials, system dynamics, computer controls, mechatronics, robotics and automation, laboratory instrumentation and biomechanics. Course and laboratory materials are available upon request.

COURSES Tufts University

- * *EN 10 ME: Prototyping Home Robots (new introductory course, introduced Spring 1995)*
- * *EN 12 ME: Art by Rapid Prototyping (new introductory course, Fall 1997)*
- * *ME 18: Mechanical Engineering Laboratory (renewed undergraduate course, Spring 1993)*
- * *ME 19: Mechanical Engineering Projects (renewed undergraduate course, Fall 1993)*
- * *ME 80: Systems Design (new undergraduate course, Spring 1994)*
- * *ME 85: Modern Manufacturing Practice (new undergraduate course, Spring 2000)*
- * *ME 180: Computer-Controlled Systems (new senior/graduate course, Summer 1992)*
- * *ME 184: Introduction to Robotics (new senior/graduate course, Spring 1992)*
- * *ME 185: Manufacturing Process Automation (new senior/graduate course, Spring 1993)*
- * *ME 280: Advanced Engineering Controls (new graduate course, Fall 1996)*
- * *ME 285: Thermal Manufacturing Processes (new graduate course, Spring 1999)*
- * *ME 183: Quantitative Physiology for Biomechanics (developed, Spring 2002).*

University of Cyprus

- * *MME 105: Mechanical & Manufacturing Engineering Laboratory (new intro. course, Spring 2005)*
- * *MME 321: Computer Control Systems (new junior-year course, Spring 2007-)*
- * *MME 341: Design and Manufacture (new junior-year course, Spring 2006-)*
- * *MME 521: Computer-Controlled Systems (renewed graduate course, Spring 2005-)*
- * *MME 541: Manufacturing Process Automation (renewed graduate course, Spring 2006-)*

University of Nevada, Reno

- * *ME 410: Introduction to System Control (senior level course with laboratory, Fall 2014)*

Khalifa University

- * *MECH 387: Mechanical Design II (junior level course with laboratory, Spring 2015, 2016)*
- * *MECH 384: Control of Mechanical Systems (junior level course with laboratory, Fall 2015)*
- * *MECH 450: Vehicle Engineering (senior level course, Fall 2015, 2016)*
- * *MECH 391/491: Independent Studies (junior and senior level, 2015-17)*
- * *MECH 497/8: Senior Design Projects (senior level, 2015-17)*
- * *MECH 356: Mechatronics (junior and senior level, Spring 2017)*

* *MECH 270: Design for Manufacturability (sophomore level, Fall 2017)*

Vin University

* *MATH1010: Calculus I (freshman level course with laboratory, Fall 2020)*

TEACHING & ADVISING RECOGNITIONS

* KU: Proposed by Mechanical Engineering Chair for Faculty Excellence Award in teaching, 2016

* Citations by several students as best faculty instructor at Khalifa University

* Average course evaluations at University of Cyprus: 4.7/5.0

* At Tufts: taught two courses including one evening course per semester, plus extra laboratory sessions (180L), co-taught (ME80/180) and summer courses. Average course evaluation rating at Tufts: 4.6/5.0

* ME 119, ME 180, ME 184, ME 185, ME 19 cited by several seniors as their best courses at Tufts.

* Citations by several seniors as the faculty having contributed most to their intellectual development.

* Advisor of several special students for the *Certificate in Manufacturing Program*
and of first-year students in the *Windows on Research Program*

NEW LABORATORIES FOR RESEARCH AND TEACHING

Tufts University- Organized and directed three new research and teaching laboratories:

* *Thermal Manufacturing Laboratory (TML) - Bray Room 110.*

* *Robotics and Controls Laboratory (RCL) - Bray Room 107-108.*

* *The Tufts Prototyping Shop (TPS) - Bray Room 114.*

University of Cyprus- Organizer and in charge of 7 new research and teaching laboratories:

* *Mechanical and Manufacturing Engineering Laboratory – Room A021*

* *Materials Characterization Laboratory – Room A022 (shared)*

* *Hephaistos Manufacturing Laboratory – Room A062*

* *Micro- and Nano-Systems Laboratory – Room A063*

* *Manufacturing Engineering Workshop – Latsia*

* *Biomedical Tissue Engineering Laboratory – Latsia*

* *Internal Combustion Engine Laboratory – Latsia*

University of Nevada Reno: Established and/or renovated 2 new teaching/research laboratories:

* *CNC Milling Machine Shop and Plasma Cutting Laboratory-Palmer*

* *Nevada Advanced Autonomous Systems Innovation Laboratory – Sinclair*

Khalifa University: Designed two research and outreach facilities:

* *KU Nanofabrication Facility-Soft Lithography Laboratory– B 115*

* *KU Museum of Science and Technology-Discovery Centre*

SERVICE ACTIVITIES

DEPARTMENTAL ACTIVITIES

- * *Khalifa University*, Civil Engineering Coordinator of new MS Program, 2016
- * *Khalifa University*, Civil Engineering Coordinator for ABET accreditation, 2016
- * *Khalifa University*, Chair of Departmental Promotion Review Committee, 2016
- * *Khalifa University*, Member of Industrial Outreach Committee, 2016
- * *Khalifa University*, Coordinator for student competitions SAE Baja, Shell Eco Marathon, Solar Challenge, SPE University Student Innovation – 1st Prize (ADIPEC Nov 2015)
- * *Khalifa University*, Coordinator of Mechanical Engineering Retreat, 2015
- * *Univ. of Nevada Reno*, Coordinator for 6 new faculty searches (2013-2014)
- * *Univ. of Nevada Reno*, Coordinator for renovation of Palmer Engineering building (2013-2014)
- * *Univ. of Nevada Reno*, Coordinator for expansion and modernization of Machine Shop (2013-2014)
- * *Univ. of Nevada Reno*, Faculty Research Cooperation Coordinator with IPH Hannover, CORNet Network, Univ. of Malta, Harvard School of Public Health, Fractal Foundation (2013-2014)
- * *Univ. of Nevada Reno*, Host of West Virginia University Mobile Transportation Lab (2013)
- * *Univ. of Nevada Reno*, Coordinator for new Engineering Education Program (2013-2014)
- * *Univ. of Cyprus, Nanotechnology Research Center “Hephaistos” (2006-2009)*
Founding Director-attracted & coordinated funded research in nanotechnology (total > € 5 M)
- * *Univ. of Cyprus, Dept. of Mechanical & Manufacturing Eng. (since 2004)*
New faculty search coordinator-coordinated faculty application and interview process that led to hire of 7 new faculty in MME department.
- * *Univ. of Cyprus, Dept. of Mechanical & Manufacturing Eng. (since 2005)*
Undergraduate program reforming—established new undergraduate program of MME department.
- * *Univ. of Cyprus, Dept. of Mechanical & Manufacturing Eng. (since 2003)*
Graduate program founder and coordinator – developed new MS and PhD programs in Mechanical Engineering and in Manufacturing Engineering
- * *Univ. of Cyprus, Dept. of Mechanical & Manufacturing Eng. (since 2003)*
Laboratory development coordinator- designed and implemented the first three laboratories of the MME Department, including equipment specification, ordering, installation and integration.
- * *NSF-DMII Grantees Conferences and Retreat (2002-2003)*
Co-Organizer of DMII Grantees Conferences (2002 and 2003) and Retreat (2003).
- * *Tufts University, Materials Characterization Laboratory Coordinator (2000-01)*
- * *Tufts Search Committee Head for visiting Assistant Professor in Thermal-Fluid Sciences (1999-2000)*
- * *Tufts Departmental Strategic Plan Committee Leader (1999-2000)*
- * *Tufts Industrial Advisory Board-Leader of Focus Group on Tufts Prototyping Shop (1998)*
- * *Tufts Seminar in Manufacturing Automation Host (Fall 1996-1998)*
- * *Tufts Search Committee Member for junior faculty in Thermofluid Sciences (1995-1996)*

- * *Tufts Search Committee Member for visiting faculty in Thermal Manufacturing (1994)*
- * *Tufts ΠΤΣ Mechanical Engineering honor society, Founder and Faculty Advisor (1994-2000).*
- * *Tufts ASME Tufts student chapter Faculty Advisor (1992-94).*
- * *Tufts Machine-Shop Committee Coordinator (1992-2000).*
- * *Tufts Thermal Analysis for Materials Processing Laboratory Faculty Member (TAMPL, 1992-2000)*
- * *Tufts Manufacturing Engineering Program Committee Founder (1992).*

SCHOOL AND UNIVERSITY ACTIVITIES

- * *Nazarbayev University, Chair of Research Strategy Committee, 2018*
- * *Nazarbayev University, Chair of Technology Roadmap Committee, 2018*
- * *Nazarbayev University, Chair of Research Space Allocation Committee, 2018*
- * *Nazarbayev University, Chair of Ad Hoc Equipment Relocation Committee, 2018*
- * *Nazarbayev University, Chair of Equipment Committee, 2018*
- * *Nazarbayev University, Chair of Research Positions Planning Committee, 2018*
- * *Nazarbayev University, Chair of Research Policies & Rules Committee to Managing Council, 2018*
- * *Nazarbayev University, Chair of Contract Research Framework Committee, 2018*
- * *Nazarbayev University, Chair of Competitive Research Grant Allocation Committee, 2018*
- * *Nazarbayev University, Member of Academic Council, 2018*
- * *Nazarbayev University, Member of Research Council, 2018*
- * *Nazarbayev University, Member of IREC, IACUC, BCSC Committees, 2018*
- * *Nazarbayev University, Member of NU Faculty Promotion Committee, 2018*
- * *Nazarbayev University, Member of NU Disciplinary Hearing Committee, 2018*
- * *Nazarbayev University, Chair of Research Day and Research Forum Organizing Committees, 2018*
- * *Nazarbayev University, Chair of Mining Day Organizing Committee, 2018*
- * *Nazarbayev University, Chair of Research Awards Committee, 2018*
- * *Nazarbayev University, Chair of Research Training Workshop Committee, 2018*
- * *Nazarbayev University, Advisor to Young Researchers Association, 2018*
- * *Nazarbayev University, Chair of School of Mining and Geosciences Faculty Committee, 2018*
- * *Khalifa University, Member of University Promotion Review Committee, 2017*
- * *Khalifa University, Member of Strategic Planning Committee in Outreach & Innovation, 2016*
- * *Khalifa University, Coordinator for new 5-year BS-MS Programs, 2016*
- * *Khalifa University, Coordinator for new Minor in Architectural Engineering, 2016*
- * *Khalifa University, Coordinator for new Minor in Environmental Engineering, 2016*
- * *Khalifa University, Coordinator for new KU Museum of Science & Technology (Discovery Centre)*

- * *Univ. of Nevada Reno*, Co-Founder of *Nevada Advanced Autonomous Systems Innovation Center* (NAASIC) through NV Knowledge Fund Award (\$3 M) (2014)
- * *Univ. of Nevada Reno*, Coordinator for cooperation with *B&M Gates Foundation* (2014)
- * *Univ. of Nevada Reno*, Coordinator of new *International MS in Engineering Business* (2014)
- * *Univ. of Nevada Reno*, Envoy for Undergraduate Student Recruitment Mission in Middle East (2014)
- * *Univ. of Nevada Reno*, Coordinator for participation in National Network for Manufacturing Innovation (NNMI (2013-2014)
- * *Univ. of Nevada Reno*, Coordinator of cooperation with NV Discovery Museum (2013-2014)
- * *Univ. of Nevada Reno*, Coordinator for cooperation with Economic Development Authority of Western Nevada (EDAWN) (2013-2014)
- * *Univ. of Nevada Reno*, UNR Representative in NV Energy Awards Committee (2013-2014)
- * *Univ. of Nevada Reno*, Coordinator for ASME, SAE, SWE, EWB Student Chapters (2013-2014)
- * *University of Cyprus*, *Nanotechnology Research Center "Hephaistos"* (since 2006)
Founder and Director – established and represented *NRC Hephaistos* at UCY level.
- * *University of Cyprus*, *Development Planning Committee* (2003-04)
Representative of the School of Engineering.
- * *University of Cyprus*, *Science Committee for Secondary Education* (since 2003)
Representative of the School of Engineering.
- * *Government Agencies Technology Exchange for Manufacturing, GATE-M, NIST* (June 2003)
Representative of NSF.
- * *Nanoscale Science, Engineering & Technology Committee, White House* (2002-2003)
Representative of NSF.
- * *Interagency Metals Group* -Representative of NSF and Meeting Organizer (2002-2003).
- * *Tufts School of Engineering Academic Standing Committee* – ME Dept. Representative (2001)
- * *Massachusetts Education Board Examination Meetings* –Participant (2000)
- * *The Science Coalition (TSC) Visit to Congress* –Representative of Tufts University (1999)
- * *Tufts School of Engineering Curriculum Committee Chairman* (1994-1998)
- * *Tufts Liberal Arts and Jackson Curriculum Committee Chairman* (1995-98)
- * *Tufts Arts and Sciences Faculty Liaison Committee Member* (1995-98)
- * *Tufts Arts and Sciences Safety Committee Member, Representative of ME Department* (1994-1999)
- * *NYNEX Scholars Program Organizer, "Women in Science and Technology Initiative", Summer 1996.*
- * *GTE Foundation Growth Initiatives for Teachers (GIFT) Program Host, Summer 1994 & 1995*
- * *Tufts School of Engineering Strategic Planning Committee Member* (1993-94)
- * *Tufts Robotics Club Faculty Advisor* (1996-2000)
- * *Tufts Hellenic Student Association Faculty Advisor* (1994-97)
- * *Tufts Orthodox Christian Association Faculty Advisor* (1994-97)
- * *Tufts Chess Club Co-Founder (with Mr. Panayiotis Kamvysselis)* (1994)

COMMUNITY AND CIVIC SERVICE ACTIVITIES

- * *Abu Dhabi Education Council Research Evaluation Process for Higher Education Institutions (2016)*
Reviewer and editor of Research Evaluation Framework
- * *Emirates Global Aluminium (EGA) Center of Excellence*
Technical advisor on research topics
- * *State of Nevada Governor's Workforce Investment Board (GWIB) (2014)*
Member of Manufacturing Sector Council
- * *State of Nevada: Western Nevada Development District (WNDD)*
Member of Manufacturing Community Partnerships Strategy Board
- * *Hellenic Education Foundation "St. Anthony", Reno NV (2013-14)*
Instructor of Greek language and history
- * *Immigration & Naturalization Service, USA (since 2007)*
Referee for Outstanding Scientist Program applicants
- * *Archimedes Center for Innovation and Creation, Athens, Greece (since 2006)*
Vice President of educational institution for the youth.
- * *Cyprus Council for Accreditation of Study Titles-KYSATS (since 2005)*
Head of Engineering Committee.
- * *Ministry of Commerce, Industry and Tourism, Cyprus (since 2003)*
Evaluator of proposals for small business incubation.
- * *European Commission, 6th Framework Programme (2003-2005)*
National Contact Point (NCP) for thematic area of Nanotechnology (NMP) in Cyprus
- * *Council of Higher Education of Cyprus, Nicosia (2003-2005)*
Advisor of the Ministry of Education and Culture representing the University of Cyprus
- * *US-Greece Initiative for Technology Cooperation with the Balkans, Cambridge, MA (since 2003)*
Alternate Member, Representative of the US in ITCB Board
- * *National Science Foundation, DMII, Arlington, VA (FY 2003)*
Acting DMII Division Director on occasional dates.
- * *National Science Foundation, DMII, Arlington, VA (2001-2003 and 2006-2007)*
Founding Director of Nanomanufacturing Program- supervised awards of over \$100M.
- * *Archdiocesan Advisory Committee on Science and Technology, New York, NY (since 2001)*
Coordinator of Subcommittee on Natural Sciences and Modern Technologies.
- * *Institute for Byzantine and Modern Greek Studies, Belmont, MA- Vice President (since 1995)*
Member of the educational institution.
- * *Hellenic Institute of Bioethics, Athens, Greece (1994)*
Corresponding Member of the research institution.
- * *Hellenic Educational Center "Socrates", Cambridge, MA (1991-1992)*
Secretary of the Educational Board and Instructor.
- * *Children's Hospital, Boston, MA (1991-2000)*
Registered volunteer-interpreter of the *Hellenic Cardiac Fund for Children*.

PUBLICATIONS, DISSERTATIONS AND PATENTS

Patents:

- Doumanidis C, "Scan Welding Method and Apparatus",
U.S. Patent # 5,552,575, Tufts University, July 1996.
- Doumanidis C, Johnson N, "Rapid Prototyping Using Ultrasonic Metal Welding",
U.S. Patent # 6,450,393, Tufts University, June 1999.
- Doumanidis C, "Scanned Laser Annealing Turntables",
Appl. No. TPS01-78, Axcelis Technologies, December 2000.
- Tran H, Doumanidis C, "Variable Radii Cutter",
U.S. Patent # 6,908,267, June 2005
- Ando T, Doumanidis C, "Process of Forming a Composite Coating on A Substrate",
U.S. Patent 6,936,118, Northeastern University, Aug. 2005
- Ando T, Gunduz I.E, Wong P, Doumanidis C, "Vibratory Powder Consolidation"
Invention Disclosure NU-11-05, Northeastern University, Nov. 2005
- Doumanidis C, Ando T, Chen J, Rebholz C, "Nanoheater Elements, Systems and Methods of Use Thereof",
U.S. Patent 9,078,294, Univ. of Massachusetts Lowell, Jan. 2016
- Ando T, Gunduz I.E, Wong P.Y, Doumanidis C, "Full-Density Ultrasonic Power Consolidation", Provisional
Patent Application NU-739Aq800, Northeastern Univ, Feb. 2007.
- Ando T, Gunduz I.E, Wong P.Y, Doumanidis C, "Ultrasonic Fabrication Method of Metallic Nanoparticles",
Provisional Patent Appl. NU-884Xq800, Northeastern Univ, Feb. 2009
- Doumanidis C, Prodromou A, "Random Fractal Photoelectrode Structure and Process (Photodendron)", Invention
Disclosure ATD Nano Doc. 02 (EPO), ATD Nano, Jan. 2010
- Choulis S, Prodromou A, Doumanidis C, "Solar Nanofabric Architecture and Processing", Invention Disclosure
ATD Nano Doc. 03 (EPO), ATD Nano, Feb. 2010
- Drakonakis V, Doumanidis C, "Fractal Carbon Nanofiber Reinforced Composites", PCL/FREEDOM Invention
Disclosure, June 2011.

Book Chapters:

- Thermomechatronics: Mechatronic Systems and Guidance Techniques in Thermal Manufacturing
Process Control*, Chapter V in *Mechatronics*, C. Leondes Ed., Gordon and Breach 2000
- Modeling and Control of Thermal Processing of Materials*, Chapter in *Heat Transfer Handbook*,
A. Bejan, A.D. Kraus, R.N. Smith Ed, J. Wiley, New York NY, 2003.
- National Nanotechnology Initiative Workshop Report*, M. Roco Ed, NSF, Arlington, VA (2007)
- Fractal Nanomanufacturing: Multiscale Functional Material Architectures*, Chapter in *Nanotechnology Research
Directions for Societal Needs in 2020* (WTEC Nano2 Report), M. Roco Ed, NSF, Arlington, VA, 2011
- Thickness Measurement of Photoresist Thin Films Using Interferometry*, Chapter I8 in *Interferometry:
Research and Applications in Science and Technology*, InTech, w/ F. Kossivas and A. Kyprianou
(DOI: 10.5772/34983), 2012

Ph.D, M.S. and Diploma Theses:

- Doumanidis C, "Computational Simulation Method for Fusion Welding", Diploma Thesis, Dept. of
Mechanical Engineering, Aristotelian University of Thessaloniki, Greece, June 1983.

Doumanidis C, "Numerical Techniques for Designing Output Feedback and Robust Controllers", M.S. Thesis, Dept. of Mechanical & Nuclear Eng Northwestern University, Evanston, IL, June 1985

Doumanidis C, "Modeling and Control of Thermal Phenomena in Welding", Ph.D. Thesis, Dept. of Mechanical Eng, Massachusetts Institute of Technology, Cambridge, MA, January 1988

Best Paper Awards:

- * Fourligkas N, Doumanidis C, "Thermal Distribution Control in Scanned Processing of Materials", Best Student Paper Award, *Proc. of the ACC 1998*, Vol. 3, Philadelphia, PA, June 1998, p. 1360-64.
- * Doumanidis C, Kwak Y.M, "Geometry Modeling and Control by Infrared and Laser Sensing in Thermal Manufacturing with Material Deposition", ASME 2002 Blackall MT&G Award, *Journal of Manufacturing Science and Engineering* Vol. 123. No. 1, February 2001, p. 45-52
- * Alaeddine M et al, "Mesh-Free Modeling and Control of Thermal/Diffusion Fields Created by Nano-Sources", *Proc. 3rd Intl. Conf. on Nanomanufacturing ISNM2005 Best Paper Award*, Nov. 2005, p. 78-83
- * Fadenberger K, Gunduz I.E, Nahif F, Giannakopoulos K.P, Schmitt B, Schneider J.M, Mayrhofer P.H, Doumanidis C.C, and Rebholz C, "The effect of interface quality on Self Propagating Exothermic Reactions (SPER) in Ni-Al multilayer foils", *38th International Conference on Metallurgical Coatings and Thin Films – ICMCTF2011*, May 3, 2011, San Diego, Graduate Student Gold Medal Award Winner

Journal Articles:

- * Doumanidis C, "The Boundary Layer in Fusion Welding", *Mineral Wealth* 31, July-August 1984, p. 41-58
- * Doumanidis C, Hardt D, "A Model for In-Process Control of Thermal Properties During Welding", *ASME Journal of Dynamic Systems, Measurement and Control* Vol 111, March 1989, p.40-50
- * Doumanidis C, Hardt D, "Simultaneous In-Process Control of Heat-Affected Zone and Cooling Rate During Arc Welding", *Welding Journal Research Suppl.* Vol 69/5, May 1990, p. 186s-196s.
- * Doumanidis C, Hardt D, "Multivariable Adaptive Control of Thermal Properties During Welding", *ASME Journal of Dynamic Systems, Measurement and Control* Vol 113, March 1991, p. 82-92
- * Doumanidis C, "Quantitative Effect of Microstructural Defects in the Failure of Fusion Weldments", *Mineral Wealth* 72, May-June 1991, p. 49-60.
- * Doumanidis C, "Dynamic Model for Automated Control of Geometry in Weldments", *Mineral Wealth* 81, November-December 1992, p. 27-38.
- * Doumanidis C, "Lumped Multitorch Control of Welding During Production", *Trans. ASME, Journal of Engineering for Industry*, Vol. 116 No. 3, August 1994, p. 348-354.
- * Doumanidis C, "Multiplexed and Distributed Control of Automated Welding", *IEEE Control Systems*, Vol. 14 No. 4, August 1994, p. 13-24.
- * Doumanidis C, "Modeling and Control of Timeshared and Scanned Torch Welding", *ASME Journal of Dynamic Systems, Measurement and Control*, Vol. 116 No. 3, September 1994, p. 387-395.
- * Doumanidis C, "Adaptive Thermo-Geometrical Models for Simulation of Consumable-Electrode Welding", *Intl. Journal of Modelling and Simulation*, Vol. 14 No. 3, September 1994, p. 117-122.
- * Doumanidis C, "Thermomechanical Modeling and Testing of Scan Weldments", *Journal of the Mechanical Behavior of Materials*, Vol. 6 No. 1, May 1995, p. 1-10.
- * Doumanidis C, "Thermal Regulation of Material Transformations in Multiple-Source Arc Welding", *Welding Journal* 74 (6), June 1995, p. 185s-196s.
- * Doumanidis C, "Thermal Manufacturing Process Control by Lumped MIMO and Distributed-Parameter Methods", *Journal of Dyn. Syst, Measurement & Control*, Vol. 117 No. 4, Dec. 1995, p. 625-632.

- * Doumanidis C, Fourligkas N, "Distributed-Parameter Control of the Heat Source Trajectory in Thermal Materials Processing", *ASME Journal of Manuf. Science & Engineering*, Vol. 118/4, Nov. 1996, p. 571-578
- * Doumanidis C, "Simulation for Control of Sequential and Scanned Thermal Processing", *Intl. Journal of Modelling and Simulation*, Vol. 17/3, June 1997, p. 169-177.
- * Doumanidis C, "In-Process Control in Thermal Rapid Prototyping", *IEEE Control Systems*, Vol. 17 No. 4, August 1997, p. 46-54.
- * Doumanidis C, "Thermal Modeling and Adaptive Control of Scan Welding", *Welding Journal*, Vol. 77 (11), November 1998, p. 465s-475s.
- * Doumanidis C, "Robust Multivariable Control and Simulation of Time-Varying Thermal Manufacturing Processes", *Intl. Journal of Modelling and Simulation*, Vol. 18/4, December 1998, p. 324-332
- * Doumanidis C, "Sampled Weighted Attraction Control of Distributed Thermal Scan Welding", *Kybernetika*, Vol. 35 #1, February 1999, p. 117-132.
- * Doumanidis C, Fourligkas N, "In-Process Optimization of Thermal Eigenvalues in Modern Manufacturing Process Modelling", *Journal of Math. Modelling and Sci. Computing*, February 1999 (electronic).
- * Korizis G, Doumanidis C, "Scan Welding: Thermal Modeling and Control of Material Processing", *ASME J. of Manufacturing Science & Eng.*, Vol. 121 No. 3, August 1999, p. 417-424.
- * Fourligkas N, Doumanidis C, "Temperature Field Regulation in Cutting for Layered Manufacturing", *ASME J. of Manufacturing Science & Eng.*, Vol. 121 No. 3, August 1999, p. 440-447.
- * Sfetsos H, Angelis J, Doumanidis C, "Scanned Orbital Welding: Thermal Modeling and Lumped Adaptive Control", *ASME J. of Pressure Vessel Technology*, Vol. 121 No. 4, November 1999, p. 393-399.
- * Kwak Y.M, Doumanidis C, "Geometry Modeling and Regulation in Restorative Welding of Surface Cavities", *ASME PVP Div. Publ. ASME*, Vol. 396, 1999, p. 241-248
- * Doumanidis C, Skoreli E., "Distributed Parameter Modeling for Geometry Control of Manufacturing Processes with Material Deposition", *ASME J. of Dyn. Systems, Meas. and Control*, Vol. 112 No. 1, March 2000, p. 71-77
- * Doumanidis C, Skordeli E, "Optimizing Geometrical Control of Surface Distributions in Rapid Prototyping Deposition", *European Journal of Control*, Vol 6. No 3, August 2000, p. 33-41
- * Doumanidis C, Kwak Y.M., "Geometry Modeling and Control by Infrared and Laser Sensing in Thermal Manufacturing with Material Deposition", *ASME Journal of Manufacturing Science and Engineering* Vol. 123. No. 1, February 2001, p. 45-52 (*ASME 2002 Blackall MT&G Award*)
- * Doumanidis C, Fourligkas N, "Temperature Distribution Control in Scanned Thermal Processing of Thin Circular Parts", *IEEE Trans. on Control Systems Technology*, Vol. 9 No. 5, Sept. 2001, p. 708-717.
- * Hardjadinata G, Doumanidis C, "Rapid Prototyping by Laser Foil Bonding and Curing: Thermomechanical Modeling and Process Optimization", *SME J. of Manufacturing Processes*, Vol. 3. No. 2, 2001, p. 108-119.
- * Doumanidis C, "Scan Welding: Thermal Modelling for Microstructure Control", *IOM Communications – Mathematical Modelling of Weld Phenomena* 5, 2001, p. 767-787
- * Gao Y, Doumanidis C, "Mechanical Analysis of Ultrasonic Bonding for Rapid Prototyping", *ASME J. of Manufacturing Science & Engineering*, Vol. 124 No. 2, May 2002, p. 426-434.
- * Doumanidis C, Kwak Y.M., "Multivariable Adaptive Control of the Bead Profile Geometry in GMAW with Thermal Scanning", *Intl J. of Pressure Vessels and Piping* Vol 79 No 4, Elsevier 2002, p. 251-262.
- * Kwak Y.M, Doumanidis C, "Geometry Regulation of Material Deposition in Near-Net Shape Manufacturing by Thermally Scanned Welding", *SME J. of Manufacturing Processes*, Vol. 4 No. 1, 2002, p. 28-41.
- * Doumanidis C, "The Nanomanufacturing Programme at the National Science Foundation", *Nanotechnology* 13, No. 3 Institute of Physics Publ. 2002, p. 248-252.

- * Komanduri R, Chen J, Malshe A, Doumanidis C, Rajurkar K, “NSF-EC Workshop on Nanomanufacturing and Processing: A Summary Report”, *Proc. Of SPIE* Vol. 4936, 2002, p. 446-454.
- * Lind R, Doumanidis C, “Active Deformable Sheets: Prototype Implementation, Modeling and Control”, *SPIE J. of Optical Eng.*, Vol. 42 No. 2, Feb. 2003, p. 304-316
- * Demetriou M.A, Pakaleva A, Vayena O, Doumanidis C, “Scanning Actuator Guidance Scheme in a 1-D Thermal Manufacturing Process”, *IEEE Trans. Control Systems Technology* Vol. 11, No. 5, p. 757-764, 2003
- * Doumanidis C, Gao Y, "Mechanical Modeling of Ultrasonic Welding", *AWS Welding Journal* Vol 83. No. 4, 2004, p. 140s-146s.
- * Alaeddine M, Doumanidis C, "Distributed Parameter Thermal Controllability: a Numerical Method for Solving the Inverse Heat Conduction Problem", *Intl J. for Numerical Methods in Eng*, Vol. 59, 2004, p. 945-961.
- * Alaeddine M, Doumanidis C, “Distributed Parameter Thermal System Control and Observation by Green-Galerkin Methods”, *Int. J. for Numer. Meth. Engng*, Vol 61, 2004, p. 1921-1937
- * Alaeddine M, Ranganathan R, Ando T, Doumanidis C, “Modeling the Melting and Dissolution Stages During Thermal Processing of Intermetallic Coatings from Layered Precursors”, *Trans. ASME, J. Of Manuf. Sci. & Eng*, Vol. 127, 2005, p. 148-156
- * Doumanidis C, “Nanomanufacturing: Technical Advances, Research Challenges, and Future Directions”, *IMEchE J. of Nanoeng. & Nanosystems*, Vol. 219 Part N, 2005, p. 1-20 (invited paper)
- * Gunduz I.E, Ando T, Shattuck E, Wong P, Doumanidis C, “Enhanced Diffusion and Phase Transformations During Ultrasonic Welding of Zinc and Aluminum”, *Elsevier Scripta Materialia* Vol. 52, 2005, p. 939-943
- * Vayena O, Ranganathan R, Ando T, Doumanidis C, "Welding Methods for Production of MMC Coatings using Particulate-Cored Wire Precursors by Welding Methods", *SME Journal of Manufacturing Processes* Vol. 7, No.2, 2005, p. 1-10.
- * Doumanidis C, Kassinos S, “The Role of Cyprus in the World of Nanotechnology”, *Endeiktes* Vol. 14, Dec. 2005, p. 52-57 (in Greek)
- * Yadav S, Doumanidis C, “Thermomechanical Analysis of an Ultrasonic Rapid Manufacturing (URM) System”, *SME J. Of Manuf. Processes*, Vol. 7 No. 2, 2005, p. 153-161
- * Alaeddine M, Ranganathan R, Ando T, Doumanidis C, “Modeling the Intermetallic Coating Growth During Reactive Thermal Processing of Layered Precursors”, *J. of Surface Coatings Technology* (Elsevier), Vol. 200, p. 5181-5192, 2006
- * Alaeddine M, Ranganathan R, Ando T, Doumanidis C, “Thermal Modeling and Control in Production of Intermetallic Coatings from Layered Precursors”, *Trans. ASME J. of Dynamic Systems, Measurement and Control* Vol. 129, 2007, p. 56-65
- * Constandinou T.G, Georgiou J, Doumanidis C, Toumazou C, “Towards and Implantable Vestibular Prosthesis: The Surgical Challenges”, *IEEE Trans. On Biomedical Engineering*, Vol. XX, 2007, p. 1-8
- * Doumanidis C, Durham D, “Editorial: Micro-/Nano-Technology Special Issue”, *Journal of Computer Aided Design* (Elsevier), Vol. 1268, 2007, p. 1-2
- * Kokonou M, Rebholz C, Giannakopoulos K.P, Doumanidis C, “Fabrication of nanorods by metal evaporation inside the pores of ultra-thin porous alumina templates”, *Nanotechnology* 18 (2007) art.no.495604 (5 pages).
- * Kyprianou A, Loukaides N, Polydorides N, Georgiou G.E, Charalambous C.D, Doumanidis C, “Stochastic Control of Nanoparticle Manipulation Using Electric Fields”, *Int. J. of Nanomanufacturing*, Vol.1, No. 6, 2007, p. 751-761
- * Doumanidis C, “Nanomanufacturing: Research Challenges and Opportunities for Cyprus”, *Pergamene* 2008.
- * Kokonou M, Rebholz C, Giannakopoulos K.P, Doumanidis C.C, “Low aspect-ratio porous alumina templates”, *Microelectronic Engineering* 85 (2008), 1186-1188.

- * Gunduz I.E, Fadenberger K, Kokonou M, Rebholz C, Doumanidis C.C, “Investigations of the self propagating reactions of nickel and aluminum multilayer foils”, *Applied Physics Letters* Vol.93, 134101, 2008.
- * Polychronopoulou K, Rebholz C, Baker M.A, Theodorou L, Demas N, Hinder S.J, Polycarpou A.A, Doumanidis C.C, Böbel K, “Nanostructure, mechanical and tribological properties of reactive magnetron sputtered TiC_x coatings”, *Diamond and Related Materials*, Vol 17, 2008, p. 2054-2061.
- * Gunduz I.E, Fadenberger K, Kokonou M, Rebholz C, Doumanidis C.C, Ando T, “Modeling of the self propagating reactions of nickel and aluminum multilayered foils”, *J of Applied Physics* 105, 1 (2009).
- * Kokonou M, Giannakopoulos K.P, Gunduz I.E, Fadenberger K, Rebholz C, Doumanidis C.C, “Reactive Bimetallic Al/Ni Nanostructures for Nanoscale Heating Applications Fabricated Using a Porous Alumina Template”, *Microelectronic Engineering* 86 (2009), p. 836-839
- * Doumanidis C, “Nanomanufacturing of Random Branching Material Architectures”, *J. of Microelectronic Engineering* 86 (2009), p. 467-478
- * Christoforou T, Doumanidis C, “Biodegradable Cellulose Acetate Nanofiber Fabrication via Electrospinning”, *J. of Nanoscience & Nanotechnology* Vol 10, 1-8, 2010.
- * Christofidou A, Viskadourakis Z, Doumanidis C.C, “Structural, Magnetic and Dynamic Mechanical Analysis of Magnetic Nanocomposite Foils by Polymer Ultrasonic Welding”, *J. on Nano Research* Vol. 10, p. 39-47, April 2010
- * Ioannou Y, Fyrrillas M.M, Polychronopoulou K, Doumanidis C.C, “Analytical Model for Geometrical Characteristics Control of Laser Sintered Surfaces”, *Intl. J. of Nanomanufacturing*, Vol. 6, No.1-4, 300-311, 2010.
- * Fadenberger K, Gunduz I.E, Tsotsos C, Kokonou M, Gravani S, Brandstetter S, Bergamaschi A, Schmitt B, Mayrhofer P.H, Doumanidis C.C, Rebholz C, “In-situ Observation of Rapid Reactions in Nanoscale Ni-Al Multilayer Foils Using Synchrotron Radiation”, *Applied Physics Letters* Vol. 97 No. 1, 144101 (2010)
- * Gravani S, Polychronopoulou K, Cui Q, Gibson P.N, Hinder S.J, Chen Y, Gu Z, Doumanidis C.C., Baker M.A, Rebholz C, “Growth and characterisation of ceria thin films and Ce-doped γ -Al₂O₃ nanowires using sol-gel techniques”, *Nanotechnology* 21 (2010) 465606
- * Hadjiafxenti A, Gunduz I.E, Tsotsos C, Kyratsi T, Aouadi S.M, Doumanidis C.C, Rebholz C, “The Influence of Structure on Thermal Behavior of Reactive Al-Ni Powder Mixtures Formed by Ball Milling”, *J. of Alloys and Compounds*, Vol. 505, p. 467–471, 2010
- * Hadjiafxenti A, Gunduz I.E, Tsotsos C, Kyratsi T, Aouadi S.M, Doumanidis C.C, Rebholz C, “Synthesis of Reactive Al/Ni Structures by Ball Milling” (A. Hadjiafxenti et al.), *Intermetallics* 18 (2010), p. 2219-2223
- * Paul K.B, Athanasopoulos G.I, Doumanidis C.C, Rebholz C, “Growth and Characterization of Ge_{100-x}Dy_x (x<2) Nanowires”, *Advances in Condensed Matter Physics* Vol. 2010, article ID 107192 (6 pages), 2010.
- * Drakonakis V.M, Velisaris C.N, Seferis J.C, Doumanidis C.C, Wardle B.L, Papanicolaou G.C, “Matrix Hybridization in the Interlayer for Carbon Fiber Reinforced Composites”, *Polymer composites*, DOI: 10.1002/pc.20996, May 2010.
- * Drakonakis, V.M., and Seferis, J.C., Wardle B. L., Nam, J.D., Papanicolaou, G.C., Doumanidis C. C, “Kinetic Viscoelasticity Modeling Applied to Degradation during Carbon-Carbon Composite Processing,” *Acta Astronautica Journal*, Glasgow Edition Vol 66, Issues 7-8, April-May 2010, p. 1189-1200.
- * Drakonakis V. M, Seferis J. C, Wardle B. L, Nam J. D., Papanicolaou G. C, Doumanidis C.C, “Analysis of Carbon Carbon Pyrolytic Processes through Kinetic Viscoelastic Modeling,” *Journal of Advanced Materials*, Vol. 43, Issue 1, 2011
- * Pillai K.S, Hadjiafxenti A, Ando T, Doumanidis C.C, Rebholz C, “Ultrasonic Consolidation and Ignition Characteristics of Thermite Composites”, *Intl. J. of Applied Ceramic Technology* , 9 (1), 2012, p. 206-213 DOI:10.1111/j.1744-7402.2011.02655.x

- * Roushia K, Polychronopoulou K, Doumanidis C.C, “Ultrasonic Corrosion-Anodization: Electrochemical Cell Design and Process Range Testing”, *J. of Surface Engineered Materials & Advanced Technology* 2, 2012, p. 1-10, DOI: 10.4236/jsemat.2012.21001
- * Ioannou Y, Fyrrillas M.M, Doumanidis C, “Approximate solution to Fredholm integral equations using linear regression and applications to heat and mass transfer”, *Engineering Analysis with Boundary Elements* 36, p. 1278-83, 2012
- * Stylianopoulos T, Kokonou M, Michael S, Tryfonos A, Rebholz C, Odysseos A.D, Doumanidis C.C, “Tensile Mechanical Properties and Hydraulic Permeabilities of Electrospun Cellulose Acetate Fiber Meshes”, *J Of Biomedical Materials Research, Part B: Applied Biomaterials* (2012), DOI: 10.1002/jbm.b.32791
- * Gu Z, Cui Q, Chen J, Buckley J, Ando T, Erdeniz D, Wong P, Hadjiafxenti A, Epameinonda P, Gunduz I.E, Rebholz C, Doumanidis C, “Fabrication, Characterization and Applications of Novel Nanoheater Structures”, *Surface Coatings and Technology* 215 (2013), p. 493-502
- * Kokonou M, Ioannou G, Rebholz C, Doumanidis C, “Polymeric Nanowires and Nanopillars Fabricated by Template Wetting”, *Journal of Nanoparticle Research* 15:1552 (2013), DOI 10.1007/s11051-013-1552-2
- * Drakonakis V.M, Seferis J.C, Doumanidis C.C, “Curing Pressure Influence on Out-Of-Autoclave Processing of Composites for Commercial Aviation”, *Advances in Materials Science and Engineering* 356824 (2013), <http://dx.doi.org/10.1155/2013/356824>
- * Hadjiafxenti A, Gunduz I.E, Doumanidis C.C, Rebholz C, “Exothermic Reaction Characteristics of Continuously Ball-Milled Al/Ni Powder Compacts”, *Vacuum* 96 (2013), p. 73-78.
- * Drakonakis V. M.; Velisaris C. N.; and J. C. Seferis; C. C. Doumanidis; “Feather Inspired Strong Light Layered Composites”, *Invited Publication - SPE Plastics Research Online - Plastics Nanotechnology*, 10.2417/spepro.005640, Online Dec. (2014)
- * Drakonakis V. M.; Velisaris C. N.; and J. C. Seferis; C. C. Doumanidis; “Feather-Inspired Carbon Fiber Reinforced Polymer with Nanofibrous Fractal Interlayer”, *Polymer Composites Journal*, DOI: 10.1002/pc.23168, Online Aug.(2014)
- * Hadjiafxenti A, Gunduz I.E, Doumanidis C.C, Rebholz, C., “Spark ignitable ball milled powders of Al and Ni at NiAl composition”, *Vacuum* 101 (2014), p. 275-278
- * Gunduz I.E, Kyriakou A, Vlachos N, Kyratsi T, Doumanidis C.C, Son S, Rebholz C, “Spark ignitable Ni-Al ball milled powders for bonding applications”, *Surface and Coatings Technology* July 2014; <http://dx.doi.org/10.1016/j.surfcoat.2014.06.068>).
- * Sofokleous K, Ogin S.L, Tsakiroopoulos P, Drakonakis V, Doumanidis C, “Controlled Impact Testing of Woven Fabric Composites With and Without Reinforcing SMA Wires”, *Journal of Composite Materials* vol. 48 no. 30 3799-3813, Nov. 2014
(<http://jcm.sagepub.com/content/early/2013/12/12/0021998313514253.abstract>)
- * Rebholz, C., Gunduz, I.E., Ando T. and Doumanidis, C.C., “Miniature Thermal Matches: From Nanoheaters to Reactive Fractals”, *Materials Research Express* 2 (2015) 045009 (8 pages)
- * Drakonakis V. M.; Aureli M.; Seferis J.C; Doumanidis C.C; “Modulus-Density Negative Correlation for CNT-Reinforced Polymer Nanocomposites: Modeling and Experiments”, *Composites Part B: Engineering*, Volume 70,1 March (2015), Pages 175–183
- * Gunduz, I.E., Onel, S., Doumanidis, C.C., Rebholz, C. and Son, S, “Simulations of Nanoscale Ni/Al Multilayer Foils with Intermediate Ni₂Al₃ Growth”, *Journal of Applied Physics* 117 (2015) 214904 (6 pages).
- * Woll, K., Gunduz, I.E., Pauly, C., Doumanidis, C.C., Son, S.F., Rebholz, C. and Mücklich, F, “Numerical Modeling of Self-Propagating Reactions in Ru/Al Nanoscale Multilayer Foils”, *Applied Physics Letters* 107 (2015) 073103 (5 pages).
- * Doumanidis, C.C., Gunduz, I.E., Rebholz, C. and Doumanidis, C.C., “Real-time Computational Model of Ball-

Milled Fractal Structures”, *ASME J. of Nanotechnology Eng. & Med.* 6(3), 2016, 031001
(<http://nanoengineeringmedical.asmedigitalcollection.asme.org/article.aspx?articleid=2428190>)

- * Doumanidis C.C, “A Prelude to Fractal Engineering and Biomedicine” (Editorial), *ASME J. of Nanotechnology Eng. Med.* 6 (4), 2016, 040201
- * Doumanidis, C.C; Al Kaabi, H.A; Alzaabi, A.S.M; Gunduz, I.E; Rebholz, C; Doumanidis, C.C; “Brownian-like Kinematics of Ball Milling for Particulate Structural Modeling”, *Powder Technology* 301 (2016) p. 1077-1084
- * Aureli M, Doumanidis C.C, Gunduz I.E, Hussien A.G, Liao Y, Rebholz C, Doumanidis C.C, “Mechanics and Energetics Modeling of Ball-Milled Metal Foil and Particle Structures”, *Acta Materialia* 123 (2016), p. 305-316
- * Sofokleous, K, Ogin, S.L; Drakonakis, V; Doumanidis, C.C; “The Influence of Carbon Nanotubes and SMA Wires to Controlled Impact Resistance of Polymer Composites”, *J. of Composite Materials Part A*, Vol. 51 (2), p. 273-285, 2017
- * Farzanah K.H.H, Hassan M.O.M, Al Muhairi R.A.S, Rebholz C, Gunduz I.E, Doumanidis C.C, “Mechanics Science-Enabled Nanoheater Multi-Layer Materials Manufactured by Ball Milling”, *MRS Advances* Vol. 2, Issue 16, 2017, p. 897-904
- * Tzitzios V, Kostoglou N, Giannouri M, Basina G, Tampaxis C, Charalambopoulou G, Steriotis T, Polychronopoulou K, Doumanidis C.C, Mitterer C, Rebholz C, “Solvothetmal Synthesis, Nano-structural Characterization and Gas Cryo-Adsorption Studies on a Metal-Organic Framework (IRMOF-1) Material”, *Intl. J. of Hydrogen Energy* (2017), 1-9
- * Kostoglou N, Koczwara C, Prehal C, Terziyska V, Babic B, Matovic B, Constantinides G, Tampaxis C, Charalambopoulou G, Steriotis T, Hinder S, Baker M, Polychronopoulou K, Doumanidis C, Paris O, Mitterer C, Rebholz C, “Nanoporous Activated Carbon Cloth as a Versatile Material for Hydrogen Adsorption, Selective Gas Separation and Electrochemical Energy Storage”, *Nano Energy* 40 (2017), 49-64
- * Hussien A, Alzaabi A.S, Baswaid A.K, Al Mulla M.A, Al Ammari N, Al Jarwan A, Jaffar S.M, Stefanini C, Renda F, Rebholz C, Doumanidis C.C, “Nanoheater Underwater Robotic Welding for Marine Construction and Manufacturing”, *Intl J. of Techn. & Eng. Studies* Vol. 3 (5), 2017, DBE-217-104.
- * Aureli M, Doumanidis C.C, Gunduz I.E, Hussien A.G.S, Liao Y, Jaffar S.M, Rebholz C, Doumanidis C.C, “Non-equilibrium microscale thermomechanical modeling of bimetallic particulate fractal structures during ball milling fabrication” *J. of Applied Physics* 122(2), 025118 (2017)
- * Kostoglou N, Gunduz I.E, Isik T, Ortalan V, Constantinides G, Kontos A.G, Steriotis T, Ryzhkov V, Bousser E, Matthews A, Doumanidis C, Mitterer C, Rebholz C, “Novel Combustion Synthesis of Carbon Foam Aluminum Fluoride Nanocomposite Materials”, *Materials and Design* 144 (2018), 222-228
- * Zhang Z, Nian Q, Doumanidis C.C, Liao Y, “First-Principles Modeling of Laser-Matter Interaction and Plasma Dynamics in Nanosecond Pulsed Laser Shock Processing”, *J. of Applied Physics* 123 (5), 054901, 2018
- * Hussein A, Alkhoori A, Al Zaabi A, Stefanini C, Renda F, Jaffar S, Gunduz I.E, Polychronopoulou K, Rebholz C.G, Doumanidis C.C, “Underwater Robotic Welding of Lap Joints with Sandwiched Reactive Multilayers: Thermal, Mechanical and Materials Analysis”, *MRS Advances* vol. 3, no. 17, pp. 911-920, 2018
- * Aureli M, Doumanidis C.C, Gunduz I.E, Hussien A.G.S, Liao Y, Kostoglou N, Rebholz C, Doumanidis C.C, “Bimetallic Diffusion Modeling and Temperature Regulation During Ball Milling”, *Materials and Design* 155, pp. 233-243, 2018
- * Aureli M, Alzaabi A, Hussien A, Doumanidis C, Jaffar S, Gunduz I, Rebholz C, Kostoglou N, Liao Y, Doumanidis C.C, “Thermostructural Observation and Adaptive Control of Fractal Structure in Ball-Milled Materials”, *Materials and Design* 160, 772-782, 2018.

- * Kostoglou N, Ryzhkov V, Walter I, Doumanidis C, Rebholz C, Mitterer C, "Arc-produced short-length multi-walled carbon nanotubes as "millstones" for the preparation of graphene-like nanoplatelets", *Carbon* 146 (2019), p. 779-784
- * Fyrillas M.M, Ioannou Y, Papadakis L, Rebholz C, Matthews A, Doumanidis C.C, "Phase Change with Density Variation and Cylindrical Symmetry: Application to Selective Laser Melting", *J. Manuf. Mater. Process.* 2019, 3, 62; doi:10.3390/jmmp3030062
- * Aureli M, Doumanidis C, Hussien A.G.S, Jaffar S.M, Jaffar S.M, Kostoglou N, Liao Y, Rebholz C, Dumanidis C.C, "Multivariable Control of Ball-Milled Reactive Material Composition and Structure", *J. of Manufacturing Processes* 53 (Elsevier), p. 238-249 (May 2020)
- * Ioannou Y, Fukuda H, Fyrillas M, Rebholz C, Liao Y, Ando T, Doumanidis C.C, "Constrained Crystal Growth During Solidification of Particles and Splats in Uniform Droplet Sprays", *Intl. J. of Advanced Manufacturing Technology* 107 (Springer), p. 1205-21 (2020)
- * Soliman A, Alamoodi N, Polychronopoulou K, Karanikolos G.N, Doumanidis C.C, "3-D Printing on Catalysis and Adsorption: Case Studies on Reforming Reactions and CO₂ Capture", *MDPI Nanomaterials: Recent Advances in Nanomaterials for Energy & Catalysis*, 10, 2198, 2020 (doi:10.3390/nano10112198)
- * Kostoglou N, Tampaxis C, Charalambopoulou G, Constantinides G, Ryzhkov V, Doumanidis C, Matovic B, Mitterer C, Rebholz C, "Boron Nitride Nanotubes versus Carbon Nanotubes: A Thermal Stability and Oxidation Behavior Study", *MDPI Nanomaterials* 10, 2435, 2020 (doi: :10.3390/nano10122435)
- * Jaffar S.M, Kostoglou N, Fukuda H, Rebholz C, Ando T, Doumanidis C.C, "Additive Manufacturing of Magnesium Alloy Using Uniform Droplet Spraying: Modeling of Microstructure Evolution", *MRS Advances*, February 2021 (accepted)

Articles in Conference Proceedings:

- * Doumanidis C, Hale M, Hardt D, "Multivariable Control of Arc Welding Processes", *Advances in Welding Science and Technology*, ASM International, Gatlinburg TN, May 1986, p. 449-460.
- * Doumanidis C, "Real-Time Control of Thermally Activated Weldment Properties", *The Science and Control of Welding and Joining Processes*, MPC-LMP/MIT, Cambridge Ma, October 1986, p. 7
- * Doumanidis C, Hardt D, "A Model for Real-Time Control of Weld Material Properties", *Modeling, Sensing and Control of Manufacturing Processes*, ASME PED-Vol. 23/DSC-Vol. 4, Anaheim, Ca, December 1986, p. 143-163.
- * Doumanidis C, Hardt D, "Thermal Modeling and Control in Welding Processes", *Thermal Aspects in Manufacturing*, ASME PED-Vol. 30, Chicago Il, December 1988, p. 47-62.
- * Doumanidis C, Hardt D, "Multivariable Adaptive Control of Thermal Properties During Welding", *Control Methods for Manuf. Processes*, ASME DSC-Vol. 9, Chicago Il, December 1988, p. 1-12.
- * Hardt D, Doumanidis C, Hale M, "Non-Linearities in Welding System Dynamics", *Advances in Welding Science and Technology*, ASM Intl, Gatlinburg TN, May 1989, p. 138-145.
- Doumanidis C, Fourligkas N, "Systems for Excitation and Active Damping of Structural Vibrations", *Manufacturing Processes and Machine Dynamics*, Thessaloniki, November 1990, p. 272-292.
- * Doumanidis C, "GMAW Weld Bead Geometry: A Lumped Dynamic Model", *3rd International Conference on Trends in Welding Research*, ASM Intl, Gatlinburg TN, June 1992, p. 63-67.
- * Doumanidis C, "Hybrid Modeling for Control of Weld Pool Dimensions", *ASME 1992 Japan-USA Symposium on Flexible Automation*, San Francisco CA, July 1992, p. 317-323.
- * Doumanidis C, "Analytical-Numerical Simulation and Experimental Identification of Welding Processes", *Pacific Rim Intl. Conference on Modelling, Simulation and Identification*, ISMM-IASTED, Vancouver Canada, August 1992, p. 144-147.

- * Marquis B, Doumanidis C, "Distributed-Parameter Simulation of the Scan Welding Process", *IASTED Intl. Conf. on Modelling and Simulation*, Pittsburgh, PA, May 1993, p. 146-149.
- * Doumanidis C, "Distributed-Parameter Simulation and Control of Scan Welding", *Summer Computer Simulation Conference*, Boston, Mass, July 1993, p. 794-799.
- * Doumanidis C, "Eulerian Multiple Source Simulation of Serial Fusion Manufacturing Processes", *IASTED Intl. Conference on Applied Modelling and Simulation*, Vancouver, July 1993, p. 71-74.
- * Doumanidis C, "Multiplexed Virtual Torch and Distributed-Parameter Control of Automated Welding", *2nd IEEE Conference on Control Applications*, Vancouver, September 1993, p. 33-40.
- * Doumanidis C, "Lumped Multitorch Control of Welding During Production", *ASME WAM, Manuf. Science and Engineering*, PED-Vol. 64, N. Orleans, November 1993, p. 919-925.
- * Doumanidis C, "Scan Welding: A New Distributed Thermal Process", *AWS International Conference on Modeling and Control of Joining Processes*, Orlando FL, December 1993, p. 273-280.
- Doumanidis C, "Scan Welding: A Parallel Distributed Processing Technique", *1994 NSF Design and Manufacturing Grantees Conference*, MIT, Cambridge, MA, January 1994, p. 541-542.
- * Doumanidis C, "Real-Time Torch Trajectory Control in Thermal Manufacturing Processes", *ASME Workshop on Advanced Motion Control*, Berkeley, CA, March 1994, p. 1071-1080.
- * Doumanidis C, Marquis B, "In-Process Monte-Carlo Methods for Simulation and Control in Thermal Manufacturing", *IASTED Intl. Conf. on Model. & Simulation*, Pittsburgh, PA, May 1994, p. 421-4
- * Doumanidis C, "Scanned Orbital Welding: Thermal Simulation and Distributed-Parameter Control", *IASTED Intl. Conf. on Model, Sim. & Control in Process Industry*, Ottawa, May 1994, p. 124-7
- * Fourligkas N, Marquis B, Doumanidis C, "Thermal Analysis for Control of Orbital Welding of Pipes", *ASME Pressure Vessels and Piping Conference*, Minneapolis, Minnesota, June 1994, p. 101-107.
- * Fourligkas N, Doumanidis C, "Distributed-Parameter Control of Automated Welding Processes", *IEEE 2nd Mediterranean Symp. New Directions in Control & Automation*, Chania, GR, June 1994, p. 113-9
- * Doumanidis C, "Thermal Process Control by Lumped and Distributed-Parameter Methods", *ASME Japan-USA Symposium on Flexible Automation*, Kobe, Japan, July 1994, p. 1393-1400.
- * Marquis B, Doumanidis C, "Distributed-Parameter Simulation of Serial and Parallel Fusion Manufacturing Processes", *ASME Japan-USA Symp. on Flexible Automation*, Kobe, Japan, July 1994, p. 1425-30
- * Doumanidis C, "Real-Time Simulated Annealing Techniques for Motion Control in Manufacturing Processes", *1994 Summer Computer Simulation Conference*, La Jolla CA, July 1994, p. 613-618.
- * Doumanidis C, Fourligkas N, Marquis B, "Thermal Modeling and Control of the Scan Welding Process", *Manufacturing Science and Engineering*, ASME PED 68-1, Chicago IL, Nov 1994, p. 353-359.
- * Doumanidis C, "Material Structure and Properties Distribution Control in Scan Welding", *Dynamic Systems and Control 1994*, ASME DSC Vol. 55-2, Chicago IL, Nov. 1994, p. 915-922.
- * Doumanidis C, "Thermal Analysis of the Solid-Melt Interface in Scan Welding", *Transport Phenomena in Solidification*, ASME HTD Vol. 284/AMD Vol. 182, Chicago IL, Nov. 1994, p. 145-152.
- * Doumanidis C, Fourligkas N, "Thermal Modeling and Adaptive Control of Timeshared and Scanned Torch Welding", *Dynamic Systems & Control*, ASME DSC 55-2, Chicago IL, Nov. 1994, p. 835-842.
- * Doumanidis C, "Scan Welding: Distributed Control of Material Structure and Properties", *Dynamic Systems and Control 1994*, ASME DSC Vol. 55-2, Chicago IL, Nov. 1994, p. 1055-1061.
- * Doumanidis C, "In-Process Thermal Control of Scan Welding", *Thermal Processing of Materials*, ASME HTD-Vol. 289, Chicago IL, November 1994, p. 99-106.
- * Doumanidis C, "Thermal Modeling and Adaptive Control of the Scan Welding Process", *Adaptive Structures and Composite Materials*, ASME AD-Vol. 45/MD-Vol. 54, Chicago IL, November 1994, p. 175-182.

- Doumanidis C, "Scan Welding: Thermomechanical Analysis and Controller Design", *NSF Design and Manufacturing Grantees Conference*, La Jolla CA, January 1995, p. 413-414.
- * Doumanidis C, "Distributed-Parameter Identification for Thermal Control of Scan Welding", *1st World Congress on Intelligent Manufacturing Processes and Systems*, Feb. 1995, Puerto Rico, p. 1033-42
- * Doumanidis C, "Thermal Identification for Control of the Scan Welding Process", *ASME/JSME Thermal Engineering Joint Conference*, Vol. 4, Hawaii, March 1995, p. 151-158.
- * Doumanidis C, "Robust Multivariable Control and Simulation of Time-Varying Thermal Manufacturing Processes", *IASTED Intl. Conf. on Modelling and Simulation*, Pittsburgh, PA, Apr. 1995, p. 430-433
- * Fourligkas N, Doumanidis C, "Scan Welding: Thermomechanical Model and Experimental Validation" *4th Intl. Conference on Trends in Welding Research*, ASM, Gatlinburg, TN, June 1995, p. 745-750.
- * Doumanidis C, Fourligkas N, "Scan Welding: A Parametric Analysis of Thermal Characteristics" *4th Intl. Conference on Trends in Welding Research*, ASM, Gatlinburg, TN, June 1995, p. 751-756.
- * Doumanidis C, "Thermally Optimal Design by Simulation of Scanned Materials Processing Methods" *IASTED Intl. Conf. on Applied Model. Simul. & Optimization*, Cancun Mexico, June 1995, p. 145-8.
- * Doumanidis C, "Automated Guidance of the Heat Source Motion in Robotic Thermal Materials Processing", *IASTED Intl. Conf. on Robotics and Manufacturing*, Cancun, Mexico, June 1995, p. 297-300.
- * Doumanidis C, "Heat Treatment Control by Polytope Methods" *1995 American Control Conference*, Seattle, Washington, June 1995, p. 1275-79.
- * Doumanidis C, "Real-Time Optimization of Thermal Eigenstructure in Manufacturing Process Modelling and Control", *10th Intl. Conf. on Math. & Comp. Model. & Sci. Comp*, Boston, MA, July 1995, p. 123
- * Doumanidis C, Fourligkas N, "Distributed-Parameter Process Control in Thermal Rapid Prototyping", *IEEE 3rd Mediter. Symp. on New Directions in Control & Automation*, Limassol, July 1995, p.
- * Doumanidis C, Fourligkas N, "Thermal Design of Material Quality in Rapid Prototyping Techniques", *ASME 1995 Design Eng. Technical Conference*, DE-Vol. 82 #1, Boston, MA, September 1995, p. 203-209.
- * Doumanidis C, Fourligkas N, "Distributed-Parameter Design of Virtual-Source Thermal Processing Methods", *ASME Design Eng. Tech. Conference*, DE-Vol. 82 #2, Boston, MA, September 1995, p. 817-823.
- * Doumanidis C, Marquis B, "Thermal Simulation and Visualization of Virtual-Source Manufacturing Systems" *ASME 15th Intl Computers in Engineering Conference*, Boston, MA, September 1995, p. 933-939.
- * Doumanidis C, "Distributed-Parameter Control of the Heat Source Trajectory in Thermal Materials Processing", *ASME Manufacturing Sci. & Engineering*, MED-Vol. 2-1, Nov. 1995, p. 487-494.
- * Doumanidis C, Fourlikas N, "Intelligent In-Process Optimization of Material Characteristics in Scan Welding", *Proc. of the ASME Materials Divison*, MD-Vol. 69-2, S. Francisco, CA, Nov. 1995, p. 911-920.
- * Doumanidis C, "Thermal Analysis and Design of Scanned Rapid Prototyping", *Proc. of the ASME Heat Transfer Division*, HTD-Vol. 317-2, S. Francisco, IMECE Nov. 1995, p. 341-348.
- * Doumanidis C, Fourligkas N, "Multivariable Robust Control of the Scan Welding Process" *Proc. of ASME Dynamic Systems and Control*, DSC-Vol. 57-1, S.Francisco, Nov. 1995, p. 325-332.
- * Doumanidis C, Fourligkas N, "Infrared Pyrometry-Guided Torch Motion in Scanned Thermal Joining Techniques", *Proc. of ASME Dynamic Systems and Control*, DSC-Vol. 57-2, Nov. 1995, p. 783-790.
- * Doumanidis C, "Robot Trajectory and Torch Power Control in Thermal Laminated Object Manufacturing", *IASTED Intl. Conf. on Applications of Control and Robotics*, Orlando, FL, January 1996, p. 143-148
- Doumanidis C, "Scan Welding and Thermal Rapid Prototyping", *NSF Design and Manufacturing Grantees Conference*, Albuquerque, NM, January 1996, p. 365-366.
- * Korizis G, Fourligkas N, Doumanidis C, "Thermal Manufacturing Process Control by Real-Time Model-Based Optimization", *IEEE Med. Conf. on New Dir. in Control*, Maleme GR, June 1996, p. 256-260

- * Doumanidis C, Fourligkas N, "Infinite-Dimensional Modeling and Control of Thermal Manufacturing Processes", *IEEE 4th Med. Conf. on New Dir. in Control & Aut.*, Maleme GR, June 1996, p. 632-636
- * Doumanidis C, "Real-Time Modeling and Identification Methodology for Thermal Processing of Materials" *ASME Japan-U.S.A. Symp. on Flexible Automation*, Boston, MA, July 1996, p. 1087-1094.
- * Fourligkas N, Marquis B, Doumanidis C, "Scan Welding: Experimental Implementation and Numerical Simulation", *ASME Japan-U.S.A. Symp. on Flexible Automation*, Boston, MA, July 1996, p. 1071-78.
- * Doumanidis C, Fourligkas N, "Optimal Pole Adaptation and Control in Thermal Rapid Prototyping Applications", *IEEE 5th Intl. Conf. on Control Applications*, Dearborn MI, Sept. 1996, p.1037-42
- * Doumanidis C, Fourligkas N, "Thermal Simulation and Model-Based Adaptive Control of Metal Processing" *Manufacturing Science & Engineering*, ASME MED-Vol. 4, Atlanta GA, Nov. 1996, p. 315-322
- * Doumanidis C, Fourligkas N, "Computational and Laboratory Analysis of Thermal Free-Form Fabrication of Metal Prototypes", *Recent Advances in Solids/Structures and Application of Metallic Materials*, ASME PVP-Vol. 342/MD-Vol. 72, Atlanta GA, Nov. 1996, p. 143-154.
- * Doumanidis C, Fourligkas N, "Adaptive Regulation of Thermal Desktop Manufacturing Methods", *Manufacturing Science & Engineering*, ASME MED-Vol. 4, Atlanta GA, Nov. 1996, p. 17-24
- * Korizis G, Fourligkas N, Doumanidis C, Fourligkas N, "Intelligent Control of Material Quality in Thermal Desktop Manufacturing Techniques", *Advanced Materials*, ASME MD-Vol. 74, IMECE, Atlanta GA, Nov. 1996, p. 153-154
- * Doumanidis C, Fourligkas N, "Infrared Feedback-Based Control of the Temperature Distribution in Thermal Rapid Prototyping", *Transport Phenomena in Materials Processing and Manufacturing*, ASME HTD-Vol. 336, Atlanta GA, Nov. 1996, p. 143-150
- Doumanidis C, Fourligkas N, "Scanned Thermal Rapid Prototyping: Process Implementation and Parametric Study", *1997 NSF Manufacturing Grantees Conference*, Seattle WA, Jan 1997, p. 273-274.
- * Doumanidis C, "Smart Thermal Processing of Layered Material Structures for Rapid Prototyping Applications", *SPIE Smart Structures & Materials*, S. Diego, CA, March 1997, p.130-140
- * Fourligkas N, Doumanidis C, "Optimal Gain Adaptation in Thermal Manufacturing Control", *IASTED 5th Intl. Conf. on Robotics & Manufacturing*, Cancun, Mexico, May 1997, p. 267-270.
- * Doumanidis C, "Model-Based Prediction for Thermal Regulation of Robotic Scan Welding", *IASTED 5th Intl. Conf. on Robotics & Manufacturing*, Cancun, Mexico, May 1997, p. 287-290.
- * Doumanidis C, "Scan Welding: Thermal Modeling and Adaptive Control", *AWS 7th Intl. Conference on Computer Technology in Welding*, NIST SP-923, July 1997, p. 89-100.
- * Doumanidis C, "Sampled Weighted Attraction Control of Distributed Thermal Scan Welding", *IEEE 5th Med. Conference on Control and Systems*, Paphos, Cyprus, July 1997, p. 17
- * Doumanidis C. "Active Optimal Scanning Control in Thermal Processing of Materials", *IEEE Intl. Conference on Control Applications*, Hartford, CT, October 1997, p. 145-150.
- Doumanidis, C, Kwak Y.M, Yiannelis G, "Modeling and Control of Scanned Thermal Processing of Materials" *NSF Design and Manufacturing Grantees Conference*, Monterrey, Mexico, Jan. 1998, p. 527-528
- * Doumanidis C, Fourligkas N, Kwak Y.M, "Automated Thermal-Material Scanning for Robotic Desktop Manufacturing", *Proc. of CSME Forum, Manuf, Automation & Robotics* Vol. 4, May 1998, p. 82-89
- * Doumanidis C, Fourligkas N, "Scan Welding: Distributed-Parameter Thermal Control and Geometry Model", *AWS Trends in Welding Research*, Pine Mountain, GA, June 1998 (electronic)
- * Fourligkas N, Doumanidis C, "Thermal Distribution Control in Scanned Processing of Materials", *Proc. of the ACC 1998*, Vol. 3, Philadelphia, PA, June 1998, p. 1360-64 (*Best Student Paper Award*)
- * Angelis J, Sfetos H, Doumanidis C, "Adaptive Thermal Distribution Control in Scanned Orbital Welding of Piping", *ASME PVP, Intl. PVP Technology for the Next Century*, S. Diego, CA, July 1998, p. 3-10

- * Doumanidis C, Kwak Y.M, "Thermo-Geometrical Design Models for Solid Freeform Fabrication with Material Transfer", *Proc. of the ASME DETC 98/DFM-5720*, Atlanta, GA, Sep. 1998, p. 1-11
- * Fourligkas N, Doumanidis C, "Thermal Control of Materials Processing in Solid Freeform Fabrication Techniques", *Soc. of Eng. Science 35th Annual Mtg*, Pullman, WA, Sep. 1998, p. 91-92
- * Kwak Y.M, Doumanidis C, "Material Deposition Control in Thermal Solid Freeform Fabrication Methods", *Soc. of Eng. Science 35th Annual Mtg*, Pullman, WA, Sep. 1998, p. 91-92
- * Doumanidis C, Fourligkas N, Korizis G, "Thermal Modeling and Control of Material Processing in Scan Welding", *ASME Manuf. Sci. & Eng. MED-Vol. 8*, Anaheim, CA, Nov. 1998, p. 221-228
- * Kwak Y.M, Doumanidis C, "Geometrical and Thermal Modeling for Design & Control of Material Deposition Processes", *ASME Manuf. Sci. & Eng. MED-Vol. 8*, Anaheim, CA, Nov. 1998, p. 441-448
- * Fourligkas N, Doumanidis C, "Modeling and Control of Ablative Thermal Layered Manufacturing Processes", *ASME Manuf. Sci. & Eng. MED-Vol. 8*, Anaheim, CA, Nov. 1998, p. 571-578
- * Tran H, Doumanidis C, "A Flexible Robotic Repair System for Planar Electromechanical Structures", *Intl. Symp. on Robotics & Automation '98*, Saltillo, Mexico, Dec. 1998, p. 32-40
- Doumanidis C, Skordeli E, Kwak Y.M, "Lumped and Distributed Geometry Modeling of Material Transfer in Thermal Manufacturing", *NSF Design & Manuf. Grantees Conf.*, L. Beach CA, Jan. 1999 (electronic)
- * Fourligkas N, Doumanidis C, "Hybrid Modeling for Control of RP by PAW Material Deposition", *ASME 75th Energy Sources Technology. Conf. & Exp. 99*, Houston, TX, Feb. 1999, p. 321-328
- Hardjadinata G, Johnson N, Doumanidis C, "Intelligent Laser and Ultrasonic Technologies for Rapid Prototyping", *Proc. of 1st Honda Initiation Grant Symp.*, Columbus Oh, May 1999, p. 56-63
- * Skordeli E., Doumanidis C, "Infinite Dimensional Geometric Regulation in Solid Freeform Fabrication", *1999 ACC, Session on Distributed-Parameter Systems*, San Diego, CA, June 1999 (CD)
- * Kwak Y.M, Doumanidis C, "Geometry Modeling and Regulation in Restorative Welding of Surface Cavities", *ASME Pressure Vessel & Piping Conf*, Boston, MA, August 1999 (CD)
- * Doumanidis C, Skordeli E, Kwak Y.M, "Distributed-Parameter Control of Geometry in Rapid Prototyping", *European Control Conference, Karlsruhe*, Germany, Sept. 1999 (CD)
- * Johnson N, Doumanidis C, "A Computer-Automated Ultrasonic Welding System for Multiple-Material Rapid Prototyping", *AWS Intl. Conf. on Comp. Tech. in Weld.*, Detroit MI, Sept. 1999
- * Doumanidis C, "Scan Welding: Thermal Modelling for Microstructure Control", *IIW 5th Intl. Conf. on Numerical Analysis of Weldability*, Graz, Austria, Oct. 1999 (CD)
- * Agelaridou A, Doumanidis C, "Infrared Pyrometry Aided Adaptation in Microstructural Simulation of SS-PAW", *IIW 5th Intl. Conf. on Numerical Analysis of Weldability*, Graz, Austria, Oct. 1999, p.767-782
- * Kwak Y.M, Doumanidis C, "Solid Freeform Fabrication by GMAW: Geometry Modeling, Adaptation and Control", *ASME IMECE Symp. on Cont. Cast & Roll. Tech*, Nashville TN, Nov. 1999, p. 49-56
- * Doumanidis C, Kwak Y.M, "Geometry Modeling and Control by Infrared and Laser Sensing in Thermal Manufacturing Material Deposition" *ASME IMECE Symp. on Sensors & Controls in Manuf*, Nashville TN, Nov. 1999, p. 573-580.
- * Doumanidis C, Skordeli E, "Morphological Control in Desktop Manufacturing by Distributed Attraction Optimization Methods", *CDC 1999*, Phoenix AZ, Dec. 1999 (CD)
- Ando T, Blucher J, Doumanidis C, "Composite Coatings from Layered Precursors: Material Structure Modeling and Thermal Control", *NSF D&M Grantees Conf.*, Vancouver Canada, Jan. 2000
- Doumanidis C, "Thermal Manufacturing and Prototyping: Distributed-Parameter Process Controllability and Observability of Material Properties", *NSF D&M Grantees Conf.*, Vancouver Canada, Jan. 2000
- * Lind R, Johnson N, Doumanidis C, "Active Deformable Sheets: Prototype Implementation, Modeling and

- Control", *Proc. of SPIE: Smart Structures and Materials 2000*, Vol. 3985, pg 572-582, March 2000.
- * Johnson N, Gao Y, Doumanidis C, "Multi-Material Rapid Prototyping by Ultrasonic Welding", *3rd World Congress of Intelligent Manufacturing Processes and Systems, CIRP*, Cambridge MA, June 2000.
 - * Vayena O, Doumanidis C, Demetriou M, "An LQR-Based Optimal Actuator Guidance in Thermal Processing of Coatings", *ACC-2000*, Chicago, IL, Vol. 4, p. 2300-2304, June 2000.
 - * Demetriou M, Vayena O, Doumanidis C, "Optimal Actuator Guidance Scheme for a 2-D Thermal Manufacturing Process", *8th IEEE Mediterranean Conference on Control and Automation*, Rio, Greece, July 2000.
 - * Doumanidis C, Gao Y, Johnson N, Greif R, "Ultrasonic Rapid Manufacturing of Layered Objects", *ASME IMECE 2000*, Orlando FL, November 2000.
 - * Gao Y, Greif R, Doumanidis C, "Solid Freeform Fabrication by Ultrasonic Joining: Implementation and Mechanical Analysis", *ASME IMECE 2000*, Orlando FL, November 2000.
 - * Smith R, Doumanidis C, "A Comprehensive Case Study in the Development of Thermal Manufacturing Curricula", *ASME IMECE 2000*, Orlando FL, November 2000.
 - Durvasula R, Doumanidis C, "Absolute Area Measurement of Circular Radiometric Apertures", *NIST Res. Conf*, Gaithersburg MD, November 2000.
 - Vayena O, Doumanidis C, Ranganathan R, Ando T, "Composite Coatings from Layered Precursors: Material Structure Modeling and Thermal Control", *NSF Design and Manufacturing Grantees Conference*, Tampa, FL, January 2001.
 - * Ranganathan R, Vayena O, Ando T, Doumanidis C, Blue C, "In-Situ Processing of Nickel Aluminide Coatings on Steel Substrates", *Elevated Temperature Coatings Sci & Techn. IV*, TMS 2001, p. 171-180
 - * Paskaleva A, Vayena O, Doumanidis C, Demetriou M, "Experimental Verification of an Actuator Guidance Scheme for 1-D Thermal Manufacturing Processing", *IEEE 40th CDC 2001*, Orlando, FL, Dec. 2001, p. 549-554
 - * Zeng T, Doumanidis C, Hebb J, Brown D, "Growth of Ultrathin Silicon Dioxide Films During Rapid Thermal Oxidation », *Proc. 9th Intl Conf. on RTP 2001*, Advanced Thermal Processing of Semiconductors, 2001, p. 287-295
 - Ranganathan R, Vayena O, Paskaleva A, Ando T, Doumanidis C, "Welded Nickel-Aluminide Coatings from Electroplated Layer Precursors", *NSF Design and Manufacturing Grantees Conference*, San Juan, PR, Jan. 2002
 - * Alaeddine M, Doumanidis C, "Distributed Parameter Thermal Controllability-The Inverse Heat Conduction Problem in Materials Processing", *ACC 2002*, Anchorage, Alaska
 - * Alaeddine M, Doumanidis C, "Distributed Parameter Thermal Controllability Through the Green-Galerkin Method: a One Dimensional Optimization Case Study", *IEEE 10th Mediterranean Conference on Control and Automation*, Lisbon, Portugal, 2002
 - * Yadav S, Doumanidis C, "Ultrasonic Rapid Manufacturing: Implementation and Thermomechanical Analysis", *ASME IMECE 2002*, TNANO-Nanomanufacturing-I, New Orleans, LA, Nov. 2002.
 - * Zeng T, Doumanidis C, "A Study on Growth of Ultrathin Silicon Dioxide Films by Rapid Thermal Oxidation", *Proc. Nanotech Conf. & Trade Show*, Vol. 2, NSTI, 2003, p. 40-43
 - * Alaeddine M, Ranganathan R, Ando T, Doumanidis C, Wong P.Y., "Thermal and Mass Balance in Reactive Thermal Processing of Nickel Aluminide Coatings on Steel Substrates", *Materials Research Society Symposium Proceedings*, Boston, Massachusetts, U.S.A., Vol. 750, p. 431-436, 2003.
 - * Alaeddine M, Doumanidis C, "Distributed Parameter Thermal Controllability Through the Green-Galerkin Method: the Multi-Dimensional Inverse Heat Conduction Problem in Thermal Processing of Materials", *American Control Conference 2003*, Denver, Colorado 2003

- * Alaeddine M, Doumanidis C, "Numerical Stability of the Green-Galerkin Thermal Control Method in Infinite-Dimensional Dynamic Systems", *IEEE 11th Mediterranean Conference on Control and Automation*, Rhodes, Greece, 2003 (Invited Paper).
- * Alaeddine M, Ranganathan R, Ando T, Doumanidis C, Wong P.Y, "Phase Selection in the Reactive Fabrication of Nickel Aluminide Coatings by Rapid Heating of Plated Precursors", *6th International Conference on Frontiers of Design and Manufacturing*, Xi'an, China, 2004.
- * Alaeddine M, Zou J, Ranganathan R, Ando T, Doumanidis C, Wong P.Y., "Thermal and Mass Modeling of the Laser-Point Sealing Process in MEMS Packaging", *ASME Heat Transfer/Fluids Engineering Summer Conference*, Charlotte, North Carolina, 2004.
- * Gunduz I, Shattuck E, Wong P.Y, Ando T, Doumanidis C, "Enhanced Diffusion of Zinc in Aluminum during Ultrasonic Welding", *Proc. of Materials Research Society*, Boston MA, December 2004.
- * Alaeddine M, Doumanidis C, "Infinite-Dimensional Thermal Observability in Materials Processing", *American Automatic Control Conference*, Portland, Oregon, U.S.A., 2005.
- Wong P, Ando T, Doumanidis C, Gunduz I.E, Shattuck E, "Ultrasonic Rapid Manufacturing of Meso/Microscale Functional and Active Structures", *Proc. Of NSF DMII Grantees Conference*, Scottsdale, AZ 2005
- * Alaeddine M, Ranganathan R, Ando T, Doumanidis C.C, Wong P.Y, Blue C.A, "Simulation of the Temperature and Extent of Ni Dissolution During the Reactive Fabrication of Nickel Aluminide Coatings by Rapid Heating of Plated Precursors", *Proc. Of 6th Intl. Conf. of Frontiers of Design & Manuf.*, Xi'an, China 2005
- * Alaeddine M, Doumanidis C.C, "Infinite-Dimensional Thermal Observability in Materials Processing", *IEEE ISIC'05/MED'05*, Limassol, Cyprus 2005
- * Alaeddine M, Doumanidis C.C, Ando T, "Mesh-Free Modeling and Control of Thermal/Diffusion Fields Created by Nano-Sources", *Proc. 3rd Intl. Symp. On Nanomanufacturing*, Cyprus 2005 (*Best Paper Award*)
- * Christophidou A, Doumanidis C, "Ultrasonic Welding of Polymer Nanocomposites", *Proc. 3rd Intl. Symp. On Nanomanufacturing*, Limassol Cyprus, Nov. 2005.
- * Alaeddine M, Ranganathan R, Ando T, Doumanidis C.C, "Real Time Modeling and Control in Plasma Arc Fabrication of Intermetallic Coatings", *Joint IEEE 44th CDC and ECC*, Seville, Spain 2005
- * Alaeddine M, Ranganathan R, Ando T, Doumanidis C.C, "Kinetic Modeling of the Microstructure Growth in Plasma Arc Fabrication of Nickel Aluminide Coatings", *Conf. on Model Reduction and Coarse Graining Approaches for Multiscale Phenomena*, Leicester UK, 2005
- Ando T, Sun H, Wong P.Y, Doumanidis C, Fukuda H, Duan H, "Droplet-Based Processing of Quasicrystalline Magnesium Alloys for the Production of High Performance Particulates and Bulk Materials", *Proc. Of the 2006 NSF Design, Service & Manufacturing Grantees and Research Conference*, St. Louis, MO, July 2006
- Wong P.Y, Ando T, Doumanidis C, Gunduz I.E, "Ultrasonic Rapid Manufacturing of Meso/Microscale Functional and Active Structures", *Proc. Of the 2006 NSF Design, Service and Manufacturing Grantees and Research Conference*, St. Louis, MO, July 2006
- Chen J, Doumanidis C, Ando T, Jogdand H, Gulsoy G, «Nanoheater Systems for Thermal Nanomanufacturing», *Proc. Of the 2006 NSF Design, Service and Manufacturing Grantees and Research Conference*, St. Louis, MO, July 2006.
- * Christophidou A, Bica D, Crainic N, Vekas L, Doumanidis C, "Structural and Dynamic Mechanical Analysis of Magnetic Nanocomposites by Polymer Ultrasonic Welding", *Proc. Of 4th Intl. Symposium on Nanomanufacturing*, Cambridge, MA, Nov. 1-3, 2006, p. 79-83
- * Kyprianou A, Loukaides N, Georgiou G.E, Charalambous C.D, Doumanidis C, "Stochastic Control of Nanoparticle Manipulation Using Electric Fields", *Proc. Of 4th Intl. Symposium on Nanomanufacturing*, Cambridge, MA, Nov. 1-3, 2006, p. 89-91

- * Loucaides N, Georgiou G.E, Kyprianou A, Charalambous C.D, Doumanidis C, “Combined AC Electroosmotic and Electrothermal Stirring for Biosensor Enhancement”, *Proc. Of 4th Intl. Symposium on Nanomanufacturing*, Cambridge, MA, Nov. 1-3, 2006, p. 92-96
- * Constandinou T.G, Georgiou J, Doumanidis C, Toumazou C, “Towards and Implantable Vestibular Prosthesis: The Surgical Challenges”, *Proc. Of 3rd Intl. IEEE EMBS Conference on Neural Eng*, Hawaii, USA, May 2-6, 2007, p. 40-43
- * Kokonou M, Rebholz C, Giannakopoulos K.P, Doumanidis C, “Low Aspect Ratio Porous Alumina Templates”, *Proc. MNE*, Copenhagen, Sep. 2007
- * Spanou E, Vessiaris G, Ryzhkov V, Kyprianou A, Doumanidis C, “On Advantages and Limitations of Raman Spectrometry for Control of Nanotube Inclusions in Polymer Composites”, *Micro & Nano 2007 International Conference*, NCSR Demokritos, Athens Greece, October 2007
- Ando T, Sun H, Wong P.T, Doumanidis C, Fukuda H, Wang P, “Droplet-Based Processing of Quasicrystalline Magnesium Alloys of High-Performance Particulate and Bulk Materials”, *Proc. 2008 NSF Eng. Res. & Innov. Conf, Knoxville*, TN, Jan 2008
- Chen J, Ando T, Doumanidis C, Gulsoy G, Jogdand H, Cloutier D, “Nano-Heater Systems for Thermal Nanomanufacturing”, *Proc. 2008 NSF Eng. Res. & Innov. Conf, Knoxville*, TN, Jan 2008
- * Loucaides N, Ramos A, Georgiou G.E, Doumanidis C, “Simulation of the Concentration of DNA Under Dielectrophoresis, Taking into Account Steric Effects”, *Proc. 5th Intl. Symp. On Nanomanufacturing*, Singapore, Jan. 2008
- * Jogdand H, Gulso G, Ando T, Chen J, Doumanidis C, Gu Z, Rebholz C, Wong P, “Fabrication and Characterization of Nanoscale Heating Sources (Nanoheaters) for Nanomanufacturing”, *NSTI-NanoTech 2008 Vol. 1*, 2008, p. 280-283
- * Christoforou T, Doumanidis C, “Biodegradable Cellulose Acetate Nanofiber Fabrication via Electrospinning”, *1st Intl. Conf from Nanomaterials and Nanostructures to Nanodevices and Nanosystems (IC4N)*, Halkidiki, GR, June 2008
- * Gravani S, Polychronopoulou K, Cui Q, Gu Z, Gibson N, Baker M.A, Rebholz C, Doumanidis C, “Synthesis and Characterization of $Ce_xZr_{1-x}O_2$ Nanowires by Sol-Gel within Porous Anodized Alumina”, *1st Intl. Conf from Nanomaterials & Nanostructures to Nanodevices & Nanosystems (IC4N)*, Halkidiki, June 2008
- * Kokonou M, Giannakopoulos K.P, Gunduz I.E, Fadenberger K, Rebholz C, Doumanidis C, “Reactive Bimetallic Al/Ni Nanostructures for Nanoscale Heating Applications Fabricated Using a Porous Alumina Template”, *34th Micro- & Nano-Engineering Conference (MNE2008)*, Athens GR, Sept. 2008
- * Colanto D, Erdeniz D, Gulsoy G, Ando T, Gunduz I.E, Doumanidis C, Wong P.Y, “Ultrasonic Consolidation of Pure Al and Composite Al-Ni Powder Compacts”, *Proc. Matl. Sci. & Tech (MS&T): Processing, Properties and Performance of Composite Materials*, Pittsburgh PA, Oct. 2008, p. 2563-70
- * Kramer B.M, Chen S.C, Doumanidis C.C, “National Science Foundation Programs in Nanomanufacturing”, *Intl. Symp. On Nanomanufacturing (ISNM6)*, Athens, GR, Nov. 2008.
- * Hadjiafxenti A, Kyratsi T, Rebholz C, Doumanidis C, “Synthesis of Reactive Al-Ni Structures by Mechanical Alloying”, *Intl. Symp. On Nanomanufacturing (ISNM6)*, Athens, GR, Nov. 2008.
- * Ioannou Y, Fyrillas M, Polychronopoulou K, Doumanidis C, “Analytical Model for Geometrical Characteristics Control of Laser Sintered Surfaces”, *Intl. Symp. On Nanomanufacturing (ISNM6)*, Athens, GR, Nov. 2008.
- Erdeniz D, Ando T, Chen J, Gu Z, Wong P.Y, Doumanidis C, “Ignition Characteristics of Aluminum-Nickel Heterostructures Produced by Ultrasonic Powder Consolidation Method”, *NSF-CMMI Grantees Conference*, Honolulu, HI June 2009
- * Fukuda H, Wang P, Sun H, Wong P.Y, Doumanidis C, Ando T, “Uniform-Droplet Spray Forming of Mg₉₇Zn₁Y₂ Alloy”, *TMS 2009*

- Doumanidis C.C, “Nanotechnology: Achievements and Perspectives”, *Intl. Sci. Conf. “Future of the World-Scientific Developments and Forecasts”*, Athens GR, 2009
- * Drakonakis V. M., Ancuta C. G., Seferis J. C., Casterline E., Lewis M., Woods R., Wardle B. L., Doumanidis C. C., Papanicolaou G. C., “Effects of Curing Pressure on Structural Polymeric Composites for Commercial Aviation Cured Without Autoclave,” *International Conference on Structural Analysis of Advanced Materials* 2009, September 7-10, Tarbes, France, 2009
- * Drakonakis V.M, Sfakianakis A, Seferis J.C, Wardle B.L, Papanicolaou G.C, Doumanidis C.C, “Polymeric Composites Interlayer Enablers in the Nano-scale”, *American Society of Composites ASC-CASMA* 2009, September 15 – 17, Newark, Delaware, 2009.
- * Drakonakis V.M, Sfakianakis, Ancuta C.G, Seferis J.C, Wardle B.L, Papanicolaou G.C, Doumanidis C.C, “Multifunctional Nano-structured Interlayered Polymeric Composite Materials”, *International Astronautical Conference IAC09*, October 12-16, 2009, Daejeon, S. Korea , 2009.
- * Sfakianakis A, Drakonakis V.M, Seferis J.C, Papanicolaou G.C, Doumanidis C.C, “Carbon Dioxide Filtration through Sustainable Carbon Carbon Composite Filters”, *SAMPE09*, October 20 – 22, 2009 Wichita, Kansas, 2009.
- * Fadenberger K, Gunduz I.E, Tsotsos C, Kokonou M, Gravani S, Brandstetter S, Schmitt B, Mayrhofer P.H, Doumanidis C.C, Rebholz C, *In-situ* observation of rapid reactions in nanoscale Ni-Al multilayer foils using synchrotron radiation, *SLS Conference*, PSI Switzerland 2009
- * Cui Q, Pelealuw J, Chen J, Gu Z, Ando T, Wong P, Rebholz C, Doumanidis C.C, “Aluminum/Nickel (Al/Ni) Heterogeneous Nanostructures: Synthesis, Characterization and Nano-Heater Applications”, *AIChE Annual Meeting*, Nashville TN, Nov. 2009
- * Gravani S, Polychronopoulou K, Cui Q, Gibson P.N, Hinder S.J, Gu Z, Doumanidis C.C, Baker M.A, Rebholz C, “Synthesis and Structural Characteristics of CeO₂ Thin Films and Nanowires”, *Proc. 14th Israel Matls Eng. Conf*, Tel Aviv Israel, Dec. 2009
- * Nahif F, Fadenberger K, Giannakopoulos K.P, Gunduz I.E, Doumanidis C.C, Schneider J.M, Rebholz C, “Characterization of Structure and Reactions in Magnetron-Sputtered Ni/Al Multilayers Showing Self-Propagating Exothermal Reactions”, *Proc. 14th Israel Matls Eng. Conf*, Tel Aviv Israel, Dec. 2009
- * Kokonou M, Gunduz I.E, Fadenberger K, Doumanidis C.C, Rebholz C, “Novel Nanostructures by Anodization of Al Wires”, *Proc. 14th Israel Matls Eng. Conf*, Tel Aviv Israel, Dec. 2009
- * Kokonou M, Gu Z, Gunduz IE, Fadenberger K, Rebholz C and Doumanidis CC, “Novel nanostructures by anodization of Al wires”, *Materials Research Society 2009*, Symposium M, Fall Meeting, Boston, November 30-December 4, 2009
- * Tryfonos A, Ioannou G, Michaelidis S, Parpas D, Poullis A, Sergiou C, Tumbas M, Krasia T, Kokonou M, Doumanidis C.C, “Cellulose Acetate Nanofibers by Electrospinning for Biomedical Applications” *Intl. Sci. Conf. on Nanotheranostics: Fabrication & Safety Concerns*, Ayia Napa CY, April 2010
- * Rebholz C, Gunduz I.E, Fadenberger K, Tsotsos C, Schmitt B, and Doumanidis C, “In-situ XRD observations of rapid reactions in nanoscale Ni-Al foils using synchrotron radiation”, *37th International Conference on Metallurgical Coatings and Thin Films – ICMCTF2010*, April 27, 2010, San Diego, USA
- * Vraha PS, Kokonou M, Christou YA, Loizou L, Krasia T, Zouvani I, Doumanidis C and Odysseos AD, “Intestinal tissue engineering on biodegradable nanofiber-based scaffolds: the role of alpha-tocopherol as a differentiation and growth factor”. *Proceedings of the 61st Congress of the Hellenic Society of Biochemistry and Molecular Biology*, 2010
- * Barrois L, Drakonakis V.M, Sfakianakis A, Seferis J.C, Papanicolaou G.C, Wardle B.L, Doumanidis C.C, Nam J.D, “Thermomechanical Analysis of Thermal Fatigued Thermoset and Thermoplastic Composites”, *SAMPE 2010*, Seattle, WA USA, May 18th, 2010
- * A. Sfakianakis, Drakonakis V.M, Seferis J.C, Papanicolaou G.C, Doumanidis C.C, “Carbon Carbon Composite

Filter Precursor Characterization through Thermal Analysis”, *NATAS 2010*, Philadelphia, USA, August 18th, 2010

- * Sfakianakis A, Drakonakis V.M, Seferis J.C, Papanicolaou G.C, Doumanidis C.C, “Moisture Assisted Stress Relaxation of CFRP Laminates”, *DURACOSYS 2010*, Patras, Greece, September 2010
- * Drakonakis V. M., Doumanidis C. C., Velisaris C. N., Seferis J. C., Wardle B. L., “Feather Weight Composites: Development of Controlled free Volume in CNT Reinforced Polymeric Matrix Systems” *American Society of Composites ASC 2010*, Dayton USA, September 2010
- * Sofou S, Psimolofitis E, Philimis P, Doumanidis C.C, “Friction Welding on Plastic Pipes: Parameters and Quality Evaluation of the Joint Section Via Pull-Out Tests and Microtomography”, *8th Hellenic Polymer Soc. Symp*, Hersonissos Crete, October 2010.
- * Pillai, S.K, Hadjiafxenti A, Ando T, Doumanidis C.C. Rebholz C, “Fabrication and ignition characteristics of thermite composites prepared by ultrasonic powder consolidation”, *Mediterranean Conference on Innovative Materials and Applications – CIMA1*, March 16, 2011, Beirut, Lebanon
- * Fadenberger K, Gunduz I.E, Nahif F, Giannakopoulos K.P, Schmitt B, Schneider J.M, Mayrhofer P.H, Doumanidis C.C, and Rebholz C, “The effect of interface quality on Self Propagating Exothermic Reactions (SPER) in Ni-Al multilayer foils”, *38th International Conference on Metallurgical Coatings and Thin Films – ICMCTF2011*, May 3, 2011, San Diego, Graduate Student Gold Medal Award Winner
- * Hadjiafxenti A, Gunduz I.E, Aouadi S.M, Kyratsi T, Doumanidis C.C. and Rebholz C, “Ignitable Al/Ni compacts produced by mechanical alloying: structural, chemical and thermal characterization”, *38th Intl Conference on Metallurgical Coatings and Thin Films – ICMCTF2011*, May 3, 2011, San Diego, USA
- * Drakonakis, V.M., Doumanidis C.C., Velisaris C.N., Seferis J.C., Feather Weight Composites: Low Density – High Strength Carbon Fiber Reinforced Polymeric Matrix Systems, *ASME 2011*, Chicago, IL May 2011
- * Kokonou M, Trifonos A, Doumanidis C.C, Odysseos A, “Coaxial nanofibers with tunable release properties as drug delivery and tissue engineering platforms: the case of Γ -Tocopherol in intestinal tissue regeneration”, *3rd IC4N*, Hersonissos, Crete, June 2011
- * Trifonos A, Kokonou M, Rebholz C, Doumanidis C, Odysseos A, “Coaxial nanofibers by electrospinning for drug delivery with tunable release properties”, *3rd IC4N 2011*, Hersonissos, Crete, June 2011
- * Ioannou G, Kokonou M, Odysseos A, Doumanidis C, “Drug-loaded nanocapsules embedded in a porous template for controlled drug release rate”, *3rd IC4N 2011*, Hersonissos, Crete, June 2011.
- * Drakonakis, V.M., Doumanidis C.C, Velisaris C.N, Kanelopoulos N, Seferis J.C, Kitano A, Yoshioka K, “Nanobridization in Carbon Fiber Polymeric Matrix Nanocomposite Systems”, *18th International Conference on Composite Materials*, S. Korea, August 2011
- * Hadjiafxenti A, Gunduz I.E, Kyratsi T, Doumanidis C.C, Rebholz C, “Exothermic Reaction Characteristics of Continuously Ball-Milled Al/Ni Powder Compacts”, *XI International Symposium on Self-Propagating High Temperature Synthesis – SHS2011*, Athens, Greece, September 5-9, 2011.
- * Hadjiafxenti A., Erdeniz D, Gunduz I.E, Ando T, Doumanidis C.C. and Rebholz C, “Ultrasonic Consolidation of Al and Ni Powder Compacts”, *European Congress and Exhibition on Advanced Materials and Processes – EUROMAT 2011*, September 12-15, 2011, Montpellier, France
- * Sofokleous K, Drakonakis V, Doumanidis C, Ogini S.L, “Controlled Impact Testing of Carbon Fibre Composites With and Without SMA Wires”, *22nd Intl Conf on Adaptive Structures and Technologies*, ICAST2011#94, Corfu, Greece, October 2011
- * Rebholz C, Hadjiafxenti A, Gunduz I.E, Epaminonda P, Erdeniz D, Kyratsi T, Ando T, Doumanidis C, “Exothermic Reaction Characteristics of Ball Milled and Ultrasonic Consolidated Al/Ni Powder Compacts”, *MRS 2011 Fall Meeting*, Boston, USA, November 28 – December 2, 2011

- * Gu Z, Cui Q, Chen J, Buckley J, Ando T, Erdeniz D, Wong P, Hadjiafxenti A, Epameinonda P, Gunduz I.E, Rebholz C, Doumanidis C, “Fabrication, Characterization and Applications of Novel Nanoheater Structures”, *Proc. Surface and Coatings Technology or Thin Solid Films, The International Conference on Metallurgical Coatings and Thin Films*, San Diego, CA, April 2012
- Doumanidis C, “The Nanoworld as a Manufacturing Exploratorium: Vision of Nanomanufacturing at NSF”, *2nd Intl Forum on Trends in Nanomanufacturing*, Suzhou, China September 2012, p. 6-12
- * Kokonou M, Doumanidis C, Odysseos A, “PEO/PLLA Single and Coaxial Electrospun Nanofibers with Tunable Release Properties for Sustained Tyrosine Kinase Inhibitors Delivery in Solid Tumors, In Situ”, *Fibrous Protein Nanocomposites for Tailored Hybrid Biostructures and Devices*, ECI, Crete GR, Oct 2012
- * Sofocleous C, Christoforou E.G, Shiakolas P.S, Seimanis I, Tsekos N.V, Doumanidis C, “Development and Initial Testing of a Prototype Concentric Tubes Robot for Surgical Interventions”, *IEEE International Conference on BioInformatics and BioEngineering (BIBE 2012)*, Cyprus, November 2012
- * Hadjiafxenti A, Gunduz I.E, Kyratsi T, Doumanidis C, Rebholz C, “Spark Ignitable Green Compacts of Continuously Ball-Milled Al/Ni Powders at NiAl Composition”, *Winter Meeting, Materials Research Society*, Boston MA, Nov. 2012
- * Gunduz I.E, Doumanidis C, Rebholz C, “Numerically Efficient Two-Stage Scheme for Modeling Reactions in Nanoscale Multilayer Ni/Al Foils”, *Winter Meeting, Materials Research Society*, Boston MA, Nov. 2012
- * Hadjiafxenti A, Gunduz I.E, Doumanidis C.C, Rebholz C, “Exothermic reactions in spark ignitable green compacts of continuously ball-milled Al/Ni powders”, *ICMCTF’13 – International Conference on Metallurgical Coatings and Thin Films*, San-Diego, CA, USA (April 29-May 3, 2013).
- * Rebholz C, Gunduz I.E, Fadenberger K, Woll K, Doumanidis, C.C, “Analysis and modelling of self propagating reactions in Ni/Al and Ru/Al multilayered foils” (invited lecture), *CECAM workshop on Reactive Multilayers Foils*, Lausanne, Switzerland (July 8-10, 2013).
- * Sofokleous K, Drakonakis V, Ogin S.L, Doumanidis C, “Control Impact Testing of Carbon Fiber Composites with and without Carbon Nanotubes or SMA Wires”, *19th Intl Conf. on Composite Materials*, Montreal, Canada, July 2013 (p. 7194-7201)
- * Sofokleous K, Drakonakis V, Ogin S.L, Doumanidis C, “Controlled Impact Testing of Pre-preg Carbon Fibre Composites with and without Carbon Nanotubes and/or SMA Wires”, *5th ICSAAM*, Kos, GR, Sep. 2013
- * Rebholz C, Gunduz I.E, Fadenberger K, Woll K, Doumanidis C.C, “Analysis and Modeling of Self-Propagating Reactions in Ni/Al and Ru/Al Nanoscale Thin Film Multilayers”, *American Vacuum Society ICMCTF*, San Diego, CA, Oct 2013
- * Drakonakis V.M.; Velisaris C.N.; J.C. Seferis; Doumanidis H.; “CNT Reinforced Electrospun Cellulose Acetate Nanofibers Utilized as a Nano-Enabling Fractal Interlayer System for Featherweight Composites”, *Workshop on Multifunctional Composites Materials for Energy Conversion and Conservation*, Nicosia, Cyprus (Presented Oct 2013)
- * Reede C., Doumanidis C., Aureli M., 2015: "Thrust Bearing Load Observation in Deep-Well Enclosed Lineshaft Pumps", *Proceedings of the Geothermal Resources Council Annual Meeting*, September 20-23, 2015, Reno, Nevada, USA, paper #63
- * Hashemabad, S.G; Gunduz, I.E; Ando T; Rebholz C; Doumanidis, C.C; “Ignitable Reactive Al-Ni-MexOy Composite Products by Ball Milling and Ultrasonic Powder Consolidation”, *Proc. of ICSOBA 2015 Conf*, Dubai, UAE (Presented Nov. 30 2015)
- * Doumanidis C.C, Farzanah K.H.H, Hassan M.O.M, Al Muhairi R.A.S, Rebholz C, Gunduz I.E, “Mechanics Science-Enabled Nanoheater Multi-Layer Materials Manufacturing by Ball Milling”, *MRS Fall 2016 Meeting (PM3)*, Boston, MA, 2016
- * Hussien A, Stefanini C, Renda F, Doumanidis C, Rebholz C, “Nanoheater Welding and Robotic Propulsion for Automated Marine Construction and Manufacturing”, *ECBA 2017*, Dubai UAE, Jan. 2017
- * Alzaabi A, Hussien A, Doumanidis C, “Innovative Underwater Robotic Welded Construction for Hyperloop

Transportation in the UAE”, *ASMT 2017*, Dubai, UAE, April 2017.

- * Doumanidis C.C, “Nanomanufacturing Innovation in the USA and Entrepreneurship in Cyprus”, *4th Industrial Revolution: Prospectives and Risks*, Conf. Parliament of Cyprus, Nicosia, June 2017, p. 31-34.
- * Hussien A, Alkhoori A, Al Zaabi A, Stefanini C, Renda F, Jaffar S, Gunduz I.E, Polychronopoulou K, Rebholz C.G, Doumanidis C.C, “Underwater Robotic Welding of Lap Joints with Sandwiched Reactive Multilayers: Thermal, Mechanical and Material Analysis”, *MRS Fall 2017 Meeting*, Boston, MA, 2017.
- * Alzaabi, A, Hussien A, Renda F, Stefanini C, Doumanidis C, “Underwater Robotic Manufacturing by Biomimetic Macroscale Assembly”, *Proc. of Nanotech Middle East*, Dubai UAE, Dec. 4-6 2017
- * Doumanidis C, “Quantitative vs Qualitative Research Indicators: Impacts on Responsible Conduct of Research” *3rd Annual Conference on Academic Integrity, and Internationalization*, Kazguu Univ, Astana Kazakhstan, May 18-19, 2018
- * Ioannou Y, Fukuda H, Fyrrillas M, Rebholz C, Mitterer C, Ando T, Doumanidis C.C, “Constrained Crystal Growth during Solidification of Particles and Splats During Uniform Droplet Sprays”, *2nd Intl. Symp. On Advanced Manufacturing for Sustainable Development*, Paphos, Cyprus, Oct. 23-27, 2019
- * Jaffar S.M, Kostoglou N, Fukuda H, Ando T, Rebholz C, Liao Y, Doumanidis C.C, “Microstructure Modeling of Uniform Droplet Sprayed Deposits for Mg Alloy-Based Additive Manufacturing”, *2020 Virtual MRS Spring/Fall Meeting & Exhibit* (online), S.FS05.06.07, ID: 3443201

MIT Internal Reports

- Doumanidis C, "A Survey of the Effects of Weld Imperfections on the Fracture Toughness of the Joint", *ME Research Report 2.301*, MIT, May 1986.
- Doumanidis C, "Real-Time Control of Thermal Properties in Welding", *LMP/FAR 86-05*, MIT, June 1986.
- Doumanidis C, "A Numerical Simulation of the Welding Process", *LMP/FAR 86-06*, MIT, July 1986.
- Doumanidis C, "An Application of Adaptive Control to Welding", *AA 16.375*, MIT, Dec. 1986.
- Hardt D, Doumanidis C, Hale M, "Nonlinearities in Welding System Dynamics", *U.S. Department of Energy Research Report DE-FG02-85ER13331/86*.
- Doumanidis C, "Design and Implementation of an Electrocardiograph Monitor", *HST Research Report 2.781*, MIT, August 1987.

* : Refereed by at least 3 Peer Reviews

- : Less than 3 Peer Reviewed

Google Scholar; https://scholar.google.com/citations?user=jt0_FO8AAAAJ&hl=en

SELECTED QUALIFICATION CREDENTIALS

1. *Ph.D. in Mechanical Engineering (Massachusetts Inst of Technology)*



Northwestern University to CHARALABOS DOUMANIDIS

Donald G. Gwinn
Donald G. Gwinn
University Registrar



me this 14th day of September, 1988.

Estelle Berni LeB...
Notary Public

Northwestern University

ON RECOMMENDATION OF THE FACULTY OF THE
GRADUATE SCHOOL
NORTHWESTERN UNIVERSITY HAS CONFERRED THE DEGREE OF
MASTER OF SCIENCE

UPON

CHARALABOS CONSTANTINE DOUMANIDIS

WHO HAS HONORABLY FULFILLED ALL THE REQUIREMENTS PRESCRIBED
BY THE UNIVERSITY FOR THAT DEGREE

DONE AT EVANSTON ILLINOIS THIS FIFTEENTH DAY OF JUNE IN THE
YEAR OF OUR LORD ONE THOUSAND NINE HUNDRED AND EIGHTY-FIVE.



Thomas G. C...
CHAIRMAN OF THE BOARD OF TRUSTEES

James Reid...
SECRETARY OF THE BOARD OF TRUSTEES

Charles R. Wilson
PRESIDENT OF THE UNIVERSITY

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The President of the United States of America

presents

The Presidential Faculty Fellow Award

to

Charalabos C. Doumanidis

In recognition of your demonstrated excellence and continued promise
both in scientific and engineering research and in teaching future generations
of students to extend and apply human knowledge.

The White House

William G. Clinton



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**In Recognition of Outstanding
Leadership and Service**

By

Dr. Haris Doumanidis

*Founding Program Director for the NanoManufacturing and the Nanoscale
Science and Engineering Program*

Wann R. Q. L.
Division Director

J. L. B. Bright
Assistant Director for Engineering

September 30, 2003

MASSACHUSETTS INSTITUTE OF TECHNOLOGY				Cambridge, Massachusetts 02139			
SUBJECT NUMBER	SUBJECT NAME	GRADE		SUBJECT NUMBER	SUBJECT NAME	GRADE	
		1st	2nd			1st	2nd
GRADUATE 2 TH GR 2-225 A 2-451A	FIRST TERM 1985-86 THESES ADVANCED FLUID MECHANICS GEN THERMODYNAMICS I	COURSE 2 0 24 0 J 3 0 9 A 3 0 9 A					
GRADUATE 2 TH GR 2-151 A 2-301 A	SECOND TERM 1985-86 THESES SYSTEM DYNAMICS & CONTROL ADV MECH BEHAV OF MILS	COURSE 2 0 24 0 J 3 0 9 A 3 0 9 A					
GRADUATE 2 TH GR THESES	SUMMER SESSION 1986 THESES	COURSE 2 0 AB 0 J					
GRADUATE 2 TH GR 16-375 A HIST050 A HIST590 C	FIRST TERM 1986-87 THESES ADAPTIVE CONTROL QUANTITATIVE PHYSIOLOGY BIOMEDICAL ENG SEMINAR	COURSE 2 0 25 0 J 3 0 9 A 3 0 7 P 1 0 0 P					
GRADUATE 2 TH GR 2-171 A 2-830 A HIST590 C	SECOND TERM 1986-87 THESES DIGITAL CONTROL SYSTEMS MANUFACTURING AUTOMATION BIOMEDICAL ENG SEMINAR	COURSE 2 0 23 0 J 3 3 6 A 3 0 9 A 1 0 0 P					
GRADUATE 2 TH GR HIST570 C	SUMMER SESSION 1987 THESES BIOMEDICAL INSTRUMENTAT	COURSE 2 0 30 0 J 5 6 6 A					
GRADUATE 2 TH GR THESES	FIRST TERM 1987-88 THESES	COURSE 2 0 AB 0 J					

ΕΘΕΩΡΗΘΗ
By Βοηθός τη 16-9-1988
Βοηθός Προέστος 4.9.9

ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ
ΙΝΣΤΙΤΟΥΤΟ ΤΕΧΝΟΛΟΓΙΑΣ ΥΠΟΛΟΓΙΣΤΩΝ ΚΑΙ ΣΥΣΤΗΜΑΤΩΝ
ΑΙΤΗΣΗ ΓΙΑ ΕΙΣΑΓΩΓΗ ΣΤΗΝ ΕΡΕΥΝΑ

ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ
ΙΝΣΤΙΤΟΥΤΟ ΤΕΧΝΟΛΟΓΙΑΣ ΥΠΟΛΟΓΙΣΤΩΝ ΚΑΙ ΣΥΣΤΗΜΑΤΩΝ
ΑΙΤΗΣΗ ΓΙΑ ΕΙΣΑΓΩΓΗ ΣΤΗΝ ΕΡΕΥΝΑ

IOYMANIDIS CHARALAMIS CONSTANTINE
(Family Name) (First Name) (Middle Name)

HOME THESSALONIKI GREECE
(Home Address)

CITIZEN OF GREECE
(Date of Birth) JUNE 5, 1960
ADMITTED IN SEPTEMBER 1985
FROM

COLLEGE ATTENDED
ARTISTOTELION PANEPISTIMION
THESSALONIKI, THESSALONIKI, GREECE
1978-83 DIPC 1983
NORTHWESTERN UNIVERSITY 1984-85
M.S. 1985

1985-86 SECOND TERM: GENERAL
EXAMINATION ON MATH IN THE
DEPARTMENT OF MECHANICAL ENGINEERING
COMPLETED.

12-10-87 SUBMITTED A THESIS IN THE
FIELD OF MECHANICAL ENGINEERING
ENTITLED: "MODELLING AND CONTROL OF
THERMAL PHENOMENA IN WELDING" AND
RECEIVED A GRADE OF SATISFACTORY.

12-10-87 FINAL EXAMINATION IN FIELD OF
RESEARCH COMPLETED.

2-17-88 AWARDED THE DEGREE OF DOCTOR
OF PHILOSOPHY.

Signature: *Charalamis Ioymanidis*
Date: 16-9-1988

Northwestern University

EVANSTON CAMPUS

THE GRADUATE SCHOOL NORTHWESTERN UNIVERSITY, EVANSTON, ILLINOIS

COURSE NO.	COURSE TITLE	CR	Q
000-84-2230	FALL QTR 1984-85		
ME C90 0	INTRO DYN SYST	1	A
ME D25 1	FUND FLUID DYNAM	1	A
SC D11 1	DIFF EQ MATH PHY	1	A
ME C90 0	INTRO TO ROBOTIC	1	A
000-84-2230	WINTER QTR 1984-85		
ME C91 0	FUND CONTROL SYS	1	A
ME D11 2	DIFF EQU MATH	1	A
EECS K15 0	MINI-MICR R-T AF	1	A
ME D15 1	ELASTICITY I	1	A
000-84-2230	SPRING QTR 1984-85		
ME C92 0	CONTROL SYS II	1	A
ME D99 0	PROJECTS	2	A
ME D44 0	COMPUTER AID MFG	1	A

Επεωρήθη.

Εν Συκόφ τη SEP 20 1988

ΟΛΓΑ Α. ΡΟΥΣΣΟΥ
Δ. Γραμμ. Α'

ADMITTED: September 1984

MASTERS DEGREE

Admitted to candidacy: April 5, 1984

Thesis or thesis: Thesis not required

Committee on Examination: Wilson, W., Schweitzer

Degree awarded: Master of Science June 1984

DOCTOR OF PHILOSOPHY

Qualifying examination passed

Admitted to candidacy

Type of dissertation

Committee on Examination

Research Director

Degree awarded



HELLENIC REPUBLIC
ARISTOTELIAN UNIV. OF THESSALONIKI
POLYTECHNIC SCHOOL
ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ

ΑΡΙΣΤΟΤΕΛΕΙΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΟΝΙΚΗΣ
ΠΟΛΥΤΕΧΝΙΚΗ ΣΧΟΛΗ
ΤΜΗΜΑ ΜΗΧΑΝΟΛΟΓΩΝ ΜΗΧΑΝΙΚΩΝ

DEPT. OF MECHANICAL ENGINEERING



ΤΟ ΤΜΗΜΑ ΜΗΧΑΝΟΛΟΓΩΝ ΜΗΧΑΝΙΚΩΝ

Αρ.Πιστ: 959 Certificate No
Αρ.Διπλ: 7856 Fee receipt No
Δραχ: 500 Drachmas

THE DEPT. OF MECHANICAL ENGINEERING
CERTIFIES THAT:

ΠΙΣΤΟΠΟΙΕΙ ΟΤΙ:

Mr. CHARALAMBOS DOUMANIDIS son of Constantine from Thessaloniki was enrolled
Ο κ. ΔΟΥΜΑΝΙΔΗΣ ΧΑΡΑΛΑΜΠΟΣ του Κων/νου από τη Θεσσαλονίκη γράφτηκε
on 9-11-79 to the first-year students of the department of MECHANICAL ENGINEERING
στις 9-11-1978 στους Α' ετείς φοιτητές του τμήματος ΜΗΧΑΝΟΛΟΓΩΝ ΜΗΧΑΝΙΚΩΝ
of the Polytechnic School for academic year 1978-79 with general register number
της Πολυτεχνικής Σχολής για το Παν/κό έτος 1978-79 με αριθμό γενικού
and special number
μητρώου 125894 και ειδικού 206.
Studies in this Department last for five years.
Η φοίτηση στο Τμήμα αυτό διαρκεί πέντε χρόνια.
During his studies the student above was taught the following courses and obtained
Ο παραπάνω κατά τη φοίτησή του διδάχθηκε τα εξής μαθήματα και πήρε
the respective grades.
την αντίστοιχη βαθμολογία:

ΜΑΘΗΜΑΤΑ SUBJECTS

ΒΑΘΜΟΛΟΓΙΑ GRADES

Academic year First year of studies
Παν/κό έτος 1978-79 Α' έτος σπουδών

Ασκήσεις Μηχανουργείου Machine Shop Exercises	8,5 (οκτώ & μισό) eight ½
Φυσική Physics	10 (δέκα) ten
Προγραμματισμός Ηλεκτρονικών Υπολογιστών Computer Programming	10 (δέκα) ten
Τεχνική Μηχανική I Technical Mechanics I	10 (δέκα) ten
Ανώτερα Μαθηματικά I Advanced Mathematics I	10 (δέκα) ten
Μηχανολογικό Σχέδιο I Mechanical Drawing	10 (δέκα) ten
Εισαγωγή στην Τεχνολογία Υλικών Intro to Materials Technology	9,5 (εννέα & μισό) nine ½
Χημεία Chemistry	10 (δέκα) ten
Ξένη Γλώσσα (Αγγλικά) Foreign Language (English)	10 (δέκα) ten
ΣΥΝΟΛΟ ΒΑΘΜΟΛΟΓΙΑΣ: 88 Cumulative grade marks	
ΒΑΘΜΟΣ ΠΡΟΩΓΩΓΗΣ: 9,78 Promotion grade	
Παν/κό έτος 1979-80 Β' έτος σπουδών Academic year 1979-80 Second year of studies	

Τεχνική Μηχανική II Technical Mechanics II	8 (οκτώ) eight
Μηχανουργικές Ασκήσεις - Μετροτεχνία Machining Exercises Metrology	10 (δέκα) ten
Στοιχεία Μηχανών I Machine Elements I	10 (δέκα) ten
Ειδική Ηλεκτροτεχνία I Special Electrical Circuitry	10 (δέκα) ten
Στατιστική Statistics	10 (δέκα) ten
Ανώτερα Μαθηματικά II Advanced Mathematics II	10 (δέκα) ten
Θερμοδυναμική I Thermodynamics I	9,5 (εννέα & μισό) nine ½
Εφαρμοσμένη Χημεία Applied Chemistry	10 (δέκα) ten
Ξένη Γλώσσα (Αγγλικά) Foreign Language (English)	10 (δέκα) ten
ΣΥΝΟΛΟ ΒΑΘΜΟΛΟΓΙΑΣ: 87,50 Cumulative grade marks	
ΒΑΘΜΟΣ ΠΡΟΩΓΩΓΗΣ: 9,72 Promotion grade	

ΜΑΘΗΜΑΤΑ SUBJECTS

ΒΑΘΜΟΛΟΓΙΑ GRADES

Παν/κό έτος 1980-81 Γ' έτος σπουδών Academic Year 1980-81 Third year of studies

Μηχανική Ρευστών I Fluid Mechanics I	8,5 (οκτώ & μισό)	eight 1/2
Τεχνική Φυσικών Διεργασιών I Process Engineering I	9,5 (εννέα & μισό)	nine 1/2
Μετάδοση Θερμότητας Heat Transfer	10 (δέκα)	ten
Θερμοδυναμική II Thermodynamics II	9,5 (εννέα & μισό)	nine 1/2
Στοιχεία Μηχανών II Machine Elements II	10 (δέκα)	ten
Μεταλλουργία Metallurgy	10 (δέκα)	ten
Οργάνωση Παραγωγής Production Management	8 (οκτώ)	eight
Ειδική Ηλεκτροτεχνία Special Electrical Circuits	10 (δέκα)	ten
Πυρηνική Τεχνολογία Nuclear Technology	9 (εννέα)	nine

ΣΥΝΟΛΟ ΒΑΘΜΟΛΟΓΙΑΣ: 84,50 Cumulative grade marks

ΒΑΘΜΟΣ ΠΡΟΑΓΩΓΗΣ: 9,39 Promotion Grade

Παν/κό έτος 1981-82 Δ' έτος σπουδών Academic Year 1981-82 Fourth year of studies

Τεχνική Φυσικών Διεργασιών II Process Engineering II	10 (δέκα)	ten
Μηχανές Εσωτερικής Καύσης Internal Combustion Engines	10 (δέκα)	ten
Διοίκηση Επιχειρήσεων Business Management	10 (δέκα)	ten
Μηχανικές Κατεργασίες Μετάλλων Εργαλειομηχαν. I Metal Processing Machines I	9,5 (εννέα & μισό)	nine 1/2
Θεωρητική Μηχανολογία I Theoretical Mechanics I	9 (εννέα)	nine
Κατασκευαστική Σύνθεση Manufacturing Composition	10 (δέκα)	ten
Μηχανικές Ιδιότητες της Ύλης Mechanical Properties of Matter	10 (δέκα)	ten
Ηλεκτροτεχνικές Εφαρμογές & Πρακτική-Electrical Applications & Automation Practice in		
Αυτοματισμού Βιομηχανικών Εγκαταστάσεων Industry Plants	9,5 (εννέα & μισό)	nine 1/2

ΣΥΝΟΛΟ ΒΑΘΜΟΛΟΓΙΑΣ: 78 Cumulative grade marks

ΒΑΘΜΟΣ ΠΡΟΑΓΩΓΗΣ: 9,75 Promotion grade

Παν/κό έτος 1982-83 Ε' έτος σπουδών Academic Year 1982-83 Fifth year of studies

Ψύξη-Κλιματισμός Cooling-Air Conditioning	10 (δέκα)	ten
Μηχανικές Κατεργασίες Μετάλλ. Εργαλειομηχανές II Metal Processing Machines II	10 (δέκα)	ten
Μηχανές Εσωτερικής Καύσης Internal Combustion Engines	ΑΠΑΛΛΑΓΗ	TAKEN BEFORE
Θεωρητική Μηχανολογία II Theoretical Mechanics II	9,5 (εννέα & μισό)	nine 1/2
Διοικητική Management	10 (δέκα)	ten
Τεχνική Οχημάτων Vehicle Engineering	8,5 (οκτώ & μισό)	eight 1/2
Μεταλλουργικές Διεργασίες Metallurgical Processes	10 (δέκα)	ten
Ανυψωτικά & Μεταφορικά Μηχανήματα Lift & Transport Machinery	10 (δέκα)	ten
ΣΥΝΟΛΟ ΒΑΘΜΟΛΟΓΙΑΣ: 68 Cumulative grade marks		
ΒΑΘΜΟΣ ΠΡΟΑΓΩΓΗΣ: 9,71 Promotion grade		

In departmental examinations the grade scale is from zero to ten (0-10), the highest successful grade is ten (10) and the lowest successful grade is five (5).

Στις Τμηματικές εξετάσεις η κλίμακα βαθμολογίας είναι από μηδέν μέχρι δέκα (0-10), ο μεγαλύτερος βαθμός επιτυχίας είναι το δέκα (10) και ο μικρότερος το πέντε (5).

ΒΑΘΜΟΛΟΓΙΑ ΠΡΟΦΟΡΙΚΩΝ ΔΙΠΛΩΜΑΤΙΚΩΝ ΕΞΕΤΑΣΕΩΝ *Grades of Oral Graduation Examination*

ΘΕΜΑ SUBJECT	ΕΞΕΤΑΣΤΕΣ EXAMINERS	ΒΑΘΜΟΛΟΓΙΑ GRADE
Μεταλλογνωσία Μεταλλουργία	1. Α. Τζαβάρας A. Tzavaras	10
	2. Κ. Μπουζάκης K. Bouzakis	10
	3. Ρ. Γραικούσης R. Grekoussis	10
GENERAL AVERAGE OF ORAL GRADES ΓΕΝΙΚΟΣ ΜΕΣΟΣ ΟΡΟΣ ΠΡΟΦΟΡΙΚΗΣ ΒΑΘΜΟΛΟΓΙΑΣ:		10

ΒΑΘΜΟΛΟΓΙΑ ΓΡΑΠΤΩΝ ΔΙΠΛΩΜΑΤΙΚΩΝ ΕΞΕΤΑΣΕΩΝ *Grades of Written Graduation Examination*

ΘΕΜΑ SUBJECT	ΕΞΕΤΑΣΤΕΣ EXAMINERS	ΒΑΘΜΟΛΟΓΙΑ GRADE
Production Management Οργάνωση Παραγωγής	1. Δ. Ψωινός D. Psounos	9,5
Διοίκηση Επιχειρήσεων Business Administration		
ΘΕΜΑ SUBJECT	ΕΞΕΤΑΣΤΕΣ EXAMINERS	ΒΑΘΜΟΛΟΓΙΑ GRADE
Hydrodynamic Machinery Υδροδυναμικές Μηχανές	1. Ι. Γκανούλης I. Ganoulis	10
Μηχανές Εσωτερικής Καύσης	2. Κ. Πάτιας K. Pattas	10
Αιμοποαραγωγοί Εγκαταστάσεις Internal Combustion Engines σειρές Steam turbine plants	AVERAGE ΜΕΣΟΣ ΟΡΟΣ:	10
ΘΕΜΑ SUBJECT	ΕΞΕΤΑΣΤΕΣ EXAMINERS	ΒΑΘΜΟΛΟΓΙΑ GRADE
Machine Elements Στοιχεία Μηχανών - Machine shop Technology Μηχανουργική Τεχνολογία	1. Ρ. Γραικούσης R. Grekoussis	10
	2. Π. Πετρόπουλος P. Petropoulos	10
Μεταλλογνωσία Metallurgy	3. Α. Τζαβάρας A. Tzavaras	10
	AVERAGE ΜΕΣΟΣ ΟΡΟΣ	10

GENERAL AVERAGE OF WRITTEN GRADES

ΓΕΝΙΚΟΣ ΜΕΣΟΣ ΟΡΟΣ ΓΡΑΠΤΗΣ ΒΑΘΜΟΛΟΓΙΑΣ : 9,83

In graduation examinations the grade scale is from zero to ten (0-10), the highest successful grade is ten (10) and the lowest successful grade is five and a half (5.5).
Στις διπλωματικές εξετάσεις η κλίμακα βαθμολογίας είναι από μηδέν μέχρι δέκα (0-10), ο μεγαλύτερος βαθμός επιτυχίας είναι το δέκα (10) και ο μικρότερος το πέντε και μισό (5,5).

ΒΑΘΜΟΣ ΔΙΠΛΩΜΑΤΟΣ: 10 (δέκα) ΑΡΙΣΤΑ (ten) EXCELLENT
DIPLOMA GRADE

Ορκίστηκε στις 20 Ιουλίου 1988 και έγινε διπλωματούχος.
He swore on July 20, 1988 and received his diploma.

Ο παραπάνω πήρε την κάτωθι σειρά από άποψη βαθμολογίας κατά τα ετήσια Παν/κά έτη:
At the admission examinations of year 1978 he ranked 1st in terms of grades.
Στις εισιτήριες εξετάσεις του έτους 1978 πήρε την 1η θέση από άποψη βαθμολογίας, σε σύνολο 68 επιτυχόντων στο Τμήμα Μηχανολόγων Μηχανικών.
During academic year 1978-79 as a first-year student he ranked 1st in terms of grades.
Κατά το Παν/κό έτος 1978-79 ως Α/ετής φοιτητής πήρε την 1η θέση από άποψη βαθμολογίας, σε σύνολο 75 φοιτητών.

As a second-year student during academic year 1979-80, he ranked 1st in terms of grades, over a total of 105 students.
Ως Β' / ετής φοιτητής κατά το Παν/κό έτος 1979-80, πήρε την 1η θέση απο αποψη βαθμολογίας, σε σύνολο 105 φοιτητών.

As a third-year student during academic year 1980-81, he ranked 1st in terms of grades, over a total of 114 students.
Ως Γ' / ετής φοιτητής κατά το Παν/κό έτος 1980-81, πήρε την 1η θέση απο αποψη βαθμολογίας, σε σύνολο 114 φοιτητών.

As a fourth-year student during academic year 1981-82, he ranked 1st in terms of grades, over a total of 101 students.
Ως Δ' / ετής φοιτητής κατά το Παν/κό έτος 1981-82, πήρε την 1η θέση απο αποψη βαθμολογίας, σε σύνολο 101 φοιτητών.

As a fifth-year student during academic year 1982-83, he ranked 1st in terms of grades, among a total of 96 students, out of which 4 swam during the first examination period in June 1983, during which the student should have received his diploma.
Ως Ε' / ετής φοιτητής κατά το Παν/κό έτος 1982-83, πήρε την 1η θέση απο αποψη βαθμολογίας, σε σύνολο 96 φοιτητών, απο τους οποίους 4 ορκίσθηκαν κατά την Α εξεταστική περίοδο Ιουνίου 1983, κατά την οποία έγινε διπλω-

ματούχος και ο αναφερόμενος.

This certificate is provided for every legal use.

Το πιστοποιητικό αυτό χορηγείται για κάθε νόμιμη χρήση,

Thessaloniki, August 30, 1988
Θεσσαλονίκη 30 Αυγούστου 1988



THE SECRETARY

Ε. ΚΑΡΑΛΙΩΤΑ-ΓΡΕΚΟΥΣΗ E. KARALIOTA - GREKOUSI

PROFESSIONAL REFERENCES

- * Prof. Dimitrios Kyritsis, Chair of Mechanical Engineering
Khalifa University of Science, Technology and Research
P.O. Box 127788, Abu Dhabi, UAE
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- * Dr. Mohamed Mahmoud, Manager, Technology Improvements, Development & Transfer
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- * Dr. Georgios Tsorbatzoglou, Director, Technical Services
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- * Prof. Warren DeVries, Dean of Engineering & Information Technologies
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- * Dr. Bruce Kramer, CMMI Acting Division Director, Senior Advisor for Engineering
National Science Foundation
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Tel: 001 703 292-5348, bkramer@nsf.gov
- * Prof. David E. Hardt, Mechanical Eng (former *Leaders for Manufacturing* Director)
Massachusetts Institute of Technology
Rm 35-231 - 77 Massachusetts Ave – Cambridge, MA 02139 – USA
Tel: 001 617 253-2251, hardt@mit.edu
- * Prof. Teiichi Ando, Professor, Advanced Materials Processing Laboratory
Dept. of Mechanical and Industrial Engineering, Northeastern University
157 Egan Research Center - 360 Huntington Ave - Boston, MA 02115 - USA
Tel: 001 617 3732253, tando@coe.neu.edu
- * Prof. YuMing Zhang, James R. Boyd Professor, Center for Manufacturing, 414P
Dept. of Electrical and Computer Engineering - University of Kentucky
2636 Fireside Cir. - Lexington, KY 40513 - USA
Tel: 001 859 2576262 x223, ymzhang@engr.uky.edu
- * Prof. Jochen Schneider, University Professor and Chair
Lehrstuhl für Werkstoffchemie - RWTH Aachen, BLB C 124
KopernikusStr. 16 - Aachen, D-52054 - Germany
Tel: 00 49 241 8025966, Schneider@mch.rwth-aachen.de
- * Prof. Julie Chen, VP for Research, Co-Director of Nanomanufacturing Center
University of Massachusetts Lowell
Olney Hall, OG24 – Lowell, MA 01854 – USA
Tel: 001 978-934-2992, Julie_chen@uml.edu
- * Dr. James C. Seferis, Professor Emeritus (University of Washington)
Polymeric Composites Laboratory
3131 Western Ave, Suite 526 - Seattle, WA 98121 - USA
Tel: 001 206 2858600, jcseferis@aol.com

March 8, 2021

Dear Search Committee:

I write to express my strong interest in becoming the next President of Florida State University. I believe my senior executive and administrative experiences in academia and government make me an outstanding candidate to lead FSU along its positive trajectory as one of our Nation's most innovative and entrepreneurial universities.

I have spent much of my career as an educator. I am intimately familiar with the imperatives of higher education, to include shared governance, academic freedom, and faculty and student research. I have extensive teaching experience at the undergraduate and graduate levels, having served as an Assistant Professor, Associate Professor, and Full Professor at domestic and international institutions. In 2015, I co-authored a book on how to lead Socratic seminars and to stimulate student learning (*Leading Dynamic Seminars*, Palgrave Publishing). I would draw upon my experience and passion for teaching to ensure that FSU maintains its rigorous academic standards.

I also have a proven track record of academic leadership, having served as both an Academic Dean and the Vice President of Academic Affairs at Marine Corps University. In my capacity as Vice President, I was responsible for ensuring the University's accreditation with the Southern Association of Colleges and Schools Commission on Colleges and educating more than 60,000 students worldwide.

I recently spent over two years as a presidentially appointed, twice-confirmed Senate official in the Department of Defense. Last November, I resigned my position as Acting Under Secretary of Defense for Policy, one of the department's most senior (4-star equivalent) and demanding civilian positions. In this capacity, I reported directly to the Secretary of Defense and made tough, executive-level decisions every day on defense policy, strategy, and budgetary matters.

When COVID-19 crisis hit the Pentagon last spring, I took immediate action to keep my Policy workforce safe. This required significant adjustments to work routines and a robust communications plan to keep all stakeholders informed of evolving safety protocols and requirements. As well, it required my leadership team modeling safe behaviors at every turn. Our efforts succeeded in keeping the number of COVID-19 cases low while enabling the Policy workforce to continue its mission.

If hired, I will draw upon my experience as a senior Pentagon executive during the COVID-19 crisis to ensure the safety and well-being of all FSU students, faculty, and staff.

I am strongly committed to promoting diversity in the work force and strengthening Title IX protections. While Acting Under Secretary of Defense for Policy, I helped to launch the first ever Diversity Council in Policy. I also initiated an outreach program to a HBCU in order to recruit minority students as interns in the Pentagon.

I would bring a collaborative leadership style to FSU, just as I cultivated diverse constituencies within the Pentagon -- and interagency writ large -- to advance departmental objectives. I was responsible for leading a staff of more than twelve hundred employees, to include career civil servants, military officers, political appointees, interagency detailees, contractors, and academic researchers.

I am comfortable with large budgets. At the Pentagon, I was responsible for an annual Policy budget in excess of \$1 billion dollars. As the third most senior civilian Pentagon official (by order of succession), I also influenced the overall Pentagon budget (in excess of \$740 billion). I would bring my strategic planning skills and financial acumen to spearhead the development of the new University strategic plan in alignment with FSU's vision.

FSU needs an articulate spokesperson and indefatigable advocate to champion its institutional ethos and educational value. I am confident that I can meet -- and exceed -- expectations here as well. Over the course of my career, I have received extensive media training and conducted countless radio, TV, and web-based interviews. I am primed to serve as the public face of FSU from day one.

FSU's relations with stakeholders, to include local and state government officials, are crucial to its continued success. As a senior Pentagon leader, I successfully engaged with U.S. Senators and Representatives on a frequent basis -- in hearings, briefings, and meetings -- to champion departmental objectives. I also worked to strengthen our Nation's defense relations with allies and partners across the globe. I would bring my relationship-building expertise to promote the FSU's public-private partnerships.

My experience also includes fundraising skills, having served as President of a successful 501C3 for more than a decade. The charity I lead is modest in size, but the fundraising skills I have learned in my leadership role are scalable to larger institutions. As well, I worked closely with the Marine Corps University Foundation during my time as Vice President of the University. In this capacity, I gained valuable experience interacting with potential donors.

On a more personal note, I am also the proud parent of a Division I athlete. As such, I am attuned to the demands of student athletes who play at the highest levels of competition. If

hired, I would ensure the Department of Intercollegiate Athletics at FSU lives up to its mission of comprehensive excellence.

I am confident in my ability to work with the Florida Legislature, University Board of Trustees, and the State University System of Florida Board of Governors to build on the successes of John Thrasher and advance FSU's vision as one of our Nation's most innovative and entrepreneurial universities.

The role of FSU President is not a 9-to-5 job. From my Pentagon experience, I know well that being a servant leader demands a 24/7 commitment. I would bring this level of commitment, energy, and passion to FSU.

I appreciate your consideration and look forward to hearing from you.

Sincerely,

James H. Anderson



March 6, 2021

To: Florida State University
c/o SP&A Executive Search

Re: *Application for Position of President*

Dear Mr. Alberto Pimentel, Mr. Will Gates, Mr. Sal Venegas Jr;
Dear Chair of the Presidential Search Committee,

It is my honor and pleasure to submit my application for the position of *President at Florida State University*. I have been knowledgeable and appreciative of *FSU* through my service at the *National Science Foundation (NSF)* in the US and the *Research Executive Agency (REA)* of the EU. My expertise is in nurturing, supporting and transforming academic institutions for unparalleled student and personnel experience and performance, diversity engagement and societal impact, next-generation teaching and learning, personalized mentoring and coaching, scholarly research distinction, strategic innovation leadership, government and industry support, and international competitive recognition.

My passion is in inspiring and fostering academic excellence and leading student and personnel career and program success to enable community and global impact, by administering *interdisciplinary* education, accreditation, outreach, diversity, research, development, innovation, training, entrepreneurship, strategic partnership initiatives and ecosystems. This stems from my *inter-sectorial* career in diverse international academic (*MIT, Aristotelian Univ. of Thessaloniki, Tufts Univ, Univ. of Cyprus, Univ. of Nevada Reno, Khalifa Univ, Nazarbayev Univ, Vin University*), industrial (*ELVO, Axcelis Technologies, Honda R&D Americas, VinGroup*) and government institutions (*NSF, EU Research Executive Agency, Cyprus Research Promotion Fdn, Hellenic Airforce*), in N. America, Europe (Cyprus, Greece, Ireland) and Asia (Middle East, Central and SE Asia). My focus is on academic *quality* for global recognition, such as my White House *Presidential Faculty Fellow* award (by former President W.J. Clinton) and the European Union *Marie Curie Chair of Excellence*; And in *founding* and nurturing young and *start-up* institutions (*NSF Nanomanufacturing, Univ. of Cyprus Engineering, Nevada Advanced Autonomous Systems Innovation Center, Khalifa Univ. CIVE, Nazarbayev Univ. Research System, Vin Univ. Engineering & CompSci*). Students and faculty (see attached *Feedback*) are universally laudatory of my transformational impact in their studies and careers; And my qualifications in the roles of Deputy/Vice Provost for Research, Dean, Chair, Center/Program Director and Distinguished Professor related to this position are outlined below.

Attached please find my curriculum vitae and my leadership statement of research, education, administration and innovation activities and philosophy. A list of references is also attached to this letter. Should your Search Committee need additional information (project reports, papers, course folders, recommendation letters, official degree transcripts etc), a presentation of my action plan *as President*, or any other assistance please do not hesitate to contact me. I would be honored to further explore with your Search Committee a possible interest in my candidacy for serving the *FSU* community in supporting its singular potential and ambition. I would also kindly request that my application be held in confidence while being processed. Thanking you in advance warmly for your consideration,

Sincerely,

A handwritten signature in blue ink, appearing to read 'Charalabos Doumanidis'.

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Qualifications Statement

1. *Academic Leadership.* After my degrees in Mechanical Engineering from the *Massachusetts Institute of Technology* (MIT, PhD 1988), *Northwestern University* (MS 1985) and the *Aristotelian University of Thessaloniki* (BS 1983), my academic initiative as faculty at *Tufts University* (1991-2000) established the *Thermal Manufacturing Laboratory* research group. At the *University of Cyprus* (2003-13) I served as the founding Chair of the Mechanical and Manufacturing Engineering Department and the founding Director of the *Hephaistos Nanotechnology Research Center*, recruited and hired 7 out of their currently 13 faculty, designed and implemented their first laboratory facilities, established the undergraduate and graduate programs of study, and attracted the first research grants by the *European Commission* (my Marie Curie Chair and Excellence Team, totaling >€9 million). During my service at the *University of Nevada Reno* as the Chair of Mechanical Engineering (2013-14), my research has co-established the *Nevada Advanced Autonomous Systems Innovation Center* (NAASIC) with government funding (\$3 M). As faculty and Interim Chair of Civil Infrastructure and Environmental Engineering Department at *Khalifa University* (2015-18) I have attracted research funding from *Emirates Global Aluminium* (EGA) in cooperation with *ADQCC Emirates Metrology Institute* (EMI). More recently I have been Vice Provost for Research, Interim Dean of the School of Mining and Geosciences and Director of Training at *Nazarbayev University* in Astana, Kazakhstan (2018-19), establishing and developing its research strategy, facilities and personnel resources. I have been currently serving as Distinguished Professor and as Founding Dean of the new College of Engineering and Computer Science at the neophyte *Vin University* in Hanoi, the latest corporate member of the emblematic *VinGroup* of Vietnam.

2. *Research Achievement.* My applied research and technological development work addresses experimental and computational modelling and control of thermofluidic materials processing and manufacturing processes producing fractal structures rooted at the nanoscale. My *nanoheaters*, *feather-form* composites and *bioscaffolds* enable underwater robot welding of offshore platforms, extrusion of photovoltaic solar trees (*photodendra*), solar nanofabrics and cooling foils, membranes for photocatalysis and water desalination, vascular scaffolds for tissue engineering and drug delivery etc. I serve as Guest/Associate Editor of international scientific journals for ASME, Elsevier, Hindawi and IASTED; Research reviewer for over 30 technical journals and research funding institutions; Organizer/ chair of over 40 symposia for ASME, IEEE, NSET, NSF etc; Speaker of over 30 keynote/plenary lectures and over 100 invited seminars; and author of over 300 refereed papers distinguished by four best paper awards, plus five book chapters and nine patents. My technologies have been transferred to companies such as *Axcelis*, *Boeing*, *General Dynamics*, *General Electric Aircraft Engines*, *Honda*, *Ormat*, *Toray* etc.

3. *Academic Awards and Honors.* My academic work was awarded the *Marie Curie Excellence Team* (2006) and *Marie Curie Chair of Excellence* (2004) awards by the *European Commission*; the *ASME Blackall Award* (2002); the *Presidential Faculty Fellow Award* by the *White House* (President W.J. Clinton, 1996); the *NSF Young Investigator* (1994) and *Research Initiation Award* (1992); as well as several grants from the *European Commission* (EC), the *National Science Foundation* (NSF), *Society of Manufacturing Engineers* (SME), *Department of Energy* (DoE), *National Institute for Standards and Technology* (NIST), *National Academy for Engineering* (NAE), *Research Promotion Foundation-Cyprus*, *Honda Research Institute* (HRI), *Emirates Global Aluminium* (EGA) *Excellence Center*, the *States of Nevada* and *Texas* and other institutions, totalling over \$ 18 M as PI/co-PI.

4. *Education and Research Training Experience.* My teaching repertory in engineering and science includes courses in engineering design, advanced and additive manufacturing, energy systems, thermofluid materials processing, mechatronics, vehicle dynamics, controls and automation, robotics etc at the undergraduate and graduate level. My teaching methods are inspired by a humanistic philosophy and the power of *role models*, and emphasize experiential and constructivist activities to introduce students into research, utilizing research/teaching laboratories I have set up at Tufts and the University of Cyprus. I have mentored research training and planning of many junior investigators, postdocs, graduate students (over 50 graduated), and my courses have received top ratings and evaluations by the students. I have

also been in charge or involved with academic program accreditation at Tufts University, the University of Nevada Reno and Khalifa University by the *Accreditation Board for Engineering and Technology* (ABET), at the University of Cyprus and Nazarbayev University by the *European University Association* (EUA), and at Khalifa University by the *Commission for Academic Accreditation* (CAA).

5. *Administrative and Innovation Experience.* This includes my service as founding Director of the *Nanomanufacturing Program* and the *Nanoscale Science & Engineering Program* at the *National Science Foundation* three times (2001-03, 2006-07 and 2010-11) under the *National Nanotechnology Initiative* (NNI). My programs have formulated solicitations, coordinated review of over 1,000 research proposals, and supervised a portfolio of over 100 projects at all levels, including 3 major *Nanoscale Science and Engineering Centers* (NSEC), with a total research investment of over \$120 M by NSF. I have also served as the *National Contact Point for Nanotechnology* (NMP) of the *Research Promotion Foundation* of Cyprus, under the *European Commission Research Executive Agency (REA) Framework Programme 6* (2003-05), and have been involved in the *Abu Dhabi Education Council (ADEC) Research Evaluation Process* for higher education institutions. In this capacity I have guided the research of my program grantees and many more junior faculty in the USA, Europe and the UAE. My fundraising and philanthropy activity spans across institutions such as the *Lufkin and Burstein Foundations*, *B&M Gates Foundation* and *Children's Hospital, Boston*. My industrial research management experience includes my work as Chief Scientist at *Axcelis Technologies R&D* (Beverly, MA 2000-01) and a long-term consultancy for *Honda R&D Americas Research Institute (HRI)*, administering the *Honda Initiation Grant (HIG)* program for university research (2003-7). Finally I serve as technical officer of our start-up companies (*ATD Nano*, *AMDM*, *Eco Green Power*, *Unification Energy*, *Neumitra*, *Stonewedge* and *ADROV LLC*) with my former students, guiding them to humanitarian development and sustainable innovation.

Leadership Philosophy

**Academic Vision and Mission:* Engineering a better, safer, healthier, more equitable world for all; towards a brighter and sustainable future; Understanding, creating and serving the nation and humanity, by tackling the domestic and world key challenges.

**Values and Philosophy:* Honesty as the best policy – integrity as the best strategy; Long-term, broad planning – short-term, focused action; Virtue, fairness, stability and sustainability.

**Personal Background:* International experience; inter-sectoral career (in academe, government, industry); interdisciplinary expertise; Focus on research, quality, start-up initiatives as founding person; Humanistic and Hellenistic background, valuing and pursuing diversity, equity and inclusion.

**Initiative & Entrepreneurship:* Running my role with job ownership, authority and responsibility as if it were my own; Taking calculated risks based on cost/benefit and probability analysis as my crystal ball.

**Human Management:* *Pater familias* (fatherhood) philosophy; Serving as role model to pass on to my team; Leadership based on trust, feedback and empowerment; Family-model teamwork with team pride, personal modesty and selflessness; Emphasis on mentoring and coaching.

**Resource Management:* Balancing inputs to outputs and building capacity; Continuous improvement by small-perturbation evolution; Prioritized additive over subtractive approach in managing budgets (i.e., what should be done first with just \$1,000; then with \$1M; then with \$1B of funding etc).

**Conflict Management:* Impartiality, negotiation, compromise; Exhaustive assessment of the principles and preferences of all parties; Sensitivity analysis with trial & error feedback; "What if" Solomonian scenarios; Conflict confined within civic limits; Towards a win-win, consensual resolution.

**Adaptation to Change:* In three phases: Resilience, strategizing, retraining; Resource lend-and-borrow approach in difficult circumstances; Modeling of change management after family life.

"In war: Resolution; In defeat: Defiance; In victory: Magnanimity; In peace: Good will"
Winston S. Churchill

Diversity Statement

My past initiative and work has contributed drastically and successfully to multiple aspects of diversity inclusion, engagement and stewardship in teaching and learning as follows:

* *Gender diversity* through the *Society of Women Engineers* (SWE) and my *GTE Foundation* and *NYNEX Scholars Women in Science & Engineering* (WISE) programs at Tufts University: 60 female students/year in summer courses towards certificate and transfer credit;

* *Racial diversity* through my support of *HBCUs*, *HSIs* and *MSIs* by the *Nanomanufacturing Program* at the *National Science Foundation*; targeted funding of *ADVANCE* and *REU/RET* sites in nano-manufacturing at minority supporting institutions (total \$300K/year);

* *Linguistic diversity* by my establishing of bilingual graduate programs (English-Greek) at the *University of Cyprus*, MME department; recruited total 24 international students, taught by bilingual faculty in English towards tenure & promotion service recognition;

* *Socioeconomic diversity* through my need-based scholarships and financial aid to impoverished family students at the *University of Nevada Reno*; 5-7 students/year (\$100k);

* *Nationality diversity* through my attraction of expatriate graduate students to the ME and CIVE research teams while at *Khalifa University*; through joint programs with international universities and research contract appointments to support ~10 grad students/year;

* *Ethnic diversity* through my establishing of the alternating Kazakh-Russian scientist research seminar at *Nazarbayev University*; gave graduate students attendance credit for research-integrated teaching and opportunity to present their work (at weekly lectures in each School);

* *Minority diversity* through my outreach and active scholarship and recruitment programs at *Vin University* in Hanoi, Vietnam; through STEM webinars and hackathons in disadvantaged area schools.

My approach has been that diversity is a key contributor to the fabric of science, the same way it is to the fabric of society. The diversity of new intellectual ideas and global impacts comes distinctly and specifically from the experiential and genetic diversity of people as their originators. It is my resolute intent and ambit that I contribute my best efforts and skills so that diversity plays an integral and leading role in the vision, planning, management and success of all academic and administrative endeavors in my institution of the future.

HUMANITARIAN DIGITAL INNOVATION: A VISION FOR FLORIDA STATE UNIVERSITY

Where there is no vision, the people perish. (Proverbs 29:18)

Inspired by the *National Science Foundation* (NSF) ideals of serving *people, ideas* and *tools* in science and engineering, Dr. Doumanidis' vision as *President* at *Florida State University* focuses on its potentially transformative role to the society of knowledge at the local, national and international level via education, research and innovation. This is fueled by the dream of young minds, with their early curiosities, fascination and inclination to innovation and technology projects, dating back to their pre-school education. Through learning, work and life within the University family, these gifted minds ought to be encouraged, cultivated and nurtured throughout their education, to grow into the accomplished, enthusiastic and imaginative artists, engineers, scientists, designers and professionals of tomorrow. It is the minds of such youth who will bear the much-awaited fruits of break-through ideas, by boldly crossing traditional disciplinary frontiers, to disrupt conventional approaches and enable novel investigations and accomplishments inspired by their studies. This scholarly renaissance will capitalize on pioneering new tools and practices, from novel concepts and methods, to human and cultural diversity of all aspects, to effective networks, synergies and partnerships across global academic, industrial and government stakeholders. In such a fertile context of discovery, learning and creation, lie the hopes of modern society for serving its urgent human and material resource needs and aspirations; for the environment, health, safety and improvement of quality of life; for employment opportunities and essential services in work and life; and humanistic development and intellectual growth.

A mission of *Florida State University* in such an academic cosmogony is to pioneer and embody the requisite transformation in teaching curricula and research portfolio in its interdisciplinary domains, and to direct this change towards tangible societal service through its outreach and innovation activity. The human and infrastructure resources of *the University*, along with its momentum and continued progress in national and international academe, imply its obligation for prominent leadership towards this vision. Through early outreach, its prerogative is to magnetize and attract the best and diverse minds, and to fatherly foster its undergraduate classes with most rigorous and state-of-the-art education standards. This would be achieved by exposing and nurturing them in a solid engineering and broad science background, together with eye-opening initiation to the realms of deep, genuine research and innovation. In its graduate programs and via research-integrated teaching, *FSU* has a clear mission in providing quality opportunities for discovery and learning through modern infrastructure and an open and fertile intellectual environment, in which the most innovative and value-adding ideas flourish and materialize. Likewise in graduate, adult and seminary programs, by setting the highest professional and ethical standards, *FSU* will fulfil its goals in putting learning into action and serving our local and global society. At the same time its faculty and staff, especially its junior members, need to be mentored and nurtured, in a strong teamwork and leadership spirit of an academic family, into enriching their teaching activities and competitive focal research to new excellence levels. This endeavor calls for close synergy with partner academic establishments, along with government agencies and major industry and small enterprises both locally and globally, to insure the best, broad career opportunities for all its alumni and alumnae. Finally *FSU* has a caring role in lifelong learning via continuing education, and in informal public information and literacy of the broader society, particularly parents and teachers, in enriching intellectual horizons and in opening new, cross-disciplinary areas of knowledge.

One such exciting field of service towards underserved beneficiaries, currently gaining interest and national support by state and non-government organizations (the *Bill & Melinda Gates Foundation*, *World Health Organization*, *Engineers Without Borders* etc) is *Humanitarian Digital Innovation*. *Humanitarian art, science and technology* addresses the special needs of underdeveloped areas of the world, and those afflicted by natural or anthropogenic disasters (pandemics, accidents, earthquakes, tsunamis, hurricanes, fires, acts of terror etc) in vital services and resources such as adobe, water,

nutrition, sanitation, shelter, energy, transportation, communications, medications, health aids, education etc. These need to be provided in environments posing special challenges in the availability of human, material and technical resources, know-how and supply chain connectivity with the external world, often calling for in-situ service or goods suitable for transportation. Such conditions reminiscent of previous ages voice a clear and loud call to modern art, science and engineering, to address novel education and research paradigms and to implement new effective strategies and platforms to face urgent human needs. Examples of such needs include desalination and filtration of water; architectural design and building; non-traditional agriculture and farming; sanitation materials and systems; solar, wind and biofuel power; cooling for food and medicines; nature-based construction materials; pathogen and bio- sensors; transportation and communication systems; vaccines and medications; in-situ emergency and intensive care units; telemedicine networks; distance and online or hybrid schooling; remote work, relief, recreation, information, support, governance and management services. Such a contemporary initiative in humanitarian development for social and natural sustainability has been likened to a new *Marshall Plan*, relieving global disaster-afflicted and under-privileged areas, while creating international sociopolitical alliances and preempting other expanding politico-economic influences. *Humanitarian art, science and technology* aims at balancing military with philanthropic expenditures; At the same time it revitalizes national industry and international modern services, by opening new global markets and communities with access to material, human and systemic resources. *Florida State University*, with its academic mission, societal involvement and international networking could be a natural leader in such a humanitarian sustainability initiative.

Specific goals of the *President's* role within such a comprehensive vision should of course be defined and prioritized dynamically, via a continuing dialogue and agreement with the *Board* and administration, the faculty and staff, the students and the community, based on assessment and feedback in regular brainstorming sessions. This process will capitalize on targeted strength areas of *FSU* in need to be further supported and developed, and at the same time be inoculated with exciting opportunities in new interdisciplinary fields and enabled by new internal and external resources. Dr. Doumanidis takes such a role in identifying and pursuing external national and international synergies, partnerships and support by industry and government as a key responsibility. In such target areas of future vision, joint planning and endeavor with its community, *FSU* will pursue new, intellectually meritorious and broadly impactful *Education & Research Centers* through local support and collaboration with other distinguished institutions, including international industry and government across the world.

In education and research training, Dr. Doumanidis' experience and vision in STEAM (*science, technology, engineering, arts and mathematics*) could not only enrich future undergraduate, graduate and professional curricula, but also further innovate in the research agenda of *FSU*. His expertise would, for example, nucleate and support faculty efforts in bio-/nano-technology, material design and manufacturing, towards participation in *Science and Technology and/or Engineering Research Centers* and *Industry-University Cooperative Research Centers*. New streamlined and forward-looking curricula attuned to optimally serving the global society, could offer externally supportable (e.g. via *Atlantis, Marie S. Curie, Erasmus Mundus, Newton* and *Fulbright* grants) education models and partnerships with the worldwide academic community. As discussed in his *Leadership Statement* and to combat the current health and economy crisis, Dr. Doumanidis envisions an opportunity for leadership of *FSU* in developing programs and resources for online professional retraining e.g. in telemedicine infrastructure and platforms, as well as hybrid/remote education. Through his association with pre-college schools and teachers across the nation, he could help towards a more active role in such a crucial and mutually beneficial partnership, in raising quality human resources and directing them towards higher education. *FSU* could also pioneer in public education through close collaboration with science and technology museum resources, such as informal science and education networks and exploratoria etc. Finally Dr. Doumanidis' close ties with numerous global industries and enterprises could catalyze initiatives towards international innovation consortia jointly with academe, with support e.g. via the NSF *Partnership in International Research and Education* (PIRE), the new *Horizon Europe* funding programs etc.

PROFESSIONAL REFERENCES

- * Prof. Dimitrios Kyritsis, Chair of Mechanical Engineering
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March 6, 2021

To: Florida State University
c/o SP&A Executive Search

Re: *Application for Position of President*

Dear Mr. Alberto Pimentel, Mr. Will Gates, Mr. Sal Venegas Jr;
Dear Chair of the Presidential Search Committee,

It is my honor and pleasure to submit my application for the position of *President at Florida State University*. I have been knowledgeable and appreciative of *FSU* through my service at the *National Science Foundation (NSF)* in the US and the *Research Executive Agency (REA)* of the EU. My expertise is in nurturing, supporting and transforming academic institutions for unparalleled student and personnel experience and performance, diversity engagement and societal impact, next-generation teaching and learning, personalized mentoring and coaching, scholarly research distinction, strategic innovation leadership, government and industry support, and international competitive recognition.

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Sincerely,

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Qualifications Statement

1. *Academic Leadership.* After my degrees in Mechanical Engineering from the *Massachusetts Institute of Technology* (MIT, PhD 1988), *Northwestern University* (MS 1985) and the *Aristotelian University of Thessaloniki* (BS 1983), my academic initiative as faculty at *Tufts University* (1991-2000) established the *Thermal Manufacturing Laboratory* research group. At the *University of Cyprus* (2003-13) I served as the founding Chair of the Mechanical and Manufacturing Engineering Department and the founding Director of the *Hephaistos Nanotechnology Research Center*, recruited and hired 7 out of their currently 13 faculty, designed and implemented their first laboratory facilities, established the undergraduate and graduate programs of study, and attracted the first research grants by the *European Commission* (my Marie Curie Chair and Excellence Team, totaling >€9 million). During my service at the *University of Nevada Reno* as the Chair of Mechanical Engineering (2013-14), my research has co-established the *Nevada Advanced Autonomous Systems Innovation Center* (NAASIC) with government funding (\$3 M). As faculty and Interim Chair of Civil Infrastructure and Environmental Engineering Department at *Khalifa University* (2015-18) I have attracted research funding from *Emirates Global Aluminium* (EGA) in cooperation with *ADQCC Emirates Metrology Institute* (EMI). More recently I have been Vice Provost for Research, Interim Dean of the School of Mining and Geosciences and Director of Training at *Nazarbayev University* in Astana, Kazakhstan (2018-19), establishing and developing its research strategy, facilities and personnel resources. I have been currently serving as Distinguished Professor and as Founding Dean of the new College of Engineering and Computer Science at the neophyte *Vin University* in Hanoi, the latest corporate member of the emblematic *VinGroup* of Vietnam.

2. *Research Achievement.* My applied research and technological development work addresses experimental and computational modelling and control of thermofluidic materials processing and manufacturing processes producing fractal structures rooted at the nanoscale. My *nanoheaters*, *feather-form* composites and *bioscaffolds* enable underwater robot welding of offshore platforms, extrusion of photovoltaic solar trees (*photodendra*), solar nanofabrics and cooling foils, membranes for photocatalysis and water desalination, vascular scaffolds for tissue engineering and drug delivery etc. I serve as Guest/Associate Editor of international scientific journals for ASME, Elsevier, Hindawi and IASTED; Research reviewer for over 30 technical journals and research funding institutions; Organizer/ chair of over 40 symposia for ASME, IEEE, NSET, NSF etc; Speaker of over 30 keynote/plenary lectures and over 100 invited seminars; and author of over 300 refereed papers distinguished by four best paper awards, plus five book chapters and nine patents. My technologies have been transferred to companies such as *Axcelis*, *Boeing*, *General Dynamics*, *General Electric Aircraft Engines*, *Honda*, *Ormat*, *Toray* etc.

3. *Academic Awards and Honors.* My academic work was awarded the *Marie Curie Excellence Team* (2006) and *Marie Curie Chair of Excellence* (2004) awards by the *European Commission*; the *ASME Blackall Award* (2002); the *Presidential Faculty Fellow Award* by the *White House* (President W.J. Clinton, 1996); the *NSF Young Investigator* (1994) and *Research Initiation Award* (1992); as well as several grants from the *European Commission* (EC), the *National Science Foundation* (NSF), *Society of Manufacturing Engineers* (SME), *Department of Energy* (DoE), *National Institute for Standards and Technology* (NIST), *National Academy for Engineering* (NAE), *Research Promotion Foundation-Cyprus*, *Honda Research Institute* (HRI), *Emirates Global Aluminium* (EGA) *Excellence Center*, the *States of Nevada* and *Texas* and other institutions, totalling over \$ 18 M as PI/co-PI.

4. *Education and Research Training Experience.* My teaching repertory in engineering and science includes courses in engineering design, advanced and additive manufacturing, energy systems, thermofluid materials processing, mechatronics, vehicle dynamics, controls and automation, robotics etc at the undergraduate and graduate level. My teaching methods are inspired by a humanistic philosophy and the power of *role models*, and emphasize experiential and constructivist activities to introduce students into research, utilizing research/teaching laboratories I have set up at Tufts and the University of Cyprus. I have mentored research training and planning of many junior investigators, postdocs, graduate students (over 50 graduated), and my courses have received top ratings and evaluations by the students. I have

also been in charge or involved with academic program accreditation at Tufts University, the University of Nevada Reno and Khalifa University by the *Accreditation Board for Engineering and Technology* (ABET), at the University of Cyprus and Nazarbayev University by the *European University Association* (EUA), and at Khalifa University by the *Commission for Academic Accreditation* (CAA).

5. *Administrative and Innovation Experience.* This includes my service as founding Director of the *Nanomanufacturing Program* and the *Nanoscale Science & Engineering Program* at the *National Science Foundation* three times (2001-03, 2006-07 and 2010-11) under the *National Nanotechnology Initiative* (NNI). My programs have formulated solicitations, coordinated review of over 1,000 research proposals, and supervised a portfolio of over 100 projects at all levels, including 3 major *Nanoscale Science and Engineering Centers* (NSEC), with a total research investment of over \$120 M by NSF. I have also served as the *National Contact Point for Nanotechnology* (NMP) of the *Research Promotion Foundation* of Cyprus, under the *European Commission Research Executive Agency (REA) Framework Programme 6* (2003-05), and have been involved in the *Abu Dhabi Education Council (ADEC) Research Evaluation Process* for higher education institutions. In this capacity I have guided the research of my program grantees and many more junior faculty in the USA, Europe and the UAE. My fundraising and philanthropy activity spans across institutions such as the *Lufkin and Burstein Foundations*, *B&M Gates Foundation* and *Children's Hospital, Boston*. My industrial research management experience includes my work as Chief Scientist at *Axcelis Technologies R&D* (Beverly, MA 2000-01) and a long-term consultancy for *Honda R&D Americas Research Institute (HRI)*, administering the *Honda Initiation Grant (HIG)* program for university research (2003-7). Finally I serve as technical officer of our start-up companies (*ATD Nano*, *AMDM*, *Eco Green Power*, *Unification Energy*, *Neumitra*, *Stonewedge* and *ADROV LLC*) with my former students, guiding them to humanitarian development and sustainable innovation.

Leadership Philosophy

**Academic Vision and Mission:* Engineering a better, safer, healthier, more equitable world for all; towards a brighter and sustainable future; Understanding, creating and serving the nation and humanity, by tackling the domestic and world key challenges.

**Values and Philosophy:* Honesty as the best policy – integrity as the best strategy; Long-term, broad planning – short-term, focused action; Virtue, fairness, stability and sustainability.

**Personal Background:* International experience; inter-sectoral career (in academe, government, industry); interdisciplinary expertise; Focus on research, quality, start-up initiatives as founding person; Humanistic and Hellenistic background, valuing and pursuing diversity, equity and inclusion.

**Initiative & Entrepreneurship:* Running my role with job ownership, authority and responsibility as if it were my own; Taking calculated risks based on cost/benefit and probability analysis as my crystal ball.

**Human Management:* *Pater familias* (fatherhood) philosophy; Serving as role model to pass on to my team; Leadership based on trust, feedback and empowerment; Family-model teamwork with team pride, personal modesty and selflessness; Emphasis on mentoring and coaching.

**Resource Management:* Balancing inputs to outputs and building capacity; Continuous improvement by small-perturbation evolution; Prioritized additive over subtractive approach in managing budgets (i.e., what should be done first with just \$1,000; then with \$1M; then with \$1B of funding etc).

**Conflict Management:* Impartiality, negotiation, compromise; Exhaustive assessment of the principles and preferences of all parties; Sensitivity analysis with trial & error feedback; "What if" Solomonian scenarios; Conflict confined within civic limits; Towards a win-win, consensual resolution.

**Adaptation to Change:* In three phases: Resilience, strategizing, retraining; Resource lend-and-borrow approach in difficult circumstances; Modeling of change management after family life.

"In war: Resolution; In defeat: Defiance; In victory: Magnanimity; In peace: Good will"
Winston S. Churchill

Diversity Statement

My past initiative and work has contributed drastically and successfully to multiple aspects of diversity inclusion, engagement and stewardship in teaching and learning as follows:

- * *Gender diversity* through the *Society of Women Engineers* (SWE) and my *GTE Foundation* and *NYNEX Scholars Women in Science & Engineering* (WISE) programs at Tufts University: 60 female students/year in summer courses towards certificate and transfer credit;
- * *Racial diversity* through my support of *HBCUs*, *HSIs* and *MSIs* by the *Nanomanufacturing Program* at the *National Science Foundation*; targeted funding of *ADVANCE* and *REU/RET* sites in nano-manufacturing at minority supporting institutions (total \$300K/year);
- * *Linguistic diversity* by my establishing of bilingual graduate programs (English-Greek) at the *University of Cyprus*, MME department; recruited total 24 international students, taught by bilingual faculty in English towards tenure & promotion service recognition;
- * *Socioeconomic diversity* through my need-based scholarships and financial aid to impoverished family students at the *University of Nevada Reno*; 5-7 students/year (\$100k);
- * *Nationality diversity* through my attraction of expatriate graduate students to the ME and CIVE research teams while at *Khalifa University*; through joint programs with international universities and research contract appointments to support ~10 grad students/year;
- * *Ethnic diversity* through my establishing of the alternating Kazakh-Russian scientist research seminar at *Nazarbayev University*; gave graduate students attendance credit for research-integrated teaching and opportunity to present their work (at weekly lectures in each School);
- * *Minority diversity* through my outreach and active scholarship and recruitment programs at *Vin University* in Hanoi, Vietnam; through STEM webinars and hackathons in disadvantaged area schools.

My approach has been that diversity is a key contributor to the fabric of science, the same way it is to the fabric of society. The diversity of new intellectual ideas and global impacts comes distinctly and specifically from the experiential and genetic diversity of people as their originators. It is my resolute intent and ambit that I contribute my best efforts and skills so that diversity plays an integral and leading role in the vision, planning, management and success of all academic and administrative endeavors in my institution of the future.

HUMANITARIAN DIGITAL INNOVATION: A VISION FOR FLORIDA STATE UNIVERSITY

Where there is no vision, the people perish. (Proverbs 29:18)

Inspired by the *National Science Foundation* (NSF) ideals of serving *people, ideas* and *tools* in science and engineering, Dr. Doumanidis' vision as *President* at *Florida State University* focuses on its potentially transformative role to the society of knowledge at the local, national and international level via education, research and innovation. This is fueled by the dream of young minds, with their early curiosities, fascination and inclination to innovation and technology projects, dating back to their pre-school education. Through learning, work and life within the University family, these gifted minds ought to be encouraged, cultivated and nurtured throughout their education, to grow into the accomplished, enthusiastic and imaginative artists, engineers, scientists, designers and professionals of tomorrow. It is the minds of such youth who will bear the much-awaited fruits of break-through ideas, by boldly crossing traditional disciplinary frontiers, to disrupt conventional approaches and enable novel investigations and accomplishments inspired by their studies. This scholarly renaissance will capitalize on pioneering new tools and practices, from novel concepts and methods, to human and cultural diversity of all aspects, to effective networks, synergies and partnerships across global academic, industrial and government stakeholders. In such a fertile context of discovery, learning and creation, lie the hopes of modern society for serving its urgent human and material resource needs and aspirations; for the environment, health, safety and improvement of quality of life; for employment opportunities and essential services in work and life; and humanistic development and intellectual growth.

A mission of *Florida State University* in such an academic cosmogony is to pioneer and embody the requisite transformation in teaching curricula and research portfolio in its interdisciplinary domains, and to direct this change towards tangible societal service through its outreach and innovation activity. The human and infrastructure resources of *the University*, along with its momentum and continued progress in national and international academe, imply its obligation for prominent leadership towards this vision. Through early outreach, its prerogative is to magnetize and attract the best and diverse minds, and to fatherly foster its undergraduate classes with most rigorous and state-of-the-art education standards. This would be achieved by exposing and nurturing them in a solid engineering and broad science background, together with eye-opening initiation to the realms of deep, genuine research and innovation. In its graduate programs and via research-integrated teaching, *FSU* has a clear mission in providing quality opportunities for discovery and learning through modern infrastructure and an open and fertile intellectual environment, in which the most innovative and value-adding ideas flourish and materialize. Likewise in graduate, adult and seminary programs, by setting the highest professional and ethical standards, *FSU* will fulfil its goals in putting learning into action and serving our local and global society. At the same time its faculty and staff, especially its junior members, need to be mentored and nurtured, in a strong teamwork and leadership spirit of an academic family, into enriching their teaching activities and competitive focal research to new excellence levels. This endeavor calls for close synergy with partner academic establishments, along with government agencies and major industry and small enterprises both locally and globally, to insure the best, broad career opportunities for all its alumni and alumnae. Finally *FSU* has a caring role in lifelong learning via continuing education, and in informal public information and literacy of the broader society, particularly parents and teachers, in enriching intellectual horizons and in opening new, cross-disciplinary areas of knowledge.

One such exciting field of service towards underserved beneficiaries, currently gaining interest and national support by state and non-government organizations (the *Bill & Melinda Gates Foundation*, *World Health Organization*, *Engineers Without Borders* etc) is *Humanitarian Digital Innovation*. *Humanitarian art, science and technology* addresses the special needs of underdeveloped areas of the world, and those afflicted by natural or anthropogenic disasters (pandemics, accidents, earthquakes, tsunamis, hurricanes, fires, acts of terror etc) in vital services and resources such as adobe, water,

nutrition, sanitation, shelter, energy, transportation, communications, medications, health aids, education etc. These need to be provided in environments posing special challenges in the availability of human, material and technical resources, know-how and supply chain connectivity with the external world, often calling for in-situ service or goods suitable for transportation. Such conditions reminiscent of previous ages voice a clear and loud call to modern art, science and engineering, to address novel education and research paradigms and to implement new effective strategies and platforms to face urgent human needs. Examples of such needs include desalination and filtration of water; architectural design and building; non-traditional agriculture and farming; sanitation materials and systems; solar, wind and biofuel power; cooling for food and medicines; nature-based construction materials; pathogen and bio- sensors; transportation and communication systems; vaccines and medications; in-situ emergency and intensive care units; telemedicine networks; distance and online or hybrid schooling; remote work, relief, recreation, information, support, governance and management services. Such a contemporary initiative in humanitarian development for social and natural sustainability has been likened to a new *Marshall Plan*, relieving global disaster-afflicted and under-privileged areas, while creating international sociopolitical alliances and preempting other expanding politico-economic influences. *Humanitarian art, science and technology* aims at balancing military with philanthropic expenditures; At the same time it revitalizes national industry and international modern services, by opening new global markets and communities with access to material, human and systemic resources. *Florida State University*, with its academic mission, societal involvement and international networking could be a natural leader in such a humanitarian sustainability initiative.

Specific goals of the *President's* role within such a comprehensive vision should of course be defined and prioritized dynamically, via a continuing dialogue and agreement with the *Board* and administration, the faculty and staff, the students and the community, based on assessment and feedback in regular brainstorming sessions. This process will capitalize on targeted strength areas of *FSU* in need to be further supported and developed, and at the same time be inoculated with exciting opportunities in new interdisciplinary fields and enabled by new internal and external resources. Dr. Doumanidis takes such a role in identifying and pursuing external national and international synergies, partnerships and support by industry and government as a key responsibility. In such target areas of future vision, joint planning and endeavor with its community, *FSU* will pursue new, intellectually meritorious and broadly impactful *Education & Research Centers* through local support and collaboration with other distinguished institutions, including international industry and government across the world.

In education and research training, Dr. Doumanidis' experience and vision in STEAM (*science, technology, engineering, arts and mathematics*) could not only enrich future undergraduate, graduate and professional curricula, but also further innovate in the research agenda of *FSU*. His expertise would, for example, nucleate and support faculty efforts in bio-/nano-technology, material design and manufacturing, towards participation in *Science and Technology and/or Engineering Research Centers* and *Industry-University Cooperative Research Centers*. New streamlined and forward-looking curricula attuned to optimally serving the global society, could offer externally supportable (e.g. via *Atlantis*, *Marie S. Curie*, *Erasmus Mundus*, *Newton* and *Fulbright* grants) education models and partnerships with the worldwide academic community. As discussed in his *Leadership Statement* and to combat the current health and economy crisis, Dr. Doumanidis envisions an opportunity for leadership of *FSU* in developing programs and resources for online professional retraining e.g. in telemedicine infrastructure and platforms, as well as hybrid/remote education. Through his association with pre-college schools and teachers across the nation, he could help towards a more active role in such a crucial and mutually beneficial partnership, in raising quality human resources and directing them towards higher education. *FSU* could also pioneer in public education through close collaboration with science and technology museum resources, such as informal science and education networks and exploratoria etc. Finally Dr. Doumanidis' close ties with numerous global industries and enterprises could catalyze initiatives towards international innovation consortia jointly with academe, with support e.g. via the NSF *Partnership in International Research and Education* (PIRE), the new *Horizon Europe* funding programs etc.

PROFESSIONAL REFERENCES

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STATEMENT OF RESEARCH, EDUCATION
AND ADMINISTRATIVE ACTIVITIES



Dr. Charalabos (Haris) C. Doumanidis

Marie Curie Chair and Deputy Provost
CDIC University College Dublin
Dublin, Ireland



2021

STATEMENT OF RESEARCH, EDUCATION AND SERVICE ACTIVITIES - ADMINISTRATION AND INNOVATION PHILOSOPHY

Charalabos C. Doumanidis, PhD
Marie Curie Chair and Deputy Provost
CDIC University College Dublin, Ireland

Prof. Charalabos (Harris) Doumanidis holds his Ph.D. from the *Massachusetts Institute of Technology (MIT)*, Mechanical Engineering (1988), his M.S. from *Northwestern University, Mechanical & Nuclear Engineering* (1985), and his Diploma in Mechanical Engineering from the *Aristotelian Univ. of Thessaloniki* (1983). He has been Distinguished Professor and Founding Dean, college of Engineering & Computer Science at *Vin University*, Hanoi, Vietnam (2019-20); Vice Provost for Research and Interim Dean of Mining & Geosciences at *Nazarbayev University*, Astana, Kazakhstan (2018-19); Marie Curie Professor and Interim Chair of Civil Infrastructure and Environmental Eng. at *Khalifa University*, Abu Dhabi, UAE (2015-2018), Chair of Mechanical Engineering at the *University of Nevada Reno*, NV (2013-14); Founding Director of the *Nanomanufacturing Program* at the *National Science Foundation (NSF)* in Arlington, VA (2001-03, 2006-07 and 2010-11). He has also been Founding Director of the *Hephaistos Nanotechnology Research Center* (2006-2009), Visiting Professor/Research Engineer at *MIT* (2005-07), and Founding Head of the Mechanical and Manufacturing Engineering Department at the *University of Cyprus* (2004). His earlier career was as a Professor of Mechanical Engineering and Director of the *Thermal Manufacturing Laboratory* at *Tufts University* in Medford, MA (1991-2000), and Chief Scientist with *Axcelis Technologies* (Thermal Processing Systems) in Beverly, MA (2000-01). He has previously been a Lecturer-elect at the *Aristotelian University of Thessaloniki* (1991), Squadron Sergeant for the *Hellenic Air Force* (1990-91), and Postdoctoral Associate with *MIT Laboratory for Manufacturing and Productivity* (1989). Dr. Doumanidis serves as consultant for the automation, optoelectronics, biomedical and automotive industry.

His research and teaching interests include advanced manufacturing, nanoscale engineering, composite materials, thermal processing of materials, deposition and joining, rapid prototyping, laser annealing of semiconductors, distributed parameter system modeling and control, robotics and biomedical instrumentation. His recent research work focuses on fractal reactive nanoheaters, featherlike composite materials and intestinal tissue engineering. He is Guest/Associate Editor of international scientific journals for ASME, Elsevier, Hindawi and IASTED; research reviewer for over 30 technical journals and research funding institutions; organizer and chair of over 40 symposia for ASME, IEEE, NSET, NSF etc; speaker of over 30 keynote/plenary lectures and over 100 invited seminars; the author of over 300 refereed papers, distinguished by four best paper awards (ASME, ACC, ISNM, ICMCTF), five patents and five book chapters. He was coordinator of the *Marie Curie Excellence Team* (2006) and recipient of the *Marie Curie Chair of Excellence* (2004) by the European Commission, the *ASME Blackall Award* (2002), the *Presidential Faculty Fellow Award* by the White House (President W.J. Clinton, 1996), the *NSF Young Investigator* (1994) and the *Research Initiation Award* (1992), as well as several grants from NSF, SME, DoE, NIST, Honda R&D Americas, European Commission, Research Promotion Foundation etc, totaling over \$ 18 million as a PI/co-PI. He teaches courses in manufacturing processes and materials, mechatronics, controls and robotics, and has set up ten research/teaching laboratories at Tufts and UCY. He serves as Technical Officer in 7 small businesses established by his former students, and he mentors the research planning of many junior investigators, postdocs, graduate students (over 40 graduated), along with his three children.

Besides management of his own research Center, Prof. Doumanidis has research administration experience as the founding director of the *Nanomanufacturing Program* at the *National Science Foundation (NSF)*. At NSF he also worked with the *Nanoscale Science and Engineering Program*, to support nanotechnology research funding via the *US National Nanotechnology Initiative (NNI)*. He formulated research proposal solicitations in Manufacturing at the Nanoscale, coordinated the review of over 1,000 research proposals and supervised a portfolio of over 130 active research projects at all levels, including 3 major *Nanoscale Science and Engineering Centers* (NSEC – at UC Berkeley, Univ. of Illinois at Urbana-Champaign and Univ. of Massachusetts Amherst), with a total research investment of over \$120 M. He has also served as the *National Contact Point for Nano-technology (NMP)* for the *European Commission* in Cyprus. He still guides the research of many CAREER investigators and other young faculty across the globe, directing their activities to scholarship and innovation.

RESEARCH OVERVIEW AND PLANNING

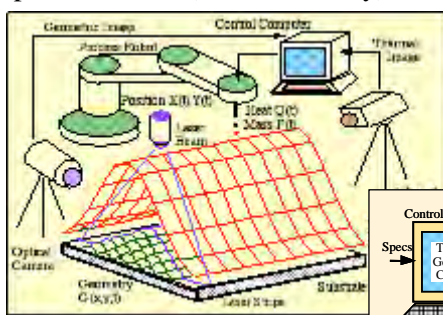
Dr. Haris Doumanidis

*So he spoke, and left her there, and went to his bellows.
He turned these toward the fire and gave them their orders for working,
Wherever Hephaistos might wish them to blow, and the work went forward.
First of all he forged a shield that was huge and heavy...
Lovely and intricate work, and laid a gold top-ridge along it...
When the renowned smith of the strong arms had finished the armour
He lifted it and laid it before the mother of Achilles.*

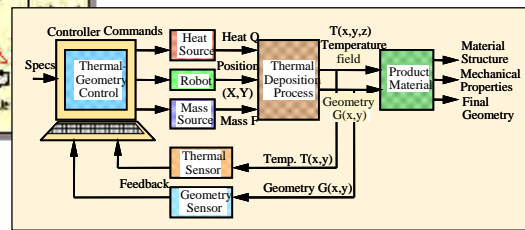
(The Iliad of Homer, 18.462-614, trans. R. Lattimore)

NANOSCALE MANUFACTURING RESEARCH PHILOSOPHY

Motivated by his admiration to the smith of Olympian gods in Greek mythology, and his early exposure to the family enterprise (a fashion shoe factory), Dr. Doumanidis was always intrigued by coming up with inventive ways to make new useful products, enabling the way they work to serve human needs. Over his academic career, this fascination with manufacturing processes defined his research philosophy, in exploring and analyzing the interplay among matter, energy and intelligence, and in synthesizing such insights into new architectures of functional devices and systems. This led him into seeking, for a broad spectrum of techniques, fundamental understanding of the *manufacturing process – material structure – functional property* relationships; And describing the dominant phenomena and their spatio-temporal manifestations via parsimonious (essentials only) distributed-parameter, dynamic models. His ultimate objective in such



formulations is in *inverting* these relationships, i.e. in connecting product function back to requisite structure and thus to the processing method, through a real-time feedback control system, often coupled with in-process identification of salient parameters, realizable in actual production applications. Most importantly, however, this approach frequently inspired completely novel process configurations with alternative materials, tooling, actuators, sensors and controls, leading to creative *process redesign* and introduction of original new technologies.



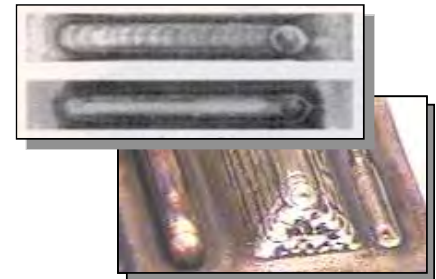
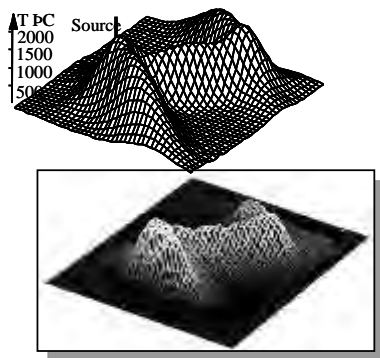
In this perpetual quest for new processing ideas, which is often limited by the context of our familiar macro/microcosm, Dr. Doumanidis naturally determined the *nanoworld* as his eventual manufacturing research setting. At that miniscule scale of nanometers and femtoseconds, the transition of the elements of nature between continuum and discrete forms, along with the peculiar (nonlinear) scaling of natural laws, compose a virgin environment, provoking not only our analytical intellect, but also offering a unique synthetic playground with unprecedented opportunity for manufacturing. This does not come without distinct research challenges, however; and Dr. Doumanidis' work focuses on tackling some of them: Firstly the nanoworld, in its universal uniformity, defies our fragmented, disciplinary scientific perceptions and descriptions in our efforts to manufacture at the nanoscale; A holistic, *cross-disciplinary* approach across multiple traditional domains (mechanical, thermofluid, opto/electromagnetic, chemical etc), often bridging interdisciplinary gaps, is typical of his manufacturing research. Secondly, the exceptional functionalities of nanostructures need to be carried out, through micro-devices and systems, eventually into macroscale products and services in order to serve humans; Manufacturing processes are developed with particular attention to their *multi-scale* integration. Last but most important, our methods for nanoscale manufacture often derive directly from batch laboratory fabrication, requiring prohibitively expensive equipment, specialized materials and highly conditioned environments; They also fare sub-optimally in robustness, repeatability, production throughput and rate, yield, efficiency, cost as well as health, safety and environmental impacts. Dr. Doumanidis' work addresses such issues by proposing *scalable* material, equipment and process alternatives,

enabling continuous industrial manufacturing also by small and medium enterprises, right from the definition of his research domain.

Besides his own investigations, the tenets of *scalability* (producibility, predictability, productivity), along with *multi-scale* and *cross-disciplinary* integration, transpire into the principles and research repertory of the *Nanomanufacturing Program* at the National Science Foundation (NSF, USA), which Dr. Doumanidis founded and served as his first Program Director (2001-03, 2006-07, 2010-11). While at NSF, he supervised a portfolio of over one hundred research projects in nanoscale manufacturing of all levels, including three large *Nanoscale Science and Engineering Centers* (NSEC), and mentored the research careers of numerous junior faculty, thus widely promulgating his nanomanufacturing research philosophy.

PAST MANUFACTURING RESEARCH PROJECTS

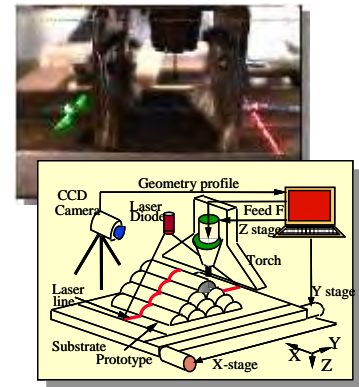
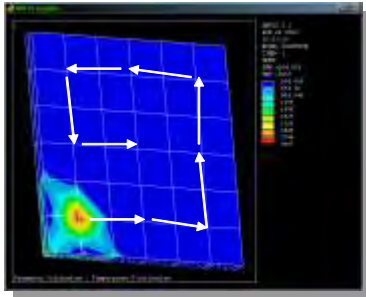
Macroscale Thermal Manufacturing Processes. Dr. Doumanidis' early research was initiated through his work in 3-D dynamic numerical simulation of the temperature distribution and history in fusion welding processes, including studies of the boundary (solid/melt) layer effects, for his diploma thesis (AUTH, 1983). He then investigated computational techniques for the design of robust controllers with output feedback, based on eigenstructure placement by QR and simplex algorithms, suitable for regulation of discrete thermal features of manufacturing processes, for his MS thesis (Northwestern Univ, 1985). In his PhD dissertation (MIT, 1988) he eventually applied his computational modelling and control techniques to experimental studies and regulation of multiple lumped thermal variables, such as melt puddle geometry, heat affected zone and cooling rates in arc welding. This research resulted in a laboratory-calibrated multi-input, multi-output (MIMO) dynamic process model, which offered the basis for a discrete-time multivariable adaptive control scheme (including delay compensation by Smith prediction). This was validated experimentally on a robotic gas metal arc welding (GMAW) station with infrared pyrometry camera feedback. Plain carbon and stainless steels and commercial aluminium alloys were used as welding materials. During his postdoctoral work (MIT and AUTH, 1989-90) his investigations also extended to modelling and control of thermally-generated defects using elastoplastic crack propagation theory, bead cross-section geometry in fusion weldments, as well as the generation and active damping of process vibrations through closed-loop control.



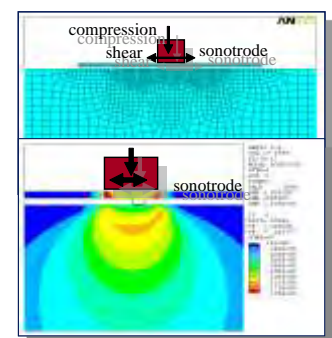
After joining the faculty at Tufts University (1991), Dr. Doumanidis extended his thermal manufacturing research in welding, using multiple and virtual (time-shared) heat sources to decouple control of thermal features dependent on puddle circulation and base conduction. This configuration eventually led to the invention of the *scan welding* process (under a NSF *Research Initiation Award*, 1992), whereby a single heat source sweeps the external surface of the workpiece, while its power influx is modulated so as to provide a controlled heat input distribution, which in turn generates a specified temperature field in the weld. Distributed-parameter control of the thermal distribution, using linear Gaussian/Laplacian spatio-temporal operators, and real-time temperature field optimization by thermal gradient, complex polytope, simulated annealing and weighted attraction in-process torch guidance, was shown to effectively regulate thermo-geometrical features in an experimental plasma-arc welding (PAW) system with infrared feedback. This thermal distribution control research resulted in an *American Control Conference* (ACC) *Best Student Paper Award* (1998, with Dr. N. Fourligas). The flexibility of the scan welding process was demonstrated by producing defect-free weld bead surfaces without ripples, and by generating desirable microstructure distributions across the weldment via control of the phase transformation kinetics through the temperature profiles. The scanned thermal processing configuration was also extended to other manufacturing processes with material deposition and/or removal, including scanned orbital welding, fill welding for cavitation restoration, heat treatment and arc cutting, and 3D-welding (under a NSF *Young Investigator Award*, 1995). Distributed-parameter modelling and adaptive control of mass addition or ablation processes gave rise to the concept of the unit *material deposition function* (MDF), as a basis for a

locally linearized geometric superposition formulation, and for in-process identification of the time-dependent MDF by deconvolution of real-time profilometric data. This geometry modelling and control research resulted in an ASME *Blackall Best Paper Award* (2002, with Dr. Y.M. Kwak).

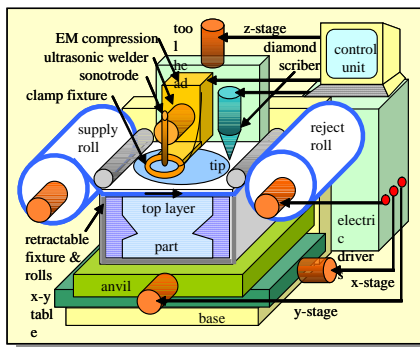
Microscale Rapid Prototyping and Manufacturing. Scanned thermal processing technology introduced new rapid prototyping techniques and near-net shape laminated object manufacturing (under a White House *Presidential Faculty Fellow Award*, 1996) by layered sectioning and joining, using micro plasma-arc or laser bonding and curing, together with thermal infrared and laser stripe (triangulation) geometry feedback. Thermal deformation (warpage) and stresses in micron-sized foils and sections of the part was found to result in defective foil contact (peeling and buckling) and bonding conditions, which were dealt with by heat source trajectory guidance, determined via off-line thermo-mechanical optimization by finite element analysis. Another line of rapid manufacturing research at the microscale concerned thermal (arc and laser) deposition of thick films and composite material coatings, by sequential in-situ welding of layered precursors in particulate-cored filler wire and overlaid foil form, with powder reinforcements (Al_2O_3 and SiC) co-extruded or sandwiched in the metal (Al) matrix. Aside from thermo-geometrical attributes, the resulting particulate distribution was experimentally studied and optimized again by off-line process simulation and scanning actuator (heat source) placement and guidance by optimal linear quadratic regulation (LQR) algorithms. A similar micro-manufacturing by coating process was introduced, involving (masked) electroplating of Ni and Al bi-layers, which upon diffuse external thermal ignition (by plasma arc, laser or high-density infrared lamps) exhibit a self-propagating exothermic reaction (SPER), yielding refractory nickel aluminide compound materials. A first-principles based material thermo-kinetic model of the Ni-Al dissolution and reaction process was developed and employed for SPER control via scanned source ignition.



At the same time, Dr. Doumanidis' group investigated non-thermal (cold), solid-state ultrasonic joining and electrical discharge machining (EDM) slicing of multi-material foils as a continuous roll-to-roll rapid prototyping and manufacturing technique, under NSF funding. Fundamental thermomechanical off-line (FEM) simulation of the metal ultrasonic welding process defined the interfacial boundary conditions between adjacent foils. This enabled the predicted stress-strain and temperature distributions generated in the joint by friction and elastoplastic hysteresis, to match laboratory measurements by thin film thermocouples. Experimental analysis also revealed the role of high strain rate effects during metal ultrasonic welding, in producing unusually high vacancy concentrations (three orders of magnitude higher than equilibrium), and their subsequent diffusion and phase transformations across monometallic (Al-Al) and bimetallic (Zn-Al) foil joints as a bonding mechanism. Ultrasonic rapid manufacturing using EDM stencilled foil sections was demonstrated in fabrication of meso- and microscale functional and active fluidic structures using aluminium. The thermomechanical investigation was also extended to study polymer spot and seam ultrasonic welding of PVC foils, using backside feedback by infrared thermocouples, and was combined with laser point sealing and polymer curing for packaging of MEMS devices etc.



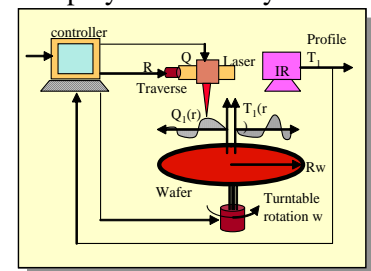
Nanoscale Manufacturing and Other Projects. While on sabbatical leave at Axcelis Technologies (*Thermal Processing Systems*, 2000-01), Dr. Doumanidis investigated radiative heat transfer and the generated thermomechanical distributions in semiconductor wafers undergoing rapid thermal processing (RTP) when elevated in the thermal gradient field of hot-wall bell-jar reactors. This analysis was coupled with numerical (finite difference) simulations of growth of ultra-thin (few nm) silicon dioxide films for MOSFET gates, under dry rapid thermal oxidation in the RTP system. The resulting thermal budget and temperature uniformity requirements across the Si wafer led to the design of scanned and shuttered secondary control heat sources (resistive and laser), and their computational study. Alternative lamp reactor,



excimer laser and water-wall arc lamp designs with exposure feedback control were proposed for rapid thermal annealing of semiconductor nanostructures. At the University of Cyprus, Dr. Doumanidis' group also carries out computational and experimental investigations of dielectrophoretic, AC electroosmotic and electrothermal gradient field stirring, mixing and manipulation of nanoparticles and biomolecules (DNA) in an electrochemical AFM system under stochastic control, for non-amplified detection in bioassay sensors.

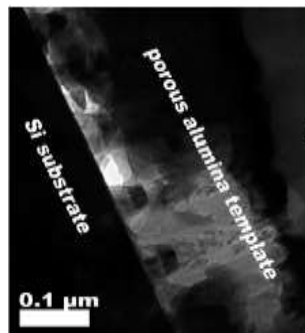
Finally other broader manufacturing and biomedical instrumentation research projects, employing similar distributed-parameter modelling,

sensing and control approaches as above, were also conducted, including: A machine vision-based flexible robotic cell for repair of planar electromechanical devices by closed loop component testing, disassembly and replacement; An optical vision-based precision measurement instrument for radiometric aperture areas, coupled with edge-tracing software algorithms, at the National Institute of Standards and Technology (NIST); Layered manufacturing of *active deformable sheets* (ADS), composed of polymer foam layers with a sandwiched shape memory alloy (SMA, Ni-Ti) wire grid with multiplexed electric actuation, yielding a specified local curvature distribution of the ADS; Contour machining by new *active deformable cutters* (ADC), featuring multiple bending blades or rubber-bonded abrasive tools, mechanically modulated under in-process laser profilometry feedback; and manufacture of vestibular prosthetic MEMS with resonant microcantilever arrays, as cochlear implants for hearing deficiencies.



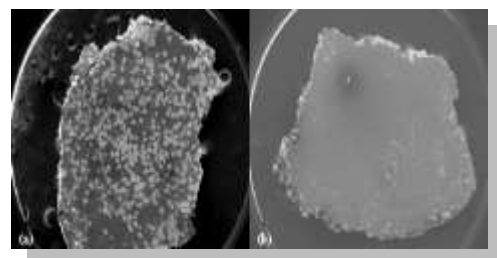
CURRENT NANOSCALE MANUFACTURING RESEARCH

Nanoheaters. Dr. Doumanidis' prior multiscale research in thermal processing made it evident that the nanoworld, for both its manufacture and operation functions, needs its own heat sources, specifically designed for autonomous power and control at infinitesimally localized spatial dimensions and instantaneous temporal action. This led him to introduce *nanoheaters*, i.e. reactive nanostructures which, upon external electrical or electromagnetic inductive ignition, release exothermic concentrated heat, conducted to a

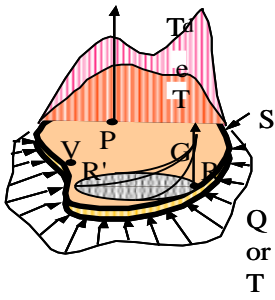


substrate or surrounding medium. Nanoheaters were first implemented by bimetallic and multilayer Ni-Al nanorods, scalably manufactured by aligned electron beam evaporation of alternating metal thin films into the well-ordered, regular nanopore arrays of *anodized aluminium oxide* (AAO). Such high power density nanorod heaters (diameter ~25-200 nm, length ~50 nm-micron) are in-situ ignited in the AAO, individually or in clusters, by crossbar interconnects on the AAO surfaces in an addressable multiplexed grid, or they are released and dispersed into a metal or polymer matrix composite, i.e. a self-heating material upon inductive actuation. Alternative electroplating deposition in AAO templating is currently investigated for continuous manufacture of nanorod heaters.

Ignitable nano- and micro-heaters based on reactive multiphase material structures are also produced and tested by Dr. Doumanidis' group by mechanical alloying (ball milling); by preheated ultrasonic consolidation of Ni and Al micropowders and nanoflakes; and by recursive folding and roll bonding of multilayer alternating foil stacks. Experimental analysis of the geometric and material structure and thermodynamics of nanoheaters is conducted by electron microscopy (SEM,TEM), x-ray diffraction and energy dispersive spectroscopy (XRD, EDS), differential scanning calorimetry (DSC), as well as high-speed, infrared pyrometry of the SPER front on sputtered Ni-Al thin film multilayer foils. This is also used to validate 2D-3D numerical (finite difference) thermokinetic simulations of the reaction and diffusion-limited ignition process, to optimize the size and structure of nanoheaters, including nanoporous interlayers between reactive materials to control local power release via the

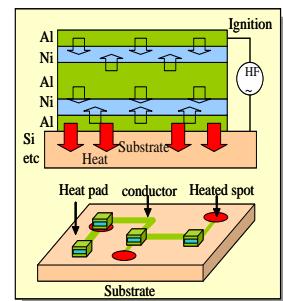


electrokinetic reactant flow dynamics. Nanoheater research is supported by an EC-FP6 *Marie Curie Excellence Team* award (with Dr. C. Rebholz, 2006) and a NSF grant (in collaboration with the Univ. of Massachusetts Lowell, MIT and Northeastern Univ.)

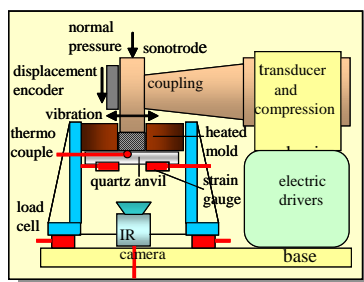


Green-Galerkin analytical methods are developed by Dr. Doumanidis for real-time, distributed-parameter control and observation of conduction/diffusion fields generated by nanoheaters in continuum microdomains around them. Highly concentrated and impulsive nanoheater action modelled by ideal Green's sources, is combined with transport field optimization by Galerkin methods with Green's interpolation functions. Green-Galerkin field *controllability* and (dual) *observability* research offers rigorous and elegant solutions to long-standing inverse problems in conductive/diffusive transport: For a given arbitrary solid geometry, how can a specified internal temperature/concentration field be obtained by distributed,

dynamic heat/mass flux on its external boundary only; And how can such an internal field be determined by monitoring thermal/ material variations on the external surfaces only. Green-Galerkin research on nanoheaters resulted in a *Best Paper Award* (by Dr. M. Alaeddine) at the International Symposium on Nanomanufacturing (2005). Coupled thermal-geometrical fields can also be addressed via extended non-equilibrium Green's and material deposition functions, adjusted in-process by real-time identification. The method is used for design of nanoheater island configurations on substrate surfaces, in addressable regular arrays or custom-connected topologies, produced by multilayer sputtering and nanolithographic patterning. These are intended to obtain tailored heat input distributions and dynamics by actuated or spontaneous (domino-effect) sequential ignition, and by their in-situ control with feedback by embedded thin film thermocouples. Applications of nanoheater systems are studied in localized, in-situ *rapid thermal processing* (RTP) of nanostructured devices in semiconductor manufacturing; thermal nanobatteries in conjunction with thermoelectric materials; autonomous thermo-mechanical actuation in MEMS, such as amplified disposable biosensors; and self-heating and curing polymers for the textile industry etc.



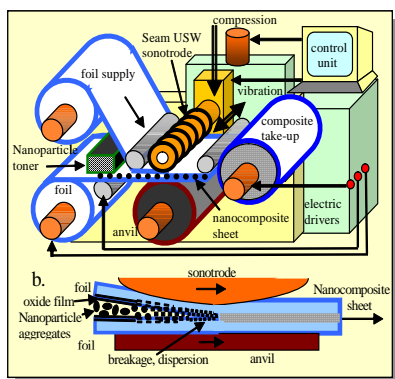
Powder Nanoconsolidates. Compaction of metal powders and nanoflakes (including nanoheaters) by “cold” *ultrasonic consolidation* methods is investigated by Dr. Doumanidis’ group, yielding functional metal-matrix composites, such as ignitable Ni-Al heat sources, and Mg alloy structures for mechanical strength/weight performance. Computational analysis of the preheated consolidation process addresses control of the



temperature distribution to avoid nano-grain growth, reactive ignition and pyrophoric effects. Initial micro-powders with the required narrow size distribution are obtained by the *uniform droplet spray* (UDS) process, also researched under a NSF grant (with Dr. T. Ando, Northeastern Univ.) Thermokinetic phase transformation models are developed for *rapid solidification processing* (RSP) of Mg-Zn-Y alloy droplets, both in-flight and during splat deposition on a moving substrate in a rapid prototyping reactor system, validated by microscopic, calorimetric and infrared pyrometry measurements.

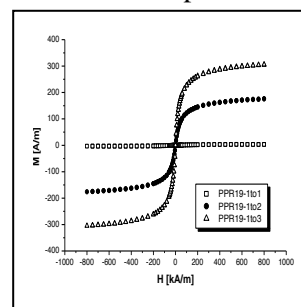
Thermal laser consolidation of microscale metal powders is researched by Dr. Doumanidis under an EC FP6-IP grant (*ManuDirect*, 2006, under Dr. P. Matteazzi-CSGI). Fe-Cu, steel and Ti-Al-V alloy powders are aerodynamically focused through an ejector orifice, while they are partially molten by a coaxial laser beam before their layered splat solidification in a rapid manufacturing scheme. A real-time computational model of the deposition geometry, based on mass and energy transfer and material wetting, is under development for in-process control and observation, and is validated through profilometric metrological measurements. This is also coupled with an analytical model for real-time estimation of thermal growth of solidified grains, based on Rosenthal thermal distributions, Arrhenius transformation kinetics and material depletion models. Similar geometrical analysis is carried out for another implementation of the manufacturing process, via laser consolidation of pre-deposited powder layers, in collaboration with Siemens AG (Mr. M. Schäfer).



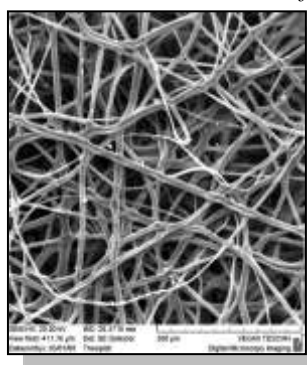


Nanocomposite Foils. Conventional nanocomposites with homogeneous particulate distributions typically yield isotropic macro-properties at the cost of high loading with nanoparticles. Dr. Doumanidis' research addresses manufacturing of laminate nanocomposite sheets, consisting of multiple layers of polymer or metal foil and nanoparticles dispersed and sandwiched in between, before the stack is consolidated by non-thermal continuous seam ultrasonic joining. Polymer (PVC and cellulose) and metal (Al) matrix nanocomposite foils with magnetite nanoparticles (Fe_3O_4), Pd-cored polymer micelles, multi-wall carbon nanotubes (MWNT) and cellulose acetate (CA) nanofibers are integrated into nanocomposite foils. The influence of ultrasonic processing on

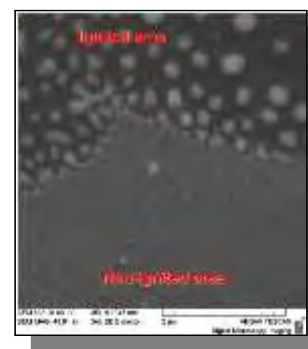
nanoparticle disaggregation or clustering, dispersion and orientation in the matrix structure, along with the concomitant directional properties of the nanocomposite foil (in-plane mechanical strength, electrical percolation, magnetization of superparamagnetic domains) is examined by electron microscopy, dynamic mechanical analysis (DMA), Raman spectrometry and magnetometry. This is coupled with computational analysis of ultrasonic levitation and penetration of nanoparticles into the matrix (e.g. MWNT in PVC) based on a hybrid formulation, comprising a continuum (finite element) model with a linear time-dependent Maxwell constitutive material description, and an atomistic (molecular dynamics) simulation for determining the slip boundary conditions at the nanoparticle-matrix interface. Ultrasonically bonded nanocomposite foils target applications in structural materials for aviation, magnetic data storage, flexible organic optoelectronics, and environmentally-benign, all-biodegradable polymer materials (i.e. cellulose-CA nanofiber composites). A related recent project for the aerospace industry examines non-autoclave manufacture of polymer nanofoam composites with CNT-decorated carbon fibers, providing interlayer anchoring and preventing delamination, using nanoheater-based heat blankets, in collaboration with Boeing, the Univ. of Washington and MIT. This research is supported by a EC-FP6 *Marie Curie Excellence Chair* award (*UltraNanoMan*, 2004) and Research Promotion Foundation (*NanoPlasi*, 2006).



Biomedical Nanomaterials. Dr. Doumanidis' research also targets electrospinning of nanofiber membranes, consisting of biocompatible, bioconsumable and electroactive materials (cellulose acetate, polyaniline), for rapid prototyping of the external shape and internal vasculature in scaffolds for tissue engineering. CA nanofiber scaffolds with *functionally graded material* (FGM) structure (i.e. varying fiber size and interstitial porosity), and with vascular cavities realized via carbon-based sacrificial materials for overhang support, were implemented and successfully cultured with intestinal tumour cells. Automated control of the electrospinning conditions and spinneret trajectory in the rapid prototyping station, based on target scaffold morphology and vascular structure specified via digital scanned tissue models, is under investigation. In addition large surface area, active polymer nanofibers with indium oxide and nanoheater particulates integrated by electrospinning, are also researched for disposable field sensors to detect nitrite and nitrate pollution in treated wastewaters for irrigation, through conductance changes of the nanofibrous membrane in an interdigitated electrode MEMS device. This research is funded by a EC Interreg award (*NanoSpin*, 2006).



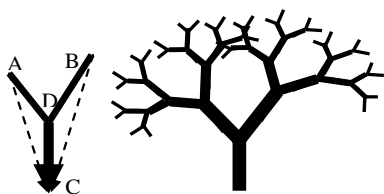
Finally a recent research project by Dr. Doumanidis' group addresses manufacturing of nanocapsules functionalized with nanosensors and actuators ("nanorobots"), for medical applications in targeted drug delivery to breast tumors. Research involves synthesis of hybrid polymeric micelles from amphiphilic block copolymers via controlled radical polymerization, including docking ligands with tumor cell membrane proteins, and pH- or thermo-responsive blocks for actuated in-situ drug release. Micellar nanocapsules, as well as carbon nanotubes (by Dr. B. Nelson, ETH Zurich) and alumina nanotubes derived from AAO membranes, are functionalized with magnetoresponsive iron oxide nanoparticles for guidance of the nanocapsules in



a MRI magnet, and with hydrophilic/hydrophobic polymer chains for controlled stabilization or aggregation in the bloodstream. This research is supported by a EC-FP7 ICT grant (*NanoMA*, 2008, under Dr. Placid Ferreira-Univ. of Orleans).

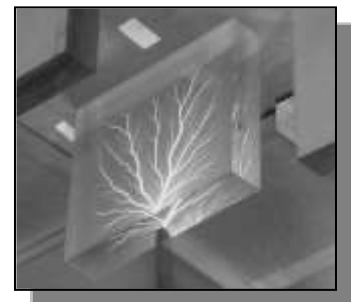
FUTURE RESEARCH PLANS AND VISION

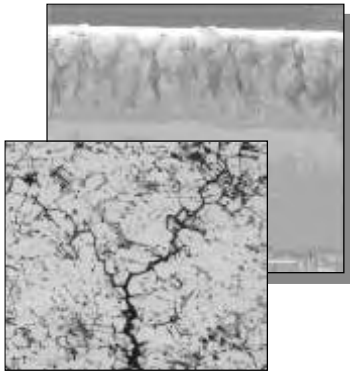
Random Branching Fractal Material Architectures. Nanoscale manufacturing technology, including Dr. Doumanidis' past and current research, certainly finds an incomparably superior archetype in *nature*, and its evolution at all processing-structural-functional levels over billions of years. Both inanimate and animate nature manufacture effortlessly, elegantly and optimally by transforming and transporting matter, energy and information in space and time, through a stunning armory of processes across all dimensional scales, eventually rooted down to the nanoworld. For example, self-assembly of atomic and molecular complexes yields a wide variety of random branching tree architectures, such as grain structures in alloys, crystallite dendrites in oxides, star copolymer networks, biomolecular constructs of proteins etc. The beauty and harmony of such structures in nature (as well as in art) is attributable to mathematically intelligible forms and patterns, tantalizing human mind. The elegance of multi-scale self-similar architectures, i.e. trees, corals, rivers and snow flakes, has inspired the vibrant field of *fractals*. However, particularly intriguing are those with statistical variability, i.e. developed by recursive replication of a generator pattern with probabilistic features, such as Brownian trees and dendrites, classified as random *iterative function systems* (IFS). These are ubiquitous in nature and are generated by a plethora of diffusive and reactive material transport and transformation processes, with admirable self-organization characteristics at all scales. What is noteworthy, however, is the functionality dictating such wonderful structural order and geometric resemblance, e.g. of lightning bolts, floral shrubbery, animal vasculatures – but also networks of roadways, pipelines and telecommunications: In all cases matter, energy and information are harvested from and/or dissipated to a



spatial volume, often via surface permeation, through nonlinear transport in an optimally efficient way; A branched (Y) pattern, with branch lengths and angles defined by such optimization, provides the generator of such an IFS conduit pathway in tree network. An important observation here is that in nature, *similar or related transformation and transport phenomena dominate and optimize both manufacture and operation processes of such structures.*

The same optimal field transport functionality on natural branching architectures is of obvious importance to numerous vital engineering technologies across all scales, and reaching down to nanostructured materials for e.g. electromagnetic antennae and shielding; photovoltaics and optoelectronics; fuel cell membranes; hydrogen storage media and batteries; catalyst substrates for photoelectrolysis and advanced oxidation; water desalination membranes; biocompatible implant materials and coatings; vascular scaffolds for tissue engineering etc. However, fabrication of such random branching materials is limited to non-scalable ad hoc techniques, such as electrostatic discharge of a high-energy beam irradiated insulator (i.e. in a linear accelerator), producing fractal *Lichtenberg figures*. Unlike nature, universal production of such architectures in engineering encroaches upon fundamental manufacturing difficulties: Top-down fabrication is primarily oriented towards deterministic, Euclidean designs rather than probabilistic patterns; Production of whole branches (without assembly) is challenged by the non-differentiable nature of fractals; Tool-part interference (*visibility*) constraints may arise in shaping recursive, often self-intersecting topologies; Layered manufacturing of internal vasculatures and pores may be limited by removal of overhang-supporting material. On the other hand, bottom-up synthesis of self-assembled structures yields morphologies inexorably determined by the physico-chemical connectivity of their building blocks, therefore coupling geometric topology with material selection. In all cases, the multi-scale complexity of self-similar forms challenges the workspace-resolution capabilities of any single process, additive or subtractive, or involves the tedium and cost of scaled lithographic masks and other patterned tools. Clearly, novel research is needed in nanoscale manufacturing processes to address these limitations and bring forth the potential of random branched materials to energy, health and environmental applications.



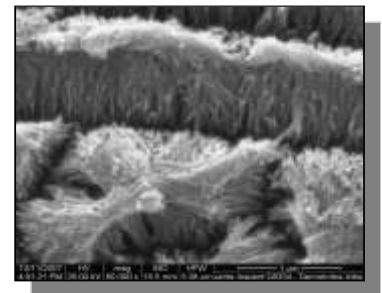


In the immediate future, Dr. Doumanidis' research will be oriented towards this intellectually stimulating and potentially transformative universal nanomanufacturing framework for versatile, multi-scale processing of random branching architectures of functional materials and vasculatures, suitable for scalable industrial production. His present work already addresses some exploratory and preliminary approaches along towards this context: E.g. vascular scaffolds mimicking the internal structure of *extracellular matrix* (ECM), via FGM fused networks of electrospun nanofibers; Branching trees of alumina nanotubes by detachment of nanopore cells in AAO membranes; And by *ultrasonic corrosion texturing* of Ti and other metals, through multi-scale, random fractal intergranular cracking controlled via the cycling actuation. These will tackle applications in

scaffolds for tissue engineering on osseous materials and coatings, minimally invasive surgical patches, and soft tissues for artificial erythropoiesis for thalassemias and hemoglobinopathies. They will also be tested as photoelectrodes in excitonic (dye-sensitized and hybrid polymer) solar cells; photocatalytic substrates for hydrogen production and oxidative removal of xenobiotics in wastewater treatment; and as desalination membranes for reverse osmosis, electrodialysis and capacitive deionization. His research objectives are:

1. Introducing a complementary set of mutually compatible, scalable nanoscale manufacturing processes for continuous production of random branching materials and vascular architectures,
2. Investigating their process-structure-property relationship by advanced experimental characterization and computational modelling, and its inversion for in-process control and automation,
3. Demonstrating inventive synthesis of the technologies into original, integrated technological platforms for the biomedical, optoelectronics, construction and other application industries.

Some of the technologies to be researched by Dr. Doumanidis' and his collaborators' groups include: Erosion of discharge structures (*Lichtenberg figures*) irradiated by nanoscale emitter arrays (e.g. CNTs), imitating *Van de Graaff* generators; Shrinkage fracture crack patterns of hydrated aluminosilicate clay films upon freeze drying; Internal dissolution and erosion of porous films and bulk foams by supercritical fluids (CO₂); Cryogenic local fracture of fibrous networks by integrated inert microparticles, under high-*g* centrifuging and ultrasonication; Pyrolysis and ablation by inductively heated or irradiated metal microparticles, including nanoheaters; High-density plasma treatment and film deposition on polymers, yielding superhydrophobic surface structures; Hierarchical architectures of homopolymers and block copolymers synthesized by controlled radical polymerization as 3D templates; Biodegradation of bioconsumable materials by magnetotactic bacteria in directed magnetic fields; Embedding and disintegration of natural organic networks in materials to be vascularized, etc. In all cases original, nature-inspired designs and manufacturing processes will be introduced, based on transformation and transport phenomena akin to those in material operation as per our previous observation; Often turning normally problematic mechanisms (e.g. *stress-corrosion cracking*) into advantageous solutions (e.g. *ultrasonic corrosion texturing*).



Extreme Engineering. A prominent contribution of added value to modern society can be accomplished by manufacturing of large infrastructures, i.e. in construction, transportation, energy, water supply etc. This arises from the current singular concentration of human activity both in space and time, and the need to adopt and practice 3-D, highly-parallelized modes of living, work, commuting and communicating. *Extreme* (macro) structures usually measure from 10's of meters to 10's of thousands of kilometers. Typical examples include large buildings, towers, bridges (e.g. 3D-city plans in Japan etc); plants, pipelines, solar and aeolic energy parks, water desalination units, power grids, communication networks etc; and large ships, submarines, aircraft, spacecraft (e.g. reusable launch vehicles), space elevators and intercontinental transport structures etc. Large infrastructures are typically manufactured by in-situ, custom assembly. However one-of-a-kind, manual assembly is highly inefficient in labor, capital, material, energy and time. Since the product quality is highly dependent on human skill and training, the process is prone to defects and usually requires extensive non-destructive evaluation procedures. In addition, its economics disfavor locations with

high manufacturing labor costs, and favor outsourcing of components and services abroad, thus resulting in loss of GDP and employment positions.



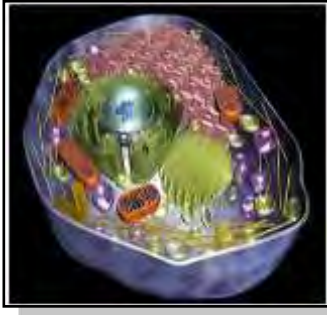
Therefore, alternative automated technologies must be considered for in-situ manufacture of large structures, capable of continuous or extreme-size processing in at least one dimension. Such hybrid processes will be based on e.g. rolling, extrusion, drawing, consolidation, forging, continuous casting and molding etc, combined with local machining, joining and surface engineering. It is envisioned that these multiple processes will be performed on automated, reconfigurable, flexible “die” tools, of size adapting to the two smaller dimensions of the product, as this moves through the “tool” and is processed sequentially or in parallel as needed. Another such *just-in-place, just-in-time* production modality for extreme structures is envisaged, based on rapid manufacturing by material addition. Here a small, autonomously moving, manufacturing “robot” tool progressively deposits materials, will dispense and add components or perform other processing in the required 3D locations, possibly in 2D layers, as it moves along its path, climbing on the already assembled part of the structure, similar to a spider knitting its web.

Key challenges to implementation of *extreme manufacturing* technologies lie in their unusual requirements for materials, processes, tools and product design. Stringent specifications are mandated by the special unclean, outdoors manufacturing and operating conditions of large structures. Factors such as gravitational deformations, daily and seasonal temperature variations, thermal and wind loads, air pollution and corrosion, humidity and condensation, geotechnical dynamics, seismic, ocean and atmospheric activity and hazards, or even electromagnetic/particle storms, irradiation and astronomic effects (e.g. in the space elevator) must be considered also during the manufacturing stage. These pose strict requirements for material properties, such as strength/weight ratio, transport properties, thermal and chemical stability, reliability, environmental compatibility and lifetime, possibly with self-repairing/healing attributes. They also demand new manufacturing processes able to transform these special materials, to perform robustly under non-cleanroom, harsh or exterior conditions, to ensure dimensional precision as well as time and resource efficiency, and to exhibit flexibility and integration capability with other processes in a hybrid “tool”. There are also constraints on the design for manufacturing of the product or system posed by such materials and processes, calling for large-scale gradients or periodicity in 1/2/3D, heterostructure compatibility and synergy, multi-functionality, environmental adaptability, defect tolerance via redundancy etc.

In the mid-term future, Dr. Doumanidis’ research will address nanoscale-derived solutions to extreme manufacturing of large structures. New nanomaterials and meta-materials, including nanoconsolidates, nanocomposites, nanofoams, nanoengineered surfaces, nanoheaters, random branching nanomaterials and networks etc, offer exceptional large-order features, anisotropy, directionality, unconventional properties etc, through basic research in understanding the requisite process-structure-properties relationships. New nanoprocesses, such as those envisioned above or based on multi-scale self-assembly, will be devised or adapted for continuous, roll-to-roll or bulk extreme manufacturing, such as directed self assembly, patterning and scaffolding, surface processing etc. Research will assess the producibility, predictability and productivity features of the processes, stemming from their fundamental phenomena and mechanisms at the nanoscale. Finally, integration of materials and processes towards a hybrid tool or product of macro-size length, surface or volume, requires research in transfer and coordination of functionalities across multiple dimensional scales, i.e. from nano-structures to micro-devices to meso-systems and macro-products through proper manufacturing technologies. In sustainable solar energy, for example, nanoscale heterojunctions in hybrid photovoltaics, artificial photosynthesis and photocatalytic systems, can be roll-to-roll imprinted in micro-cell arrays, onto mesoscale flexible polymer panels, deployed conformally (e.g. by continuous blow or vacuum molding) over large-area structures into a complete macroscale system. Such research in nanoscale-based extreme manufacturing is expected to have transformative, i.e. disruptive and enabling impacts in physical infrastructure, energy, transportation, information technology etc.



Bio manufacturing at the Nanoscale. Classical biomedical engineering has been pursuing new materials, devices and systems for in-vivo usable products and services, for diagnostic and therapeutic health purposes. Examples include engineered tissue for regenerative medicine, myocardial surgical patches, targeted drug and gene delivery vectors, hyperthermia cauterization agents, artificial bone implants and prostheses etc. More broadly, bio-inspired and biomimetic engineering has been proposing imaginative new technologies imitating, or even incorporating, animate natural entities. These include e.g. solid adhesives mimicking

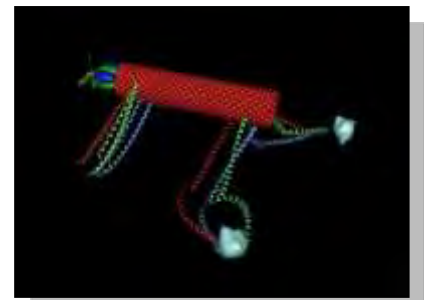


multi/nanoscale fibrous structures of the gecko toe (setae and spatulae); structural composites emulating ceramic-protein multilayers in abalone shells; energy harvesting devices inspired by chloroplast photosynthesis or iridescent coatings on butterfly wings; biomolecular motors mimicking rotating microbial flagellae or actin-myosin walk-along translation; multifunctional dermic sensors emulating corpuscles in skin strata; nano-locomotives mimicking kinesin propulsion in the cytoplasm etc. However, scale-up of such revolutionary platforms has been hampered by a lack of suitable manufacturing processes, especially at the nanoscale. Conventional biotechnology has produced relative simple functional chemicals, pharmaceuticals and foodstuff mostly from unmodified micro-organisms,

such as by fermentation by yeasts etc. Synthetic biology has also been limited to enzymatic production of biomolecules (proteins, RNA, DNA) mostly for medical use. On the other hand traditional manufacturing, such as microelectronics fabrication as previously explained, has been dedicated to *hard-and-square* product paradigms, addressing deterministic Euclidean constructs with mostly non-biocompatible materials.

Bio manufacturing is a neophyte, exciting area of engineering, proposing genetically engineered, replicable live entities, such as cells and microbes, as the ultimate manufacturing plants for scalable in-vitro culture production of not only biomolecules and biomaterials, but also complex biodevices and biosystems, such as “nanorobots” etc. Bio manufacturing breaks the mold of abiotic plant production and combines it with biological synthesis at the complex systems level, extending its domain to nanoscale products by morphological along with biochemical structuring. Examples of preliminary efforts are directed towards viral bio manufacturing of patterned surfaces via self-assembly of nanoparticles, deposited via peptide conformations attached on geometrically aligned phages, which have been genetically engineered and replicated (Dr. A. Belcher, MIT). Some other early examples involve e.g. magnetotactic bacteria for directed sensing, tracking and assembly (Dr. S. Gorbey); nanoactuators by thermoresponsive dehybridization of DNA with attached metal nanoparticles for inductive heating (Dr. J. Jacobson) etc. Bio manufacturing relies on efficient (mitotic) multiplication of cells for reproduction and growth of intracellular structures such as chromosomes (DNA), offering a vehicle for massive enzymatic expression and viral multiplication for production. Thus, bio manufacturing capitalizes on very significant resources and research efforts that have been expended over many decades for understanding and control of such spontaneous cell multiplication, i.e. in the context of cancer research. Although abominable in the health context, massive cell reproduction provides a scale-up basis for in-vitro manufacturing of biomolecular structures. Bio manufacturing also relies on genetic modification of cells etc to obtain morphological, molecular and functional design of reproduced intracellular organelles, viruses and enzymes. This builds upon spectacular recent achievements in bioinformatics research, including genomics and proteomics.

In the longer-term, Dr. Doumanidis will seek research collaborations with colleagues in synthetic biology, contributing his insights of nanoscale manufacturing into addressing bio manufacturing issues for scalable production. Research will tackle modelling, identification and control of cellular states, aimed at genetic design of cell and viral structures and enzymatic expression, into useful biomolecular materials, processes and tools for nanomanufacturing of functional systems. Such building blocks will be engineered to self-assemble, by virtue of their geometry and/or biochemistry, into composite biostructures and biodevices, such as “nanorobotic” dental aids, monitoring tags, drug and gene vectors, bioassay sensors, diagnostic or therapeutic agents, bio-MEMS, nanostructured biomaterials and coatings for surgical tools, synaptic electrodes and non-invasive imaging agents for *brain-machine interfacing* (BMI) etc. Research must also address instigated cell multiplication for just-in-



place/just-in-time biomanufacturing of such nanosystems, through genetic changes in the cell and/or external stimulation. This is essential for short-lifetime structures or processes, and for coping with toxicity effects at in-vivo implemented biomanufacture, as well as biodegradation and environmental protection via *life cycle analysis* of biomanufacturing systems.

Dr. Doumanidis' strategy in establishing world-leading research programs towards these endeavours will be founded on the calibre of his research colleagues, including junior postdoctoral and student investigators, to be attracted by active and broad recruitment, and by nurturing via his research-interwoven educational programs in the next section. He intends to organize and implement state-of-the-art research laboratories in nanoscale manufacturing, also conducive to training and education as he has done in the past, towards the previous threads of investigation, capitalizing on and complementing the broader extensive and advanced research facilities of the university. In prioritizing infrastructure and project repertoires, Dr. Doumanidis will also synergize closely with all related industries (Boeing, Axcelis, GE, Honda R&D Americas etc), as well as European and international ones (Bosch, IBM, Siemens, EADS, Emirates Global Aluminium etc), towards sharing resources and collaborating in research planning for aerospace, automotive, semiconductor processing and other applications. To realize his programs in nanomanufacturing, Dr. Doumanidis will also actively seek national and international support e.g. by the National Science Foundation (*Engineering Frontiers in Research and Innovation*, EFRI), the Department of Energy, the National Institutes of Health etc, as well as resources for international mobility and collaborations, such as via the European Commission *Marie Curie Actions*, the NSF *Partnerships in International Research and Education* (PIRE) program, the UAE Abu Dhabi Education Council *Academic Research Excellence* (ADEC) awards etc.

EDUCATION OVERVIEW AND PLANNING

Haris Doumanidis

*“To my parents I owe life,
But to my Teacher I owe righteous life”*

(Alexander the Great on Aristotle - Alexander's Ascent B, Arrianos)

EDUCATIONAL PHILOSOPHY

If insightful research is deservedly credited for generating new scientific knowledge, then propagating the benefits of the latter to humanity is left upon devoted education. Education affords research with a unique multiplicative effect in the impact of its outcomes to betterment of personal and social life. Aside from knowledge dissemination, however, education creates the noble context for culturing values and principles, and for “manufacturing” well-rounded, individual personalities, as well as entire societies – an ultimate “product” by any measure. Together with analytical and synthetic tools and dexterities, true education provides the students with early exposure to moral dilemmas (quantity vs quality of work, commitment to present vs future, self-promotion vs helping others etc), and drives them to make their own choices for their future professional and personal lives. More than any explicit lecturing and formal instruction, genuine education involves the gentle but eloquent power of *role models* to students, therefore highlighting the vital responsibility of the educator in teaching by example.

Raised in a classical culture and tradition tracing its roots to the Ancient Greek ideals of *καλός κ' ἀγαθός* (connecting knowledge with beauty and service), Dr. Doumanidis' educational philosophy has been centred on the existential uniqueness and totality of human personality, in the midst of a collegial society of equals and a wondrous natural and technological world inviting us to explore and improve it. Influenced by the school of thought of *peripatetic philosophers* (teaching their students in educational promenades), he has always sought experiential motivations of discovery and learning. He actively pursues exposure of his students to intriguing contexts by class visits to research laboratories, industry plants, clinical hospitals, science museums etc, and by stimulating instructive in-situ discourses. His teaching style follows a *complex-then-simple-then-complex again* approach, calling for analysis in the actual complicated framework of natural world, and then for synthesis of deduced laws and principles into complex technological creation. In this second step, design and manufacture arise as the key synthetic activities of the Engineer, his calls for serving humanity, and his opportunities in imitating his Creator.



Despite the early exposure of young children to the delights of simple manufacturing (making by hands) projects in pre-school and kindergarten, Dr. Doumanidis was always concerned this motivation to creativity was not adequately followed up in most primary and secondary education systems worldwide. For this reason he always works together with grade, middle and high school teachers and technical instructors towards rekindling this manufacturing fascination, by lecturing at schools of all levels on nanotechnology and manufacturing, and by hosting school class visits to his laboratories, together with his own students. In his university classes he also offers group projects mixing undergraduate students with advanced graduate ones, and taking advantage of peer advising to initiate competent undergraduates into the realms of research, especially at the undergraduate thesis context. Reversely, academically-inclined graduate students mentoring these projects are offered an early exposure to undergraduate tutoring and research training. In the project groups, Dr. Doumanidis offers rotating roles to students, giving all of them the opportunity to function in both leadership and teamwork roles, and to refine their hands-on practice, oral and written communication skills through reports, presentations and final contest competitions. He designs and configures his research laboratories so as to host education visits, demonstrations and research training of advanced undergraduates and graduate students. Finally he always takes his role in fathering and nurturing young personalities into science and technology, through his student advising and mentorship, as seriously as his own research work.

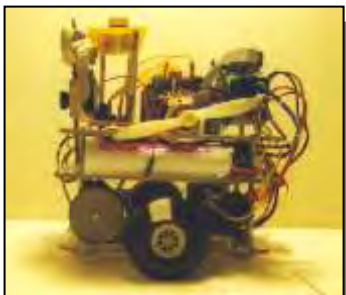
PAST AND PRESENT EDUCATIONAL SERVICE

At Tufts University (1991-2001), Dr. Doumanidis established and instrumented two state of the art research/teaching laboratories (Thermal Manufacturing Lab, Robotics and Control Lab) and an educational facility (Tufts Prototyping Shop), largely through funding by the National Science Foundation, the Society of Manufacturing Engineers, IBM, Tektronix, the Lufkin and the Burstein Fund. This setting allowed him to introduce and offer four early undergraduate courses in rapid prototyping for art and for home robots, and instrumentation laboratory with projects; Two undergraduate courses in systems design and modern manufacturing; Four advanced undergraduate/graduate courses in computer-controlled systems, robotics, manufacturing process automation, and biomechanics and physiology (prepared); And two advanced graduate (PhD) courses in thermal manufacturing processes and advanced controls. His manufacturing courses include constructivist projects in CAD design of mechanisms, fabrication by manual and CNC machining including EDM, rapid prototyping by laminated object and ballistic particle manufacturing, and assembly by ultrasonic bonding, plasma arc and laser welding. His controls and robotics courses also comprise hands-on exercises and projects in implementing meteorological stations, electrocardiography monitors (EKG), circuitry models or chemical plants, feedback control of illumination in machine vision; as well as various mobile robot designs, and tabletop manipulators with vision for assembly, repair, playing pool, mini-golf etc. These were complemented with visits to industry (Polaroid, Osram Sylvania, GE Aircraft Engines, Varian Semiconductor, Axcelis etc), the MIT *Laboratory for Manufacturing and Productivity*, the MIT Museum, the Museum of Science-Boston, and the operating room ward at Children's Hospital in Boston. He also hosted educational activities in science and technology for teachers and women, professional students, and research exposures for local high-school and incoming college students. He advised several student groups including the Tufts Chapters of ASME, IITΣ, the Robotics and Chess Clubs etc, as well as the Massachusetts Education Board. His educational work was recognized by multiple graduating students as having contributed the most to their intellectual development, and by excellent evaluation ratings of his courses.



While at the National Science Foundation as the Nanomanufacturing Program Director (2001-03, 2006-07 and 2010-11), Dr. Doumanidis supported nanoscale manufacturing education throughout the USA by several *Nanoscale Science and Engineering Education* (NSEE) grants, including a large *Nanoscale Informal Science Education* (NISE) network (Museum of Science Boston, Science Museum of Minnesota, San Francisco Exploratorium). He also supervised the educational activities of over a dozen young faculty as CAREER awardees in his program, and informally mentored many more junior faculty in their teaching and research plans (still continuing to this date).

After joining the University of Cyprus (2003) as the first Chair of its starting *Mechanical & Manufacturing Engineering* department, Dr. Doumanidis coordinated the hire of seven (out of currently 13) new faculty, with commitment to education as a primary criterion. He also attracted generous funding by the European Commission, such as Marie Curie Chair and Excellence Team awards supporting research training and teaching activities, and laboratory infrastructure funds by the Cyprus Research Promotion Foundation. With these resources he established the first two research/teaching laboratories (Manufacturing Lab and Micro- & Nano-Systems Lab) and two teaching facilities (Mechanical Engineering Lab and Manufacturing (Wood) Shop). These first laboratories were instrumental for the new undergraduate program of studies of the department, which he designed and introduced in 2005 (in Greek/English, still in use today), as well as the graduate programs of studies in Mechanical Engineering and in Manufacturing Engineering, which he also established in 2003 (in English). At Cyprus Dr. Doumanidis offered one introductory undergraduate course in laboratory instrumentation, two advanced undergraduate courses in design and manufacturing and in control systems, and two graduate courses in manufacturing process automation and in computer-controlled systems, with content and activities similar to those at Tufts. His courses included visits to



local industry (Muskita Aluminum, National Guard Plant etc), and were again top-rated in student evaluations. He served as an advisor of the Ministry of Education and Culture, and is the VP of the educational Archimedes Center for Innovation and Creation (with Dr. J. Seferis) in Athens, Greece. He is presently working on the establishment of the Cyprus Museum of Science and Technology in Nicosia, in collaboration with the Museum of Science Boston, which will showcase exhibits of ancient Greek technology as well as modern manufacture and nanotechnology, and promises to revolutionize engineering education across the island.

Finally at the University of Reno Nevada (UNR, 2013-14) and as the Chair of Mechanical Engineering, Dr. Doumanidis led to the hire of six new faculty. He led the efforts in establishing the innovative Engineering Education Program, and actively promoted flip-class and massive open online course (MOOC) practices. He volunteered himself in offering a controls course to the large graduating class of students, and led the UNR mission for recruitment of international undergraduates in the Middle East. He coordinated the effort towards renovation of classroom facilities in Palmer Engineering Building, and the modernization and expansion of its Machine Shop with new equipment for student class projects. Dr. Doumanidis also provided opportunities to teaching-oriented students to work with the *Nevada Discovery Museum* towards STEAM education of K-12 young students. Finally he was the co-founder of the Nevada Advances Autonomous Systems Innovation Center (NAASIC), that opened new horizons to student training in UAV and ROV technologies and projects towards critical local needs in fire safety, pollution prevention, mining operations and energy manufacturing.

FUTURE EDUCATIONAL PLANNING AND OUTREACH VISION

Even when viewed strictly from a pragmatic business standpoint, nanoscale manufacturing education has a healthy and rapidly growing international market of highly motivated quality students at all levels, for which there is already keen competition by several respectable universities and educational institutions worldwide. To seize such an opportunity in education and innovation, Dr. Doumanidis envisions and plans to strive towards a globally top-quality, research-intertwined educational institute for nano-manufacturing under the department, offering highly exclusive undergraduate and graduate programs in the field, and attracting the very best students across the globe. This effort will capitalize on the unique human resources in research and world-leading academe of the university, along with its premier education and research facilities, and its inspirational scholarly and innovative environment. It will also build upon singular national expertise and culture in niche technologies related to nanomanufacturing, and the strengths of the national manufacturing and service industry, with state-of-the-art R&D laboratories and facilities available for research training. Finally it will take advantage of federal resources, including scientific museums and collections, as well as European and international mobility programs for students and early stage researchers. Combined with his educational philosophy above, these elite programs aspire to graduate nothing less than the best qualified future leaders of nanoscale manufacturing in academic and industrial research and innovation over the world.

At the undergraduate level and in this context, Dr. Doumanidis intends to contribute introductory and advanced courses inviting young minds into *the nanoworld as a manufacturing playground*, where learning is promoted by hands-on fabrication of nanoscale building blocks and their assembly into microscale devices and systems. In a small laboratory with inexpensive nanomanufacturing process equipment (nanofiber electrospinning, anodized aluminium oxide, self-assembly of block copolymers, ball milling, spin coating, doctor blading, inkjet printing etc) they will produce and integrate (via projector/microscope lithography and stereolithography, hot embossing, microjoining with *nanoheaters*, electrodeposition and sputtering, etching etc) functional devices (sensors of heavy metal pollutants in water, *photodendron* solar trees, point-of-use water filters, scaffolds for intestinal tissue etc). They will be able to observe the resulting architectures and test their performance with low-cost digital microscopes, tabletop SEM/EDX and AFM etc, to establish a first qualitative intuition of the *process-structure-property-function* relationships across multiple manufacturing scales. Next they will be challenged by open-ended constructivist projects of their own inspiration, leading them to invert these relationships in order to *design for nanomanufacturing*, and to realize that each target functionality needs to be implemented at the appropriate scale as it happens in nature, calling for the proper manufacturing processes. Hopefully this will stimulate their curiosity into further discovery, learning and creativity, guiding them to pursue research in industry or graduate studies.

At the graduate level, Dr. Doumanidis plans to contribute multiscale fractal and nano-manufacturing courses, to provide the students with all quantitative background needed for experimental and computational research in this area. These will emphasize modeling for control of transport phenomena in manufacturing processes, including material addition (diffusion-limited aggregation, dendritic nucleation and growth, crystallization, vapor-liquid-solidification, electrodeposition, directional self-assembly, Eden bacterial aggregation etc), erosion/ablation (dielectric breakdown, electrochemical corrosion, mechanical fracture, melting and evaporation, porosification and leaching etc) and transformation (Hele-Shaw flows/viscous fingering, turbulence cells, evolutionary chain reactions etc). These will be tested on research-grade instrumentation of in-house or nearby facilities, and coupled with theory and simulation on modest computational platforms suitable for real-time process observation and control in manufacturing. Theoretical modelling will introduce or overview relevant background in both continuum (distributed-parameter, nonlinear dynamics, bifurcation and chaos, probability theory, level sets and percolation theory etc) and atomistic systems (Monte-Carlo methods, molecular dynamics, density functional theory etc), bridging them with material in other courses and putting them into the manufacturing perspective. All these tools will be used in the context of actual challenge projects of industry sponsors, such as prototyping of featherweight composites for Boeing, antibacterial coatings for Honda, solar nanofabrics for Axcelis, nanoheater-based rapid thermal processing for EGA etc. In addition, open-ended projects of the students' own invention and interest, such as solar cooler foil, scaffolded hemopoietic tissue etc will steer the most ambitious and so-inclined of them into innovation and entrepreneurship, with investment assistance e.g. by GloCal Ventures etc.

At the same time, the present global financial circumstances seem to accelerate the professional workforce migration out of traditional industry, thus expediting the need for its re-training into alternative modern directions, and particularly nanomanufacturing. The dominant nanoscale manufacturing industry to emerge out of the awaited economic recovery will emergently require a highly-trained workforce at the production and management level, with specialized professional practice competences. Dr. Doumanidis efforts towards new Minor programs In Environmental Engineering and in Architectural Engineering, along with the impending 5-year BS-MS degree programs aim at offering students additional competencies and a competitive advantage in their professional options. Dr. Doumanidis also intends to catalyze and serve such a solid and comprehensive professional training program in nanomanufacturing, with pre-eminent educational standards and the best employment prospects in the near future. The same training programs will promote commercialization via incubation of small and medium enterprises, a vital component of the economy and a middle-class stabilizer in society. This will capitalize on the high national quality of technical professionals, as well as a close collaboration with the local and international industry in wisely directing this human potential towards their anticipated specialty needs. Aside for the undergraduate and graduate courses, this professional program will also largely benefit from quality resources, materials and synergistic activities with the research-oriented one above, therefore preparing the human resources for a nanoscale manufacturing-based industrial revolution in the present decade.

Finally Dr. Doumanidis plans to undertake a concerted manufacturing outreach activity to precollege education and the general public, as well as the interdisciplinary science community, focused on *fractal art science*. Inspired from nature, visual arts (sculpture, painting, origami, architecture etc) along with performing arts and humanity sciences (music, linguistics etc) employ a variety of fractal forms exhibiting multi-level self-similarity, the design and composition of which shares similar foundations with fractal engineering. It is hypothesized that both functional optimality and aesthetic appeal of such fractal forms in a variety of seemingly unrelated contexts is attributable to their mathematically elegant formulation which is intuitively intelligible to human cognition. The potential connection of such self-similarity to recursive algorithmic thought and neural inference by the physiologically and anatomically fractal structure of the brain opens up a number of intriguing research questions in synergy with computer science, neuroscience and behavioural psychology. At the same time, manufacturing of fractals in engineering and in the arts offers a fertile STEM attractor to the local K-12 community of teachers and students, and an interdisciplinary collaboration opportunity with the Museum of Science Boston, the Museum of Fine Arts, the Fractal Foundation etc. Dr. Doumanidis' efforts for towards the establishment of the Cyprus Museum of Science and Technology, as well as the new KU *Discovery Centre*, both aim to benefit K-12 students, along with their teachers and parents, towards early inspirational exposures hopefully orienting their future professional aspirations towards science and engineering.

ADMINISTRATIVE LEADERSHIP AND INNOVATION PHILOSOPHY

Dr. Haris Doumanidis

*Both Gods and men are angry with a man who lives idle,
for in nature he is like the stingless drones
who waste the labour of the bees, eating without working.*

(Hesiod [in praise of Prometheus], *Works and Days*, 300)

Dr. Doumanidis' key executive experience is in the practice and administration of research, education and innovation for advanced manufacture and materials processing, reaching down to the *nanoworld* (*nanomanufacturing*). Motivated by early exposures to his own family enterprise (a fashion shoe factory), he was always intrigued by introducing and managing transformative technologies and new methods to serve human needs – the ideals of Prometheus (the mythical Titan who brought fire from the Olympian Gods to mortals as a gift and tool for manufacturing). Through his faculty career (at Tufts University, MIT, the Univ. of Cyprus and Univ. of Nevada Reno), government service (at the National Science Foundation and ECI Cyprus Research Promotion Foundation) and industry experience (at Axcelis Technologies, Honda R&D Americas and his students' start-ups, *Advanced Technology Development-ATD Nano*, *Eco Green Power*, *Unification Energy*, *Neumitra*, *Stonewedge* and *ADROV LLC*), he has dedicated himself to the pursuit and nurture of people, ideas and tools as the resources for serving society via nanomanufacturing science and engineering for the 21st century. Towards this vision, his multinational background (US and European citizen) has inspired a distinctively international synergy and partnership activities, bridging across both sides of the Atlantic as well as the Balkans, Middle East and East Asia.

Leading Change

As a professional executive, Dr. Doumanidis has pioneered innovative strategic changes at his institutions with significant broader impacts at national and international levels. At *Tufts Univ.* he has introduced thermal manufacturing, coupled with robotics, controls and rapid prototyping technologies, as a chief focal area for government-funded research, academic studies and partnership with local industry. At *NSF* Dr. Doumanidis founded the *Nanomanufacturing Program* as its first director under the DMII/CMMI Division, and introduced the *Manufacturing Processes* theme of the *Nanoscale Science and Engineering* (NSE) solicitation under the *National Nanotechnology Initiative* (NNI). This was soon thereafter also emulated by the European Commission Research Executive Agency (REA) in their Framework Programme 6 (NMP), which Dr. Doumanidis served as the first *National Contact Point* in Nanotechnology (NMP) for Cyprus. At *Axcelis Technologies* he spearheaded the design and prototyping of a new line of lamp- and laser-based rapid thermal processing reactors, a radical departure from the prior hot-wall technology of the company, and with currently a dominant market share. At *Honda R&D Americas Research Institute* (HRI) he consulted and worked towards the establishment of the *Honda Initiation Grant* (HIG) Program, which provided basic and applied research support to over 60 grantees in the USA. At *MIT* he sponsored the annual *International Symposium on Nanomanufacturing* (ISNM), alternating among the USA, Europe and Asia each year and bringing together the nanoscience with the manufacturing community worldwide. At the *Univ. of Cyprus* he established the new Department of Mechanical and Manufacturing Engineering (2003) as its first Head, hired most of its current faculty, introduced its present undergraduate and graduate programs, designed and implemented its first laboratories and attracted its first funded research and infrastructure programs (~\$ 3.5M). He also founded the *Hephaistos Nanotechnology Research Center* (annual budget ~\$ 2M), which essentially brought nanomanufacturing to Cyprus and joined the efforts of its nanotechnology stakeholders, along with strong partnerships with leading institutions in the USA and Europe. At UNR he was the co-founder of the *Nevada Advanced Autonomous Systems Innovation Center* (NAASIC), funded by the Governor's office to promote research and innovation for critical safety needs and economic development. Dr. Doumanidis also leads innovative applications of nanomanufacturing research through *ATD Nano*, *EcoGreen Power*, *Unification Energy*, *Neumitra*, *Stonewedge* and *ADROV LLC*, and also pioneers informal education in the nanoworld via the *Cyprus Museum of Science and Technology* and the *KU Discovery Centre* under development, orienting the ambitions of young minds towards research and creation.

Creativity and Innovation. In his research, education and administration activities Dr. Doumanidis was always intrigued by the beauty and harmony in nature as well as art, which is attributed to mathematically intelligible forms (such as *fractals*) tantalizing human mind and optimizing their production and function. Nature, through its evolution over billions of years, manufactures elegantly and robustly by transporting and transforming matter, energy and information in space and time, across all scales and scientific disciplines, though a stunning armory of materials and processes eventually rooted in the nanoworld. This contrasts sharply to our conventional fragmented, deterministic, Euclidean, non-scalable manufacture by unnatural, overly constrained and costly techniques. Dr. Doumanidis was inspired to introduce biomimetic, cross-disciplinary, multi-scale, scalable nanomanufacturing technologies, based on the hypothesis that both operation and manufacture of such materials, devices and systems are dominated and optimized by similar phenomena. This led him to pioneer new processes for random branching (tree-like) material architectures, similar to corals, rivers and snow flakes, to produce 3D patterns and vasculatures for optimal transport in photovoltaics, water desalination membranes and tissue engineering scaffolds. He also initiated research in *extreme manufacturing*, i.e. continuous, just-in-place production of very large structures with high added value to modern society, from aircraft and spacecraft to intercontinental piping and space elevators, using flexible die tools and bioinspired robots mimicking spiders in knitting their web. Finally he proposed *biomanufacturing* using genetically engineered, replicable live organisms (cells, bacteria etc) as the ultimate production plants for scalable manufacture of devices and systems based on biomolecules, such as “nanorobots” for targeted drug delivery etc. In all such technologies Dr. Doumanidis’ team researched the relationships among *manufacturing process-material structure-functional properties*, in order to model, control and redesign these methods by introducing completely novel and original techniques. These areas eventually converge to *humanitarian engineering*, i.e. research towards serving the special needs of developing areas of the world, as well as those afflicted by natural or anthropogenic disasters.

This research required commensurate innovation and creativity in Dr. Doumanidis’ educational approach, such as his introductory class in *Art by Rapid Prototyping* to excite incoming students to Engineering, *Human Physiology* as a required course for Mechanical & Manufacturing Engineering undergraduates etc. Influenced by the peripatetic philosophers’ school of thought in ancient Greece (teaching their students by discourses during educational promenades), he encourages experiential motivations of discovery and learning via his class visits to research laboratories, industry plants, clinical hospitals, science museums etc. He also set up novel pilot laboratories for constructivist student group activities, such as the *21st Century Machine Shop*, combining traditional machining with low-cost, projector-and-microscope lithography to build *micro- and nano-electromechanical systems* (M/NEMS). He co-founded the *Nevada Advanced Autonomous System Innovation Center* (NAASIC) offering innovative project opportunities to students, such as wildlife and wildfire monitoring. Last, in his administrative duties he pioneered new role-model and honour-based systems to instigate and promote personal and professional integrity and responsibility in his group of students and junior colleagues.

External Awareness. Thanks to his international activity Dr. Doumanidis not only has contributed to, but has also gained first-hand global appreciation of the research, educational and practice developments in manufacturing at the nanoscale. Through his service in the US *National Nanotechnology Initiative* (NNI), as well as the EC Framework Programmes 6 & 7 in *Nanosciences, Materials and Production* (NMP) and the *Cyprus Research Promotion Foundation* as its *National Contact Point* (NCP) in Nanotechnology, he has always been aware and proactive of the external conditions and trends affecting nanomanufacturing from his local institution to the world scale. He has been seeking to transplant these experiences to his new environments, e.g. working with the *Abu Dhabi Quality and Conformity Council* (ADQCC), working with the *Emirates Metrology Institute* (EMI), and the *Abu Dhabi Education Council* (ADEC), advising them on their research evaluation framework for higher education institutions. Through collaboration and consulting for the international industry (*Axcelis Technologies* in microelectronics, *Honda R&D*, *Siemens*, *Bosch*, *EADS*, *Emirates Global Aluminium* etc) he has also closely witnessed transformations leading to the 21st century manufacturing: from mass production into user-centric customization; from just product into combined product-service engineering; from mere production skills to entrepreneurial inventorship; and the trend towards highly competitive education and workforce training. He has also espoused the importance of *environmental, health and safety* (EHS) as well as the *ethical, legal and societal implications* (ELSI) of nanomanufacturing in research management at NSF. The cross-disciplinary nature and history of

manufacturing, paralleling that of humanity, has motivated Dr. Doumanidis to follow revolutionary developments in requisite sciences such as synthetic biology and archaeology of technology. Finally as a specialist in control systems, he always emphasized the significance of feedback in continuous improvement, by assessing the impact of his work to his organization and broader environment. Besides reviews of research proposals and publications of his team, he actively solicited and derived such evaluative feedback from ABET accreditation reports (at Tufts Univ. and now in the UAE), divisional Committee of Visitors assessments (CoV of DMII at NSF), review panels and site visit teams (SVT) to the *Nanoscale Science and Engineering Centers* (NSEC) he supervised at NSF, and external advisory boards at the Univ. of Cyprus by the *European University Association* (EUA) and *European Foundation for Quality Management* (EFQM).

Flexibility. Following the universal rule of modern professional reality, Dr. Doumanidis' career was marked by a sequence of continuous transitions rather than a steady state, calling for versatility and adaptation to new working data and conditions. His multicultural international background led him to not just cope with such change, but truly enjoy and take productive advantage in accomplishing his institutional and personal goals. Following scientific breakthroughs in our ability to experience and influence the nanoworld, Dr. Doumanidis' original academic research and teaching repertory in macro-/mesoscale thermal manufacturing was enriched with micro- and nanoscale technologies. That miniscule scale of nanometers and femtoseconds opens up a virgin new environment not only provoking our analytical intellect, but also offering an ultimate synthetic playground with unprecedented opportunity for manufacturing. In his government service at NSF, Dr. Doumanidis used the concomitant shift of resources from core programs to the NNI solicitation as an opportunity to support groundbreaking *interdisciplinary* research in nascent areas such as nanomanufacture at both the fundamental and applied level. In his industrial experience at Axcelis, the technological and market shift motivated him to design and test a new lamp/laser-based product line departing from classical hot-wall methods. Through his students' start-ups (*ATD Nano*, *EcoGreen Power*, *Unification Energy*, *Neumitra*, *Stonewedge* and *ADROV LLC*) he also took up the challenge of a new scientific culture and social environment to implement nanomanufacturing for serving local technological needs, such as water desalination membranes, solar nanofabrics, scaffolds of engineered tissue for endemic thalassemias and hemoglobinopathies, and marine ROVs. Besides working for academe, government and industry in four countries (USA, Cyprus, Greece, UAE) Dr. Doumanidis has enjoyed extensive travel throughout the world, fostering international conferences and alliances in nanomanufacturing.

Resilience. In both anticipated and unexpected cycles of prosperity with adversity, Dr. Doumanidis always worked to smooth out undulations and avoid extreme consequences by a lending-and-borrowing strategy, which eventually strengthened and promoted the health and prioritization of his institutional activities. He managed the quantity and quality of resources, including human investigators and funding for his research and administrative projects, by seeking new sources and by balancing them across alternative domains (academic, government, industrial) over the world. Between his three rotations at NSF (2003, 2006, 2010), for example, a marked increase in quality research proposals, in combination with a decrease in the budget of the Nanomanufacturing Program, threatened low success rates discouraging the neophyte nanomanufacturing community in the US. Dr. Doumanidis worked with other NSF programs he had supported in the past, OISE, federal agencies (NIST, DoE, EPA etc), industry (e.g. *Honda Initiation Grant* Program) and international initiatives (EC FP6 Cooperation and Mobility Actions) to persevere the downturn, preserve stability and encourage quality long-term efforts especially from young investigators, maintaining an optimistic outlook and outreach to his community. Many of those patient efforts are now rewarded under the *American Recovery and Reinvestment Act* (ARRA). Also the present global financial crisis, besides its devastating consequences on highly skilled professional workforce, seems also to accelerate its migration out of traditional industry of the past and into modern manufacturing enterprises of the future, thus expediting the need for workforce re-training. Through the *Hephaistos Nanotechnology Research Center*, Dr. Doumanidis has promoted opportunities for forward-looking professional training in nanomanufacturing, serving the human resources and preparing them for a nanotechnology-based new industrial revolution later in the decade. More recently at the oil crisis in the Middle East, he has been striving to enhance professional competence of his students by working towards new Minor Programs in Environmental Engineering and in Architectural Engineering, as well as 5-year MS-BS degree programs, introducing students to research and improving technological literacy and economic competitiveness of the UAE society.

Strategic Thinking. Dr. Doumanidis' synergistic activities across global academe, government and industry are dictated by his strategic objectives in developing the collaborative network and tool infrastructure, such as research laboratory and educational programs, to promote learning and discovery of transformative ideas in nanomanufacturing, by fostering the most promising investigators and young people internationally. These are in turn suggested by his institutional mission goals in transferring the astounding breakthroughs of nanotechnology from laboratories worldwide into actual manufacturing production, with innovative products and services benefiting international society. These goals are best expressed in the mission of his NSF Nanomanufacturing Program, i.e. supporting research and education exploring the nanoworld in its cross-disciplinary science beauty, as the foundation for multi-scale engineering (from nano-material structures to micro-device architectures to macro-system products), leading to scalable (i.e. producible, predictable, productive) manufacture in industry. In this endeavour, Dr. Doumanidis managed technical risks through careful contingency planning, based on the multiplicity and diversity of technologies (materials, processes, platforms, applications) investigated in his own research, as well as the portfolio of programs he managed at NSF and in industry, offering redundancy via a broad range of alternatives. He capitalized on opportunities in resources offered via the NNI in the USA and FP6/7 at the EC to promote nanomanufacturing across continents, with a strategy best articulated in his co-authored *NNI Workshop Report* "Manufacturing at the Nanoscale", NSF 2002-04. Dr. Doumanidis has promoted and implemented this strategy through the Tufts Engineering Strategic Plan Committee and Industrial Advisory Board, the NSF NSE Committee, the Univ. of Cyprus Development Planning Committee, the Univ. of Nevada Reno NAASIC and other international fora.

Vision. These strategic plans and actions emanate from Dr. Doumanidis' overriding vision in serving the national and international society through a superior quality of life enabled by nanotechnology, with a dual approach. On the one hand, societal service through new engineering products and technologies for the human environment, health, safety and other resource needs (energy, food/water, information, transportation etc) calls for scale-up of nanotechnology into industrial production, through nanomanufacturing research and development. On the other hand, serving humanity through betterment of personal and social life will greatly benefit from the science exploration of the nanoworld, through the multiplicative effects afforded by humanistic education and professional training. This aspires in "manufacturing" well-informed and rounded individual personalities, as well as an entire international society of knowledge, and in offering more and better job opportunities, promoting wealth distribution, societal welfare and global stability. This vision is shared and promoted by Dr. Doumanidis' catalytic activity not only within his institutions, e.g. by the establishment of the *Nanomanufacturing Program* and the *Nanoscale Science and Engineering Education* (NSEE) solicitation at NSF, but also by his influence and collaboration with the European Science Foundation (ESF, standing committee on *Physical and Engineering Sciences* –PESC), the Cyprus Research Promotion Foundation, the National Academies (NAE) *Frontiers in Engineering* Program, the National Research Council (NRC, *National Materials Advisory Board*-NMAB), the *Government Agencies Technology Exchange for Manufacturing* (GATE-M), the *Interagency Metals Group* (IMG), the *Honda Research Institute* (HRI), the *Archimedes Center for Innovation and Creation*, the *UAE Abu Dhabi Education Council* (ADEC) and *Emirates Metrology Institute* (EMI), the *KU Discovery Centre* etc.

Leading People

Fostering and leading people towards personal and organizational success has unequivocally been at the very top of Dr. Doumanidis' administrative priorities. While at Tufts Univ. he worked together with two other junior colleagues in founding the *Thermal Analysis for Materials Processing Laboratory* (TAMPL), and has served as the faculty advisor of his group of 30 graduate students, as well as the undergraduate student IITΣ Honor Society, the ASME and SME Student Chapters, the Robotics Club, the Chess Club, the Hellenic and Christian Student Associations etc. At Axcelis Technologies he led a group of two colleagues to publish the basic science aspects of their project. At NSF he worked closely together with his colleagues at ENG-DMII and CMMI, as well as the NSE group and OISE. Within his Nanomanufacturing Program he supervised the PIs and teams in over 100 awards at all levels (Nanoscale Exploratory Research, Nanoscale Interdisciplinary Research Teams and core), including a dozen of young CAREER grantees, as well as large research groups in three *Nanoscale Science and Engineering Centers* (NSEC) in nanomanufacturing. He also lectured at numerous conferences, workshops, panels and audiences of faculty and student groups, and informally mentored and oriented many more junior investigators in their research and teaching planning across the US (still continuing to this date). At the Univ. of Cyprus, as the MME department head Dr. Doumanidis hired

seven (out of its currently thirteen) young faculty and directed them to successful funded research and education programs, and he also managed many visiting faculty, postdoctoral researchers and his own group of over 10 graduate students, along with multiple collaborators across Europe, the US and Asia. At UNR also as the ME Department Chair he led to hire of six new faculty and mentored their research and teaching.

Rooted in classical ancient Greek culture connecting knowledge with beauty and service, Dr. Doumanidis' philosophy in leading people is centered on the existential uniqueness and totality of human personality, in the midst of a collegial society of equals and a wondrous natural and technological world, inviting us to explore and improve it. He takes discovery of new scientific and engineering knowledge via research, and propagation of its benefits to society via education, as a noble context for culturing personal and professional values and principles in his team of people. Rather than formal instruction, genuine leadership involves the gentle but eloquent power of *role models*, highlighting teaching integrity and responsibility by example. In his advising and mentorship activities he always takes his role in fathering and nurturing young personalities into science and technology, as well as society and life, as seriously as his own research and teaching work.

Conflict Management. In his university class lectures, research group meetings and review panels at NSF and elsewhere, Dr. Doumanidis stimulates productive conflict on the scientific and technical issues, with debates (often heated but always within civil frameworks) never allowed to encroach upon personal aspects. One objective of the confrontations is to illuminate the subject from multiple points of view, in order to eventually converge on well-informed, consensual group decisions. More than this outcome, however, his objective is to illustrate to his team the sources of such disagreements, by rationally tracing them back and attributing them to basic underlying differences in their values and preferences. This provides his young collaborators with early exposures to fundamental ethical dilemmas (e.g. quantity vs quality of work, commitment to present vs future, self-promotion vs helping others etc), and drives them to make their own conscientious choices for their future professional and personal lives. Rather than any forced reconciliation, his goals are more in understanding, accepting and respecting differences of opinion in the team. As a father raising three young sons, Dr. Doumanidis has practiced a variety of conflict resolution scenarios and gained experience with various degrees of success (disproving, to his chagrin, any theory he has tried to develop).

Leveraging Diversity. Dr. Doumanidis has proactively pursued and capitalized on personal diversity of every aspect in his team, not only as a reflector of the actual social fabric and a promoter of societal balance and stability, but also as the generator of a much-needed extraordinary variety of scientific and technical ideas, emerging from the diverse backgrounds, talents and skills of different people. In the traditionally male-dominated, but also cross-disciplinary field of manufacturing, he managed to attract and recruit outstanding women researchers from diverse sciences such as biology, chemistry, physics, medicine and mathematics, e.g. through the ADVANCE program, into his nanomanufacturing review panels and site visit teams at NSF (at least 30%), as well as in his own academic research group (up to 50% at the Univ. of Cyprus). Realizing the challenges and opportunities in the emerging area, many of those female investigators are now among the proud pioneers and pillars of the nanomanufacturing community. At Tufts Univ. and via support by the NYNEX Scholars Program, he successfully co-organized a *Women in Science and Technology Initiative* to entice young women into careers in science, mathematics, engineering and technology (SMET). In the UAE he has been active in recruiting both Emirati and expatriate students into his research and outreach activities through the *KU Discovery Centre*. Besides gender and through his multinational activities and connections, Dr. Doumanidis has always served and enjoyed university classes and research groups with a wealth of minority, special need, social class and ethnic backgrounds, constructively decoupling international politics and other differences from overriding joint scientific endeavour and technological service of the society.

Developing Others. Growing and shaping personalities as the scientists, engineers and citizens of our future societies— an ultimate “product” for a manufacturing engineer by any measure – has been Dr. Doumanidis' highest professional priority and responsibility. He was always concerned by the fact that the early delights and motivations of young children in preschool and kindergarten with simple manufacturing (making things by hands) projects, are not adequately followed up in their subsequent education worldwide. To develop quality human resources in nanomanufacturing, he works systematically with students, teachers and technical instructors in primary and secondary education, towards rekindling this manufacturing fascination. He volunteers regular lectures in schools at all levels on nanotechnology and manufacture, and together with his group he frequently hosts school class visits to his research and teaching laboratories. His initiatives were supported by the GTE Foundation *Growth Initiatives for Teachers* (GIFT) project at Tufts University, by the

Cyprus Research Promotion Foundation “Students in Research” (MERA) program, and by the Archimedes Center for Innovation and Creation, with a mission in scientific orientation and encouragement of youth for advanced international studies. At the higher education level and besides his regular university teaching, Dr. Doumanidis offered evening classes for professional development through the Tufts *Certificate in Manufacturing Program*. He puts particular effort and emphasis in fathering his undergraduate and graduate students, postdoctoral and junior faculty colleagues, and he always follows up with this connection in their subsequent careers, providing individual informal consultation and advice. Dr. Doumanidis takes pride in his former students, many of whom joined the faculty and staff of top academic and industrial institutions (Harvard, MIT, UC Berkeley, GE, Varian, PRI Automation, Factory Mutual, ADNOC, EGA etc), he actively participates in six new start-up companies initiated by them, and consults for enterprises of many others.

At NSF Dr. Doumanidis has cordially supported career development of young investigators, including twelve CAREER/PECASE grantees in the Nanomanufacturing Program, several IGERT and GK-12 awardees, and many more informal advisees among the junior faculty and advanced students across the country, seeking orientation and help with their research planning. In his review panels he always invited and recruited a large number of young researchers with little or no prior NSF exposure, to provide insider perspectives and guidance to their research funding efforts, and to familiarize them with the opportunities in the new nanomanufacturing arena. Finally Dr. Doumanidis’ development efforts included promotion of public information and scientific literacy of the broader society, through frequent open lectures, online and press articles and televised interviews on nanotechnology, as well as his current initiative in setting up the *Cyprus Museum of Science and Technology* and the *KU Discovery Centre*. Besides technical insights, his approach in cultivating public awareness of nanotechnology emphasizes its relevance to societal perspectives and values, and projects inspiring role models to magnetize young minds towards a career dedicated to science and engineering.

Team Building. In his university career, Dr. Doumanidis delights and prides in fostering his broader research group in an academic family environment, inspiring mutual assistance and cooperation, teamwork, noble competition, and openness and service to others and society. In his classes and research projects he always offers group projects mixing undergraduates with competent graduates, and taking advantage of peer advising to initiate advanced undergraduates into the realms of research, especially towards an undergraduate thesis. Reversely, academically-inclined graduate students mentoring these projects are offered an early exposure to tutoring and research training of others. In these groups, Dr. Doumanidis offers rotating roles to the students, giving all of them the opportunity to function in both leadership and teamwork roles, and to refine their hands-on, oral and written communication skills through reports, presentations and contest competitions. He also often invites his team and guests to lab socials, excursions and at home with his family, so that his own sons develop role models and friendships with young researchers and get initiated in science. At NSF Dr. Doumanidis also had the opportunity to expand this family team out of the institution and assemble a tightly-knit, cooperative and proud new community in nanomanufacturing, pulling together fatherly senior authorities from the NSECs and NIRT projects, junior investigators from the CAREER and NER programs, students involved in IGERT and GK-12 awards, as well as the interested public through the *Nanoscale Informal Science Education* (NISE) networks of museums etc. Finally through his international activity and thanks to OISE support, the EC Marie Curie mobility actions for people, the Fractal Foundation and the Archimedes Center for Innovation and Creation (Greece), he forges a global research and education team through the *International Symposium on Nanomanufacturing* (ISNM) and other networking initiatives.

Results Driven

Aside from his own team, Dr. Doumanidis has seriously focused on tangible outcomes and deliverables to his institution and its customers, through the quantity and quality of results of his work. At Tufts Univ. he introduced thermal manufacturing education with twelve new courses at all levels, and research in his three new laboratories, funded with a total of ~\$ 5M by sponsors such as NSF, NIST, DoE, SME, Honda R&D etc. For his work Tufts was honoured with highly prestigious awards, such as the *Presidential Faculty Fellow Award* by the White House, the *NSF Young Investigator Award*, the *NSF Research Initiation Award*, the *ASME Blackall Award* etc. Most significantly, he supervised the research theses of 30 graduate students and many more undergraduates in their thesis and coursework. At NSF Dr. Doumanidis founded and directed the new Nanomanufacturing Program and built and supervised its initial portfolio of over 100 awards, including

3 large NSEC and 12 CAREER grants, via an investment of over ~\$ 72M and an almost equal commitment, through review of over 1,000 proposals. He obtained this through methodical outreach to the community by organizing over 40 conferences and workshops, delivering over 30 keynote/plenary lectures and 100 invited talks and seminars, for which his program was recognized for outstanding leadership and service by the ENG Directorate. At the Univ. of Cyprus he established the Mechanical & Manufacturing Engineering department and the Hephaistos Nanotechnology Research Center, along with their undergraduate and graduate programs of study, five courses and seven new laboratories. His nanomanufacturing research was funded with ~Euro 5M by the European Commission and Research Promotion Foundation, including the coveted Marie Curie Chair and Excellence Team awards. He recruited seven young faculty and his group of several postdocs, over ten graduate and even more undergraduate students. At the Univ. of Nevada Reno he was successful in soliciting six new faculty positions, obtaining research funding of \$1 M for his team and an additional \$3M support of the NV Governor in co-establishing NAASIC. His overall research yielded over 200 refereed journal or conference articles, distinguished by four Best Paper awards of his students, five book chapters and nine patents of industrial relevance. His objective has been to lead vertical and transformative nanomanufacturing research into disruptive focal new technologies, enabling innovative applications with tangible and valuable benefits to the society.

Accountability. Practicing his preaching on control systems, Dr. Doumanidis consistently used monitoring and feedback of results in his team and institution to ensure quality, timeliness and efficient use of resources. Rather than micromanaging all logistics himself, his approach was based on inspiring a competitive but cooperative pride of best performance and responsibility in his environment, rewarding people and setting standards. He himself did his best to set the example in quality of teaching, timely fulfilment of research obligations, taking responsibility and action on the reviews of his team work, securing resources for his laboratories, and obtaining early tenure. He always strived to exceed performance standards, such as with ABET accreditation at Tufts and the UAE by identifying procedure delays causing cycling and instability, and with EUA review of productivity in published work and EFQM evaluation at the Univ. of Cyprus. At NSF, inspired by the proud tradition of the DMII division in ENG, his Nanomanufacturing Program always exceeded GPRA goals, processing nearly 100% of proposals within 6 months and fully absorbing budgets by the closing date. He also proactively followed up and facilitated the work of his awardees by reports, presentations and visits, in his quest for outstanding achievements by his PIs and their students, to highlight to the public and showcase in audits, OMB requests and congressional hearings on nanotechnology in support of NNI.

Customer Service. Academic service to students at all levels and junior researchers, as the customers of Dr. Doumanidis' university work, has been recognized by them by several citations as the Tufts faculty who has contributed most to their intellectual development, by selecting him to supervise their thesis work and by inviting him to advise several of their extracurricular activities (chess, robotics etc). The quality of their education and research training, along with their personal growth within the team, can be largely credited for their careers and professional successes with distinguished academic institutions, large industry or their own small businesses, as well as the four Best Paper awards (by ASME, ACC, ISNM and ICMCTF) to their research with Dr. Doumanidis. Scientific/technical advising and project administration of his peers and PIs as his customers while at NSF, has been also acknowledged by their proposing him, after his NSF service, to editorial boards of respected journals (Nanotechnology for Engineering & Medicine, CAD, Nanoengineering & Nanosystems, Intl. J. of Modelling and Simulation), program committees of many international conferences and review boards of the NSECs etc, and by keeping the informal consultation connection with him across the Atlantic. Dr. Doumanidis is also esteemed and trusted as a consultant to industry for repeat and continuing projects, such as with the Honda Research Institute for organizing the *Honda Initiation Grant* proposal review. His broader service to science and engineering was recognized by federal and professional agencies through prominent awards by the White House, NSF, ASME and the European Commission. Dr. Doumanidis strives to continuously improve his service to society by his cross-sector international exposure and by anticipating and supporting new fields of research activity, such as nanomanufacture.

Decisiveness. By moving from the macrocosm into the nanoworld, Dr. Doumanidis has been responsible for key scientific decisions in defining the research and educational domain of nanomanufacturing as his focal area, at times when important service applications in the environment, health, safety, energy etc. appear to

critically depend on it. This necessitated organizational decisions to support such a change, i.e. aligning the new core Nanomanufacturing Program to the NNI solicitation at NSF, establishing the new Hephaistos Nanotechnology Research Center in competition to the MME department at the Univ. of Cyprus etc. His technical decision-making on the technologies to pursue in his research or the proposals to fund at NSF was always supported by as much data and evidence as possible, such as review panels and literature reviews. In his own professional career Dr. Doumanidis also made decisions on his own commitment to research and education through his academic affiliation, to commercialization of his technologies via his industrial work, and to service of the PI community and broader society through his government service at NSF, at the times he judged as most appropriate for his vision. Serving his international interests also dictated his decision for relocating and working in three different countries so far. Knowledgeable of potential implications of such decisions to his family, research team, broader community and global society, he continuously sought to assess their impact in order to balance their consequences and come up with his future planning.

Entrepreneurship. Serving his institution unit as if it were his own enterprise has been Dr. Doumanidis' favourite professional modus operandi at all sectors and across the globe. At Tufts Univ. he identified thermal manufacturing as the area capitalizing on in-house expertise and on collaboration opportunities with local industry (some run by Tufts alumni), and worked in this direction to successfully establish new laboratories, curriculum and research activities. At Axcelis Technologies he transferred these technologies to the new line of lamp- and laser-based RTP reactor products to satisfy a rising anticipated market demand. At NSF he foresaw the cross-disciplinary intellectual wealth as well as the tremendous impact potential of nanomanufacturing to industry and society, and established his Program and introduced the area in the NSE solicitation, also with support by the GOALI program, SBIR/STTR and OISE. At the Univ. of Cyprus he saw the opportunity of the country (that was newly accessioned to the EC) for research funding and infrastructure support in nanotechnology by European funds, and established the Hephaistos Nanotechnology Research Center to pull together and coordinate the requisite critical mass of community and resources in Cyprus, and to build partnerships with prominent US and European institutions. In Nevada Dr. Doumanidis aimed at supporting regional economic development and manufacturing enterprise opportunities via his participation in the Governor's Workforce Investment Board and the Western Nevada Development District councils, as well as his co-founding of the NAASIC innovation center. In the UAE he worked together with *Emirates Global Aluminium* (EGA) towards academic spinoff opportunities taking advantage of the local material and energy supply towards innovative marine applications. Through his students' start-ups, *ATD Nano*, *EcoGreen Power*, *Unification Energy*, *Neumitra*, *Stonewedge* and *ADROV LLC*, he currently pursues commercialization of his nanofiber electrospinning and AAO research through high-value, low-volume production of specialty solar nanofabrics, water desalination membranes, tissue engineering scaffolds and marine ROVs, of particular importance to the UAE. In his entrepreneurship activities, he has always dealt with risks stemming from lack of human resources and infrastructure, bureaucratic procedural delays and market uncertainties, and made educated decisions to ensure realization of the respective benefits.

Problem Solving. As part of the call of any real engineer, solving of problems has been indispensable in Dr. Doumanidis' scientific research and education, professional team and family management agenda. Personal confrontations, cultural obstacles, insufficiency of resources, performance inconsistencies and conflicts of interest have been ubiquitous issues within his academic team, industrial groups and NSF panels. Instead of rushing to resolve each problem, his approach has been to take time to fully understand it, through a complex-then-simple-then-complex again stance, diagnostically analyzing the actual complicated framework before identifying the underlying basic issues and synthesizing a therapeutic resolution strategy. His background in control systems taught him to always formulate a trustworthy model of the situation, with sensitivity analysis of its salient parameters, before inverting it or using feedback, often through trial-and-error, to bring the issue under control. Aside from insightful learning, an important bonus of spending the time to model the problem is that one is frequently inspired to re-design its conditions and propose completely novel and inventive alternatives and options. Dr. Doumanidis' honour-based systems for disciplining his classes are an example of this philosophy.

Technical Credibility. With his background in both manufacturing engineering and nanoscale science, Dr. Doumanidis is respected as the father of the nanomanufacturing area in the USA. His own cross-disciplinary, multi-scale research in scalable processes emerging from the nanoworld has been honoured by former

President W. J. Clinton through the *Presidential Faculty Fellow Award*, and by the European Commission through the Marie Curie Chair of Excellence, among others. Dr. Doumanidis' technical expertise is valued in the editorial boards of key nanotechnology and manufacturing journals, the organizing committees of several international conferences, the review panels of research papers and proposal funding agencies worldwide, the plenary and invited talks of many symposia, and consulting projects of large industry and startup companies. His students' research has been distinguished by four best paper awards and has been cited widely in the manufacturing community. That notwithstanding, Dr. Doumanidis enjoys hands-on work with his students in his laboratories, which he delights in designing and setting up, as well as working with applied project groups in industry. Finally his experience with international capacities, policies and trends and his multi-lingual and cultural background contribute to his technical synergistic activities worldwide.

Business Acumen

Similar to the nanoworld bustling with transformations of matter, energy and information, the business world relies on management of financial, human and technological resources. Dr. Doumanidis has been seasoned in both contexts through his multi-sectoral research, education and administration work in the USA, Europe and Asia. His research management experience derives from the faculty ranks of Tufts Univ, MIT, the Univ. of Cyprus and Univ. of Nevada Reno, as well as the industry projects of *Axcelis Technologies* and *Honda R&D*, and *ATD Nano*, *EcoGreen Power*, *Unification Energy*, *Neumitra*, *Stonewedge* and *ADROV LLC*, his students' companies in Cyprus, Greece, USA and UAE. He has also participated as a consultant in research and development projects of over two dozens of companies, ranging from Emirates Global Aluminium, General Dynamics and Varian to the spin-of enterprises of his former students. Managing education, even when viewed from a strictly pragmatic business viewpoint, has been practiced by Dr. Doumanidis through his university teaching and his professional workforce training via the Tufts Certificate in Manufacturing and the Hephaistos Nanotechnology Research Center programs, as well as his planned Minors in Environmental Engineering, Architectural Engineering and the 5-year BS-MS programs. Nanomanufacturing education addresses a healthy and rapidly growing international market of highly skilled and motivated students at all levels, for which there is keen competition by respectable universities and research institutions worldwide. Finally his administrative expertise was honed at the NSF Nanomanufacturing Program and his consulting for ESF (PESC committee), the Cyprus Research Promotion Foundation and Ministry of Education and Culture, as well as the Honda Research Institute, the Archimedes Center for Innovation and Creation, the UAE Abu Dhabi Education Council and Emirates Metrology Institute etc.

Financial Management. Dr. Doumanidis has been in charge of an annual research and education budget of ~\$ 0.5M at Tufts Univ, and ~\$ 1M in the MME department plus \$ 2M in the Hephaistos Nanotechnology Research Center at the Univ. of Cyprus. The R&D activity of his Thermal Processing Systems group at Axcelis Technologies ran at ~\$ 1M, and his current capital by GloCal is nearly \$ 3.2M. Funding by his NSF Nanomanufacturing Program averaged \$ 30M annually, including NSE awards (excluding NSEC commitments). In addition, he participates in technical-financial consulting boards of the HIG Program by the Honda Research Institute (\$ 0.3M annually), and for technology investments by the GloCal Venture Capital in Greece (New Economy Fund, ~\$ 16M). The NAASIC budget was \$3M for two years. For all these financial activities Dr. Doumanidis has prepared or reviewed annual budget requests and/or competitive proposals, with justifications of personnel, equipment, travel, subcontract and other expenses according to the applicable local or federal contracting or procurement regulations. He has also prepared or reviewed annual expenditure reports and cost statements documenting deliverable outcomes and cost-benefit analyses as a basis for funding continuation or prioritization. For this purpose he has worked closely with the financial administration, accounting services and auditing authorities of his institutions (such as NSF BFA/DFM) in both the USA and Europe.

Human Capital Management. Far more enjoyable to manage, quality human resources are at the same time more difficult to secure in scientifically and technically specialized areas such as nanomanufacturing. Dr. Doumanidis has supervised a research team of 30 graduate students and many more undergraduates at Tufts Univ, and two colleagues at Axcelis Technologies. At NSF he managed the research of his PIs and their students in over 100 grants, including 12 CAREER awardees, plus the research teams of three large NSECs. At UCY he led 12 faculty in the MME department, 20 colleagues in the Hephaistos Center and 5 staff, and

advised his group of three postdoctoral investigators, over 10 graduate and many undergraduate students. At UNR he led a department with 12 faculty and a research team of three colleagues, three graduate students and external sponsors. In the UAE he is working on the new Minors in Environmental Engineering and in Architectural Engineering, along with the 5-year BS-MS programs and Discovery Centre, with a team of several colleagues and students. To this human capital Dr. Doumanidis has invested considerable efforts in recruitment outreach through visits to candidate pools and online or printed announcements; review of applications or proposals and interview panels; selection boards, hiring and orientation procedures; and subsequent supervision, mentoring and evaluation reporting and feedback. The payoff of this investment in human resources of all diverse international origins and multiple sectors (academic, industrial, government) has been certainly most rewarding; Many of his former students in the university education programs are now emerging as well-qualified future leaders of nanomanufacturing research and innovation over the world. In addition, his professional program students promise to lead the highly-trained workforce in production and management, staffing the nanomanufacturing industry to emerge out of the awaited economic recovery, along with future innovation and entrepreneurship initiatives and incubation of small/medium enterprises – a vital component of the economy and stabilizer of national and international society.

Technology Management. Thanks to his cutting-edge research specialization area of nanomanufacturing, Dr. Doumanidis has continuously been at the forefront of technological development and innovation. As a Nanomanufacturing Program Director he was blessed with the opportunity of working together with the most distinguished and competent investigators in science and engineering, visiting the foremost state-of-the-art laboratories, and learning first about the latest and upcoming technological discoveries in the USA and around the world. He has also attended numerous international conferences, toured prominent technical facilities and industrial plants through his consulting activities. Dr. Doumanidis used this exposure to design and set up his three laboratories at Tufts and seven at the University of Cyprus (along with a computer cluster) in the areas of manufacturing, robotics and automation, prototyping, micro- & nano-systems, biomedical engineering and internal combustion engines. Many of these laboratories operate as campus-wide facilities, providing access to university students and also partner investigators. Dr. Doumanidis also configures his laboratories for dual research and educational use, including hands-on group projects and research training of graduate and advanced undergraduate students, as well as hosting visits and demonstrations to the general public during open days and other events.

Building Coalitions

Bringing a neophyte field of science and technology such as nanomanufacturing to life and blossom certainly takes the collective vision and endeavours of people within but also across research institutions in academe, government and industry, both nationally and internationally. Dr. Doumanidis has dedicated himself to leading such coalition efforts within NSF, through his Nanomanufacturing Program in partnership with the NSE group, OISE and industrial connectivity through the IIP GOALI and SBIR/STTR programs. He also worked closely with other federal agencies including DoC NIST (MEL, OTD and ATP program), DoE (OIT), EPA, DoT (Volpe NTSC), DoS (US Embassy in Cyprus) etc, under the Government Agencies Technology Exchange in Manufacturing (GATE-M) group, the Interagency Metals Group and the *Nanoscale Science, Engineering and Technology* (NSET) subcommittee for NNI. He collaborated with state initiatives, interuniversity colloquia, nonprofits and NGOs such as EPSCoR, NYSTAR (NY), NSTI (MA), Mass Education Board (MA), Oak Ridge Associated Universities (ORAU), NAS (Frontiers in Engineering) and NRC (NMAB), and joint programs with neighbouring countries such as CONACyT (Mexico) and NSERC (Canada). His collaborative activities involved foreign government agencies and foundations including the European Commission ESF (PSEC) and Joint Research Centre (JRC), UK House of Lords, Romanian Academy, Academy of Athens, Israel Science Foundation, Democritus NSCR and FORTH Greece, Cyprus Research Promotion Foundation and Ministry of Education & Culture, the UAE ADEC and AQCC-EMI, and universities such as ETH Zurich, KAIST Korea, Univ. of Oxford etc. Dr. Doumanidis cooperates with over 20 worldwide technical societies including ASME International, IEEE, IMechE, CIRP, Micro- & Nano-Engineering (MNE), MINAM, MANCEF, CMP Cientifica, Japan-USA SFA, MIT Alumni Association etc, and non-profit institutions such as the Volkswagen Foundation, Honda Research Institute and Archimedes. Finally he has formed coalitions with major international industry such as Siemens, Honda R&D, Bosch GmbH, MTU, EADS (Airbus), EGA etc, as well as over 20 smaller enterprises across the globe.

Partnering. Working together to achieve the shared mission and goals of establishing a nanomanufacturing research, education and innovation community in the US and the world has offered Dr. Doumanidis the opportunity and delight of close partnerships with exceptional colleagues and institutions. While at NSF, he called and coordinated the first NSF-EC *Workshop on Nanomanufacturing and Processing* (San Juan, PR – 2002) that successfully brought together the stakeholders across the Atlantic to give birth and define the new field. He also worked closely in coordinating the 3 Nanomanufacturing NSECs (at UCLA/UC Berkeley, Univ. of Illinois at Urbana-Champaign, Univ. of Massachusetts Amherst, as well as Ohio State Univ. and Northeastern Univ.) to join forces and partner under the *National Nanomanufacturing Network* (NNN). Dr. Doumanidis has collaborated for over 12 years with several universities under the Honda R&D and Honda Research Institute, to bring forth and support many innovative basic and applied research ideas with important automotive, aviation and robotics applications serving the global society. Through his work for the Archimedes Center for Innovation & Creation and the GloCal Investment Ventures Enterprise (Athens, Greece), he has also formed a coalition with MIT, Univ. of Washington, Univ. of Delaware, Univ. of Patras, Boeing and ATD Nano, to encourage and orient bright young investigators towards advanced studies, and to support innovation and commercialization of their research findings. As another final example, Dr. Doumanidis' own research group has partnered and works productively for over 4 years together with the teams at the Univ. of Massachusetts Lowell, Northeastern and Tufts Univ. on an ambitious joint research and mobility project in *Nanoheaters*, supported by both NSF and the EC (Marie Curie Excellence Team). This joint endeavour, involving frequent transatlantic exchanges and laboratory visits of faculty and students, as well as regular teleconferencing of its intercontinental researchers, has excited all team members of this exemplary international research partnership. Dr. Doumanidis has also worked with Dr. D. Lagoudas (TAMU) on the *International Institute for Multifunctional Materials for Energy Conversion* (IIMEC), a NSF-funded International Materials Institute in partnership with Middle Eastern institutions including in developing countries (Turkey, Egypt, Tunisia, Algeria, Morocco). He finally contributed as a member of the *US-Greece Initiative for Technology Cooperation with the Balkans* for partnering with universities and academics in Romania, Albania, Bulgaria, Serbia etc, and he is currently setting up the Cyprus chapter of *Engineers Without Borders* for medical and engineering projects in Madagascar etc.

Political Savvy. Notwithstanding his tenet that personal political beliefs and actions should not interfere with professional and institutional work, Dr. Doumanidis always sought assessment of internal and external influences of politics to the nanomanufacturing community, as a basis for pursuing good cooperation and supporting mutually beneficial relationships across all stakeholder groups. He has supported the efforts of *The Science Coalition* (TSC) of universities towards its request for support of research funding to Congress, as well as those of the *EC Cooperation in the Field of Scientific and Technical Research* (COST) to promote the interests of nanomanufacturing in Europe. He worked harmoniously with the Cyprus Ministry of Education and Culture across a major local government change to insure the educational benefits of the nanotechnology revolution reach the students at all levels, and he also worked with the US-Greece Initiative for Technology Cooperation with the Balkans (with Prof. N. Ashford, MIT) to pave political relations supportive of technological development and innovation. Under internal administrative shifts at NSF, he finally worked with Dr. M. Roco in soliciting and formulating nanomanufacturing early success evidences to OSTP supporting Congressional hearings and budget requests to OMB, nurturing a new research community.

Influencing/Negotiating. In his professional association with NSF, as well as the European Commission, Cyprus Research Promotion Foundation, Honda Research Institute, emirates Global Aluminium and the GloCal Venture Capital, Dr. Doumanidis continuously delved into negotiation processes from both the requestor (PI) and grantor (PD) side. He led or participated in numerous research review panels, site visit teams and VC boards with the call of expert technical evaluation and consensual recommendation by a group with background diversity. Inspired by his citizenship and legacy of USA and Greece, the international and historic cradles of democracy, Dr. Doumanidis sought to promote inclusive, equitable, substantive but also efficient discussions among all parties involved, illuminating the subject from multiple viewpoints and attributing different views to differences in the data or the personal criteria (principles and preferences) of the negotiators. At the same time he strove to convince others of the mutual benefits of a consensual joint agreement based on balanced compromising. His persuasion strategies were fruitful with demanding situations such as the NSE groups (NSEC, NIRT, NER and NNIN) or the annual budget requests of the Nanomanufacturing Program to the Division Director. Despite taking somewhat longer, his one-to-one and panel negotiations left all parties with a satisfactory feeling of insight and fairness.

PROFESSIONAL REFERENCES

- * Prof. Dimitrios Kyritsis, Chair of Mechanical Engineering
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QUALIFICATIONS PROFILE

Experienced, collaborative, ethical leader and problem-solver with over a decade of progressive experience in higher education in community college and university environments. Demonstrated success in project management and team-building. Skilled in written and oral communication, supervision, and office management. Committed to the transformational change afforded by a quality education and access to college and university resources. Enjoys goal setting, tackling complex issues, and working in a results-oriented environment.

EDUCATIONAL BACKGROUND

Doctor of Education, Educational Leadership, 2007
University of Phoenix, Phoenix, Arizona

Further Graduate Studies, Administration and Supervision (K-12), 2000, Old Dominion University, Norfolk, Virginia

Master of Arts, Communication/Language (Linguistic) Studies, May 1997
Norfolk State University, Norfolk, Virginia

Bachelor of Arts, English, May 1996
Norfolk State University, Norfolk, Virginia

ADMINISTRATIVE APPOINTMENTS:

Special Assistant to the President, Office of the President, Norfolk State University, Norfolk, Virginia, July 2020 to January 2021.

Serves as a member of the senior leadership team and works with a wide range of University leaders, faculty, and staff to advance cross-functional projects at the direction of the President. Partners with the President, Executive Cabinet Staff, individuals across campus and within the community and Commonwealth to support the President's initiatives and the University's strategic plan to build an atmosphere of coordination and clear understanding of the institution's mission, vision, and goals. Handles a wide range of time-sensitive, confidential executive responsibilities while representing the President's Office internally and externally.

Essential functions

- Coordinates and/or leads special projects at the direction of the President

- Provides analytical support and synthesizes issues for salient content and required action items
- Serves as the President's representative or liaison on institutional committees and other activities, as requested by the President
- Tracks, follows up, and reports on action items, decisions, and emerging issues
- Performs other duties as assigned

Provost and Vice President for Academic Affairs (Interim), Division of Academic Affairs, Office of the Provost and Vice President of Academic Affairs, Norfolk State University, Norfolk, Virginia, January 2018 to June 2020.

Served as the chief academic officer of the university to provide leadership, vision, and oversight for instructional programs. Guided policy formulation, educational planning and new program development in an integrated instructional, academic support, and student success-oriented setting. Oversaw academic planning, teaching, research, partnerships, and continuing education. Provided administrative leadership and oversight of a college division that currently includes, but is not limited to, the following units: Office of Academic Student Engagement, Office of Academic Effectiveness (Accreditation), Office of Faculty Affairs, Library Services, Office of Information Technology Services, Colleges/Schools, Honors College, Graduate Studies, Registrar's Office and Student Success Center.

Selected accomplishments:

- Served as the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) accreditation liaison (Led successful regional SACSCOC reaffirmation of accreditation via decennial review (with no recommendations-2019))
- Served on the SACSCOC Ad Hoc Committee on Substantive Change; SACSCOC On-site and Off-site Evaluator
- Served as State Council of Higher Education for Virginia (SCHEV) institutional liaison and serve on Instructional Programs Advisory Committee (IPAC)
- Advised the President on all academic matters and many university-wide initiatives
- Collaborated with the President and the Cabinet about university operations
- Collaborated with the University Vice Presidents to promote student retention and success
- Coordinated the hiring, evaluation, and professional development of faculty, academic administrators, and staff in Academic Affairs
- Developed and manage the budget for Academic Affairs

- Facilitated faculty mentoring institutes to enhance teaching and learning, research, professional development, and service
- Mentored and supervise school and college deans and other academic officers
- Oversaw assessment of student learning outcomes; monitor ongoing evaluation and program review of all academic programs
- Oversaw the hiring, evaluation, and contract renewal of all faculty and staff within academic affairs
- Recommended faculty for promotion and tenure
- Through deans and chairs, supervised all undergraduate and graduate schools and departments of the University.
- Through directors or governance processes, supervised all academic units and services, including the library and the registrar's office, centers, advising, academic support, and accreditation requirements.
- With faculty officers, coordinated the interaction and communication between the faculty and administration and facilitate the operation of the faculty governance structure.

Vice Provost, Academic Effectiveness and Faculty Affairs (Interim), Office of the Provost and Vice President of Academic Affairs, Norfolk State University, Norfolk, Virginia, April 2017 to December 2017.

Provided leadership for university initiatives, programs and structures that support faculty and academic programs. Role required exceptional intellectual leadership, active engagement with the NSU community, and administrative skill. The position covered a broad range of both strategic and operational responsibilities.

Selected accomplishments:

- Served as the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) internal accreditation liaison for Norfolk State University, staying abreast of current SACSCOC Principles of Accreditation, policies, guidelines, and other expectations
- Managed Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) regional accreditation efforts, including reaffirmation of accreditation, Quality Enhancement Plan (QEP), Substantive Change and periodic reports, as well as provided monitoring, tracking, and support for specialized program accreditations
- Coordinated across departments, colleges, and schools all aspects of academic and faculty administration, such as faculty policy development, school and department reviews, and faculty information and support systems

- Ensured the overall quality of academic programs and the academic experience at Norfolk State University
- Established a collaborative decision-making relationship with deans and faculty senate to facilitate improvements and effect changes in academic and faculty affairs.
- Partnered with the deans and faculty senate leadership to identify strategic opportunities to support faculty, faculty administration, and infrastructure
- Provided leadership for the development and implementation of outcomes assessment workshops and consultation services for programs and units
- Provided strategic insight on academic trends and developments in higher education

Dean, Division of Humanities, Office of Vice President of Academic Affairs, Harford Community College, Bel Air, Maryland, July 2016 to March 2017.

Provided leadership in academic programming, curriculum development and assessment, class scheduling, developmental education reform, and financial management. Maintained partnerships with the Office of the Vice President of Academic Affairs, Student Affairs, and Enrollment Management units to facilitate student matriculation and retention. Served as a participant with the Middle States Commission on Higher Education (MSCHE), provided divisional leadership for the Maryland Higher Education Commission (MHEC), and managed general operating budgets. Provided leadership for faculty and staff on academic support, curricular and co-curricular activities. Supervised assessment activities to support, strengthen, and close the loop for academic assessment cycles.

Selected Accomplishments:

- Built smooth and efficient working relations that positively impacted academics; worked closely and efficiently with the college leadership team to ensure student success
- Chaired college-wide search committee
- Collaborated with lead faculty members to implement academic program review
- Developed assessment plans and reports for academic units and programs
- Identified problems in academic performance; recommended and implemented solutions in a timely manner
- Monitored and assessed teacher performance
- Observed, coached, and mentored instructional faculty to ensure that teaching was intentional, engaging, and rigorous as teachers created structured and responsive classroom environments
- Participated on the General Education Council, Curriculum Committee and Academic Affairs Advisory Committee

- Partnered with student services units to develop and implement college advising and academic support services
- Provided leadership, direction, and supervision for faculty, staff, and student workers
- Reinforced positive student behavior and established rapport with students; communicated individual academic progress
- Served on various College initiatives for specialized program accreditation; managed the Middle States Commission on Higher Education (MSCHE) accreditation process and provided divisional leadership for the Maryland Higher Education Commission (MHEC)

Dean/Professor, Division of Business, Transfer and Social Sciences, Office of Vice President of Instruction and Student Development, Wytheville Community College, Wytheville, Virginia, July 2015 to June 2016.

Provided leadership in curriculum development and assessment, managed transfer and articulation agreements for State Council of Higher Education in Virginia (SCHEV), class scheduling and grant writing; facilitated professional development initiatives. Maintained partnerships with the Office of Vice President of Instruction and Student Development, the Office of Student Success and Academic Development, and Enrollment Management units to facilitate student matriculation and retention. Served as an evaluator for Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and provided leadership for the SACSCOC Quality Enhancement Plan (QEP) and on-site accreditation visit. Managed general operating and grant-funded budgets. Provided leadership for faculty and staff on matters related to academic support, curricular and co-curricular activities. Supervised department chairs and lead faculty members to support, strengthen, and close the loop for academic assessment cycles.

Selected Accomplishments:

- Chaired academic appeals committee and reduced the number of student complaints to the division office; chaired college-wide search committees for several positions
- Collaborated with department chairs and lead faculty members to implement academic program review
- Conducted workshop at an annual Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) meeting; facilitated curriculum-mapping sessions for program review to assess student learning outcomes
- Established policies and procedures for an undergraduate academic appeals process
- Managed transfer and articulation agreements for State Council of Higher Education in Virginia (SCHEV)
- Participated on the General Education Council, Curriculum Committee and Faculty Senate

- Partnered with academic units to develop and implement university-based advising and academic support services
- Provided leadership, direction, and supervision for faculty, staff, and student workers
- Served on various college and university initiatives for program accreditation, most notably, the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) re-affirmation leadership team and Quality Enhancement Plan (QEP); served as a member of both the executive and implementation committees for the QEP

Department of English and Foreign Languages, College of Liberal Arts, Norfolk State University, Norfolk, Virginia, July 2012 to June 2015.

Taught a variety of courses in composition and literature (four courses per semester); advised students, served on departmental, school, and University-wide committees, and supported the mission of the University. Had successful experience in assessing programs, teaching traditional and online composition classes, writing grants, and employing digital technologies. Served as a certified evaluator for SACSCOC. Provided leadership for the SACSCOC Quality Enhancement Plan (QEP) with launching and sustaining the QEP, an institutional-wide long-term initiative, to enhance critical thinking skills of undergraduate students. I chaired committees on the General Education Council, Council of Associate Deans, Faculty Senate and the University Community of Practice project, along with other academic support initiatives that foster successful student learning outcomes.

Selected Accomplishments:

- Created online course platforms for traditional and nontraditional student learning
- Developed assessment plans and reports for academic units and programs
- Established Academic Support Services (tutoring centers); enhanced and expanded technology-assisted learning support services, such as the Research and Statistical Laboratory, Smarthinking online tutoring tool, and an online writing lab
- Facilitated curriculum-mapping procedures to review the operational curriculum within academic units
- Presented papers at professional conferences
- Published, researched, and received external grant awards
- Supervised Direct Student Teaching

Executive Director, Office of First-Year Experience (FYE)

Director, Academy of Collegiate Excellence and Student Success (ACCESS)

Office of the Provost, Norfolk State University, Norfolk, Virginia, July 2008 to June 2012.

Provided leadership, direction, and supervision for academic support services, including university-wide tutorials, supplemental instruction, online instruction, mentoring and peer mentoring programs. Provided leadership in academic advising (for transfer and undeclared students and for students on probation and at risk of failure). Collaborated with deans and associate deans to coordinate and maximize school-based and program-based support services. Ensured alignment and strong connections to academic advising activities in schools, colleges, and academic units. Coordinated ACCESS Plus Summer Bridge program and other summer enrichment programs. Assisted in planning and conducting faculty development activities. Managed Title III grant and externally funded projects.

Selected Accomplishments:

- Chaired academic appeals committee and reduced the number of student complaints to the division office
- Chaired college-wide search committees for several positions
- Cultivated and maintained effective partnerships with the Office of Enrollment Management to facilitate student matriculation and retention
- Developed an interactive Academic Early Alert System (keyed to course attendance and performance); enhanced Intrusive Academic Advising; established male and female mentoring programs
- Enhanced Intrusive Academic Advising; established male and female mentoring programs
- Established action plan for Satisfactory Academic Progress (SAP) Committee
- Facilitated the creation of financial literacy plans with entering student population
- Formed faculty and staff Retention and Academic Support Community of Practice (CoP)
- Partnered with counseling services and the Women's Center to develop student workshops
- Planned, managed, and developed the infrastructure and renovation for a satellite academic support office
- Served as University liaison for the State Council of Higher Education in Virginia (SCHEV) and Southern Regional Education Board coordinating the Academic Common Market application process
- Supervised the Certificate of Advanced Credit Standing program, which fostered successful student learning outcomes

Coordinator, Curricular and Co-Curricular Activities, Division of Student Affairs, Norfolk State University, Norfolk, Virginia, July 2006 to June 2008.

Provided leadership and supervision for academic support services, including university-wide tutorials and supplemental instruction to support retention and student persistence. Facilitated assessment plans (Division of Student Affairs) and programming initiatives to strengthen curricular and co-curricular activities.

Selected Accomplishments:

- Collaborated with faculty and staff taskforce to develop a Student Leadership Program; provided mentorship as co-advisor for Student Government Association
- Created the NSU Spartan Legion Band Academic Success Program; conducted in-depth analysis of students' academic performance to channel academic support tailored to the individual needs of students.
- Created the League of Extraordinary Male initiative to recruit and retain students
- Developed and maintained strong records and statistical data regarding engagement, retention and program participation; Ensured access to quality and effective learning support services for student success and retention across programs and campus
- Provided assistance with the development of Title III proposals for International Student Activities and Veteran Affairs funding
- Tracked student retention and success for selected student organizations, including Greek Affairs

FACULTY APPOINTMENTS

Department of Secondary Education and School Leadership, School of Education, Norfolk State University, Norfolk, Virginia.

- 2019-present Associate Professor (tenured)

Professor, English Department, Division of Business, Transfer and Social Sciences, Wytheville Community College, Wytheville, Virginia.

- 2015-2016 Professor

Department of English and Foreign Languages, College of Liberal Arts, Norfolk State University, Norfolk, Virginia.

- 2014-2015 Associate Professor (tenured)
- 2008-2014 Assistant Professor
- 2005-2008 Instructor
- 2000-2004 Adjunct Professor (fulltime)

Taught a variety of courses (four courses per semester); advised students, served on departmental, school, and University-wide committees, and supported the mission of the University. Had successful experience in assessing programs, teaching traditional and online composition classes, writing grants, and employing digital technologies. Served as a certified evaluator for SACSCOC. Provided leadership for the SACSCOC Quality Enhancement Plan (QEP) with launching and sustaining the QEP, an institutional-wide long-term initiative, to enhance critical thinking skills of undergraduate students. I chaired committees on the General Education Council, Council of Associate Deans, Faculty Senate and the University Community of Practice project, along with other academic support initiatives that foster successful student learning outcomes.

Selected Accomplishments:

- Created online course platforms for traditional and nontraditional student learning
- Developed assessment plans and reports for academic units and programs
- Established Academic Support Services (tutoring centers); enhanced and expanded technology-assisted learning support services, such as the Research and Statistical Laboratory, Smarthinking online tutoring tool, and an online writing lab
- Facilitated curriculum-mapping procedures to review the operational curriculum within academic units
- Presented papers at professional conferences
- Published, researched, and received external grant awards
- Supervised Direct Student Teaching

PUBLICATIONS

Hamilton, L. & King, B. (2020). The relationship between perceived leadership styles of principals and teacher retention and satisfaction. *Journal of Education, Society and Behavioral Science*, 33 (8), 48-61.

King, B., Johnson, C., Herron, S. & **Hamilton, L.** (2020). Proximal redevelopment of brownfield and derelict sites near institutions of higher education. *Journal of Geography, Environment and Earth Science International*, 24(3), 62-79.

King, B., **Hamilton, L.** & Johnson, C. (2019). First-year Students' Self-regulation Process Through Self-report at a Minority Serving Institution (MSI). *Journal of Education, Society and Behavioral Science*, 30 (3), 1-8.

Anderson, W., **Hamilton, L.**, Perkins, A., & Perry, D. (2015). *Becoming Black: Applying Nigrescence Theory to Teach Selected August Wilson Plays and to Enhance Student Literacy*. Kendall Hunt Publishing Company.

Gatling, P., Gatling, V. & **Hamilton, L.** (2014). *An Inexcusable Absence: The Shortage of Black Male Teachers*. Author House Publishing Company.

Smith, K. & **Hamilton, L.** (2013). "Exploring Trust in Perception of Crime Models in South Africa." *African Journal of Criminology and Justice Studies*, AJCJS, 7(1&2), 85-100.

Anderson, W., **Hamilton, L.**, Pace, W., Pearlman, D., et al. (2012). *Introduction to World Literature: Rites of Passage*. Kendall Hunt Publishing Company.

Hamilton, L. & K. Smith. (2012). "Summer Bridge: Evaluating the Retention of First-Year HBCU Students Through a Comprehensive Advisor-Focused College Outreach Program." *E-Source for College Transitions*.

Hamilton, L. & K. Smith. (2012). "Summer Bridge: A Model for Impacting Student Retention." *8th Annual National Symposium on Student Retention: Conference Proceedings*.

Hamilton, L. & Matveev, A. (2011). "Engagement (MIS) Calibration: Lost Opportunities." *REASON Journal*, 3 (2), 12-18.

Hamilton, L. & Matveev, A. (2011). "Models of Success." *REASON Journal*, 3 (4), 20-24.

Hamilton, L. & Matveev, A. (2011). "Tutoring Exchange: Aligning Help-Seeking and Help-Giving Behavior." *REASON Journal*, 3 (4), 14-20.

GRANT AWARDS

University of Pennsylvania (PENN) (2011), Minority Serving Institutions: Models of Success grant. Lumina and Kresge Foundations, **Award (\$50,000.00)**.

Title III Part B Funds (2011), Strengthening Historically Black Colleges and Universities Program, United States Department of Education, *Learning Resources and Student Success Center: Developing a Comprehensive System to Improve Student Retention and Ensure Student Success*, Award **(\$541,089.00)**.

Title III Part B Funds (2010), Strengthening Historically Black Colleges and Universities Program, United States Department of Education, *Learning Resources and Student Success Center: Developing a Comprehensive System to Improve Student Retention and Ensure Student Success*, Award **(\$571, 883.00)**.

Institution for Higher Education Policy (IHEP) (2009), Wal-Mart Minority Student Success Initiative, Award **(\$100,000.00)**.

Title III Part B Funds (2009), Strengthening Historically Black Colleges and Universities Program, United States Department of Education, *Satellite Academic Support Services: Developing a One-Stop Student Service Center*, Award **(\$486, 074.00)**.

Title III Part B Funds (2009), Strengthening Historically Black Colleges and Universities Program, United States Department of Education, *Learning Resources and Student Success Center: Developing a Comprehensive System to Improve Student Retention and Ensure Student Success*, Award **(\$503, 229.00)**.

Title III Part B Funds (2008), Strengthening Historically Black Colleges and Universities Program, United States Department of Education, *Satellite Academic Support Services: Developing a One-Stop Student Service Center*, Award (\$419, 000.00).

Title III Part B Funds (2008), Strengthening Historically Black Colleges and Universities Program, United States Department of Education, *Learning Resources and Student Success Center: Developing a Comprehensive System to Improve Student Retention and Ensure Student Success*, Award (\$503, 229.00).

PRESENTATIONS/PAPERS AT PEER-REVIEWED PROFESSIONAL CONFERENCES

- 2020 Presenter, “Shifting Sands: Faculty Readiness to Transition from Face-to- Face to Remote/Online Modalities.” 2020 HBCU Faculty Development Network, Virtual, Zoom Conference.
- 2020 Presenter, “The Relationship Between Perceived Leadership Styles of Principals and Teacher Retention and Satisfaction.” 2020 HBCU Faculty Development Network, Virtual, Zoom Conference.
- 2019 Presenter, “Attracting and Retaining Faculty at a Comprehensive Urban HBCU: Trends, Challenges, and Implications.” 2019 American Association of Blacks in Higher Education (AABHE) National Conference, Indianapolis, IN.
- 2019 Presenter, “In Rarefied Air” - Among the 1% of Institutions in Compliance with Standard 6.2.a Faculty Qualifications.” 2019 SACSCOC Annual Meeting, Houston, Texas.
- 2019 Presenter, “Organizing and Executing: Preparing for a Successful Compliance.” 2019 SACSCOC Annual Meeting, Houston, Texas.
- 2019 Presenter, “Organizing and Executing: Preparing for a Successful Compliance Review.” 2019 HBCU Faculty Development Network, Houston, Texas.
- 2019 Presenter, “Curriculum Mapping: A Process to Define, Document, Demonstrate and Improve the Coherence of Program Curricula.” 2019 HBCU Faculty Development Network, Houston, Texas.
- 2018 Presenter (October), “Faculty Retention and Best Practices.” HBCU Faculty Development Network Conference, Jackson, Mississippi.
- 2018 Presenter (October), “The Cultivating Academic Wellness with Self-Regulation at a Minority Serving Institution.” HBCU Faculty Development Network Conference, Jackson, Mississippi.
- 2017 Presenter, “SACSCOC Compliance Certification Preparation and Response Readiness Plan.” NSU Fall Opening Conference, Norfolk, Virginia.
- 2017 Presenter, “SACSCOC Reaffirmation of Accreditation Workshop.” Norfolk State University, Norfolk Virginia.

- 2016 Presenter, "It's a Fire!: Building upon Students' Cultural Experiences with Innovative Classroom-Ready Lessons." Old Dominion University's Writing Conference, Norfolk, Virginia.
- 2016 Presenter, "Collaborative Learning: A Tool to Enhance and Showcase Student Literacy." Virginia Association of English, Hampton, Virginia.
- 2015 Presenter, "Testing Digital Story Methods in Developing Critical Thinking Skills." Society for Information Technology and Teacher Education (SITE) International Conference, Las Vegas, Nevada.
- 2015 Presenter, "Academic Assessment Cycle: Continuous Educational Improvement through Data-driven Decision Making." Wytheville Community College, Wytheville Virginia.
- 2015 Presenter, "Electronic Portfolio: Faculty Evaluation and Development Plan." Wytheville Community College, Wytheville, Virginia.
- 2014 Presenter, "Literature-Based Writing Assignments: Combining the Old and the New." 45th Annual Conference, Virginia Association of Teacher of English, Williamsburg, Virginia.
- 2014 Presenter, "Stimulating Academic Success and Student Retention through Advancement of Mentoring First-Year Students." Consortium for Student Retention Data Exchange (CSRDE) at the University of Oklahoma.
- 2013 Presenter, "Educating All Students at Minority Serving Institutions: A National Convening." Sponsored by University of Pennsylvania's (UPENN) Center for Minority Serving Institutions and Educational Testing Service, Princeton, New Jersey.
- 2013 Presenter, "Curriculum Mapping: A Process to Define, Document, Demonstrate, and Improve the Pathways to Student Success." 2013 SACSCOC Annual Meeting, Atlanta, Georgia.
- 2013 Presenter, "Leading the Way to College Completion: Models of Success Project." USA Funds Symposium, Tampa, Florida.
- 2012 Presenter, "Engaging 21st Century Learners: Lessons from an Empirical Assessment of Digital Story Pedagogy in an English Literature Course." Annual Conference Virginia Association of Teachers of English, Richmond, Virginia.
- 2012 Presenter, "Summer Bridge: A Model for Impacting Student Retention." The National Symposium on Student Retention, New Orleans, Louisiana.
- 2012 Presenter, "Digital Story Implementation in Enhancing Critical Thinking Skills: An Empirical Study." EPI Retention 2011: An International Conference on Student Success, Orlando, FL.

- 2012 Presenter, "Extending the Bridge: Stimulating Academic Success and Student Retention through Advancement of Mentoring First-Year Students." International Conference on the First-Year Experience, Vancouver, British Columbia, Canada.
- 2012 Presenter, "Campus-wide Synergism: A Model for Promoting Student Success." National Association of Student Affairs Professionals: 58th Annual Conference, Norfolk, Virginia.
- 2012 Presenter, "Enhancing the Transition from High School to College for African-American Freshmen." University of Pittsburgh Colloquium, Pittsburgh, Pennsylvania.
- 2012 Presenter, "Models of Success Program: Building the Capacity to Ensure Student Success." USA Funds Symposium, Dallas, Texas.
- 2011 Presenter, "Curriculum Mapping: A Methodology to Define, Document, Demonstrate, and Improve the Coherence of Program Curricula." 2011 SACSCOC Annual Meeting, Orlando, Florida.
- 2011 Presenter, "High-Impact Practices (HIPs) in the General Education Classroom: Challenges and Strategies." 35th Conference of the Professional and Organizational Development (POD) Network in Higher Education, Atlanta, Georgia.
- 2011 Presenter, "Helping Children Learn to Read: Community Empowerment in Improving School-Age Literacy." Windsor Elementary School, Windsor, VA.
- 2011 Presenter, "Summer Bridge: An Empirical Study of a Summer Orientation Program for Achieving Student Retention." EPI Retention 2011: An International Conference on Student Success, San Diego, CA.
- 2011 Presenter, "Effective Approaches to Cutting School District Budgets While Maximizing District Performance." National School Board Association 71st Annual Conference, San Francisco, CA.
- 2011 Presenter, "Writing Assignments That Promote Self-Discovery and Empathy." Old Dominion University 32nd Annual Spring Writing Conference on the Teaching of Writing, Norfolk, Virginia.
- 2010 Presenter, "21st Century Youth Culture: The Hidden Curriculum to Improve Student Success." National Alliance of Black School Educators 38th Annual Conference, Fort Worth, TX.
- 2010 Presenter, "Nigrescence Theory Dramatized in August Wilson's Pittsburgh Cycle." 18th Annual National Association of African American Studies & Affiliates Conference, Baton Rouge, LA.
- 2010 Presenter, "iTeach: Exploring New Ways of Teaching with Technology in the Language Classroom." 41st Annual Conference Virginia Association of Teachers of English, Virginia Beach, Virginia.

- 2010 Presenter, “Compressed Workweeks, Expanded Workdays: Campus Reactions to the Four-Day Workweek.” 35th Conference of the Professional and Organizational Development (POD) Network in Higher Education, Poster Session.
- 2010 Presenter, “Help-Seeking and Help-Giving Behaviors at Tutorial Sessions: Tutors' Perspective.” 23rd International Conference on The First-Year Experience, Maui, Hawaii.
- 2010 Presenter, “Engagement Calibration: Gaps between College Expectations and Experiences of First-Year Students.” 29th Annual Conference on The First-Year Experience, Denver, Colorado.
- 2009 Presenter, “Technology and Engaged Learning: 21st Century Technology in Language Classrooms.” 40th Annual Conference Virginia Association of Teachers of English, Williamsburg, Virginia.
- 2009 Presenter, “Beyond the Customer Service: Making Your School the Inviting Place Through Enhanced Collegiality.” Chesterfield Academy of Mathematics, Science and Technology, Norfolk, Virginia.
- 2008 Presenter, “Best Practices for Integrating Technology: Examining New Technologies Applied to Language Classrooms.” 39th Annual Virginia Association of Teachers of English Conference, Roanoke, Virginia.
- 2008 Presenter, “Language and Vocabulary: Understanding African American Speech.” A Tribute to August Wilson: Theater as a Forum for Debating Race Conference, Virginia Stage Company at the Wells Theater, Norfolk, Virginia.

PROFESSIONAL DEVELOPMENT

- 2020 **SACSCOC Ad Hoc Committee on Substantive Change.** Renaissance Concourse Atlanta Airport Hotel, Atlanta, GA.
- 2020 **Council for the Accreditation of Educator Preparation.** CAEPCON, New Orleans, LA.
- 2019 **SACSCOC Institute on Quality Enhancement and Accreditation.** Hilton Anatole Dallas, TX.
- 2019 **SACSCOC Small College Initiative.** 14th Annual Small College Initiative, Atlanta, GA.
- 2019 **National HBCU Week Conference.** 2019 National HBCU Week Conference Washington, DC.
- 2018 **Council for Higher Education Accreditation.** CHEA 2018 Annual Conference, Washington, DC.
- 2018 **SACSCOC Substantive Change Workshop.** The University of North Carolina at Greensboro, Greensboro, NC.

- 2018 **Association of Governing Boards of Universities and Colleges.** National Conference on Trusteeship: Leadership and the Urgency of Now, San Francisco, CA.
- 2018 **SACSCOC Small College Initiative.** 13th Annual Small College Initiative, Atlanta, GA.
- 2018 **Organization Development Consortium.** Sponsored by Wake Forest University. Baylor University, Waco, TX.
- 2018 **Association for the Assessment of Learning in Higher Education.** Promoting Assessment for Learning, Salt Lake City, UT.
- 2017 **State Council of Higher Education for Virginia (SCHEV).** SCHEV Liaison Workshop. Richmond, VA.
- 2017 **Virginia Assessment Group.** Virginia Regional Accreditation Symposium at Virginia Commonwealth University, Richmond, VA.
- 2016 **Mid-Atlantic College Reading Association.** Empowering English Learners: From Theory to Practice, Ocean City, MD.
- 2016 **Complete College America.** Annual Convening: Momentum, San Francisco, CA.
- 2013 **SACSCOC On-site Visit (Evaluator).** Mississippi University for Women, Substantive Change Committee.
- 2011 **Institute for Higher Education Policy.** Symposium on Financial Literacy and College Success at Minority-Serving Institutions: Institutionalizing Approaches to Student Success, Grapevine, Texas.
- 2010 **National Academic Advising Association.** 9th Annual Academic Advising Administrators' Institute, Clearwater Beach, Florida.
- 2010 **National Summer Institute on Learning Communities.** Olympia, WA.
- 2009 **23rd Annual Academic Advising Summer Institutes.** Kansas City, MO.
- 2009 **Educational Policy Institute.** International Conference on Student Retention, New Orleans, LA.
- 2009 **Institute for Higher Education Policy.** Symposium on Financial Literacy and College Success at Minority-Serving Institutions, San Antonio, Texas.

UNIVERSITY SERVICE

- Academic Appeals Committee, Chair
- Articulation Agreement Committee, NSU SCHEV Ad hoc Committee, Chair
- Executive Council, Member
- Faculty and Staff Campaign, Co-Chair
- Faculty Handbook Committee, Chair
- Faculty Senate, Senator
- Freshmen Transition Week Committee, Member
- General Education Council, Member
- Institute for Space, Science and Engineering, Director
- Norfolk State University Research & Innovation Foundation (NSURIF), Vice Chair
- NSU Board of Visitors, Staff Member
- President's Cabinet, Member
- SACSCOC Quality Enhancement Plan (QEP), Executive Committee
- SACSCOC Quality Enhancement Plan (QEP), Implementation Committee
- SACSCOC, Institutional Liaison
- SCHEV Instructional Programs Advisory Committee (IPAC), Member
- SCHEV, Liaison
- Strategic Planning Task Force, Member
- Student Government Association, Co-Advisor
- Student Success Task Force, Member
- Summer Bridge Program Steering Committee, Chair
- Title III Program, Activity Director
- United Negro College Fund (UNCF) Pathway Initiative, Member
- University Commencement, Marshal

PROFESSIONAL MEMBERSHIPS/ ORGANIZATIONS

- Golden Key International Honor Society
- Historically Black College & Universities (HBCU) Faculty Development Network
- Kappa Delta Pi, International Honor Society in Education (KDP)
- National Association for the Advancement of Colored People (NAACP)
- National Council of Teachers of English (NCTE)
- Norfolk State University Research & Innovation Foundation (NSURIF)
- Omega Psi Phi Fraternity, Inc.
- Professional and Organizational Development (POD)
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
- SACSCOC Ad Hoc Committee on Substantive Change
- SACSCOC On-site and Off-site Evaluator
- Sigma Tau Delta: The International English Honor Society
- The New Chesapeake Men for Progress
- Virginia Association of Teachers of English (VATE)

DR. LEROY HAMILTON, JR.
REFERENCE LIST

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(757) 635-0401
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413 Scotland Lane
Chesapeake, Virginia 23320
March 28, 2021

Dear Search Committee Chair:

I am applying for the position of President at Florida State University. I am providing this cover letter and my curriculum vitae for your review and consideration.

As my curriculum vitae indicates, my academic credentials are consistent with those required for this executive administrative position. Specifically, my graduate and undergraduate degrees and further study are listed below:

- Doctor of Education in Educational Leadership
- Further Graduate Studies in Administration and Supervision (K-12)
- Master of Arts in Communication/Language (Linguistic) Studies
- Bachelor of Arts in English

Further, my varied experiences augur well for my success in the position for which I am applying. I recently served as the special assistant to the president at Norfolk State University, and prior to that appointment, I served as an interim provost and vice president, an interim vice provost, a dean, a tenured professor, and an executive director of an academic advising unit for a freshman-year experience initiative.

In the administrative positions, I gained invaluable experience in curriculum management, budgeting, strategic planning, and interacting with academic personnel. My responsibilities included providing oversight of instructional programs and program review, guiding the development and implementation of new instructional programs, and formulating policy affecting academic units. As the institutional liaison for the Southern Association of Colleges and Schools (SACSCOC), I led Norfolk State University through its recent decennial review. This successful effort required that I first assemble and create a cohesive group of administrators, faculty, staff, and students to review all aspects of academic, fiscal, and other campus operations. Their diligence, attention to detail, and dedication to the mission were unparalleled. I am very proud of our achievement, for the harmonious interactions of faculty, staff, students and administrators promote a positive culture in a campus community.

Shared governance also helps to create that culture and contribute to judicious university decisions. I firmly believe that input and feedback from all sectors of the campus community strengthen decision-making. For that reason, in any administrative position I have held, I have engaged all relevant constituents to ensure that the best decisions emerge from discussions and varied perspectives. As I alluded to earlier, the Faculty Senate was an indispensable partner in reviewing and revising the faculty handbook. For decisions affecting student welfare, I have always solicited, valued and considered student perspectives.

Concerning SACSCOC, I have also conducted workshops on academic program review at SACSCOC annual meetings and led a SACSCOC Quality Enhancement Plan (QEP). As a

member of both the executive and implementation committees for the QEP, I supervised faculty, staff, and student workers and conducted faculty development sessions on curriculum mapping as part of the program review process.

Faculty development to ensure excellent teaching, research, and service has been primary for me. For that reason, in addition to working with the Faculty Senate to review faculty promotion and tenure standards, policies, and procedures, I also introduced a faculty mentoring initiative to integrate and retain new faculty. I also established the Center for Teaching and Learning, which encourages and supports faculty research, trains faculty in best instructional practices, and supports remote teaching.

My responsibilities in the leadership roles I have undertaken have also included maintaining, strengthening, and cultivating partnerships with community entities to benefit students, faculty and the local community. During my tenure as interim provost and vice president for academic affairs, I partnered with the City of Norfolk to develop an incubation center for business start-ups. This partnership between the university and the city aims to boost community entrepreneurship by providing business expertise and resources to potential entrepreneurs, especially in underserved communities. This center, located in downtown Norfolk, serves also as source of practical knowledge and entrepreneurial experience for students and therefore supplements academic instruction.

The success and welfare of students remain paramount in whatever role I assume. My commitment to academic excellence and student access to higher education is demonstrated by several achievements. At Norfolk State University, I pioneered the university-wide "One-Stop" Student Success Centers. These centers consolidated enrollment, student services, and a First-Year Experience office to streamline processes that affect student retention and graduation rates. I also implemented an innovative model for academic advising, revamped the student orientation program, and instituted a student development plan. In addition, I enhanced the infrastructures for online programs and equipped a student-success center with technology-assisted classrooms and laboratories. These innovations and enhancements worked in tandem to support student achievement and retention and to boost graduate rates. Through targeted technology use, Academic Affairs was able to schedule, track, document, and assess the effectiveness of student services.

In addition, I designed a multi-faceted, comprehensive student support program to facilitate and improve student outcomes at Norfolk State University. This approach is supported by scholarship on academic success models (e.g., Tinto's Model of Student Retention).

The student support program consists of the following components:

- a four-week summer orientation program for prospective first-year undergraduate students
- a semester-long mentoring program pairing these same undergraduates with faculty and staff volunteer mentors from different divisions of the academy

- an enhanced gender-specific mentoring program matching first-year undergraduates with student liaisons--upperclassmen and women--from related academic majors and/or with career aspirations similar to those of the undergraduates themselves.

The program has been expanded to include tutoring services for specific courses. Measurable increases in student participation over consecutive years, along with acceptable academic performance and a high retention rate, attest to the effectiveness of the program.

My experience in higher education organizations has given me first-hand knowledge into the higher education infrastructure. I have served on committees that facilitated and ensured academic effectiveness, including, for example, the General Education Council and the Council of Associate Deans. I have also been a member of the Middle States Commission on Higher Education (MSCHE) and provided divisional leadership for the Maryland Higher Education Commission (MHEC). I coordinated the program for Certificate of Advanced Standing Credit, and I served as university liaison for the State Council of Higher Education in Virginia (SCHEV) and for the Southern Regional Education Board, where I coordinated the Academic Common Market application process.

Other experiences also have prepared me to serve effectively as President. To be specific, I have led, directed, and supervised faculty, staff, and student workers. I have formulated and managed divisional budgets, developed assessment plans to monitor the effectiveness of student-support service programs, and coordinated recruitment efforts to attract diverse, well-qualified faculty and staff. Similarly, I have advocated for a diverse student population to provide a rich learning environment where inclusion is the norm. In addition, I have developed, enhanced, and expanded faculty and undergraduate mentoring programs and tutoring centers to promote and facilitate student achievement. Data show that my efforts have been effective and fruitful.

Administrative and faculty positions afforded me a wealth of progressive experience that should serve me well as President. To be specific, I have managed divisional budgets and external grants (including those from Wal-Mart, Lumina Foundation, and Title III). I have also recruited deans, faculty, and staff. These positions required a range of skills in communication and interpersonal relations, as well as a working knowledge of the functions and operation of units, divisions, and departments within a university setting. I benefited enormously from the experiences, which I welcomed as challenges and opportunities to innovate, expand, create, improve, and, always, to promote excellence.

As for fundraising, I have served as committee chair for a university capital campaign, which resulted in 100% participation by all faculty within my group, and I have set an example for others by supporting university-sponsored solicitations.

Finally, having served in a variety of university positions, I have observed how state and federal funding for academic programs and college infrastructure yields myriad economic, civic, and personal rewards for students, staff, faculty, administrators, and members of the larger community. Because I am aware of the life-changing impact of higher education, I am committed to its mission and goals.

As a credentialed, experienced, and skilled academician, I possess the temperament, the vision, the judgment, and the instincts to lead. I have been described as a principled individual who is committed to fairness and transparency, who is respectful of the ideas and views of others, who believes in innovation as well as preservation, and who recognizes, cultivates, and rewards talent and dedication.

It is within this context that I present my credentials and my experience for the search committee's review. I feel privileged to have the opportunity to do so. If you have questions, please contact me at 757-285-9816 or at leroyhamilton4@gmail.com. I look forward to hearing from you.

Sincerely,

A handwritten signature in cursive script that reads "Leroy Hamilton, Jr.".

Leroy Hamilton, Jr.

STUDENT AND FACULTY FEEDBACK

Haris Doumanidis

Vin University – Hanoi, Vietnam



<https://vinuni.edu.vn/distinguished-researcher-philosopher-and-pragmatist-dean-charalabos-haris-doumanidis/>

Fall 2020

FACULTY FEEDBACK

From: [REDACTED]
Date: Mon, Aug 17, 2020 at 11:52 PM
Subject: Re: our personal emails
To: Haris Doumanidis <hdoumani@gmail.com>
Cc: [REDACTED]
[REDACTED]

Dear Haris,

You are one of the most respectful scholars/teachers I've met in my academic career. Your caring for your faculty is a true inspiration.

We will definitely keep in touch!

[REDACTED]

From: [REDACTED]
Sent: Monday, October 5, 2020 8:13 PM
To: Doumanidis Charalabos Constantinos (VUNI-KT-KHMT) <v.Haris@vingroup.net>
Subject: Re: FW: Reconnecting

Dear Haris,

Thank you for your kind words and update. Nadine says hello and sends you her best regards.

I am sorry to read that the VinUni project will be missing you. You are a scholar of great integrity, skill and personal warmth. VinUni will not be the same without you. I would have been delighted to greet you and Nam in Ithaca, but this won't unfortunately come to pass.

Thanks!

Best regards,

[REDACTED]

From: [REDACTED]
Date: Fri, Nov 13, 2020 at 8:57 AM
Subject: How are you?
To: Haris Doumanidis <hdoumani@gmail.com>

Dear Haris,

How are you? I hope you are having a good time with your family. I just want to tell you that we all miss you and wish you all the best. I appreciated the time we worked together and I believe that I have learnt many things from you.

I hope we will meet again in the future.

Best regards,

[REDACTED]

From:

[REDACTED]

Date: Mon, Dec 21, 2020 at 5:50 PM

Subject: Re: Still hanging out and working together

To: Haris Doumanidis <hdoumani@gmail.com>

Cc:

[REDACTED]

[REDACTED]

Dear Haris,

So glad to hear from you. We miss your kind words and wisdom, always. We wish you and your family an enjoyable holiday, and hope that the new year will bring more good news!

[REDACTED]

STUDENT FEEDBACK

VINUNIVERSITY

- The fall of 2020 :-

Dear Professor Haris Dourmanidis,
we are your students from College of Engineering
and Computer Science.

Dear Professor Haris Doumanidis,

First of all, I really want to say "Thank You". Thank you for having inspired me to join Vin University and to become a Professor. Honestly, I'm really proud that you are my Dean. Your achievements inspire me, give me motivation to follow my academic path. And thank you for being an important person in my life that I will never forget. You were there when my life's turning point came, from the Vin University Admission Round to the Scholarship announcement. I'm really sorry that you can not be by my side much longer, but believe me, your inspiration will never fade.

With great love and respect,

Oct 22nd, 2020

Qua

Vo Minh Quan

Mechanical Engineering Student, Vin University

Hi professor Haris, I'm law. One of your students in Vietnam. I don't know where to start but you look so cool and energetic & happy in the last lecture. It has been a little short road since I attended in VinUni but as you said, I can feel the connection between you & students like me.

To be honest, I ~~as~~ was always ~~taking my~~ put ^{(the} my attention to your find your attendance in ~~camp~~ public, especially after you announced that you will leave. You looked a bit little bit tired at that time, so I was wondering whether there were anything wrong ~~o~~. I can feel your love, care you spend for us, there ~~wasn't~~ no is no doubt that there will be many people around you if you ~~ha~~ have to go through tough time. As you said, your ~~existence~~ existence, your knowledge you passed to us will live forever

In the first days in university, I feel quite lost at the place full of great students and pressure to become success. Your speech about the spring and modesty help me a lot.

In this last lecture, it will become my memory later, I won't regret but keep it in mind.

Whatever is going on, I hope you continue find your true happiness and ~~as~~ able to do your priorities (with your family)

"Ơn thầy soi lối mở đường
Cho con vững bước dặm trường tương lai"

There is a short "ca dao" - a kind of Vietnamese folk that people show respect to their teachers

Your student,

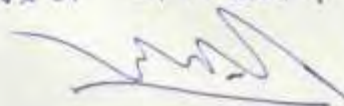
Tran Huong Lan

tranhuonglanhk@gmail.com

Dear Harris
I'm Nam, who always respects you
for your perfection in teaching.

Do you remember the first day we met?
At that time, I told you that I
wanted to be a professor in the future.
However, when you taught me in
the Calculus class, I changed my
dream. After watching you, I want to
be a teacher, who has the ability
to inspire and dedicate to the development
of the youth more.

There are only a few weeks we can
see each other. I hope you will be
happy, successful and will lead more
and more young generations in the
future.

Your beloved student.  Lê Đình
Nam

Dear Prof. Harris,

You might ~~do~~ not remember me, one of the first candidates you interviewed in Ho Chi Minh city in December.

~~That~~ I was impressed by your positive energy, dedication, and enthusiasm. Thank you for giving me this treasured opportunity to study at VinUniversity and have such a great teacher like you, Mr. Harris.

What you taught us is not only academic knowledge but also moral values. Maybe at this young age, I can't

understand everything you want to inspire, but I can feel your dedication and belief. As you are saying in this final lecture: "What a teacher is, is more important than what he teaches", exactly! I have never sit in a

mathematics class like your Calculus 1, you visualise and generalise all mathematics problems, you show us the relations between theory and practical issues.

Honestly, I sometimes fell asleep in your class. Please forgive me! Perhaps you created a beautiful and practical world for us. Thanks for guiding us the very first period in our life. We will miss you so much. Wish you all the best and happiness. More importantly, I hope you always stay healthy and peaceful. Hope that I will meet you one day in your hometown.

Hanoi, 22th Oct 2020 Lul

Nguyen Quang Truc

I will miss you so much.
You are the ~~profes~~ professor who interviewed me.
You have inspired me so much and teach me
lots of things about life and science.
You are one of the reasons that I come to
Vin University.

Thank you!

Ngo An Ha Trang
(hatrangvictor@gmail.com)

From: [REDACTED] <hoangkhoinguyen2002@gmail.com>

Date: Thu, Oct 22, 2020 at 10:40 PM

Subject: Thank you for everything, professor!

To: hdoumani@gmail.com <hdoumani@gmail.com>

Dear Prof. Haris,

I am [REDACTED], a Computer Science student from your MATH1010 class. I am truly taken aback and sad to hear that you will no longer teach at VinUniversity, that I can no longer attend your lectures. I missed the chance to write in the notebook that students gave you this afternoon, but I wrote this email last week when you first broke the news (but I got the email address wrong lol).

Even though I have known you for only a short amount of time, I really appreciate the values that you share and your dedicated lectures. The first time you introduced yourself to us students, you only said your name, the class you would teach, and you taught us to be humble. During my first class at this university, you taught me the most important things in life and you taught from your heart. It was unexpected that you have to leave, but I want to tell you that I really, really value the time that I was taught by you, and to say thank you. I don't think I can ever forget your string analogy, or your box of pebbles, sand, and water, or your theorem this afternoon. I hope that you will be well and happy wherever you are, and will continue to inspire thousands of students as you have inspired me.

Thank you for everything, professor!

Yours sincerely,

[REDACTED]

From: [REDACTED] <20khoi.ntn@vinuni.edu.vn>
Date: Thu, Oct 22, 2020 at 8:49 PM
Subject: [VinUni student - Nguyen Khoi] A little thank-you email
To: Doumanidis Charalabos Constantinos (KT-KHMT) <haris.cd@vinuni.edu.vn>, hdoumani@gmail.com <hdoumani@gmail.com>

Dear Prof. Harris,

I'm [REDACTED], your student in the Calculus-I class of VinUni. I have attended your workshop this afternoon and I write this email to share my appreciation for you.

The workshop is one of the best classes (and workshops) that I have ever attended in my life. Since last year, I have been suffering a mental breakdown that has darkened my mind. For several months I hardly felt the positivity, however, your workshop has truly turned me on and re-raised my confidence. I just want to say thank you.

Also, I really want to take a picture with you but I couldn't do that after the workshop since there were many students came to you. May I humbly ask to take one with you if you still come to the campus for next several days? If yes, where can I find you?

Once again, thank you for your thoughtful and inspiring sharing. I wish you all the best after you leave VinUni.

Best regards,

[REDACTED]

From: [REDACTED] don301002@gmail.com
Date: Mon, Oct 19, 2020 at 11:57 AM
Subject: Lunch Invitation
To: <hdoumani@gmail.com>

Dear Harris,

I am [REDACTED], a student whom you interviewed months ago.

I was so shocked when you said you could not continue to teach at VinUniversity. Therefore, I want to invite you to eat lunch with me on Wednesday. Honestly, you are the best teacher I have ever met in this university, so I would be very glad to talk and understand you more.

If you can come with me, answer this mail with the place and time we will meet. My phone number is [REDACTED] for you to contact me. I apologize if this email is not formal enough because my writing skill is not good.

Sincerely,

[REDACTED]

From: [REDACTED] <blu11235@gmail.com>
Date: Fri, Oct 16, 2020 at 10:17 PM
Subject: Re: A thank-you note
To: Haris Doumanidis <hdoumani@gmail.com>

Dear Mr. Haris,

Yes, my parents are coming tomorrow, and let me tell you, they are ecstatic! My family is not that well-off, so having me attending a university this expensive without paying the full tuition is, well, a steal. Apparently they've mastered the art of humblebrag too; my extended family know all about the deal (which to me is not that great of a deal tho - it's just another school! Right?), but don't tell my parents about it! They're going to bring me homemade beef jerky tomorrow, which is the absolute best type of beef jerky if you ask me, no contest. I consider myself to be a lucky child: my parents care for me so much I feel a bit claustrophobic and want to break out. I'm sure you are a father too, the love of a parent knows no bounds ... and seeing that they care for me so much makes me feel guilty for being a - well, let's stick to "naughty kid" sometimes. I told my parents about you right after the interview, and I believe they think you are awesome too!

Now come to think of it, it would be indecent to reply to someone whose face you don't even know, so before you leave, can I meet you? It's like a "face-reveal" event, though you will soon find out how boring a person I am, so please don't hold out much expectation :))) I would love to have my parents meet you in person too, but in such a crowded scenario I'm nervous... so I guess I can meet you in your office some time in the future? It does not even need to be a one-to-one event; if you feel like sticking around after the recitation session, I will introduce myself to you at that time. Just tell me if it's yay or nay. A roommate of mine also loves you so much, maybe we can go together?

I hope your last few weeks here will be full of joy and little pleasant surprises. If you plan to treat yourself with travels outside Hanoi, I suggest you try out "banh my cay" - a special street food that originates from my hometown, Haiphong. It is basically miniature-sized French baguettes stuffed with pate. You eat it with a special kind of chill sauce called "chi chuong", handmade top to bottom by none other than the talented artists running street food shops all around the country. It's not, like, mandatory or anything, but why not indulge yourself in the cuisine here, for a change? I'm sure you will find something you like here. And maybe bring some back to your hometown and surprise your family too!

P/s: The first week being a college student is crazy!

[REDACTED]

On Fri, Oct 16, 2020 at 10:49 AM [REDACTED] <blu11235@gmail.com> wrote:

Dear Mr. Haris,

I am so delighted to know that you will arrange a meeting with the CECS class - I guarantee, everyone will show up, bar none. You are just that inspiring of a teacher. And you do that in just two lectures! Now I'm worried if I could be as good of a teacher as you ... or ever, my insecurity is kicking in. It would be great to hear stories and receive valuable advice from someone as experienced as you, or else I might piss off all my students in the first lecture and be completely oblivious about it.

Thank you for sparing the time for us. I will come to the meeting the second it is announced.

From: [REDACTED] blu11235@gmail.com

Date: Thu, Oct 15, 2020 at 9:51 PM

Subject: A thank-you note

To: <hdoumani@gmail.com>

Hello, Professor Doumanidis. Hi, professor. Writing formally is not my forte, so please pardon me if there's anything you find offensive, or worse, bloated with self-congratulations. I promise that whatever it is that comes off as annoying, I do not actually mean it.

Dear Professor, I was one of the students who attended your Calculus 1 lecture a few hours ago, and in that lecture you mentioned that you would be here just for another few weeks. I would actually prefer to keep my identity a secret, but actually you are one of my interviewers in the VinUni interviewing round. So when the feelings are still fresh in my mind, I want to share with you the impact you've had on me within just two lectures.

I came to this university with my mind still at a crossroads. Going deep into research greatly appealed to me, but at the same time intrigued me. What about teaching? I didn't like the prospect of being a teacher, standing in a lecture hall all day repeating the same knowledge over and over to students who might or might not get it. Or getting into entrepreneur territory, taking risks and building a company? Or just find a job and be content with myself? Night and day, these questions gradually became an obsession, creeping into my thoughts at the most unexpected times (like when I'm about to fall asleep...), and let me get one thing straight: up to now, I still do not have a satisfying answer. However, what you said at the lecture has cleared the fog, though just a bit.

"I will die someday, but my memory still lives on within you. The knowledge I've passed on to you, someday you will pass on to others". That might as well be one of the most meaningful things one has ever told me. The impact of your speech, your utmost sincerity and dedication to teaching, has shaken me to the core and right now, as I am typing this email, I am still trying to grapple with all the implications. Professor, I don't know if you noticed this, but the interview with you and the staff, that is truly the first time that I'd managed to put all my thoughts and aspirations into a single coherent speech to a person who was willing to listen. My presentation was forgettable (and cringey too; I hope you do not remember it), but the aftershock is very real: Yes, maybe I do want to do research.

As you announced to the class that this will be your last lecture at the university, the whole room went silent, as if a seismic wave had swept the lecture room. Me included. Professor, you are the teacher whom I respect the most at this university, and the news of your departure saddened me. It will be a very, very long time till I find someone who is as dedicated and loving as you. It might be weird for you to receive a thank-you letter from a student who is barely taught by you, but I am afraid if I decide against it, I will never have the guts to tell someone I am grateful to them, and you will never know how great of a teacher you are. What you taught us all in the last lecture is more than just "calculus 1". You showed us, and by "us" I mean "me" what it means to be a teacher. The students are your family, your children, and the responsibility weighted upon the shoulders of the predecessors is to impart the knowledge to younger generations. We

understand you through your craft, your teaching, your caring attitude. And now, I want to follow your steps. My vision has never been clearer.

I want to be a teacher, and you will forever be my greatest inspiration. I hope you know that wherever you are, whatever you do, thousands of people will still call you "my teacher". I know I will. It is rude to impose your presence upon someone who does not want to, but if someday I have trouble with a problem, or a research topic, can I ask for your help? I'd love to.

P.s: do you think black board and chalk is the best surface to do math on? I see some youtube videos touting the Hagoromo chalk as the "best chalk" in the world to do math with, and though I've never laid my hands on one of those, I too can see the joy of scratching a blackboard with a chalk :)))

P.p.s: I am sorry for never trying to strike a conversation with you. I am so afraid of rejection it's unhealthy :((

Thank you, Professor Haris Doumanidis. Mr. Haris (can I call you that?).

From: [REDACTED] haphananh02@gmail.com

Date: Thu, Oct 15, 2020 at 9:04 PM

Subject: αντίο θα το πούμε ξανά

To: <hdoumani@gmail.com>

Dear Professor Harris,

I hope this email finds you well. My name is [REDACTED], an undergrad at VinUniversity. You may not remember me, as I am a mere face in the hundreds that have attended your class and the millions that are your extended family. But despite that, I hope I can still convey my appreciation.

It is not an overstatement that you are one of the major reasons for why I chose VinUniversity. As a person who came into the admission process with little expectations, I was pleasantly surprised to have found a teacher who could make me want to acknowledge my shortcomings, stay humble, and above all, learn. Although we have only known each other for a short period of time, your knowledge, wisdom, and philosophy still has had a great impact on me and I believe, many of my peers as well.

Moving forward, I hope you can find a way to fix all your problems so that you don't have to go around solving others, coarser sand so that your experiments can run more smoothly, and most importantly, more amazing members to include in your family.

Sincerely,

[REDACTED]

From: [REDACTED]

Sent: Thursday, October 15, 2020 6:54 PM

To: Doumanidis Charalabos Constantinos (KT-KHMT) <haris.cd@vinuni.edu.vn>

Subject: Thank You

Thank you so much. I love you, Harris!



From: [REDACTED]
Date: Mon, Nov 9, 2020 at 1:59 AM
Subject: Re: Farewell and Godspeed
To: Haris Doumanidis <hdoumani@gmail.com>

Dear Haris,

I am **Ha Trang** from Electrical Engineering. As I told you before, you are one of reasons which made me come to VinUni, and I am really sad when I knew about your leaving. Therefore, I will always remember your lessons, both about life and science, about modesty and ambition, about family and work. I hope you will have a good journey.
Thank you so much for all those great things you have done for me!

Best wishes for you and your family,
Ha Trang

From: [REDACTED]
Date: Mon, Nov 9, 2020 at 4:13 AM
Subject: Farewell
To: hdoumani@gmail.com <hdoumani@gmail.com>

Dear Professor Doumanidis,

It's a loss for us to not have you in our undergraduate journey. I've sincerely enjoyed your lectures and inspiring conversations.

I truly hope you will be happily united with your family and stay in touch with all of us.

Thank you so much,
[REDACTED]

From: [REDACTED]
Date: Mon, Nov 9, 2020 at 4:44 AM
Subject: Trả lời: Farewell and Godspeed
To: Haris Doumanidis <hdoumani@gmail.com>

Dear Professor Harris,
Thank you for the lectures.

From: [REDACTED]
Date: Mon, Nov 9, 2020 at 5:38 AM
Subject: RE: Farewell and Godspeed
To: Haris Doumanidis <hdoumani@gmail.com>

Dear Professor Haris,

It has been a great experience to get to know and study from you. You showed me what I can and what I should expect from a great professor. I feel very lucky that I got to know you. I wish you the best of luck in your journey tomorrow, and in your life in general. I'll be sure to share with you the successes that I have.

I'm looking forward to seeing you at our graduation.

Sincerely,

[REDACTED]

From: [REDACTED]
Date: Mon, Nov 9, 2020 at 5:38 AM
Subject: Re: Farewell and Godspeed
To: Haris Doumanidis <hdoumani@gmail.com>

I wish you all the best with your future plan. I also hope that you will have a safe flight back home and maybe oneday we will all see you again in VinUni. Thank you for spending time with us here, even though the time was short, yet we learnt a lot from you. We are appreciated for having you here with us for the time being and we all love you professor Harris. Stay healthy sir!

From: [REDACTED]
Date: Mon, Nov 9, 2020 at 8:54 AM
Subject: TL: Farewell and Godspeed
To: Haris Doumanidis <hdoumani@gmail.com>

Dear Professor Doumanidis,

It is my pleasure to be your student.

I have chance to listen to the experience that you gained through all the years. Although I cannot deeply understand it now, I will go through this myself in the near future.

Hope that you will have a safe flight.

Best regards,

[REDACTED]

From: [REDACTED]
Date: Mon, Nov 9, 2020 at 8:57 AM
Subject: Re: Farewell and Godspeed
To: Haris Doumanidis <hdoumani@gmail.com>

Thank you for contribution and support. We all appreciate and cherish the journey we had with each other. Stay safe and healthy Prof. Haris. We all miss you.

Best regard,

[REDACTED]

From: [REDACTED]
Date: Mon, Nov 9, 2020 at 2:36 PM
Subject: Farewell...?
To: Haris Doumanidis <hdoumani@gmail.com>

Dear Bac Haris,

I was half-hoping that you will still be around with us. That every day when I walk to school, I can still catch a glimpse of your brown tweed jacket, talking with students in front of Fresh Garden; that when I need guidance, you will be at your office, waiting. Alas, everything was mere wishful thinking.

If anything, I've been thinking about what might have been. All the time I've wasted, silently walking pass you in the hall, and having pangs of guilt afterward for never daring to tell you in person what I have said through email. I know time is irretrievable, but young people like me never practice what we preach. The best I can do right now is asking you for a last favor. Tomorrow, Prof. Haris will leave this country, maybe forever. Can Professor Haris arrange a time for his disciples to bid farewell, and thank him for what he's done for them? There are many of us, and I am just one who dares to ask. Please let me know if that's possible, and if yes, we will come to you at the drop of a hat. The meeting need not be long, and it will not eat too much into your limited time budget.

Looking forward to your reply!

P/s: I have officially joined the Research Club! Only time will tell if I made the right choice, but why not try, right?

From: [REDACTED]
Date: Tue, Nov 10, 2020 at 4:54 AM
Subject: Already miss you!
To: <hdoumani@gmail.com>

Dear Prof. Haris,

My name is [REDACTED] - your student at VinUniversity!

I felt so regret after missing the last chance to say goodbye to you this morning, so I write this to you!

I hope you will have a flight home, then, be safe and happy with your family! I also hope you will find a better place to continue your career of education (Although, I had a very little time with you, I truly love the way you teach!).

Hopefully, one day, you will miss Vietnam and will return here with your family!

I'm looking forward to that day!

Send my greeting and love to your family!

Hug you,

[REDACTED]

From:

[REDACTED]

Date: Tue, Nov 10, 2020 at 6:51 PM

Subject: Goodbye My Great Teacher

To: hdoumani@gmail.com <hdoumani@gmail.com>

Dear prof Haris,

My name is [REDACTED] from CECS. I know how difficult it is to say goodbye but it is the thing I should do now. I am so sorry for cannot send you this email earlier. Although the time we were together is so short, I was really impressed by your enthusiasm for students which made me appreciate every single moment being your student.

I wish you who I consider as my father rather than my teacher, and your family all the best things in this world.

I look forward seeing you in Vietnam in the near future.

[REDACTED]

(CECS-ME)

From: [REDACTED]
Date: Wed, Jan 20, 2021 at 12:36 AM
Subject: I MADE IT!
To: <hdoumani@gmail.com>

Dear Prof. Haris,

I hope this email finds you well, safe and sound.

My 5.5 years journey at KU has finally came to an end. 5.5 years of hardships, achievements, growth, and beautiful memories.

It was not an easy journey, at times it felt like I'll hit rockbottom but before I know it there would be a great force that pulls me back on track. That great force came from those inspiring people whose passion is contagious and their great influence that made something inside me wake up and decide to not give up. You were one of those people.

You were the first person to give me an A range grade ever since I became a university student, it was such a special feeling. It felt like someone believed in my abilities, and had high hope for me and this made me want to work so hard and live up to those standards. It made want to always improve myself and become better, to make those who believed in me proud and most importantly, to make myself proud.

Thank you for being the thrust of my success, thank you for being one in a kind, I'm honored and grateful that I was taught by someone like you.

Sincerely,

[REDACTED]

DR. LEROY HAMILTON, JR.
REFERENCE LIST

Dr. Annie S. Perkins, Professor
Department of English and Foreign Languages
Norfolk State University
Norfolk, Virginia 23504
(757) 332-0887
asperkins@nsu.edu

Mr. Larry Griffin, Senior Vice President
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United Negro College Fund (UNCF)
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Dr. Yolanda Page, Vice President
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Dr. Bala Jaganathan, MD, MS, MHA
Executive, Physician, Academic Administrator

Honorary Faculty:
College of Graduate Studies
University of Central Florida
College of Medicine
University of Central Florida
Specialization: Academic Leadership

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2701 Graduate Court
Orlando, Florida 32826
Phone: 407-405-7512
Jbala100@gmail.com

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- Twenty-nine years of combined experience in academic and healthcare leadership with outstanding management practices as a chief executive, a successful medical professional and an academic leader at a very large metropolitan research university in the United States.
 - A visionary leader and creative problem-solver who can leverage existing institutional assets and strengths while positioning the institution to seize new opportunities for finding its distinctive place on an increasingly competitive higher education landscape. A former candidate for Board of Governors at Florida State University System.
 - Areas of expertise by qualification and experience include:

Leadership & Strategic Planning	Policy Making in the United States
Administration & Leadership	Diplomacy and Communication
Ethics in Management	Statistics & Scientific Enquiry
Financial Management	Economics & Informatics
Human Resources Management	Healthcare Law
Epidemiology and Microbiology	Medicine & Surgery

Education

College of Health & Public Affairs, University of Central Florida, Orlando, Florida.
MS - Master's in Health Services Administration (2001-2002)

Stanley Medical College, Madras University, Madras, TN.
MD - Doctor of Medicine (1983-1989)

Healthcare Quality and Safety: Certified in Global Health, Harvard Global Health Institute, Harvard University, Boston, MA (2020)

Fellowships

- WHO National Research workshop: Training in Immunology on ‘Diagnosis of Japanese Encephalitis’ and preparation of ‘Tissue Culture Rabies Vaccine’, King Institute of Preventive Medicine, **University of Madras**, Chennai, TN (1988-90).
- Development of Medical and Surgical Technology for training Special Operating Force Medics and Emergency Management, Institute for Simulation and Training, **University of Central Florida**, Orlando (2001-02).

Professional Experience

- **University of Central Florida, Orlando, Florida**
Director of Research Programs and Graduate Programs (2002-2011)
Graduate Research Professor
- **JB Hospitals & Nursing Home, Madras, TN**
Chief Executive / Physician (1991-2000)
- **University of Central Florida, Orlando, FL**
Faculty of Medical Education and Research, College of Medicine (2007-Present)
- **Oil and Natural Gas Corporation, Madras** (Fortune Global 500)
Executive / Medical Administrator (1990-1992)
- **Healthcare Management Consultant** (2011-2019 present)
Orlando, Florida

University of Central Florida, Orlando, Florida

Director of Research Programs and Graduate Programs (2002- 2011)
Graduate Research Professor, Interdisciplinary Graduate Programs

- Founding member of College of Medicine and College of Graduate Studies at University of Central Florida, Orlando.
- Responsible for day-to-day operations of the interdisciplinary master’s and doctoral programs at University of Central Florida, Orlando.
- Responsible for recruitment, curriculum, student development, graduate student services, research programs and new research initiatives at the university level.
- Responsible for analyzing and forecasting the budget and financial needs of the Masters and PhD programs at the University.

- Collaborate with College of Graduate Studies in strategic planning, marketing, recruitment and reporting that supports the mission of the interdisciplinary programs and the university.
- Represent the graduate programs at various councils/meetings at the interdisciplinary, college, university and community levels. Enhance opportunities for research by expanding involvement in several healthcare, corporate, governmental, and international partnerships.
- Coordinate with Information technology and technical staff to develop computer databases and reports for the program.
- Voluntary faculty at the College of Medicine in medical education, curriculum development and support for high quality research.
- As a Graduate Research Professor, performed research related to modeling and simulation in healthcare systems with implementation and publishing of results. Also advised and served on several doctoral level coursework, online coursework and dissertations. Taught courses 'IDS-7919 Doctoral Research' and 'IDS 6918-Directed Research' for M&S Doctoral Students. Graduated more than 350 Master's and Doctoral students at the University of Central Florida. Improve research productivity by increasing faculty involvement in funded research and recruiting new faculty.

The University of Central Florida is an American public state university in Orlando, Florida with an annual budget of about 2 Billion Dollars. Among U.S. colleges and universities, it is the largest by enrollment at a single campus. Interdisciplinary M&S Graduate program is a unique program that collaborates and brings together 10 different colleges, research centers and other units of the University and their faculty.

JB Hospitals & Nursing Home, Madras, TN

Chief Executive /Administrator / Physician (1991-2000)

- Chief Executive: Administration and direction of all aspects of the hospital's planning and development strategies and drive forward new business. Development through in-depth analysis of the community needs and requirements, promote growth and enhance service/ revenue.

- Significant increase of hospital revenue and decrease expenses through streamlining procedures and implementing cost cutting measures.
- Successful negotiation and execution of contracts with local hospitals and healthcare companies. Promote networking opportunities to capitalize on mutually beneficial joint venture alliances.
- Manage/supervise (clinical) research experts from different areas with an understanding of the clinical trial process and its operations.
- A thorough focus on the enhancement of the professionalism of employees and staff by training and development. Provide continuing education opportunities to promote maximum professional growth.
- Implement and ensure total compliance with National, State and Local regulations. Test and analyze internal controls periodically and identify areas for improvement. Close cooperation with regulatory organizations that monitor quality of research and services.
- Clinical practice combined with strategic planning, operations management, sales and marketing, customer service, human resources, administration and 'quality control'.
- Practice as a General Physician in a large multidisciplinary setup. The practice included a focus on preventive and community medicine.

University of Central Florida, Orlando, FL

Medical Education, College of Medicine (2007-present)

- Honorary: Member and Advisor, Curriculum Committee of the College of Medicine, University of Central Florida.
- Advisor: Medical Simulation Initiative, Lab and Clinical Skills.

The M.D. program learning experience at the University of Central Florida is designed to be a unique and exciting blend of state-of-the-art technology, interactions with virtual patients, clinical and laboratory experiences,

research, facilitator-directed small group sessions, and interactive didactic lectures.

Oil and Natural Gas Corporation, Madras (Fortune Global 500)

Executive / Medical Administrator (1990-1992)

- Served as medical director recognized in fast track, high stress environments that include off-shore and on-shore oil exploration sites with multibillion-dollar operations.
- A patient advocate known for working closely with the administration and medical staff in enforcing all policies and procedures and exceeding regulatory compliance standards.
- Member of the on-board emergency management team that focus on training, inspections, fire safety, industrial hygiene, safety engineering, hazardous waste management, general safety, and occupational health.

Healthcare Management Consultant (2011-2019 present)

Orlando, Florida

- Specialize in executive and managerial healthcare consulting services for executives, hospitals and administration.
- Advise on strategies and methodologies to increase hospital's overall performance while maintaining a focus on department specific objectives.
- Help organizations create and implement customized programs to address specific opportunity for growth while improving patient access, efficient service delivery, communication and quality of care.
- Honorary: Graduate Research Professor, College of Graduate Studies, College of Medicine, University of Central Florida, Orlando, Florida
- Consultant on medical simulation methodologies for medical education, and emergency management systems. Recent successful *review of USMLE Clinical Skills and Clinical Knowledge* exams conducted by National Board of Medical Examiners.

Certifications

Certified in Health Services Administration and Managed Care.
CMSP - Certified Modeling and Simulation Medical Professional.
Certified in Counseling Psychology.
Certified in Film and Television appreciation and technology.
Diplomate in Alternative Medicine systems.
Certificate in 'Conflict Management & Dispute Resolution Services'.
Certificate in 'Peoplesoft' management skills.
Certificate in Global Health, Harvard University, Boston, MA.

Computer Skills

Very proficient in all Microsoft Office software including MS Word, Excel, PowerPoint, Access etc.,

Membership & Affiliations

- Member – American College of Healthcare Executives, Chicago, IL
- Member- Scientific Peer Advisory and Review Services, American Institute of Biological Sciences (National Academy of Sciences), Washington, DC.,
- Member- Scientific Review Committee for 'Congressionally' Directed Medical Research Programs, Washington, DC.,
- Member- Society for Simulation in Healthcare, Minneapolis, MN
- Member- Executive editorial board 'Simulation in Healthcare'
- Member, Research Abstract Committee, International Meeting on simulation in Healthcare, Orlando, Florida, 2007.
- Faculty advisor, Modeling and Simulation Graduate Students Association, University of Central Florida.

- Member, Strategic Planning Committee, Institute for Simulation and Training, University of Central Florida, Orlando, Florida.
- Member, Research abstract committee, International Meeting on simulation in Healthcare, San Diego, CA, 2008.
- Member, Graduate Communication and Advisory Team (GCAT), University of Central Florida, Orlando, Florida.
- Member, Academic Advisory Committee, Modeling and Simulation Doctoral and Master's program, University of Central Florida, Orlando, Florida etc.,

Technical Presentations

Jaganathan. B., Kincaid, P., (2003) 'Simulation Education at the University of Central Florida and Daytona Beach Community College' on behalf of *Florida HiTech Council* at Sarasota, Florida.

The Florida High Tech Council is a regional economic development initiative of *the University of Central Florida, the University of South Florida and the University of Florida* whose mission is to grow high-tech industry through partnerships that support research, marketing, workforce and entrepreneurship.

Notable Awards:

Best Physician Award for Preventive Medicine, 1994

Recognition from several companies for active contribution to safety trial of valuable drugs such as *Pefloxacin and Ciprofloxacin*.

Sports -National Champion & Commonwealth Champion, 1981, 1995

Led several teams in competition shooting at the State, National and International levels and won several awards and recognition.

Academic Advisor for graduate students and dissertations

As the founding member and administrator of the Modeling and Simulation graduate program, advised a very large number of graduate students on many of their academic, research and doctoral dissertation projects. Also served as the evaluator of the graduate student's performance in Simulation Research Methods and Practicum course projects.

Graduate Research Forums

- Served as a Judge on several graduate research forums at the University of Central Florida in the years 2005, 2006, 2007, 2008, 2009 and 2010. The Graduate Research Forum at UCF is an opportunity for graduate students to showcase their research and creative projects and to receive valuable feedback from faculty judges.

Recent Conferences – attended / participated

- Viera Hospital and American College of Healthcare Executives, “Building the Hospital of Tomorrow: Rehabilitate, Renovate or Replace”, Viera, Florida, 2011.
- Sanford-Burnham Research Institute and American College of Healthcare Executives, "Talent Management for Bench Strength Development", Orlando, 2010.
- Human Patient Simulator Network conference, Tampa Florida, 2006.
- Human Patient Simulator Network conference, Tampa Florida, 2007.
- Interservice/Industry Training, Simulation and Education Conference (I/ITSEC), Orlando, Florida, 2005.
- Interservice/Industry Training, Simulation and Education Conference Orlando, Florida, 2006.
- Interservice/Industry Training, Simulation and Education Conference (I/ITSEC), Orlando, Florida, 2009.

- The CFO Agenda: Transforming the Finance Function, Bob Woods, *Harvard Business Review*, 2018.
- Cost Containment and Business Model Transformation in an Academic Institution, *AGB Institutional Strategies*, Washington DC, 2019.
- What Healthcare Industry Disruption Means for Your Talent Strategy, *Center for Creative Leadership*, Greensboro, NC, 2019.

Recent Publications and Technical Reports

Santhanam, A., Rolland, J., Jaganathan, B., Imielinska, C. (2008). Generating Classes of 3D Virtual Mandibles for AR-Based Medical simulation. *Simulation in Healthcare*, 3(2), 103-110.

Jaganathan, B., Kincaid, J., Shane, K. (2003). Interoperable Surgical Simulation: Hands-on Medic Training for Common Battlefield Scenarios. *Institute for Simulation & Training*, University of Central Florida. IST-TR-03-03

Jaganathan, B., Kincaid, J., Hamel, C., Sequeira, W.J., and Bellette, A. (2001). Effectiveness of Traditional vs. Web-based Instruction for Teaching an Instructional Module for Medics. *Institute for Simulation & Training*, University of Central Florida. IST-TR-01-06

Jaganathan, B., Kincaid, J., Tao Le, Balinder, S., Hamel, C. (2002). Teaching Human Anatomy and Physiology: Effectiveness of Traditional vs. Web-Based Instruction. *Institute for Simulation and Training*, University of Central Florida.

Jaganathan, B., Allicock, G., (2001). *Physician group Practice and Information Technology*, Research Paper presented for Information Systems and Computer Application in Medicine, University of Central Florida.

Makwana, A., Jaganathan, B., Kincaid, P. (2005). Voice Track Computer Based Simulation for Medical Training, Submitted to Military Medical technology, 2005

Jaganathan, B., Sathya, MD. (2001). Internet & Healthcare: Current status of e-healthcare, Science and Technology (SciTech), Submitted for publication.

Jaganathan, B., McGill.S., Williams.W., Covelli.J., Mapa.M., Dezhi.,L. (2003). Simulations for Surgical Training. Research paper presented for Introduction to Modeling and Simulation, University of Central Florida.

Santhanam, A., Jaganathan, B., Rolland, J., Imielinska, C. (2004). Generating Classes of 3D Virtual Mandibles for Augmented Realty Applications, IEE Transactions on Visualization and Computer Graphics.

Fidopiastis, P., Jaganathan.B., Reddy.N. (2003). Femoral Artery Trauma Response Training, Research paper presented for Introduction to Modeling and Simulation, University of Central Florida.

Shirhatti, G., Jaganathan, B., Kincaid, P. (2005). Enhancing Space Mission adaptability with the Human Patient Simulator, Research paper presented for Introduction to Modeling and Simulation, University of Central Florida.

Jaganathan.B., Sathya,MD. (2004). Evaluation of computer based CBRNE core curriculum. Technical report presented to MDInformatics, Salt Lake City, UT

Anglesea, C., Guay, L., Jaganathan, B. (2007). Avian Influenza Pandemic: Potential Impact and Mitigations for Central Florida, Submitted to Simulation in Healthcare.

Recent Research Projects

Title: Interoperable Surgical Simulation. (2002-2005) US Army PEOSTRI
Supporting Agency: U.S. Army PEO Simulation Training & Instrumentation
Role: Co-PI., Subject Matter Expert
Goals: Development of an Interoperable surgical simulator and Trauma trainer on computerized mannequins to simulate life threatening scenarios for the purpose of training army and civilian medics, paramedics and nursing students.

Title: Evaluation of Web-based Instructional material for teaching Anatomy & Physiology for Military Special Operation Force Medics. (2001-2002)
Supporting Agency: Medsn Inc (contract from Department of Defense)
Role: Co-PI., Subject Matter Expert
Goals: Evaluation of a prototype in phase I and the final product in phase II for instructional effectiveness of Web based Anatomy and Physiology modules.

Title: Deployable 3D Trauma Training Center for emergency surgical management: Modules One and Two. (2002-2004)
Supporting Agency: U.S. Army PEO Simulation Training & Instrumentation
Role: Subject Matter Expert
Goals: Develop a 3D Trauma Center based on Augmented Reality technology – module one is the development of a training tool for Endotracheal Intubation procedures and module two is the design of a 10 feet long by 7 feet high 3D display for visualization of 3D anatomical models using a head mounted projective display.

Title: Evaluation of computer based CBRNE core curriculum (2004)
Supporting Agency: MDInformatics, Salt Lake City, UT
Role: Investigator, Subject Matter Expert

Goals: The experimental study analyses the effectiveness of web-based models of complicated CBRNE (Chemical, Biological, Radiological, Nuclear, and Explosive Incidents) curriculum and the methods by which it will improve the overall learning process and retention compared with the traditional methods of CBRNE training.

Doctoral dissertations and thesis advised

Richard Calloway, Fall 2010, Homologous Pairing through DNA driven Harmonics-A Simulation Investigation. (Doctoral Dissertation)

Ravishankar Palaniappan, Spring 2010, A Self-Organizing Hybrid Sensor System with Distributed Data Fusion for Intruder Tracking and Surveillance. (Doctoral Dissertation)

Jeremy Lanman, Fall 2010, A Governance Reference Model for Service Oriented Architecture Based Common Data Initialization: A Case study of Military Simulation Federation Systems. (Doctoral Dissertation)

Roger Hamilton, Fall 2005, Effect of Content Alteration Strategies in an Instructional Virtual Environment. (Doctoral Dissertation)

Alpesh Makwana, Summer 2005, Voice track computer-based simulation for medical training. (Thesis)

Harshal Sangani, Summer 2004, Effectiveness of Training Mental Rotation in a Virtual Environment. (Thesis)

Anusha Ravishankar, Summer 2004, Cellular Distraction: Analysis of Motor Response in a Simulated Driving Environment. (Thesis)

Dhanashree Gadkari, Summer 2004, Image Quality Analysis Using Gray Level Co-occurrence. (Thesis)

Amith Paruchuri, Spring 2005, SPEEDES a Case Study of Space Operations. (Thesis)

Instructor of Record: University of Central Florida, Orlando, Florida

Fall 2008	IDS 7919	Doctoral Research
Summer 2008	IDS 7919	Doctoral Research

Spring 2008 IDS 6918 Directed Research

Fall 2007 IDS 6918 Directed Research

Graduated more than 350 masters and doctoral students as an administrator and mentor, guiding them in their thesis and doctoral dissertation projects at University of Central Florida.

References for Dr. Bala Jaganathan, MD, MS
Chief Executive, Physician, Academic Administrator

Dr. Timothy Rotarius, PhD

Director & Professor, Health Services Administration
University of Central Florida
Orlando, Florida 32816
trotariu@mail.ucf.edu
407-823-3762

Dr. Charles Reilly, PhD

Associate Dean, College of Engineering
University of Central Florida
Orlando, Florida 32816
Charles.Reilly@ucf.edu
407- 823-5306

Dr. Shivakumar Jaganathan, PhD

Associate Vice Provost/Executive Director, IRRIS
University of Texas at Austin
shiva.jaganathan@austin.utexas.edu
512-471-3434

Dr. Tracy Jones

Assistant Dean, College of Graduate Studies
University of Central Florida
Orlando, Florida 32826
407-823-2000

Dr. John Kincaid, PhD

Director, Research and Graduate Programs – IST
University of Central Florida
Orlando, Florida 32826
407-823-2000

Additional references can be provided if requested.

ALEXANDER LOWRY

Alexander.S.Lowry@gmail.com • 978-525-0287 • Wenham, MA • [linkedin.com/in/alexanderlowry](https://www.linkedin.com/in/alexanderlowry)

Former Fortune 50 Deputy COO. Results-oriented executive with 20+ years advising both higher education senior staff and business world c-suite on strategy, turnarounds, finance, operations, and change. Exceptional relationship management skills, adept at bringing people together, instilling shared vision, fostering collaboration, and making things happen.

EDUCATION

THE WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA Philadelphia, PA
Master of Business Administration in Finance. Director's List (top 10%) 2013

- Awarded teaching fellowship for cross-functional course that pairs teams of Wharton MBAs with team from partner universities around the world to consult with client company interested in entering or expanding its position in U.S. or other world market.

HAVERFORD COLLEGE Haverford, PA
Bachelor of Arts in History, with Honors 1999

- Honor Council Member. Administered and enforced Haverford's honor code. Served as juror on academic and administrative trials and educated community with regard to sensitive issues.
- Led only completely student organized orientation program in U.S. Interviewed and selected 24 resident advisor teams from 100 applicants. Supervised RA program for freshman class. Managed \$50,000 budget.
- Member of conference champion basketball team.

TEACHING EXPERIENCE

Professor in the Practice of Finance, Gordon College 2018 – Present
Designed and teach "*Alternative Investments*" course covering both theoretical and practical world of alternative investments, including hedge funds, private equity, venture capital, real estate, commodities, etc. Course examines rationale and risks of including alternative investments in a portfolio.

PROFESSIONAL EXPERIENCE

GORDON COLLEGE Wenham, MA
Nationally ranked 130-year-old private liberal arts institution enrolling more than 1,800 students. Retains strong residential community on splendid 485-acre suburban campus, just north of intellectual hub of Boston.

Executive Director, Career and Connection Institute 2019– Present

- Reporting to Executive Vice President (VP) for Campus Life, connect classroom learning to real-world experience. Utilizing comprehensive approach to 4 years of discovery, development, and deepening to prepare students personally and professionally.
- Managing \$250,000 budget, set strategic vision for career development and entrepreneurship centers (10 employees); increased student reach by 3x in one year by starting new partnerships and programs.
- Implemented digital workplace and CRM tools to automate operations; served as catalyst that produced 16% cut in operating costs, doubling of alumni engagement, and increase in employer relationships (from ~400 to 5,000+).

Executive Director, Master of Science in Financial Analysis (MSFA) 2017 – Present

Designed, developed, and launched program. Reporting to VP for Academic Initiatives, manage 30 instructors. Achieved profitability in year 2.

Founder and Chair, Finance and Faith Forum

2018 – Present

Reporting to the President, gather business executives for quarterly dialogue about link between leadership and ethics in order to strengthen the College's reputation and reach and showcase high caliber of MSFA student.

JPMORGAN CHASE (JPMC)

New York, NY

VP, Deputy to Chief Operating Officer (COO) of JPMC Foundation

2015 – 2017

Re-designed operations for 28th largest foundation in U.S. (invests \$250 million annually in communities and nonprofits across 40 countries). Example projects:

- Managed Foundation Investment Committee, reporting to JPMC Board.
- Helped develop overall strategy for JPMC's global philanthropic investments, focusing on 4 core capabilities. Focused strategy resulted in commitment to invest \$1.75 billion by 2023.
- Oversaw revision to global annual budgeting and monthly forecasting process for 7 business units. Improved accuracy and timeliness, resulting in re-organization and streamlining of grant management process.

VP, Deputy to COO of U.S. Private Bank

2014 – 2015

JPMC Wealth Management division is one of largest global asset and wealth managers: \$1.7 trillion assets under management. Held pivotal role as business transformation lead – from strategy through implementation – to address enterprise risks identified during financial crisis. Examples:

- Partnered with business units to enhance operational decision making. Improved productivity 10% by defining best practices.
- Oversaw process improvement, development of internal controls, and technology implementation for newly created business unit. Reduced workload by 33%.

VP

2013 – 2014

Recruited to define and embed business-wide control framework within JPMC Asset Management business unit. Example projects:

- Liaised with senior executives on metric-driven decisions. Improved labor utilization 8% by implementing improved financial and operational performance metrics.
- Designed processes and procedures to identify, measure and remediate issues. Ensured thorough end-to-end reviews performed, key risks identified, and appropriate controls implemented. Addressed 1,000+ issues.

PA CONSULTING GROUP

New York, NY & London, England

Principal Consultant, Co-Head of U.S. Project Management Centre of Excellence

2001 – 2013

Recruited to be first U.S. financial services practice employee for Europe's premier strategy consulting firm.

- Advised executives on strategy, turnarounds, optimizing business processes, and change management.
- Oversaw multiple programs concurrently (managing up to 25 direct reports), from proposal through execution and delivery. Led program planning, resource allocation, reporting, risk management, communications and billing.
- Received 3 promotions for consistent outstanding delivery of client engagements, including becoming first American posted to London headquarters.

Example client engagements:

- \$50 billion international consumer packaged goods company: developed strategy to transform business services into world-class shared services organization. Rolled out new unit in 8 months, with flat headcount, reduced costs, and maintained service delivery.
- Fortune 50 pharmaceuticals firm: modernized annual business planning to design repeatable process. Yielded \$75 million savings and 5% expense reduction. Organization continues to use planning process a decade later.

- International government entity: developed strategy and implemented for new 10,000-person health services organization. Managed cross-program risks.

Pension Trustee

2007 – 2010

Managed both defined benefit and defined contribution portions of \$750 million U.K. pension, while a London-based employee for PA Consulting.

- Youngest board member; first ever below partner rank.
- Member of Investment Committee. Evaluated, selected, and monitored investment managers.
- Implemented risk budget analysis which documented need to modernize portfolio. Led follow-on review of governance arrangements, resulting in groundbreaking decision to become first U.K. defined benefit plan to appoint fiduciary manager. Oversaw appointment and implementation of BlackRock. Successfully transitioned in 3 months with no issues.

MAINSRING

New York, NY

Strategy Analyst

2000 – 2001

Strategic, financial, and digital consulting for Global 2000 companies. Acquired by IBM in 2001.

FINANCIAL INSTITUTIONS CONSULTING

New York, NY

Analyst

1999 – 2000

Boutique management consulting firm catering to small and medium-sized financial services companies.

VOLUNTEER EXPERIENCE

BOARD MEMBER, PRIVATE DIRECTORS ASSOCIATION

2020 – Present

Co-Founder and Board Member for Boston chapter.

CO-CHAIR, 2020 WOMEN ON BOARDS

2019 – Present

2020WOB is national campaign that targeted (and achieved) increasing percentage of women on U.S. company boards to 20% by 2020. Boston chapter chair promoting annual global conversation on board diversity.

BOARD MEMBER, YMCA OF THE NORTH SHORE

2018 – Present

Co-Chair of Strategy Committee for one of 30 largest YMCAs in U.S. Developed comprehensive 2025 strategic plan.

CHAIR, HAVERFORD COLLEGE ANNUAL FUND EXECUTIVE COMMITTEE

2002 – 2011

Re-designed annual fundraising strategy. Oversaw change management process to implement vision. Resulted in record giving: \$5 million.

SELECTED PRESENTATIONS

State Street Corporation

July 2020

Moderated panel for firm's senior female executives on successfully navigating the role of board member.

Director Diversity Initiative

May 2020

Speaker during annual conference to increase gender, racial, and ethnic diversity in boardroom.

National Association of Corporate Directors

Sept 2019

Speaker during NACD's annual board leaders' summit – largest global director forum.

The Wharton School, University of Pennsylvania

Aug 2019

Lectured for world's top business school on how to be successful in the boardroom.

Boardroom Bound Podcast

Feb 2019 – Present

Founder and host of weekly show educating and preparing Directors, CEOs, investors, and those who want to rise and serve in public, private, and family-owned boardrooms. 100+ episodes available: bit.ly/BoardroomBound.

HONORS AND AWARDS

- “2020 Directors to Watch” by Private Company Director magazine
- 2019 Innovator of the Year by Gordon College’s Center for Entrepreneurial Leadership

SELECTED MEMBERSHIPS

- Christian Business Faculty Association
- Christian Finance Faculty Association
- National Association of Corporate Directors
- Private Directors Association

CERTIFICATIONS

- Distinguished Toastmaster
- Project Management by MSP and PRINCE2



April 5, 2021

Dear Presidential Search Committee,

The question is not whether FSU should continue educating leaders and preparing them to serve worldwide. Rather, the question is how many. I am sure your ambitions extend beyond the current results. The challenge, then, is finding a president who can unite the University's constituencies around a shared vision that catalyzes support for the institution to help drive enrollment growth and enhance financial resources, all while bolstering your academic reputation.

I am writing to express my genuine interest in becoming the 16th president of the University. I believe all the experiences of my life – expertise in vision casting, global mindset from living and working abroad, senior leadership roles in higher education, track record of leading transformations, focus on building diverse teams, entrepreneurial mindset, history of fundraising, professional speaker, and deep understanding of higher education – to prepare me for this very moment.

This opportunity to be FSU's president involves more than simply leveraging my successful track record in strategic planning, collaboration, transformations, team-building, and change management. It's also about exponentially multiplying my time and talents.

After 3.5 years in two senior leadership roles at Gordon College (both as Executive Director) – developing, launching, and managing the Master of Science in Financial Analysis program, as well as leading the Career and Connection Institute – in addition to being a professor of finance, I bring first-hand understanding of the unique challenges involved in building bridges within higher education as well as the urgency of strengthening a school's financial foundation.

Perhaps I should not be surprised of being called to FSU due to being the child of two professors, and having attended one of the leading liberal arts colleges as well as one of the world's top graduate schools. As my resume indicates, the first 15 years of my career were spent as a global strategy consultant working with executives to design and deliver transformations. These were large companies grappling with a strategic crisis operating under immense pressure and facing enormous disruption. If these organizations ignored the warning signs, such as declining profitability or market share, their strategic crisis could have morphed into a profit crisis and, ultimately, a liquidity crisis. For example, I led a transformation for one of the few AAA rated Fortune 500 companies by initiating a response to their performance issues, helping the organization develop a compelling vision, then swiftly defining a transformation plan and mobilizing the organization behind it, before executing improvement initiatives to deliver on the strategic agenda. The short-term impact was a \$75 million savings and 5% expense reduction.

I was based in London for the second half of my consulting career. During this seven-year period, I worked and traveled extensively throughout Europe, the Middle East, and Africa. Living and working abroad allowed me to cultivate a cross-cultural fluency and mindset. It was an enriching opportunity to learn the art of building diverse teams and the value that comes from developing an inclusive environment. I thrived both personally and professionally from the international perspectives with which I surrounded myself. So much so that I chose to extend my initial three-year commitment, and, ultimately, remained overseas for seven years. I stayed so long, in fact, that I became a dual citizen of the U.K.

I returned to the U.S. to attend graduate school. After obtaining my MBA in finance from The Wharton School, University of Pennsylvania, I transitioned to a career on Wall Street. J.P. Morgan hired me to develop the strategy and implement a brand-new unit overseeing all of operations, finance, compliance, risk, and legal for their \$3 trillion Asset Management business. Once this new unit was in place, I was asked to become Deputy COO of the \$2 trillion U.S. Private Bank. In this position I oversaw process improvement, internal controls, technology implementation, and staff training and development. The following year I was asked to turnaround another division – becoming Deputy COO of the bank’s private foundation to improve operations for the \$250 million they annually invested in communities and non-profits across 40 countries.

In parallel with my career success, I prioritize modeling servant leadership in my community. My volunteer and philanthropic activities include significant roles with nonprofit organizations. One of the most meaningful of these experiences has centered on ardent support of my alma mater, due to the foundationally important liberal arts education it provided. For nine years I served on Haverford College’s Annual Fund Executive Committee. During my final two years as chair, I re-designed the school’s fundraising strategy, resulting in their highest ever annual giving total: \$5 million. Following that role, I continued supporting Haverford by leveraging my extensive network in financial services to launch a finance affinity group. The goal was to strengthen ties between Haverford and its alumni base, foster meaningful professional and personal relationships amongst members, and assist current students in their professional pursuits. The rapid success of this initiative resulted in Haverford launching additional affinity groups.

Upon joining Gordon, I seized the opportunity to launch a similar affinity group model. At the time, the College lacked a consistent occasion for alumni and friends of Gordon to gather in Boston. I developed the Finance and Faith Forum (FFF) to gather Boston business leaders around a prominent speaker – gleaned from my contacts – as well as to offer networking opportunities for students in my master’s program. These quarterly events draw alumni as well as businessmen and women who otherwise would not attend a Gordon event but were eager to hear from the outstanding business leaders I secured. These network building events have been remarkable at strengthening Gordon’s reputation, advancing the scope and reach of the institution by expanding the College’s community, building and enhancing relationships with donors, and showcasing the high caliber of our student.

The incredible success of FFF demonstrates the impact that building and strengthening bridges with the nearby community can provide. As a result, I sought an additional external volunteer leadership position, specifically one that would allow me to shape the College’s reputation externally. The natural fit was joining the Board of the North Shore YMCA – an organization with a global reach, while also deeply connected with donors in the Boston area. Working with this YMCA – one of the

30 largest in the nation and boasting 11,000+ members – in my role as Co-Chair of the Strategy Committee, I'm able to regularly catalyze shared benefits with Gordon.

Obtaining a board role with one of the most prominent greater-Boston organizations is a result of my international reputation as a Boardroom expert. Named one of the “2020 Directors to Watch,” I regularly speak on governance around the world, including to such prestigious organizations as the National Association of Corporate Directors, The Wharton School, and State Street Corporation. This platform allows me to bypass gatekeepers and build relationships across the c-suite. I've leveraged my boardroom access and network to raise Gordon's profile by launching the College's first podcast: Boardroom Bound. (The show can be accessed at bit.ly/BoardroomBound.) Each weekly episode includes a guest from a leading international organization, thus allowing me to draw a new business executive into the Gordon ecosystem.

Collaborating with internal and external partners to reach strategic goals is critical to any organization's success. I bring the natural ability to ignite shared sense of purpose and unite different groups that is required to drive a new level of creativity and innovation within higher education. My track record of achieving this at Gordon has been lauded, including as “Innovator of the Year” by the Center for Entrepreneurial Leadership. As I detailed above, my professional experiences are aligned with the mission, vision, and values of FSU.

I welcome the opportunity to meet with you to discuss my qualifications in further detail. Thank you for your time and consideration.

Blessings,



Alexander Lowry

3/19/2021

Dr. Bala Jaganathan

2701 Graduate Court
Orlando, Florida 32826
407-405-7512

Jbshospitals@gmail.com

(Specialization: University Leadership)

Presidential Search Committee
Florida State University
Tallahassee, FL 32306

Dear Sir / Madam

I am interested in applying for the position of President at Florida State University. As an Executive Administrator and Academic Leader with more than 29 years of experience in the academic management and interdisciplinary research and having served one of the largest metropolitan research universities in the United States it is my natural interest to apply for this noble position to serve the community in a positive way.

A visionary leader and creative problem solver who can leverage existing institutional assets and strengths while positioning the Institution to seize new opportunities for finding its distinctive place in an increasingly competitive higher education landscape.

Areas of expertise by qualification and experience include:

Leadership & Strategic Planning	Policy Making in the United States
Administration & Leadership	Diplomacy and Communication
Ethics in Management	Statistics & Scientific Enquiry
Financial Management	Economics & Informatics
Human Resources Management	Healthcare Law
Epidemiology and Microbiology	Medicine and Surgery

Education

College of Health & Public Affairs, University of Central Florida, Orlando, Florida.
MS - Master's in Health Services Administration (2001-2002)

Stanley Medical College, Madras University, Madras, TN.
MD - Doctor of Medicine (1983-1989)

Global Healthcare and Quality: Certified in Global Health, Harvard Global Health Institute, Harvard University, Boston, MA (2020)

Understands, values and inspire support for a New world:

This is established by a successful tenure in a large metropolitan research university of 67000 students in Orlando, Florida; founding member of a large interdisciplinary graduate program with College of Arts, College of Sciences and College of Engineering as the main contributors; founding member of a state of the art medical school that works collaboratively with several community institutions for the benefit of the student body at large.

Successful experience as a strategic thinker and planner:

As a highly regarded and proven strategic thinker possess the ability to articulate a vision for the future of the institution that can be developed into a strategic plan by harnessing the collective strength of the institution.

Understand and bring new and innovative ideas to the evolving higher education model that requires enhancing the revenue streams combined with bold and strategic moves to drive efficiency and student success.

Has a demonstrated commitment to diversity, equity, inclusive excellence and belonging with an emphasis on diversifying all university constituencies:

Promoting a 21st Century, Future-Driven Mission I am not only committed to diversity but an empathetic advocate of inclusiveness.

Collaboration and Fiscal Management:

Possess the financial acumen that enables setting of financial goals overseeing the university's use of both its financial and human resources effectively.

*Works effectively with **the Board of Trustees**, enabling the board to lead and focus on institutional strategies and policies.*

Genuinely enjoy interacting with students and provide them with an education of genuine excellence. As a faculty successfully graduated more than 400 graduate students and several doctoral dissertations. Member of several department, university and community wide initiatives and committees that focus on student development and academic success.

Thank you.

Bala Jaganathan

Dr. Bala Jaganathan, MD, MS, MHA
Director at University of Central Florida

Dr. Bala Jaganathan, as an individual and a team won several awards at the State, National and International levels in Medicine, Sports and Leadership activities.

RESUME / C.V.

for

DR. ABDUL GHANI BIN MOHAMAD

Address:

22-9 Idaman Puteri Condominium, Jalan Meranti, Medan Idaman

53100 Kuala Lumpur, MALAYSIA

Telephone: +(60) 16-215-6057 (mobile)

Email: abdulghani1234567@gmail.com

Experience

I have been working since November 1988 and already accumulated a total of 32 years of working experiences at the national and international levels, in private and public sectors, mostly at very senior or top level of management and or administration.

Vice President/Vice Chairman (non-executive)

Development and Human Relief Society | Kuala Lumpur, Malaysia
(Pertubuhan Pembangunan Dan Bantuan INSAN-- PPM-004-14-30102015)

Oct 2015 - Present.

Industry: Non-Profit Organisation / Humanitarian help and Charity Services / NGO

Specialization: Social, charity and humanitarian services

Position Level: Very Top Level (Non-Executive)

This is a charity, non-profit humanitarian organization to help the needy and victims of human made disaster (such as civil war) and natural calamities (such as flood, famine, earth quake, etc.) wherever and whenever it (or they) happen(s). Since this organization is newly established, the critical part to ensure its vision, mission, and objectives implemented successfully is the fund raising activities (which I directly am involved), notable success: I play a leading role in establishing the organization from day one it started (in October 2015), i.e., I successfully registered the organization with the Registrar of Societies Malaysia (ROS) in year 2015 and run it from almost zero financial position to the accumulation of almost RM2 million of fund to date; and with this kind of charity fund, thousands of very poor and malnourished children and have nots adults benefited from our organization's program such as food baskets, annual qurbani programs, annual Ramadan Iftar programs, among others. The humanitarian programs run by our organization, to date have benefited around 17,000 needy Yemeni refugees staying in Serdang, Kajang, Seri Kembangan Selangor, various parts of Kuala Lumpur city, and many other states in West Malaysia. A part form carrying out local charity programs in Malaysia, our organization also run various charity projects, notably food baskets, in Yemen (in the Governorate of Taiz, Sanaa City areas, among places), and this is done through our partner organization, Muath Charity Organization in Taiz, Yemen. Through our food baskets programs in Yemen, thousands of internally displaced people benefitted from them.

Also, I single handedly created and wrote all the contents of our organization website portal: www.Insanrelief.org. This very practical web portal have got among others, facilities to collect donations online. I also write successful proposals to collect funds from potential donors and philanthropies. The success running of this organization depends very much, among others, on this fund drive proposals.

December 2016 to December 2017

Deputy Rector/Deputy CEO – International Relations

Al-Madinah International University

A Private International University, located at Section 9, Shah Alam, Selangor, Malaysia.

Industry: Education

Responsibilities:

I was responsible for the following functions/activities at the University:

1. Coordinating the university's international collaborations and fostering partnerships with institutions across the globe.
2. Managing and developing the university's bilateral agreements and participation in international networks and organizations. Success story: Successfully establishing Endowment Fund to support needy students in partially paying their tuition fees upon their graduation, and during my appointment with the University, some 2,000 students benefited from the Fund.
3. Acting as the Secretariat for all initiatives under internationalization activities at the university, including, among others, successfully establishing the Alumni Association of Al-Madinah International University.
4. Also, I was considered the main player for the University to streamline the Curriculum of Islamic Religious Study Program to see that it is in line with its Malaysia's counterpart. Prior to my appointment with Al-Madinah International University, HRH the Sultan of Selangor had sent a letter of protest to the University that its (Al-Madinah International University's) Islamic Religious Curriculum was running based on the teachings of the late Sheikh Mohammed Abdul Wahab (in Saudi Arabia) and as such, it did not go very well with the Islamic religious teaching in Malaysia, which was or is basically based on Ahli Sunnah Wal Jamaah. And for this very reason, the recognition of the Islamic Religious Programs at the Undergraduate as well as the Graduate levels was temporarily suspended pending on the University's streamlining it with that of its Malaysia's counterpart programs. Thereafter, i.e., immediately after I assumed my position as Deputy Rector or Deputy Chief Executive Officer (International Relations) I was tasked with this very important job, among others, and Sahibus Samahah Dr Luqman bin Abdullah, the current Mufti of Wilayah Persekutuan is the witness to this program because he was one of the appointed (streamlining) panels, among others. The long-short of the story is that the streamlining job proved to be successful after all, and that all the Islamic Religious Programs at Al-Madinah International University (undergraduates and graduates Programs) are now fully recognized by the Malaysian government.

Sept 2002 - Sept 2013 (11 years 1 month)

Chief Executive Officer (CEO)

Yayasan Dakwah Islamiah Malaysia (YADIM), Kuala Lumpur, Malaysia

Under the Portfolio of Ministry of Religious Affairs, Prime Minister's Department.

Industry: Non-Profit Organization involving in social (mainly dakwah) and charity services, the organization is basically a government related NGO.

Specialization: *Dakwah*, Charity and Humanitarian Services; corporate management under YADIM's subsidiary, including investment and property (asset) management; trade exhibition through the initial establishment of Malaysia International Halal Showcase (the world's very first and biggest International Halal Trade Show); and lectures on islamic financial instruments and islamic banking.

Role: Top Management (level)

Position Level: CEO

Responsibilities:

Provided leadership to position YADIM at the forefront of *dakwah* and related social and charity services. Developed strategic plan(s) to advance YADIM's mission, vision and objectives. Oversaw YADIM's operations to ensure its success and smooth operation and to maintain production efficiency, providing quality services to clients and stakeholders (especially the Malaysian government, the most important and substantial stakeholders of YADIM), as well as ensuring the implementation of cost-effective management of resources. Together with the Trustee Board, I assured that YADIM remained relevant to the community, the Malaysian government (the most important stakeholder of YADIM) for the accomplishment of the organization's mission, vision, and objectives and the accountability of the organization to its diverse constituents. Carried out day to day management work and responsibilities, in accordance with the direction and policies established by the Trustee Board of YADIM. Industry: Social (*dakwah*) and charity services, investment and events management services industry.

As a Chief Executive Officer of YADIM I was responsible for organizing a very successful international program, "Multaqqa Ulama Sedunia Year 2003," when YAB Tun Dr Mahathir Mohamad was the then Prime Minister of Malaysia. YAB Tun was the one who gave full trust to YADIM to organize this international program which put Malaysia high up in the Muslim world standing at that time and Malaysia continues to shine well in the eyes of the world until now. YADIM was given RM4.5 million by the Prime Minister's Department at that time to organize that grand international program which saw YAB Tun Dr Mohamad himself giving a very important keynote speech (at the world stage) on its opening ceremony (day). About 353 great scholars from 53 Muslim countries participated in the Conference, amongst notable speakers present and delivered important speeches were the Sheikh Al-Azhar Scholar, Dr. Tantawi and other prominent islamic scholars throughout the world.

Another success story that I started with the founder of the program (Dato' Mohd Shukri Abdullah) was the world's first and the biggest International Halal Trade Show, and that is, Malaysia International Halal Showcase (MIHAS). It started in 2004. Thereafter, and upon seeing the potentials coming out of this international halal trade show, the Malaysian government, through its Ministry of International Trade (MATRADE) took over MIHAS in year 2008. This annual halal trade show brings in millions, if not billions of dollars (ringgits) of trade businesses to Malaysia, and that I really feel so very proud to be able to put Malaysia in this very important and perhaps the biggest annual halal trade show in the world.

Aug 2000 - Feb 2003

2 years 6 months

Independent Economics Consultant

Global Hajj Company

Industry: Consulting (Business & Management)

Specialization: Finance - Corporate Finance/Investment/Merchant Banking

Role

Position Level: Director, Non-Executive

Feasibility Studies: - Successfully completed a feasibility study of "Establishing A Hajj & Management Fund Board in Indonesia". The project was successfully implemented (and I happened to be one of its founding non-executive directors), and it was then (after I left the organization) operating in the city of Surabaya, Indonesia.

Another project conducted: A feasibility study of "Establishing A Hajj & Management Fund Board in The Republic of Azerbaijan".

The Feasibility Study was going to be put into good use at that time with the proposed implementation of the project to be undertaken by the Azerbaijan government similar to the one in Surabaya, Indonesia, at that time.

Oct 1999 - Jul 2000

Senior Head, Business & Corporate Development

IFDS Multimedia Ltd (Isalmiq.com), London and Kuala Lumpur

Industry: ICT / Information Technology (Software related)

Role

Position Level: (Top) Senior Management

Duties: Development and marketing of company's two Islamic Financial Portals, Islamiqmoney.com and Islamiqstocks.com.

Accomplishment: Development of the world's first commercial Islamic financial portals.

Note: Due to information technology bubble burst in the United States (which severely affected IFDS Multimedia Ltd businesses), and thereafter, (in late 2000) the company was dissolved.

2 years 3 months

(July 1996 – Jan 1999)

Executive Director

IMIM Holdings Sdn Bhd, Kuala Lumpur, Malaysia

Industry: Investment and Financial Services

Specialization: Corporate Strategy/Top Management

Role

Position Level: Top (Senior) Management

Duties: General Admin and Investment and projects formulations.

Accomplishment: Establishment of a private Islamic college, College Darul Iman, Terengganu.

1 year 3 months

(Mar 1995- June 1996)

Compliance Director/Adviser

Kenanga Asset Management Sdn Bhd, KL, Malaysia

Industry: Stock Broking and Financial Services

Specialization: Corporate Strategy

Role

Position Level: Top (Senior) Management

Duties: Responsible for activities related to asset/fund management of the company, including compliance, training of new recruits of fund managers, product developments, marketing and managing of funds. Successfully started Islamic Fund, R&D Unit of the company.

Accomplishment: Successfully started Islamic Fund and R&D Unit of the Company.

Feb 1944 – Feb 1995

Senior General Manager

Abrar Group International, Kuala Lumpur, Malaysia

Industry: Financial services and several other businesses.

Specialization: Management and Administration

Role

Position Level: (Top) Senior Management

Duties: I was in charge of the Non-financial Companies (as well as Financial Companies) and Investment Division, in the proposals for takeovers and acquisitions. Also, I was appointed to be ad-hoc chairman for the company's Investment Committee.

Accomplishment: Successfully prepared and completed investment proposals for the company's Property Company Division, and proposal for acquiring a Finance Company. The best part of it all, is that this Finance Company, after being acquired by Abrar Group International, generated substantial income to the company, to the tune of RM150 million annually.

Feb 1993– Feb 1994

Investment and Finance Director

SUDAFCO (A Sister Company of Al-Rajhi Bank), Riyadh, Saudi Arabia

Industry: Business & Management

Specialization: Financial and Corporate Strategy

Role

Position Level: (Top) Senior Management

Duties: Identifying viable businesses Formulating and implementing short term and long term financial policies and plans of the company Project evaluation and negotiation with potential partners.

Accomplishment: Successfully completed the privatization of Sudan Telecom company in which the company (SUDAFCO) owned some Sudan Telecom company's shares.

Other projects successfully participated and completed:

- Privatization of Sudan Airways.
 - Privatization of Atbara Cement Company.
-

Jan 1991 – Jan 1993

Senior Manager/Deputy to Deputy General Manager

International Investment Department

Al-Rajhi Banking & Investment Corp. Riyadh, Saudi Arabia

(Note: Al-Rajhi Bank is now the world's largest Islamic Bank)

Industry: Islamic Banking / Financial Services

Specialization: Islamic Banking/Financial Services (International Investments).

I had accumulated substantial experience from the banking industry, with focus on international investment banking. And that I has an excellent knowledge of complex financial structures and products within debt and capital market (which I acquired while working at the head office Al-Rajhi Bank in Riyadh, Saudi Arabia). Also, I had a strong quantitative and analytical skills.

Role

Position Level: Senior Management

Duties: Development of Islamic financial packages, structuring of contract proposals, analysis of financial alternatives for corporate projects, and providing strategic financial decision to other members of the bank, among others.

Accomplishment: (Among others), successfully made currency sales (in the range of US\$10 million) to Bank Islam Malaysia Berhad; also, successfully made currency sales to the government of Sudan (in the range of US\$30 million annually); in addition to making success in the financing of Big Names companies projects internationally.

Nov 1988 - Jan 1991

Senior Managing Coordinator

Al Emar Group Establishment, Riyadh, Saudi Arabia

Industry: Agro industry and other international related businesses

Specialization: Management (Marketing) and Administration

Position Level: Top (Senior) Management

Duties: General management of company's international division. Also, I monitored and marketed the company's agricultural goods (pesticides, fertilizer, among others).

Accomplishment: Improved company agricultural goods sales (mainly pesticides in the range of US\$10 million to US\$15 million annually) making it one of the top two leading agricultural related companies in Saudi Arabia. Also, I contributed in the improvement of the bottom lines of other activities (in international division of the company).

Education

1988

Kansas State University, Manhattan, Kansas, United States

Doctorate (PhD) in Economics (Agricultural)

Graduation Date: November, 1988

Major: Price Analysis

CGPA: 3.32 / 4.0

Teaching Experience at the Kansas State University (from 1983 to 1988)

Job: Teaching Assistant

At the Kansas State University (KSU), Manhattan, Kansas, USA while I was doing my PhD program in Economics (from 1983-1988), I also worked as a Teaching Assistant. I taught basic economic courses, Principles of Microeconomic and Principles of Macroeconomic for undergraduate students.

For the undergraduate courses as mentioned above, I prepared and delivered my own lectures trice weekly for each course, gave exams, held office hours and reviewed sessions, helped to write and graded exams.

I embraced every teaching opportunity that I could find, and I had worked enthusiastically and effectively with students at a variety of levels. I believed, at that time, (and perhaps now), in keeping all my courses and tutoring session student-centered, and so I focused on creating a dialogue with the students and to help them discovered answers for themselves.

Coaching of PhD Candidates:

The Coaching services were given to local Malaysian universities students, mainly in the editing of thesis or dissertations and in assisting them in data analysis.

To date, I had already successfully coached and assisted (about 10) PhD candidates in their thesis or dissertation writing and data analysis, and I also edited the contents of their thesis or dissertation. The students were mainly international students from Egypt and Yemen, majoring in Economics and some other disciplines. Part of or the majority of the works were done when I was working with the Al-Madinah International University.

1983

University of Idaho, Moscow, Idaho, United States

Master's Degree (M.S.) in Economics

Graduation Date: 1983

Major: Development Economics

CGPA: 3.67/4.0

1981

Washington State University, Pullman, WA. United States

Bachelors of Science Degree (B.S.) in Agricultural Economics

Graduation Date: September, 1981

Major Emphasis: Marketing

Grade: CGPA: 3.1/4.0

Language

Language Proficiency level: 0 – Poor, 10 – Excellent

Language	Spoken	Written
Bahasa Malaysia (Malay)	10	10
Bahasa Indonesia	10	10
English	10	10
Arabic	05	04

Expected Salary:

Negotiable

Preferred Work Location:

1. Kuala Lumpur, Kelang Valley area, and within Semenanjung (Peninsula) Malaysia.
2. Overseas, the United States of America (USA) and Canada (any city or location).

Other Information

Datukship Honorary Award:

On 23rd November, 2013, I was awarded Darjah Indera Mahkota Pakoe Boewono (D.I.M.P.) which carries the title of **Datuk** by Kesultanan Mataram, Solo City, Yogyakarta, **Indonesia**.

DR. ABDUL GHANI BIN MOHAMAD

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Email: abdulghani1234567@gmail.com

March 8, 2021

Alberto Pimentel
Managing Partner
Storbeck/Pimentel & Associates
6512 Painter Avenue
Whittier, CA 90601
Email: apsearch@storbeckpimentel.com

Dear Mr. Alberto Pimentel:

RE: President, Florida State University, Tallahassee, FL

I am pleased to present my resume to you for the position of President at the Florida State University (FSU) Tallahassee, FL. In this cover letter I will specifically outline as to why I am interested in both the role and FSU, address specific issues raised by Search Committee Members, and why I am a good fit for the position based on my experience, and why now is a good time for me to consider the opportunity.

Firstly, for the past 32+ years I have had roles of increasing responsibility and leadership within the public and private sectors (private and public universities included), as well as with the non-governmental organizations (NGOs). My work experiences (mostly at the very top level, including the Chief Executive Officer (CEO), Vice President, and Deputy CEO at local private international university), social leadership skills, exemplary integrity, enthusiasm, innovative foresight, entrepreneurial spirit, among others, are the reasons that drive myself to apply for this challenging job at FSU.

The enclosed resume will highlight my career accomplishments, showcase my relevant entrepreneurial expertise, and demonstrate exceptional track record for FSU's future educational endeavour, as a research university devoted to excellence in undergraduate education, graduate and professional education, and faculty scholarship of the highest order. The case in point, which, among others, makes me perfectly relevant to be the President at FSU is the valuable experiences that I had accumulated while working with almost a similar institution, i.e., a private university in Malaysia, the Al-Madinah International University, as its Vice President and Deputy Chief Executive Officer (International Affairs), and not to forget, about the treasured experience which I had accumulated at the Kansas State University, Manhattan, KS., as a teaching assistant (from 1983-1988) while I was doing my doctorate degree there (details in the enclosed resume).

At Al-Madinah International University, I had demonstrated success in establishing, among others, Endowment Fund (with contributions from Kuwait Foundation, among other donors) to support needy students in partially paying for their tuition fees upon their graduation, and that during my appointment with the University, more than 2,000 students benefited from this established Fund.

In the area of institutional accreditation processes, perhaps, one of the single most important achievements, which I contributed to Al-Madinah International University at that time was in the area of streamlining the undergraduate and graduate levels of the Islamic Religious Curriculum at the University (which followed the

teachings of the Saudi Cleric, the late Sheikh Mohammed Abdul Wahab) with that of its Malaysian counterpart(s) at the University of Malaya and University Kebangsaan Malaysia, which follow the teachings of Ahli Sunnah Wal Jama'ah Sect. The streamlining exercise proved to be a successful one, indeed. And, that is, after the streamlining exercise was concluded, all the University's Undergraduate and Graduate Islamic Religious Programs were once again recognized by Malaysia's Education Ministry.

The reason I bring in this accreditation point in this cover letter is that I would like to emphasize the importance of accreditation for FSU, and that if I were to be given a chance to be its President, I will work extra harder to uplift FSU national collegiate ranking (from #58 currently to #40 in 2031, U.S. News Best Colleges Rankings, 2020-2021 Rankings - see remarks column in the ensuing table), not only for financial benefits of the University, more importantly, is for the state of Florida, national and international recognitions. I strongly believe that the future educational strength of FSU lies, among others, on the strength and marketability of the educational programs it offers to its students. And educational strength is earned through a stringent accreditation process. And as a President at FSU, I will need to continue on with the ongoing assessment of existing academic programs, providing more student services, and the creation of new opportunities while increasing of student enrollment and retention, improving staff and faculty retention, and ensuring the viability of the institution's financial health and its future growth.

My success story is not just limited to the job which I undertook at Al-Madinah International University, the current non-governmental organization (Pertubuhan Pembangunan dan Bantuan Insan—PPBI or better known as INSAN) which I helped established in 2015 has got its own track record to be told. This not for profit organization was established and registered by myself with the Registrar of Societies (ROS) Malaysia, and at the time of its initial establishment, it has got zero fund to work with. Five years later, in 2020, INSAN has accumulated a total of more than RM2 million and has carried out many humanitarian projects, such as food baskets, Qurbani, Ramadan Iftar programs, among others, and that the programs have benefited thousands of poor Yemeni war refugees living in Malaysia, and I am very pleased to once again mention here that I am amongst the most prominent persons who help created this success story in Malaysia as well as in Yemen.

Again, I strongly believe that I should mention the above success story of raising fund because, at FSU (or for that matter, at any college or university) to have a healthy and "viable" endowment fund is such a crucial proposition, among others, to help the faculty doing research and student (scholarships), for academic infrastructure developments, university's operation, etc., and that this point is well covered in my proposal for a new 10-year strategic plan for FSU (see the ensuing writeup in this cover letter).

And in the proposed new 10-year strategic plan for FSU, all out campaign for enlarging the University's Endowment is one of the most important strategic focus areas emphasized, and that, if I were given a chance to be the University's President, I will have to make several improvements to the current FSU's Investment Committee Structure (under the University's Foundation) to strengthen its investment wing and thereafter to launch all out campaign, during my tenure as its President, with the intention to be amongst the "\$1.0+ billion Endowment Fund Club" universities, joining its Atlantic Coast Conference (ACC) rivals, such as Duke University (\$8.6 billion), the University of Virginia (\$7.0 billion), and Georgia Tech (\$2.2 billion) at the conclusion of my tenure (within a 10-year-period, hopefully). The Investment Structure Setup which I would like to propose to the FSU's Board of Trustees for approval comprises of three committees as follows:

1. FSU Board of Trustees;
2. Development Office; and
3. Investment Office.

1. FSU Board of Trustees - involves in autonomy, governance, also responsible for:

- i). Deciding on endowment raising activities and then pass it on to Development Office to raise the fund.
- ii). Assists in connecting the Development Office's staff with individuals and corporate institutions, both local and international, that have been identified as possible donors to the University's Endowment Fund.
2. Development Office (function):
 - i). To set fundraising targets for Endowment Fund, each year's target, at least meet the minimum funding of the main activities of FSU in that particular year.
 - ii). These include gifts for specific faculties, projects, chairs and operations.
3. Investment Office (function):
 - i) Responsible for managing funds that are not earmarked for any specific use by Development Office.
 - ii) The Investment Office is given rate-of-return targets by the Board of Trustees for each investment year.
 - iii) The Head of the Investment Office is responsible for advising the Board of Trustees on the investment portfolio.

With the above setup ready, then FSU is set to move to the path of financial sustainability and stability, and that the Moody's debt rating of the University is gradually going to improve to Aaa rating, "stable and positive outlook." And with the above set up ready, we are then set to go all out campaign to raise FSU's Endowment Fund from \$699.9 million (FY20) to \$1.5+ billion (within 10-year period). How do I plan to do it? Among others, with the help of the above new investment setup, and by capitalizing on the services of FSU 372,025 alumni (as of April 2018), i.e., to engage them in this endowment fund raising campaign and exercises.

To specifically address important points of concern raised by Search Committee Members, namely on the issues of the responsibility of the prospective presidential candidate, ... *"The next President will be a strategic and visionary leader charged with setting the University's academic vision, ensuring the effective leadership and management of the campus, and possessing a dedication to improving the lives of students and the educational, economic, and cultural welfare of the citizens of the State of Florida. The President will exercise overall leadership for the University's resource development and fundraising initiatives and will be responsible for ensuring the fiscal well-being of the campus..."*

To specifically address the above issues, I had spent good hours of hard work in trying to come out with a new set of a 10-Year Strategic Plan for FSU, and I am indeed, very pleased to share with the Search Committee Members this strategic plan, which I called it, "The Path Forward: Transforming Florida State University for the 21st Century."

And the following table basically tells it all (see the "Remarks Column") of what I am trying to achieve for the University going forward to the next decade (2021-2031).

For the sake of comparison, I try to display in the following table, some important figures about the Florida State University (FSU) and its state rival, the University of Florida (UF), Gainesville, FL, a Southeastern Conference (SEC) university, and in the final (light blue color) column of the same table, I include my remarks as to where I would like to position FSU in 10 years time, starting 2021.

Criterion	University of Florida (UF) Gainesville, FL (Public University)	Florida State University (FSU), Tallahassee, FL (Public University)	Remarks: FSU's Position in 2031
National Universities Ranking (U.S. News Best Colleges Rankings, 2020-2021 Rankings)	#30	#58	#40
Freshmen Return Rate (national average: 68%)	97%	95%	97%
On-time Graduation Rate for First-time Full-time Student, i.e. 4-year graduation rate (national average:33.3%)	68%	63%	72%
Diversity Score, Overall	81.0%	86.62%	92.0%
Student to Faculty (National Average, 15:1)	17:1	20:1	15:1
Tuition and Fees (in-state)	\$6,380 (F20-21)	\$6,507 (F20-21)	\$6,650
Students Population	52,407 (2020-2021)	42,450 (2020-2021)	49,000 (2031-2032)
Dorm Capacity	8,100	6,200	12,000 (2031)
Full-Time Faculty (National Average: 47%)	85.4%	82.0%	86.0%
Annual Operating Budget	\$6.0 billion (FY19-20)	\$1.9 billion(FY19-20)	\$4.5 billion (FY31)
Annual Economic Impact (on the state of Florida)	\$16.91billion (FY17-18)	\$10.5 billion (2018)	\$23.7+ billion (FY31)
Endowment Size	\$1.8 billion (2019)	\$699.9 million (2020)	\$1.5+ billion (2031)
Research Spent (annual)	\$928.6 million (2019)	\$215.7 million (2018)	\$675 million (FY31)
Percent of Budget Spent on Research	15.5%	13.0%	15.0%
Research University Activities Rank	R1 (very heavy research activities)	R1 (very heavy research activities)	R1 (very heavy research activities)
Library Collections	6.23 million	4.0 million	6.8 million
Rhodes Scholars	12	5	11
Moody's Debt Rating	Aa2 (stable outlook) (August 15, 2018)	Aa2 (stable outlook) (February 21, 2021)	Aa1 rating with stable outlook
Athletic Division	NCAA I	NCAA I	NCAA I
Living Alumni	450,000+	372,025 (as of April 2018)	410,000

This 10-year Strategic Plan, "The Path Forward: Transforming the Florida State University for the 21st Century" is a proposal built on the University's impressive trajectory over the past 10-20 years.

We envision a university that leverages its unmatched scale and resources (see remarks column in the above table, the predicted endowment size is to inflate to more than two times, from \$699.9 million in 2020 to \$1.5+ billion by 2031) to address the most crucial challenges of our time. An engine of innovation and entrepreneurship that helps position our Tallahassee city and state as vibrant hubs of economic opportunity and dynamism. That the FSU will be a global institution that develops committed, global leaders who can build

bridges of collaboration around the world. An inclusive academic community committed to expanding access so that more voices, more minds, and more perspectives can contribute to creating a better future.

Our world today is wrought with complex challenges that will define the future of our communities, our nation, and our species on this planet: how to power a growing world economy without harming our planet beyond repair and without impairing the ecosystems our lives depend on; how to provide access to food, clean water, education, and healthcare to a world population that has doubled during my own lifetime (believe it or not) and will add another billion by the end of this decade; how to combat social inequities, racial injustice, and gender discrimination; how to strengthen our democracy, resolve conflict, maintain peace, and defend ourselves against emerging security threats; how to prepare the world to fend off the next pandemic (like the one that currently we are facing with).

Because of our scale and the caliber of the talent we attract and develop, the FSU is in a unique position to respond to these challenges. Our graduates drive innovation in business, government, and academia; they lead transformative companies and create new ones; and they influence the thinking of other leaders in the private and public sectors. Our faculty consistently deliver breakthroughs in science and technology, they critically assess the potential and risk of new technologies, and they shape the minds of current and future leaders.

Our plan is to amplify that impact by expanding access to more talented individuals of more backgrounds, ensuring that our graduates are equipped to lead and make a difference and that our research responds to questions of great consequence, empowering innovators to create new solutions and companies to make them accessible, and opening the doors of technology and innovation to everyone. The priorities articulated in this strategic plan are firmly grounded in our main core value: Our students are our top priority, and that commitment shines through in our goals.

It is specific but also flexible enough to leave room for unanticipated opportunities and even disruption.

We expect that this living document will be reviewed and refined each year, with ongoing evaluation of our progress. We also anticipate that Colleges, Schools, and programs will develop their own plans to define ways that each division of the Institute can bring the new strategic plan to life.

To achieve the targeted goals as displayed in the aforementioned table (see the blue colored Remarks Column), we will pursue meaningful and measurable progress in eight strategic focus areas as follows:

1. Recruitment and retention;
2. Strive for academic excellence and to champion innovation;
3. Teaching and education;
4. Civic engagement;
5. International engagement;
6. Build on a very strong brand loyalty, "Florida State University Experience," and winning on a national level;
7. Comprehensive campaign & strategic revenue growth; and
8. Diversity.

And to make the long story short, I have summarized relevant strategies to be undertaken under each of the above eight focus areas, and that they are displayed accordingly in the following table:

Summary of Strategies

Focus Areas	Strategies
1. Recruitment and Retention	<p>Develop a master plan for faculty, staff, and postdoctoral fellow housing and begin implementation in order to provide additional housing on or near campus that meets workforce needs. Implement the student housing master plan for both undergraduates and graduate students.</p> <p>Optimizing our Campus Footprint: FSU's main campus footprint now encompasses one single vibrant, urban setting campus in Tallahassee city. The campus master plan aims at expanding and improving our campus infrastructure through three major initiatives as follows:</p> <ol style="list-style-type: none"> 1. Student housing: As the student population has grown, so has the need for university-owned student residences. We need to establish a goal of housing 50% of our undergraduate students in FSU-owned residence facilities. We plan to achieve this goal during this next 10-20-year plan. 2. Expand services and facilities of the campus: - Expand research facilities. - Add several staff positions for support services and security. - Include dining and recreation facilities, as a high priority. 3. Main campus expansion and renewal: We will continue our efforts to modernize and expand the existing campus facilities including the construction of a new parking structure, which is necessary before any further expansion of the campus academic facilities can be considered.
	Develop a master plan for creating a family-friendly campus through increased access to childcare and high-quality schools for the families of our faculty, post-doctoral scholars, staff, and students.
	Maintain competitive levels of faculty, administrative, and staff salaries. Aggressively counter outside recruitment of outstanding faculty.
	Increase financial support for graduate students, primarily through aggressively launching FSU Scholar Initiative for graduate fellowships and undergraduate scholarships (see category under Comprehensive Campaign).
	Campus climate: Develop and implement programs, services, and physical spaces to create a welcoming campus. Strengthen campus resources to create a campus climate that supports student success with the critical goal of increasing four- to six-year graduation rates (target four-year graduation rate: 72% by 2031). Support for Disability Services, Student Psychological Counseling Services, Veterans Affairs, Financial Services, First Generation Student Support Services, and the Center for Global Education will be critical to this initiative.

<p>2. Strive for Academic Excellence and to Champion Innovation.</p> <ul style="list-style-type: none"> - Seed a small number of promising initiatives linked to thematic areas. - Continuous upgrading the current research and technology infrastructures, including the construction new ones on needed basis in the next 10-year period. - Be the most attractive university for high-impact venture creation. - Be an innovation leader that defines the future of higher education with new solutions that dramatically improve access, learning effectiveness, and lifelong student success. - Be one of the world's top universities in invention disclosures, licensing of intellectual property, and innovation collaborations with leading companies. - Be an anchor institution, partner, and catalyst of inclusive entrepreneurship, social innovation, and economic opportunity in Tallahassee city and the state of Florida. 	<p>Improve collaboration within and across thematic areas by eliminating or mitigating barriers to interdisciplinary work. Determine how to best facilitate cross-disciplinary teaching in non-departmentally based units.</p> <p>Research and technology infrastructure:</p> <ul style="list-style-type: none"> - Focus on teacher-scholar model and continue to emphasize a student-centered culture, faculty research and student-faculty research collaboration. - provide the infrastructure necessary to cultivate faculty research to attract outstanding faculty from top Universities all over the world, which will bring research and creative talents to FSU, and allow the integration of the knowledge creation process into the classroom and laboratory, enhancing the educational experience of our students. - Specific Strategies under Research & Technology Infrastructure: <ol style="list-style-type: none"> 1. Faculty development: Create/enhance the Faculty Opportunity Fund (seed grant program) to provide funding for exploratory research initiatives. These exploratory studies are often necessary to demonstrate feasibility in order to attract external grant funding. 2. Student research. Provide increased support for graduate student research – particularly Ph.D. students – as well as increased funding for the Office of Undergraduate Research (see also strategies under Recruitment and Retention). 3. Sponsored research: Increase support for sponsored research with the goal of improving the rate of success in obtaining external grants and increasing the amount of external funding. 4. Economic development: In collaboration with the FSU Business School for Entrepreneurship and Business Ethics, establish processes and develop opportunities for commercialization and industry partnerships. 5. Develop and expand signature programs to develop student entrepreneurship and support student startups. 6. Build a frictionless technology transfer process and a rich network of venture capital, incubators, and corporate partners to scale the entrepreneurship ecosystem at and around FSU. 7. Create new academic programs at the intersection of arts and technology, and incorporate learning experiences into the curriculum to develop student creativity across disciplines. 8. Pioneer novel teaching technologies, alliances, and science-based approaches to elevate learning outcomes and student success. 9. Expand makerspaces and studios in support of entrepreneurial exploration, social innovation, artistic expression, and collaboration with the community.
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	<ol style="list-style-type: none"> 10. Develop and expand student programs in social innovation and entrepreneurship. 11. Develop programs to support female and minority entrepreneurs. 12. Develop excellence in rapid response, frugal science, and technology solutions. 13. Research technology: Invest in high-performance computing resources to support computational sciences and engineering as well as existing research centers – the Institute for Quantum Studies (?) and the new Institute for the Study of Brain Behavior, for example. Continue investment in the digital arts to maintain our current leadership position (within 10-year period). 14. Library of tomorrow: Invest in technology that will transform our Main Libraries, into the library of the future. This will begin with a period of self-study, in which we will gather input from students and faculty and study innovations at other universities as well as corporate information centers such as Google. <p>Re-examine the distribution of overhead funds to determine whether to distribute them in a way that promotes interdisciplinary research.</p> <p>Nurture the development of problem-based teaching and research that focuses on addressing major societal needs and issues.</p> <p>Refocus research mission and increase nationally competitive scholarship and funding in five innovation clusters:</p> <ul style="list-style-type: none"> • Cyber-Infrastructure and Big Data Science: Areas of focus include cybersecurity, intelligent transportation and computational genomics, digital humanities, business analytics, connected mobility and data-enabled science, and social science. • Energy, Transportation and Advanced Manufacturing: Areas of focus include transportation technology, energy generation and distribution, electrical grid control and renewable energy, logistics and supply chain management, cyber-physical systems and bio-inspired design. • Human Resilience: Areas of focus include education, the natural and built environment, personal and societal resilience, economic and social well-being, diversity, leadership and entrepreneurship. • Health Innovation: Areas of focus include biomedical devices, biomaterials, regenerative medicine, health care delivery and access, personalized medicine, mobile health care access, health disparities, health care systems, architecture and health. • Sustainable Environments: Areas of focus include applied genomics, the water-food-energy nexus, nuclear waste disposal, bio product security, integrative agriculture, integrative biology, conservation sciences and sustainable building design.

3. Teaching and Education	<p>Make civic education a core commitment of FSU educational programs, at both the baccalaureate and graduate levels.</p> <p>Identify and implement cost-effective methods to enable faculty to teach outside their own departments in interdisciplinary or multi-disciplinary courses.</p> <p>Improve teaching space in order to support current educational practices, including the use of educational technology.</p> <p>Continue to develop opportunities for capstone projects, i.e., projects with a multifaceted assignment that serves as a culminating academic experience for students.</p> <p>Align support services and co-curricular activities with student needs.</p> <p>Articulate objectives for academic programs and, through Academic Program Review and other means, regularly assess student and program success in achieving these objectives.</p>
4. Civic Engagement	<p>Foster problem-based research, scholarship, and teaching that address urban or semiurban issues and promote civic engagement.</p> <p>Continue development of the Center for Innovation.</p> <p>Support and establish FSU Community School.</p> <p>Support the statewide Science and Math Initiative.</p> <p>Make civic education a core commitment of FSU educational programs.</p>
5. International Engagement <ul style="list-style-type: none"> - To attract best faculty and students world-wide. - To prepare all FSU students to be cross-culturally competent, globally minded leaders. - Be a leader in study abroad participation among leading public research universities. - Be a hub of a global learning and an innovation network through global partnerships, alumni engagement, lifelong learning, and research collaborations. 	<p>Develop the FSU as an "international university" that attracts the best faculty and students world-wide and is distinguished by strong faculty and student exchange programs, mutually beneficial relationships with foreign universities, research conducted internationally, and application of research conducted in Tallahassee city to urban or semi-urban areas worldwide.</p> <p>Embed cross-cultural and global learning opportunities in all programs.</p> <p>Expand collaborations with other globally focused institutions (in Asia, Africa, Europe, Latin America, etc., to tackle critical global issue; to support collaborative research, teaching and engagement.</p> <p>Expand high-impact, multidisciplinary, technology-based collaborations between FSU in Tallahassee city and FSU's current and future international hubs in the areas of academics, research, economic development, and community engagement.</p> <p>Conduct a feasibility study for a conference center that could attract visitors from around the world to FSU; if desirable, initiate planning.</p> <p>Double the number of FSU students who study abroad by 2031.</p>
6. Build on a very strong brand loyalty, "Florida State University Experience," and winning on a national level.	<p>Build on a very strong brand loyalty, "Florida State University Experience."</p> <ul style="list-style-type: none"> - To build competitive advantage in a market-driven industry like higher education requires FSU to consistently and intentionally deliver an exceptional experience to the members of the Seminoles' Family: students, staff, faculty, alumni, donors, board members and friends.

- FSU must recognize that its competitors are no longer just colleges and universities, but instead other service providers, be they Amazon, Starbucks, Netflix, Apple or Target, etc.
- Higher education is part of the experience economy and the stakes to maintain market share are getting higher each year. Every interaction a current or future stakeholder has with the institution is an opportunity for Seminoles to build brand loyalty and to gather information about future needs.
- To assist our efforts moving forward, FSU needs to initiate, for instance a three-year partnership with the Disney Institute (a training and development company focused on empowering organizations to create lasting change through a timetested model for cultural transformation), or other consultation organization providing similar services, to operationalize the values and vision by which our University thrives to:
 1. Clarify FSU's strengths and opportunities, in a service-centric environment;
 2. Identify organizational barriers inside/outside FSU;
 3. Identify current perceptions of FSU leaders, faculty, staff, parents, alumni, and students concerning service;
 4. Gain insights into the opportunities Disney Institute may have to build and/or reinforce service-centric processes and practices;
 5. Guide the creation, adoption and implementation of process improvements.
- Recruitment, orientation and career progression practices will need to be refined, so that our entire team of staff and faculty becomes engaged in, and rewarded for, building a service-minded environment through aligned behaviors and quality standards.

Winning on a national level.

FSU must aspire to competing and winning on a national level when it comes to Seminoles' athletics experience.

- We strive to give our student-athletes a first-class athletics experience by our commitment to building one of the best sports facilities in the state of Florida.
- To engage in continuous facility upgrades.
- To give our coaches and student-athletes the best advantage to compete at the highest level and it starts by providing them with the best sports facilities, as mentioned.
- The success of FSU student-athletes is critical to the economic impact it has on the University and the state of Florida, which is why it is so important for us to give back to our community. A big part of our student-athlete development is making sure our Blazers are affecting the lives of others in a positive manner, and that goes well beyond just their time on campus.
- To get student-athletes involve in Community service is an instrumental part of what we believe in here at FSU.
- Working and training hard to emerge as a national championships, especially in college football and basketball and be recognized nationally and internationally.

	<ul style="list-style-type: none"> - Compensate coaches with competitive pays and incentives to attract best winning coaches. - Provide all student-athletics with full scholarships to attract the most talented student-athletics to attend and compete for FSU. - Establish special classes and help sessions to help all student-athletics excel in studies and graduate in time.
7. Comprehensive Campaign & Strategic Revenue Growth	<p>Comprehensive Campaign</p> <p>As we are entering a new phase in the history of FSU, it is fitting that we undertake a major fundraising effort to support the university's planned growth and strengthen its financial position to be at par with, e.g., Duke University (\$8.6 billion), the University of Virginia (\$7.0 billion), and Georgia Tech (\$2.2 billion) and other leading Endowment rich universities and colleges. The comprehensive campaign will be a 10-year undertaking (starting 2021) with a goal of raising \$1.5 billion to expand the endowment, support capital and academic program enhancements, and increase scholarship support for students. The campaign's funding breakdown is as follows:</p> <ul style="list-style-type: none"> • Endowment: \$900 million (60%) • Capital/campus expansion: \$420 million (28%) • Scholarships: \$112.5 million (7.5%) • Academic program enhancement: \$67.5 million (4.5%) <ul style="list-style-type: none"> - The central goal of the campaign is to support "Transforming the Florida State University for the 21st Century." - The endowment and academic program enhancement funds will support our efforts to attract the highest quality faculty into academic programs that are recognized as distinctive and differentiated from our peers. - Support of research and creative activities is central to creating distinctive academic programs. - Raising endowment funds will create endowed chairs and professorships that will help us continue to attract top-notch scholars in select disciplines. - Scholarship funds will be important to attract, retain, and graduate the underserved student populations that are a significant part of the changing student profile. - The capital component of the campaign provides funds to support the plan's initiative to optimize the campus footprint as well as fund additional expansion of spaces for classrooms, student services, and faculty research, including the University Libraries. <p>Strategic Revenue Growth</p> <p>FSU must remain affordable in order to ensure access to academically qualified students from lower-income families. Therefore, all funding sources must contribute to institutional priorities. Internal reallocations are essential for funding the plan. State funding, while more modest than in past years, remains critical to FSU's core mission.</p> <p>Revenue growth will come from four primary sources:</p>

	<ul style="list-style-type: none"> • Strategic enrollment management. • Entrepreneurial and self-generated funds. • Increased financial return from sponsored programs. • Enhanced private philanthropic support through focused development efforts. <p>A comprehensive enrollment management plan and universitywide pricing strategy will be developed to ensure appropriate balance among revenue-generation, quality and affordability.</p>
8. Diversity	<p>Increase diversity all across campus: A more diverse student body, faculty and staff is fundamental to FSU's ability to provide educational experiences that prepare students to thrive in 21st century workplaces and communities. "The Path Forward: Transforming the Florida State University for the 21st Century" will enhance resources for the recruitment and retention of top talent from all racial groups and socioeconomic backgrounds, with specific focus on underrepresented minorities. Investments include funds for student scholarships and for increasing the diversity of students and faculty applicant pools along with development programs that will increase diversity among both the faculty and the senior levels of staff.</p> <p>Nurture a climate of diversity, inclusion and respect: Build a climate that attracts and retains a diverse student body, faculty and staff that is critical for FSU's ability to sustain progress, improve academic reputation and prepare students for the challenges and opportunities of the 21st century. This involves building a climate that makes FSU's commitment to diversity and inclusion visible; fostering campuswide conversations on issues of diversity, inclusion and climate; and creating institutional structures that support positive experiences for all members of the FSU Family. Specific initiatives include:</p> <ul style="list-style-type: none"> • Incorporating the ideas of diversity and inclusive excellence into education and training • Developing infrastructure that models valuing differences and that supports the growth and development of all. • Increasing strategic partnerships that build knowledge about diverse populations. • Supporting leadership accountability for diversity and inclusive excellence at all levels of the organization. <p>Reinvigorate the Presidential Advisory Group on Diversity and ask the group to develop an institutional strategic plan for diversity; based on this, every school and division will develop a related plan.</p> <p>Deans will work with faculty to seek wide and diverse candidate pools.</p> <p>Strengthen the postsecondary pipeline, reaching out to urban and suburban schools and colleges and universities with large numbers of African Americans, Latinos and other underrepresented groups (including international students). Student recruitment: Develop strategies for recruiting students from underserved populations and first-generation students in our</p>

	local community. Create support infrastructures and budgets in Admission and Financial Aid, plan early outreach activities, enhance community engagement, design yield events, and train recruitment staff.
	Apply accountability measures to ensure that all schools and divisions are taking steps associated with diversity.
	Foster research and teaching about diversity and about issues affecting Diversity. Curriculum: Support and expand interdisciplinary ethnic and cultural studies minors; service-learning opportunities connected to general education requirements; and professional development opportunities to assist faculty with curricular innovation.

The higher education environment is changing, both nationally and for FSU specifically. Limited resources, increasing external demands and expectations, and the changing nature of research and scholarship require us to accept new responsibilities while changing well established practices and structures. This strategic plan is intended to help all members of our community balance these competing pressures and needs. As we observe the changing environment and monitor our development as an institution, we will inevitably change this plan, but we expect the four guiding principles to remain relevant for years to come. As we transform FSU to more fully embody these principles, we will also preserve what is best about our campus -- its academic quality, values, community and diversity.

My Experiences and Qualifications (Continued)

In fact, establishing and working for an NGO, and makes it a successful one is not something new for me. Similar feat was made by myself while I was the Chief Executive Officer (CEO) of Yayasan Dakwah Islamiah Malaysia (YADIM), and it is noteworthy to mention here that the world's first and the biggest yet, international halal trade show, that is, Malaysia International Halal Showcase (MIHAS) was co-initiated and established by YADIM (under my supervision as its CEO at that time) and its founder, Dato' Mohd Shukri Abdullah. This famous and world's biggest annual halal trade exhibition brings in millions if not billions of ringgit worth of businesses in halal industry to Malaysia.

Well, to be able to organize a world class event, i.e., world's largest Halal Trade Show is perhaps one of my biggest accomplishment (yet) in life, and if I were given a chance to be President of FSU, I will employ my vast experience in organizing world class exhibition and conferences to lead and oversee the organizing of the celebration of FSU's 180 years of establishment in 2031 as one of the University's best events to remember, and that it will also mark the University's proud achievement as one of the nation's top public research universities (note: on this date, Endowment Fund raising campaign would again be relaunched in a big way).

I would like to briefly mention here that I had also worked for the world's biggest Islamic bank, and that is, Al-Rajhi Bank in Riyadh (headquarter), Saudi Arabia as its Senior Manager under the International Investment Department which was headed by its current CEO, Mr Abdullah Sulaiman Al-Rajhi. Notable success made: selling of foreign currencies (that is, Saudi Riyal notes) to Bank Islam Malaysia Berhad in the amount of US\$15 million; also, I was involved in foreign currency trade, and that is, exchanging of the US\$ notes to the Sudanese government to the tune of US\$20 million monthly.

A point I would like to make about banking is that, as an established and highly regarded institution of higher learning nationally and internationally, that FSU must establish a very strong tie with private institutions, preferably the big and giant size ones (including but not limited only to banks), for one very important reason, i.e., to attract their funds allocated under "Corporate Social Responsibilities" to further enrich FSU's

Endowment Fund. And at the same time, when we talk about enriching the University's Endowment Fund, another very important source of fund to look for is from the philanthropic funds.

My educational background: I graduated in 1988 with a PhD degree in Economics (Agriculture) from the Kansas State University, Manhattan, Kansas. I also obtained a Master's of Science (MS) degree in Economics from the University of Idaho, Moscow, Idaho in 1983. And in 1981, I graduated with a Bachelor of Science (BSc) degree in Agricultural Economics (majoring in Marketing) from the Washington State University, Pullman, Washington State. I had experience in teaching undergraduate students when I was doing my doctorate (PhD) degree at the Kansas State University, KS from 1983 to 1988.

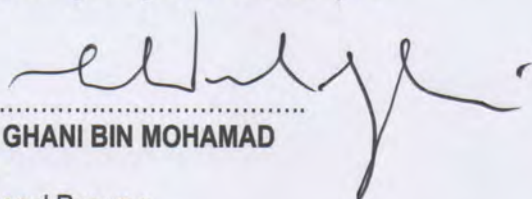
With my ongoing professional achievements, combined with an effective communicator with superb interpersonal skills, and leadership talents, I excel at motivating and inspiring students at all levels (i.e., undergraduate and graduate levels). And at the graduate level, I had experience in coaching the PhD candidates. The coaching services were given to local Malaysian universities students, mainly in the editing of thesis or dissertations and in assisting them in data analysis.

To date, I had already successfully coached and assisted about 10 PhD candidates in their thesis or dissertation writing and data analysis, and I had also edited the contents of their thesis or dissertation. The students were mainly international students from Egypt and Yemen, majoring in Economics and some other disciplines. Part of or the majority of the works were done when I was working with the Al-Madinah International University, Shah Alam, Selangor state in Malaysia.

Like what I already mentioned earlier, that I have 32+ years of strong academic, top or senior level of management and administrative leadership at institution(s) of higher learning, private and public sectors as well as at non-governmental organizations (NGO's). And at the private university level (at Al-Madinah International University) having served as a member of President's Cabinet and senior leadership, I have developed and demonstrated a record of building consensus, resolving conflict, addressing personnel and student issues with sensitivity and fairness, and have a demonstrated record of effective financial management, aligning budgets with strategic goals, allocating resources effectively, setting financial priorities, which I think that I can employ the same at FSU.

And in conclusion, my unique combination of expertise, talents, wide ranging of experiences (in the public, private and non-governmental organizations), economic, entrepreneurial and academic expertise, are a perfect match for a new President position at FSU. I consider myself as an innovative person with proven managerial talent and the capacity to successfully implement bold and strategic decisions. That I am a decisive and engaging leader who will be attentive to the legacy and ambition of FSU, a person who can leverage its community and considerable assets to plant FSU as one of the leaders in the American academy of the future. I am now willing to accept the challenge and commit myself, and ready to bring my light to FSU and Tallahassee city. And naturally, I would be delighted to explore your needs in detail at an interview session or questions and answers session through email. In the meantime, my resume is attached for your review, and I can be contacted at the mobile telephone number provided, or you might as well send message to me via my email: abdulghani1234567@gmail.com. Thank you for your time and kind consideration, and I look forward to speaking with you soon. Thank you.

Sincerely,



DR ABDUL GHANI BIN MOHAMAD

Enclosures:

1. Personal Resume.
2. Graduation Certificates (Diploma, PhD, MSc, BSc.).

Steven Petty

5352 Cranford Court, Tallahassee, FL 32303

850-688-3707

stpetty41@gmail.com

<https://www.linkedin.com/in/steve-petty-80184053>

EDUCATION

Ph.D. in Economics – Oklahoma State University Stillwater, Oklahoma

Primary Fields: Industrial Organization, Labor Economics

Secondary Fields: Urban & Regional Economics, Public Sector Economics

M.A. in Economics – University of Central Missouri Warrensburg, Missouri

Concentrations: Monetary Economics, History of Economic Thought, and International Economics

B.S. in Business Administration – Missouri Western State University St. Joseph, Missouri

Major: Economics

Minor: Political Science – International Affairs

FULL-TIME ACADEMIC EXPERIENCE

Professor of Economics & Manager of the R.W. Plaster School of Business – College of the Ozarks, *Architect of business program growing to top major on campus.* Pt. Lookout, Missouri 1998 to 2007

Courses taught: FER 403 Free Enterprise Studies, ECN 433 Economic Geography, ECN 403 Labor Economics, BUS 353 International Business, ECN 333 International Economics, ECN 313 Money and Banking, ECN 213 Principles of Microeconomics, ECN 203 Principles of Macroeconomics, and ECN 103 the American Economy (includes the economics of education).

Other duties included four years of service on the college's Academic Standards Committee (chairperson twice) and Academic Council (twice). I also sponsored two departmental business clubs for students (The Business Undergraduate Society and Phi Beta Lambda). Additionally, I served on the Faculty Welfare and Athletic Committees.

Tenure-track Instructor of Economics – Northwestern Oklahoma State University, Alva, Oklahoma
Served on historic (first) Merit Pay Compensation Committee and earned merit pay. 1989 to 1992

Courses taught: Principles of Macroeconomics and Microeconomics, Contemporary Economic Problems (includes the economics of education), Money and Banking, International Economics, Comparative Economic Systems, Urban Economics, Intermediate Macroeconomics, Labor Economics, Public Finance, History of Economic Thought, and Introductory Statistics.

Other duties included service on the Academic Appeals committee.

PART-TIME AND TEMPORARY ACADEMIC EXPERIENCE

Adjunct and Visiting Assistant Professor – Flagler College Tallahassee, Florida 2017 to present
Curriculum development and taught (both) principles of economics and Money & Banking courses.

Instructor of Economics – Ozarks Technical Community College Springfield, Missouri 2007 to 2008
Full time, temporary, replaced a faculty member deployed to Iraq; taught Principles of Macroeconomics.

Adjunct Instructor of Economics – Drury University Springfield, Missouri 2005 to 2007
Taught Principles of Macroeconomics at nights at the main campus and satellite campus in Ava, MO.

Instructor of Economics – Oral Roberts University Tulsa, Oklahoma Summer 1996
Taught Economic Theory (GBUS 582), masters-level managerial economics course.

Teaching Associate of Economics – Oklahoma State University Stillwater, Oklahoma 1992 to 1998
Taught the Economics of Social Issues, both principles courses, The Economics of Industries, and International Economic Relations

Adjunct Instructor of Economics – Johnson County Community College Overland Park, KS 1989
Taught Principles of Microeconomics (Spring) and Principles of Microeconomics (Summer).

Adjunct Instructor of Economics – Metropolitan Community College Kansas City, Missouri 1989
Taught Principles of Macroeconomics during the Spring 1989 semester.

Teaching Associate of Economics – University of Central Missouri Warrensburg, Missouri 1987 to 1988
Taught Principles of Macroeconomics, The Economics of Social Issues, and Public Finance.

OTHER FULL-TIME WORK EXPERIENCE

Senior Marketing Coordinator – HNTB Corporation Tallahassee, Florida 2017 to present
Quality Control and Quality Assurance, research, and editing; merit pay recipient each year.

Chief Economist – Florida TaxWatch Tallahassee, Florida 2015 to 2016
Author of two research papers supporting projects that won legislative funding in 2016.

Director of Strategic Planning – MacFarlane Group Mission, Kansas 2012 to 2015
Strategy planner for two consecutive record-breaking years of lending profits.

Financial Writer & Economist – American Century Investments Kansas City, Missouri 2011 to 2012
First client communications member to earn byline credits for thought leadership pieces.

Senior Research Analyst – Pension Consultants, Inc. Springfield, Missouri 2008 to 2011
Oversaw assets under advisement growing from \$0.9 billion to \$1.7 billion during Great Recession.

ADDITIONAL EDUCATIONAL WORK EXPERIENCE

1993 to 1994 NATIVE AMERICANS IN BIOLOGICAL SCIENCES SUMMER INSTITUTE
Oklahoma State University, Stillwater, Oklahoma.

During the **1993 NABS summer camp**, I was employed by NABS as the Policy Group Manager. As such, I researched all aspects of water ecology, in particular, waste-water treatment and public policy. I then developed original curriculum content and trained two teen-aged Native American high school students in the public policy aspects of raising the standards for waste-water treatment for the city of Cushing, Oklahoma. Included in the students' training was sample survey design, information collecting, and reporting activities. Each student group completed a number of team-building exercises developed in part and facilitated by the group managers.

During the **1994 NABS summer camp**, I served as the Computer/Technology Manager for all student groups. That summer NABS researched the issue of "Property Rights and Native American Traditional Medicines".

The NABS project was funded from a \$2 million grant from the Howard Hughes Medical Foundation. Microbiologist Dr. Alan Harker headed the project but has since moved on to Brigham Young University. The purpose of NABS was to raise awareness of the importance of biological sciences in public policy and to increase the recruitment and retention of Native Americans into the biological

sciences. The emphasis in both summer camps was to mentor effectively so as to equip and inspire students to solve problems on their own.

1989 THE SCHOOL DISTRICT OF ST. JOSEPH St. Joseph, Missouri. While teaching night courses at community colleges, during the day I substitute-taught for all grade levels until receiving a long-term (3-month) substitute teaching assignment at Central High School. Responsibilities included curriculum development and teaching Applied Economics, Geography, and Law and the Citizen courses.

RESEARCH AND WRITING SAMPLE LINKS

2015 to 2016 as Chief Economist

<https://drive.google.com/file/d/0B0hndyzckkHjRUhjb1FKQjBuNTQ/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjd3FHR1FxcXY1bFE/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjLXNaUnJ4UIB5RjA/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjd0JYUVJ6N3dSU3c/view?usp=sharing>

2012 to 2015 as Director of Strategic Planning

<https://drive.google.com/file/d/0B0hndyzckkHjTVRUMnV3WERMckU/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjQWd6NERBUGVEX2M/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjdEFteVdSbTJWSVU/view?usp=sharing>

2011 to 2012 as Financial Writer

<https://drive.google.com/file/d/0B0hndyzckkHjV3Vsc254X0RnYlk/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjV25RSHh0SnVnX00/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjOUh6cC1TNIFHU28/view?usp=sharing>

The following links are to pieces I ghost-authored for various ACI officers.

<https://drive.google.com/file/d/0B0hndyzckkHjMmYtYUZ0aDBYLVE/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjYktSTmNHR3hhOUE/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjZFVSQ2NINmxvMWs/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjeVZNZ0NlcHdMZVE/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjZUJxaDBYQVRsZVk/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjc0N3Tk85NC02WjA/view?usp=sharing>

2008 to 2011 as Senior Research Analyst

<https://drive.google.com/file/d/0B0hndyzckkHjMDRTZ3ZpSUcyYWM/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjOXp0N0NyM2YtZGM/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjU3p2ZkJFRk56bk0/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjdUpsNy0xdFVEcm8/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjOC1qYzhjRVNUaXM/view?usp=sharing>

1989 to 2001 as Instructor of Economics and as Assistant Professor of Economics

<https://drive.google.com/file/d/0B0hndyzckkHjcXYzNFBdZnJTSk0/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjT1RkVGNYc0M2T28/view?usp=sharing>

<https://drive.google.com/file/d/0B0hndyzckkHjMHMtaGdld3lUcjg/view?usp=sharing>

KEY SKILLS

Communications – High-level research, editing, and authorship and publication of white papers, technical guides, marketing decks, journals, and other thought leadership materials.

Economic Research – Expert research, writing, and publication & presentation of facts, findings, and theories in the areas of economic development, public policy, taxation, and industrial organization.

Strategic Planning – Business, product, marketing, sales, and distribution planning; strategy workshop and retreat scheduling and facilitation; and action item identification.

Financial Analysis – Market, equity, fixed income, cash equivalents research; data analysis and valuation; secondary and primary research; writing and presentation; and mutual funds.

Academic Leadership – Management of an academic school of business, mentoring faculty and students, administration of programs, curriculum development, training, and assessment.

Hello recruiter,

The following application has been submitted from The Chronicle of Higher Education Jobs

Candidate name: Steven Petty

Candidate email: stpetty41@gmail.com

Job title: President

Job link: <https://jobs.chronicle.com/job/323576/president/>

Recruiter: Florida State University

Application date: 3/23/2021

CV file: STP CV Resume 2021.pdf

Other information:

Covering Message : 5352 Cranford Court, Tallahassee, FL 32303 • (850) 688-3707 (cell) • stpetty41@gmail.com

• <https://www.linkedin.com/pub/steve-petty/53/840/801/>

To Whom it May Concern,

Please consider my qualifications for the advertised position. I am an academic leader that inspires excellence by articulating success in a compelling, heartfelt, and intelligent voice.

My ability to pinpoint crucial determinants of success, enliven interest, and drive results has been refined in past assignments as professor, business school manager, academic standards chairperson, senior research analyst, director of strategic planning, and chief economist.

My personal commitment to be a force for good is powered by professionalism. For me, this approach promotes personal growth and allows me to connect with and help students, colleagues, and community members from all walks of life.

I have over two decades of successful teaching, administrative, and leadership experience at 10 different higher education institutions. My academic career includes nine years at College of the Ozarks in southwest Missouri, including four years as Manager of the Robert W. Plaster School of Business.

The value proposition I would bring to this role is rich and diverse. My skill set includes:

- The ability to frame and analyze issues that comes with earning a Ph.D. in Economics
- Strategic & program planning know-how & success
- Excellent rapport with diverse campus and community groups
- Successful academic leadership, consensus building, and curriculum-targeting skills
- Aptitude in crafting solutions to difficult administrative problems
- Effective writing and communication at all levels, for all audiences.

Thank you for your consideration.

Sincerely,

Steven T. Petty, Ph.D.

ELLIOT PIÑERO

59 RSQ MEDICAL DIRECTOR



CONTACT

719-650-2026

rays22@aol.com

[linkedin.com/in/elliott-pinero](https://www.linkedin.com/in/elliott-pinero)

San Antonio, TX (USA)

EDUCATION

Medical Doctor (MD)

Radiologist/Family Physician
Universidad Central del Este,
Dominican Republic
1983

Pre-med/Theology
Atlantic Union College, South
Lancaster, MA
1976-1978

SKILLS

// PROFESSIONAL

Senior Leadership

Executive Skills

Quality Management

Human Resources

Education/Teaching

Public Speaking

Bilingual (Spanish)

// TECHNICAL

Microsoft Suite

Pages/Keynote

Zoom

BLS/ALS

SUMMARY

I have been a physician for the last 37 years, in both Radiology and Family Practice. I have served in both the US Army and US Air Force for 26 of those years. As a Colonel in the armed services, my experience at the Executive level and in multiple leadership roles is vast, multifaceted, and global. As an Associate Professor of Radiology, I have taught at multiple levels, and have a passion for teaching young men and women the skills necessary to face the challenges of our times.

EXPERIENCE

Radiology Department Medical Director Wilford Hall Ambulatory Surgical Center, JBSA - Lackland AFB, TX	7/19 - Present
Chief of the Medical Staff (SGH) 325 Medical Group, Tyndall AFB, FL	8/15 - 2/19
Chief, Ancillary Services Tidewater Enhanced Multi-service Market, Portsmouth, VA	8/14 - 8/15
Chief, Radiology Department Langley AFB, VA	7/12 - 8/15
Commander, 633 Surgical Operations Squadron Langley AFB, VA	4/13 - 7/13
Radiology Consultant USAFA, Colorado Springs, CO	7/11 - 7/12
Chief, Radiology Department USAFA, Colorado Springs, CO	10/06 - 7/08 & 7/11 - 7/12
Chief, Radiology Department (deployed) 332 EMDG Air Force Hospital, Balad, Iraq	9/04 - 1/05 & 5/06 - 9/06
Staff/Musculoskeletal Radiologist 88 Medical Group, Wright-Patterson AFB, OH	7/03 - 10/06
Staff Diagnostic Radiologist University of Colorado Health Science Center, Denver, CO	7/02 - 6/03
Family Physician Blue Mountain Medical Group, Walla Walla, WA	7/96 - 6/98

ELLIOT PIÑERO

59 RSQ MEDICAL DIRECTOR

ACHIEVEMENTS

- Meritorious Service Medal
USAF - 2019
- Meritorious Service Medal
USAF - 2012
- Air Force Achievement
Medal
USAF - 2012
- Outstanding Radiologist of
the Year
USAF - 2009
- Meritorious Service Medal
USAF - 2007
- Operation Iraqi Freedom
Medal
USAF - 2006
- AF Expeditionary Service
Ribbon
USAF - 2005
- Global War on Terrorism
Expeditionary Medal
USAF - 2005
- NATO Medal
USAAF - 1998
- Armed Forces Medal
USA - 1996
- Army Commendation Medal
USA - 1995
- Army Commendation Medal
USA - 1991
- National Defense Service
Ribbon
USA - 1990
- Army Achievement Medal
USA - 1989

COMMUNITY INVOLVEMENT

Scenic Hills SDA Church
Elder/Teacher
San Antonio, TX
2/19 - Present

Bay County School District
Program
Volunteer/Mentor
Panama City, FL

EXPERIENCE cont...

Commander 31st Medical Detachment, Kitzingen, Germany	7/93 - 6/96
Commander (deployed) 31st Medical Detachment, Operation Joint Endeavor, Tuzla, Bosnia	12/95 - 5/96
ER physician/Labor & Delivery 67 Combat Support Hospital, Wuerburg, Germany	7/93 - 12/95
Officer-in-Charge Ft. Hunter-Liggett Health Clinic, Jolon, CA	11/89 - 6/91
Emergency Room Physician/General Medical Practice Bella Vista Hospital, Mayaguez, PR	7/87 - 8/89

Scientific/Educational Activities

Member, Executive Committee of the Medical Staff. 59 Medical Wing, JBSA-Lackland AFB, TX	2019 - Present
Member, Credentials Committee 59 Medical Wing, JBSA-Lackland AFB, TX	2019 - Present
Member, Risk Management Committee 59 Medical Wing, JBSA-Lackland AFB, TX	2019 - Present
Alternate Authorized Institutional Official Human Research Protection Program 59 Medical Wing, JBSA-Lackland AFB, TX	2019 - Present
High Reliability Organization/Trusted Care Champion 59 Medical Wing, JBSA-Lackland AFB, TX	2019 - Present
Chairman, Pharmacy and Therapeutics Committee 325 Medical Group, Tyndall AFB, FL	2015 - 2019
Chairman, Professional Staff committee 325 Medical Group, Tyndall AFB, FL	2015 - 2019
Chairman, Executive Committee of the Medical Staff 325 Medical Group, Tyndall AFB, FL	2015 - 2019
Chairman, Credentials Committee 325 Medical Group, Tyndall AFB, FL	2015 - 2019

ELLIOT PIÑERO

59 RSQ MEDICAL DIRECTOR

MEMBERSHIPS

The Association of University Radiologists
Assistant Clinical Professor
Wright State University
2003-2006

Colorado Radiological Society
Radiologist
2009-20012

National Council on Strength & Fitness
Certified Personal Fitness Trainer
2019 - Present

REFERENCES

Col Dale E. Harrell
Commander
78 Medical Group
Robins AFB, GA
419-689-9169
dale.e.harrell.mil@mail.mil

Col Frederick C. Weaver
Deputy Command Surgeon
Langley AFB, VA (ACC)
210-683-5258
frederick.c.weaver.mil@mail.mil

Dr. William P. Abraham
Staff Radiologist
10th Medical Group (USAFA)
719-439-0708
william.p.abraham.ctr@mail.mil

Lt Col (ret) James D. Bray
Counseling Psychologist
Carl R. Darnall Army Medical Center
254-317-0320
james.d.bray.civ@mail.mil

Scientific/Educational Activities cont...

Member, Executive Committee 2012-2015
633 Medial Group, Langley AFB, VA

Member, Credentials Committee 2012-2015
633 Medial Group, Langley AFB, VA

Phase II Course Medical Director 2007-2012
10 Medical Group, USAFA, CO

Chief, Exercise Evaluation Team (EET) 2009-2010
10 Medical Group, USAFA, CO

Chief, Morale Enhancement Committee 2007-2012
10 Medical Group, USAFA, CO

Member, Radiation Safety Committee 2003-2006
88 Medical Group, Wright-Patterson AFB, OH

Phase II Assistant Course Medical Director 2003-2006
88 Medical Group, Wright-Patterson AFB, OH

Assistant Clinical Professor of Radiology 2003-2006
Wright State University, Dayton, OH

Member, Quality Improvement Committee 1996-1998
Blue Mountain Medical Group

Instructor, Adolescent Health Promotions 1993
Womack Army Medical Center, Ft. Bragg, NC

PROFESSIONAL DEVELOPMENT

Medical Incident Investigator (MII) Course 2019
JBASA- Lackland AFB, TX

Air War College (Distance Learning) 2011
Air University, Maxwell AFB, AL

Defense Language Proficiency Test (DLPT) - *Spanish* 2010
USAFA, CO

Musculoskeletal Radiology Fellowship 2002-2003
University of Colorado Health Science Center, Denver, CO

Radiology Residency 1998-2002
Albany Medical Center, Albany, NY

Ministerial License 2014
First Nation Church

KANSAS STATE UNIVERSITY

BY THE AUTHORITY OF THE BOARD OF REGENTS OF THE STATE OF
KANSAS AND UPON THE RECOMMENDATION OF THE FACULTY
HAS CONFERRED UPON

ABDUL-GHANI MOHAMMED ABDUL-QADIR MOHAMAD

THE DEGREE OF
DOCTOR OF PHILOSOPHY

WITH ALL ITS RIGHTS, PRIVILEGES, AND RESPONSIBILITIES.

GIVEN UNDER THE SEAL OF KANSAS STATE UNIVERSITY

THIS ELEVENTH DAY OF DECEMBER, NINETEEN HUNDRED AND EIGHTY-EIGHT.



Richard W. Woldenidge
Chairman of the Board of Regents

Jon Wefald
President of the University

A. L. Smith
Dean of the College

The University of Idaho

To all to whom these Letters shall come, Greeting:

The Regents of the University, upon recommendation of the Faculty,
and by virtue of the authority in them vested, have this day admitted

Abdul-Ghani Mohamad

to the degree of

Master of Science
Economics

with all the Rights, Privileges, and Honors, as well as the Obligations
and Responsibilities thereunto appertaining. Given at Moscow, Idaho,
this Fourteenth Day of May, One Thousand Nine Hundred and Eighty-
three, in the Ninety-fifth Year of the University.



Richard D. Gibb
President of the University

Nels L. Solberg
President of the Board of Regents

Arthur B. Pettis
Dean

WASHINGTON STATE UNIVERSITY

IN RECOGNITION OF THE FULFILLMENT OF PRESCRIBED REQUIREMENTS

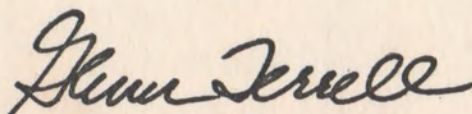
ABDUL GHANI MOHAMAD

IS AWARDED THE DEGREE OF

BACHELOR OF SCIENCE IN AGRICULTURAL ECONOMICS

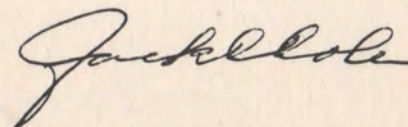
WITH ALL ITS PRIVILEGES AND OBLIGATIONS

GIVEN AT PULLMAN, WASHINGTON, THIS SIXTH DAY OF JUNE
NINETEEN HUNDRED AND EIGHTY-ONE



PRESIDENT OF THE UNIVERSITY





PRESIDENT OF THE BOARD OF REGENTS

ELLIOT PIÑERO

MEDICAL DIRECTOR



CONTACT

719-650-2026

rays22@aol.com

[Linkedin.com/in/
elliott-pinero](https://www.linkedin.com/in/elliott-pinero)

San Antonio, TX/ USA

29 March 2021

Alberto Pimentel
Managing Partner
SP&A Executive Search

Dear Florida State University (FSU) Board of Trustees:

I would like to take this brief opportunity to introduce myself. My name is Col (Dr.) Elliot Piñero, and I am currently the Medical Director of the radiology department at Wilford Hall Ambulatory Surgical Center, Lackland AFB, Texas. I have been a practicing physician in both Radiology and Family Practice for almost 40 years, having served our country in the Army and Air Force for 26 of those years. During my years of service all over the world, I have had the opportunity to mentor and teach many young men and women in such areas as Medicine, Radiology, Nurse Practitioners, and Physician's Assistants to mention a few. I was also Associate Clinical Professor of Radiology at Wright State University. Over the years I have developed a passion for teaching and mentoring the next generation. This has helped me guide numerous young people through their military careers, and beyond.

As my military career comes to an end, it has given me the opportunity to pursue the next chapter in my life, and nothing would make me happier than to fulfill my next goal of leading and guiding an institution of higher learning such as FSU. The accomplishments and reputation of FSU are renowned, as one of the "Top 20"-ranked public universities. I had the opportunity to visit your campus when I was stationed at Tyndall AFB, in Panama City, Florida. I spoke with the ROTC candidates about medical opportunities in the military. I was very impressed with your organization, and you cannot imagine how excited I was when the position of President of FSU appeared on my search for university president positions. It was perfect! The opportunity of a lifetime!

I totally understand how unusual it may seem that a physician and Colonel in the military would even consider working at a university level, but I assure you, over my military career, I have been in many leadership roles and have dealt with many organizations, both military and civilian. It would be my pleasure and honor to be able to serve your institution and help guide the future leaders of our country, and build upon the accomplishments of President Thrasher. I so appreciate your time and consideration in this matter. If you have any questions or concern, please do not hesitate to contact me at your earliest convenience.

Sincerely,

Elliot Piñero

Professor Allen G. P. Ross, M.D., Ph.D., D.Sc., FRCP Edin, FRCPPath

Contact Details



Senior Director, Division of Infectious Diseases
icddr, b PO Box 128, Dhaka 1000, Bangladesh
Mobile: +880-2-1730381019
Telephone: +880-2-9828001-10 Extn: 3400
E-mail: allen.ross@icddr.org
Web: www.icddr.org
Twitter: [@icddr_b](https://twitter.com/icddr_b)
Facebook: [/icddr_b](https://www.facebook.com/icddr_b)

Personal Details

Date of Birth: December 14th, 1964 (56 years)
Married Status: Married with three children
Dual Citizenship: Canadian, Australian
Place of Birth: Antigonish, Nova Scotia, Canada
Residential address: Brisbane, Australia; Dhaka, Bangladesh

Brief Biography

Dr. Ross is Professor and Senior Director of the Division of Infectious Diseases (1,553 staff; 9 units; 6 laboratories; 140 medical research projects; 120 international collaborations, 54 million USD annual operating budget) with the icddr, b, Dhaka Bangladesh. His expertise and research interests lie in the realm of postsecondary education, global health, medical microbiology, tropical infectious diseases, enteric diseases, urban slum health, disease control, pandemic planning, and vaccination. Professor Ross completed a Bachelor of Science in Biology (BSc, 1990) and a Masters of Science (MSc, 1994) in Human Biology in Canada before proceeding to Brisbane, Australia where he completed a Doctorate in Tropical Health (PhD, 1998) with Distinction, a Doctorate of Medicine (MD, 2010) with honours and a Doctorate of Medical Science (DSc, 2017) through the University of Queensland. He is the author or co-author on over 130 international peer-reviewed publications, reviews and book chapters on various aspects of global health, infectious disease control and vaccine development. He is a Fellow of the Royal College of Physicians of Edinburgh in the United Kingdom, Fellow of the Royal College of Pathology in the United Kingdom, Fellow of the Australasian College of Tropical Medicine and Fellow of the Royal Society of Public Health in the United Kingdom. Papers on infectious diseases, tropical medicine, and public health have been published in top journals such as: New England Journal of Medicine, The Lancet, Lancet Infectious Diseases, British Medical Journal, Clinical Microbiology Reviews, Vaccine, Journal of Immunology & Clinical Infectious Diseases.

Current Committee membership: Royal College of Pathology, United Kingdom; Royal College of Physicians, Edinburgh; Australasian College of Tropical Medicine; Royal College of Public Health, United Kingdom; WHO Committee Member for infectious diseases of poverty; Member of the South East Asian Regional Network on Schistosomiasis and NTDs; Member of the Global Network for Neglected Tropical Diseases; Senior Leadership Team, icddr, b; Central Committee, icddr, b; Research Review Committee, icddr,b; Board of Trustees, icddr, b; Member of the Philippine Hospital Association; Member, American Society of Tropical Medicine & Hygiene; Editorial Board of ISRN Preventive Medicine; Frontiers of Epidemiology; Advances in Medicine; Journal of Tropical Medicine & Infectious Diseases.

Countries of Work Experience

Australia, Bangladesh, Canada, China, Ecuador, Haiti, India, Philippines, Switzerland, Tanzania, West Indies

Education & Fellowships

- 2017** **Doctorate of Science (D.Sc., Medical Science)**
UNIVERSITY OF QUEENSLAND, Faculty of Science, Queensland, Australia
- Specialization: Neglected Tropical Diseases
- 2017** **Fellow, Royal College of Physicians of Edinburgh (FRCP, Edin), United Kingdom**
- Specialization: Tropical Medicine & Infectious Diseases
- 2015** **Fellow, Royal College of Pathology (FRCPath), United Kingdom**
- Specialization: Medical Microbiology
- 2014** **Fellow, Australasian College of Tropical Medicine (FACTM)**
- Specialization: Medical Microbiology
- 2012** **Fellow, Royal Society of Public Health (FRSPH), United Kingdom**
- 2010** **Doctorate of Medicine (M.D.)**
UNIVERSITY OF QUEENSLAND, Faculty of Medicine, Queensland, Australia
- Postgraduate Specialization: Tropical Infectious Diseases
 - *M.B.B.S. Honors, 2005*
 - Dean's List for Basic Medical Sciences
 - Honours List for Clinical Training
- 1998** **Doctorate of Philosophy (Ph.D., Tropical Health, High Distinction)**
UNIVERSITY OF QUEENSLAND, Faculty of Medicine, Queensland, Australia
- University of Queensland Dean's Commendation for Doctoral Studies
 - PhD Thesis: 'Vaccinology, Immunoepidemiology and control of Oriental Schistosomiasis, China'
- 1994** **Masters of Science (M.Sc., Human Biology)**
UNIVERSITY OF GUELPH, Guelph, Ontario, Canada
- Masters Thesis: 'Human Energetics in Two Subsistence-level Populations, Ecuador'
- 1990** **Bachelor of Science (B.Sc., Biology)**
ACADIA UNIVERSITY, Wolfville, Nova Scotia, Canada

Scholarships, Awards & Memberships

2015	Griffith University, Faculty of Health Sciences, Publication of the Year Award: Ross, A.G., G.R. Olds, J. Farrar, A. W, Cripps & D.P. McManus. Enteropathogens and chronic illness in returning travelers. New England Journal of Medicine 2013; 368:1817-25.
2015	Nutrition Society of Australia 2015 Nestle Researcher Award: for the work published in the journal Clinical Infectious Diseases entitled “Chronic malnutrition and parasitic helminth interactions.”
2011	Griffith University, Faculty of Health Sciences, Publication of the Year Award: D.P. McManus, D. J. Gray, Y Li, G. M. Williams, Z. Feng, J. Rey-Ladino, D. Stewart, & A.G. Ross (2010). Schistosomiasis in the People's Republic of China: The Era of the Three Gorges Dam. Clinical Microbiology Reviews April; 23 (2): 442-466.
2005	Bachelor of Medicine, Bachelor of Surgery with Honors
2003	Distinction for Basic Medical Science
1998	University of Queensland Dean’s Commendation for Doctoral Studies. Ranked among top 10% of all PhD students
1997	AMRAD Pharmacia Biotech Borham Achievement Award for Doctoral Studies
1995-1997	University of Queensland Overseas Postgraduate Research Scholarship
1994-1997	The Queensland Institute of Medical Research Scholarship, Australia
1991-1994	The University of Guelph Postgraduate Research Fellowship, Canada
1991-1994	The University of Guelph Postgraduate Teaching Fellowship, Canada
1993	International Development Research Council (IDRC) Award, Canada

Work History (since 2000)

2018-present	Senior Director, Division of Infectious Diseases, International Centre for Diarrheal Diseases, Bangladesh (icddr,b)
2008-2020	Professor & Chair of Public Health & Infectious Diseases, Griffith University Physician Scientist, Menzies Health Institute Queensland Director, Social & Population Health Research, Griffith Health Institute Director, Master of Public Health Program Primary-Care Consultant, The Philippines
2005-2008	Associate Professor of Community Health & Epidemiology, University of Saskatchewan Public Health Physician, Saskatoon Health Region, Canada Director, Teaching Research Health Unit, Saskatoon Health Region, Canada Public Health Manager, Saskatoon Health Region, Canada
2003-2004	Associate Professor/ Principal Research Fellow, British Columbia Centre for Disease Control (BCCDC), Canada Committee Member: SARS Accelerated Vaccine Initiative (SAVI)
2001-2003	Assistant Professor, Medical University of the Americas, West Indies
1999-2000	Research Fellow, Queensland Institute for Medical Research (QIMR); Lecturer University of Queensland, Australia

2018-present:Bangladesh

Professor and Senior Director of the Division of Infectious Diseases, icddr, b, Dhaka, Bangladesh

Roles and Responsibilities:

- Reporting directly to the Executive Director, the Senior Director of Infectious Diseases Division is responsible for leading and effectively managing a team of research staff (1,553 staff; 9 units; 6 laboratories; 140 medical research projects; 120 international collaborations) to guide and implement a thematic transformative research agenda which currently encompasses enteric and respiratory infections, emerging infectious diseases, vaccinology, and HIV/AIDS. Dr Ross is expected to ensure translation of research to influence national and global policies, achievement of excellence in priority research areas, provision of services that leverage research, and development of relevant institutional capacities. Working closely with other Senior Division Directors, Dr Ross

will develop a cutting edge program of research that takes advantage of the synergies presented by icddr,b's superb field sites, clinical facilities, and laboratories. Other duties as follows:

- Provides strategic direction for the research activities of the Infectious Diseases Division.
- Ensures that the research of the Infectious Diseases Division is internationally competitive and supported by external funding.
- Creates and leverages professional networks to partner with national/global institutions for collaborative working.
- Provides oversight of the administrative and fiscal operation (annual operating budget of \$54 million USD) of the Infectious Diseases Division.
- Builds consensus and resolves conflict.
- Provides mentorship for educational and career development of the Division staff.
- Determines appropriate selection of emerging technologies and information systems.
- Supervision of Clinical Fellows, Post-Docs, PhD and Masters Students
- Internal Committees: Senior Leader Team; Central Committee; Research Review Committee; Board of Trustees of the icddr, b.

2008-2020: Australia

Professor and Chair of Public Health & Infectious Diseases, Griffith University

Physician Scientist, Menzies Health Institute Queensland

Director, Social & Population Health Research, Griffith Health Institute

Director, Master of Public Health Program, Griffith University

Key Accountabilities / Duties:

- Work closely with the Director, Deputy Director, and Program Directors of Griffith Institute for Health and Medical Research and to provide effective leadership in Population Health Research. These responsibilities include leadership of multidisciplinary project teams, the development and implementation of project plans, resource management, scheduling, reporting and presentation of project outcomes. These responsibilities also include being an effective member of the Institute's Professoriate;
- Foster and develop research alliances with top national and international collaborators;
- Participate in the strategic development of Chronic Disease Prevention research in the Griffith Institute for Health and Medical Research;
- Promote compliance with relevant legislation and University policies and procedures, including equity and health & safety and exhibit good practice in relation to same;
- Promote fair, ethical and professional work practices in accordance with the University Code of Conduct;
- Assist with coordination of protection of Intellectual Property;
- Scientific steering committee member of the Griffith Institute for Health & Medical Research
- Develop public health scholarship relating to education, practice and research within national and international contexts;
- Convene the Master of Public Health program and teach relevant undergraduate and postgraduate courses;
- Contribute to the ongoing development of public health education within the School by providing leadership and support to other programs and short courses offered in the Health Group;
- Supervision of staff/students' coursework and research projects, theses and dissertations- BSc, MSc, MPH, PhD, Post-doctorates, Senior Fellows;
- Build public health research capacity by developing an active interdisciplinary funded research program;
- Contribute to School and University governance;
- Establish and build community linkages and collaborations with appropriate government, industry and other academic bodies;
- Be an active contributor in professional bodies (such as PHAA, IUHPE, ACHSE and the AHPA);

- Strategic Planning, Fundraising, Community Engagement, Preparation of Business Plans/Grant Applications as required.

Committee Membership:

- WHO/TDR Committee Member for infectious diseases of poverty in Southeast Asia
- Global Network for Neglected Tropical Diseases
- Queensland Center for Public Health (QCPH) steering committee member
- Queensland Tropical Health Alliance
- Griffith University Executive Health Group Steering Committee Member
- Griffith University Professorial Subcommittee
- School of Public Health Executive Committee Member
- Member of the South East Asian Regional Network on Schistosomiasis
- Committee Member of the Faculty of Public Health Medicine of Canada
- Committee Member of the Australasian Faculty of Public Health Medicine (AFPHM) Accreditation Subcommittee
- National Health & Medical Research Council of Australia (NHMRC) panel member
- GAVI panel member

Medical Research:

- Public Health Medicine: Blood Borne Viruses and Sexually Transmitted Infections among vulnerable populations- IDU, MSM, Migrants, & School Children
- Emerging, tropical and infectious diseases: epidemiology and immuno-genetics of infectious diseases both nationally and internationally that comprises- HIV, HCV, HBV, Chlamydia, Gonorrhea, Syphilis, Schistosomiasis, Lymphatic Filariasis & Soil Transmitted Helminthes

Graduate Teaching:

- Postgraduate course: Global Health Challenges & Effective Responses
- Postgraduate course: Epidemiology & Public Health
- Postgraduate course: Health Projects
- MD course: Infectious Disease, Global Health

2005-2008: Canada

Associate Professor of Community Medicine, University of Saskatchewan

Communicable Disease Public Health Physician, Saskatoon Health Region , Canada

Public Health Manager, Saskatoon Health Region, Canada

Director, Teaching Research Health Unit, Saskatoon Health Region, Canada

Key Accountabilities / Duties:

- Manages the Population Department including, recruit, orient, supervise, appraise and if required terminate staff (union and OOS staff) and allocates workloads.
- Develops and monitors Departmental operating budget, and develops Departmental policies, procedures and processes.
- Develops Department staff skills and capacity to monitor and assess population health status and to implement a public health information system.
- Communicates to and consults with Regional staff and Senior Leadership on the interpretation of population health information and the application of it to the planning and evaluation of services.
- Facilitates the development of the Comprehensive Community Information System (CCIS): develops Requests for Proposal (for tendering process), reviews tender bids, assists in awarding tenders to contractors, develops Technical Development Service Agreement (TDSA) and negotiates with contractor, monitors contractor progress through CCIS developmental and implementation stages. And, develops Memorandums of Agreement with CCIS partners re: funding contributions and integration and access to data.
- Enhances the working relationship between this Department and other PHS Departments and promotes an understanding of the Department's role in PHS.

- In collaboration with staff and internal stakeholders, develops and reviews a strategic planning framework for the Department, sets quality indicators and monitors to ensure goals are achieved.
- Provides staffing support for Population Health research, according to priorities set out by PHS and SHR (may include the development of the study design and protocols, as well as execution of the study).
- Proactively acts as the liaison from the Population Health Department to the PHS Management and Operations Teams regarding how research activities and findings may impact programming/service delivery.
- Acts as a catalyst to promote the uptake of population health research findings within the Region.
- Participates in producing the output of the Department (e.g. health status and other topical reports, policy recommendations, etc).
- Ensures the development, documentation and maintenance of appropriate population health databases and data repositories (including inter-sectoral repositories).
- Participates on the Research Advisory Committees for targeted research projects.
- Ensures the evaluation of regional, provincial, national, and other population health publications and research to determine the value of publicizing the content to various Health Region audiences and the community.
- Negotiates access to and direct the Regional's analysis of regional, provincial and/or national population health data and surveys.
- Represents the Region on committees in consultation with the Medical Health Officers.
- Develops and maintains critical partnerships and a referral network. (This will include determine the types of specific consultative services as required for database development, analysis, GIS use, desktop publishing to name a few).
- Ensures program evaluation of public health services and continuing professional development of public health staff is informed by relevant data.
- Advises in the development of a regional and provincial Public Health Observatory in concert with the Office of the Chief Medical Health Officer, the University of Saskatchewan, other educational institutions, and Saskatchewan Health.
- Supervise chronic and communicable disease (CD) Epidemiologist for the health region
- CD program design, implementation & coordination
- CD program planning, evaluation & management
- Disease surveillance, outbreak investigation, infectious disease control, vaccination monitoring
- Strategic Planning, Policy formation and implementation of Best Practice
- Lead and manage the Teaching Research Health Unit
- Head of the applied public health research committee for SHR and responsible for setting the research mandate for the health region
- Develop the strategic research plan and research budget for the health region
- Assess the merit of letters of intent (LOIs) for all proposed public health research that goes through the health region
- Design and write local and national grant application submissions on identified public health priorities for the SHR
- Coordinate and supervise the training of MPH, MSc, PhD and Medical Residents at the SHR
- Represent SHR at the Provincial, National and International level with regards to public health research

Committee Membership:

- National Licensure of Medical Council Canada (LMCC) Committee for medical examination writing
- Faculties of Medicine of Canada: Community Medicine Subcommittee
- Provincial Medical Health Officers of Saskatchewan Committee, Saskatchewan
- Head, Research Steering Committee, Saskatoon Health Region
- Master of Public Health (MPH) Steering Committee, University of Saskatchewan
- Vaccinology & Immunotherapeutics Graduate Committee, University of Saskatchewan
- Steering Committee for Canadian Institute for Health Research (CIHR): New Investigator Awards

Medical Research:

- Design, implement and assist the coordination of a Health Disparity program for the city of Saskatoon
- Emerging, tropical and infectious diseases - epidemiology and immuno-genetics of infectious diseases both nationally and internationally that comprises- HIV, HCV, HBV, Chlamydia, Gonorrhea, Schistosomiasis, Malaria, Pertussis, MRSA, and Influenza

Teaching:

- *Community Health & Epidemiology* to third year medical students
- *Infectious Disease Epidemiology* to graduate students
- *Critical Appraisal* of the Medical Literature to medical residents in the Faculty of Medicine
- *Public Health Medicine: Licensure of Medical Council Canada (LMCC)* for newly graduate doctors
- Coordinate the community based *Interdisciplinary Population Health Project* on behalf of the Departments of Medicine, Nursing, Physiotherapy, Social Work, kinesiology

2003-2004: Canada

Principal ID Research Fellow, British Columbia Centre for Disease Control

Committee Member: SARS Accelerated Vaccine Initiative (SAVI)

- Member of the Canadian National Task Force for the control of SARS in Canada - lead by the CDC and the Public Health Agency of Canada
- Committee member for the SARS Accelerated Vaccine Initiative (SAVI)
- Developed and designed immuno-epidemiological follow-up studies of SARS patients in Guangdong Province, China
- Liaised/ Negotiated with Ministry of Health, Government of Guangdong province, and the Chinese CDC
- *Chlamydia trachomatis* vaccine research

2000-2002: West Indies

Assistant Professor, Medical University of the Americas, Nevis, West Indies

- Teaching/learning subcommittee member of MUA
- Promotion subcommittee member of MUA
- Coordinate and taught the teaching of Preventive Medicine & Biostatistics to second year medical students
- Taught Medical Terminology to pre-medical students

1999-2000: Australia

ID Research Fellow, Queensland Institute for Medical Research

Lecture, University of Queensland

- Managed multi-faceted infectious disease projects in Southeast Asia- Staff, Budgets, Grant/Business Plan writing, Community Engagement
- Designed, implemented, and coordinated infectious disease control projects in China (NIH Parasitic Disease Project) and the Philippines (AusAID Malaria/Schistosomiasis Control Project)
- Designed, implemented, and coordinated laboratory vaccine studies and human genetic studies (HLA) in collaboration with molecular biologists, parasitologists, infectious disease physicians & statisticians
- Designed, implemented, and coordinated a project on the statistical modeling of parasitic disease control in Southeast Asia
- Liaised/ Negotiated with Ministry of Health at the National, Provincial and local level
- Liaised/ Negotiated with NGO stakeholders e.g. World Bank officials, WHO/TDR officials
- Policy formation & Advocacy

1997-1999: Tanzania; Switzerland

Senior Epidemiologist, Department of Social & Preventative Medicine, Switzerland

- Designed, implemented, and coordinated a large scale field project on hypertension in Dar es Salaam, Tanzania (cohort study involving 10,350 individuals aged 25-64)
- Liaised/ Negotiated with Ministry of Health & the National Medical Research Council
- Responsible for all aspects of project including the design, implementation, budget, monitoring and evaluation
- Responsible for staff supervision (29), data entry and analysis, and financial management of the project
- Trained clinical officers (26) in research methodology and protocol, statistical data analysis, epidemiology and public health
- Trained three data management staff
- Trained one physician counterpart
- Responsible for overseeing an NCD (diabetes/hypertension) clinic at Temeke District Hospital
- Responsible for liaison with various local government agencies and Swiss counterparts
- Policy formation & Advocacy

1997-1997: Australia; China

PhD Scholar, University of Queensland, & Hunan Institute of Parasitology

- Designed, implemented and coordinated a human vaccine study for schistosomiasis in Hunan & Jiangxi Province, China
- Responsible for all aspects of the project from its conception to conclusion (including: project design, implementation, training of field staff, data and financial management, analysis, reporting and presentation of findings)
- Coordinated field studies and laboratory investigations
- Prepared successful grant applications for project funding (see grant history below)
- Established a research team (including Epidemiologists, Statisticians, Molecular Biologist and Parasitologists) that has become a model for multidisciplinary collaboration at both QIMR and ACITHN
- Liaised with Australian and Chinese counterparts

Medical Consultancies

CONSULTANT, HOSPITAL ALBERT SCHWEITZER, HAITI, 2000-2001

- Designed, implemented and coordinated a Verbal Autopsy project on the leading causes of death for children under five years of age in rural Haiti
- Designed, implemented and coordinated HIV/TB outbreak investigation in Petite Riviere, Haiti

CONSULTANT, MALARIA/ SCHISTOSOMIASIS CONTROL PROJECT (AUSAID), MINDANAO PROVINCE, THE PHILIPPINES, 2000-2001

- Designed, implemented and evaluated a five-year infectious disease control project – distribution of drugs, malaria bednets, schistosomiasis control and prevention

CONSULTANT, NIH TROPICAL PARASITIC DISEASE CONTROL PROJECT, CHINA. 1998-2-003

- Designed, implemented and evaluated various aspects of a parasitic disease control project in six provinces in China

CONSULTANT, GAVI Alliance, 2011-2013

CONSULTANT, DEPART OF HEALTH, THE PHILIPPINES 2012-PRESENT

- Primary-Care consultant

CONSULTANT, Agency for Health Quality and Assessment of Catalonia, Spain, 2018-present

- Medical consultant on medical research grant applications for the government of Spain

Medical Research Grants: funded and requested

Development of a recombinant *Schistosomiasis japonica* vaccine and its field testing in China (Chief-investigator) 1994-1996. Total: \$234,852 AU Source: UNDP / World Bank

Schistosomiasis in China: morbidity and resistance to reinfection, a preliminary survey (Principal Applicant) 1996. Total: \$19,405 AU Source: WHO/TDR (Director's Initiative Grant)

Morbidity and resistance to reinfection in schistosomiasis japonica, a prelude to human vaccine development. (Chief investigator) 1996. Total: \$20,000 AU Source: Univ Queensland, AUS

Immune responses to recombinant *S.japonicum* antigens by humans with Asian schistosomiasis (Chief investigator). 1995-1997. Total: \$267,245 AU Source: NHMRC, Australia

Distribution of blood pressure, body mass index and smoking habits in the urban population of Dar es Salaam, Tanzania, and associations with socioeconomic status. (Chief investigator) 1998-2000. Total \$300,000 CHF Source: Swiss National Science Foundation

Interdisciplinary Population Health Project. 2006, Total requested \$20,000 CA. Source: University of Saskatchewan (Chief investigator)

Teaching community medicine with the aid of web-based learning in the undergraduate medical curriculum. 2007-08. Total requested \$50,000 CA. Source: Public Health Agency of Canada (Chief investigator)

Effective use of a learning management system (WebCT 6) in the Community Health and Epidemiology course CHEP 401.6 for undergraduate medical students. Premkumar, K., Reeder, B.A., Ross, A. Technology Enhanced Learning (TEL) grant, \$32,750. January-December 2007

Evaluation of Ontario's Universal Immunization Program. 2007-2009. Total requested: \$1,100,000 CA Source: CIHR (Chief investigator: D. Manuel; A. Ross & others)

Assessing the etiology of low immunization coverage rates among deprived neighborhoods in Saskatoon 2007-2009. Total: \$300,000 CA Source: CIHR (Chief investigator: C. Neurdo; M. Lemstra, A. Ross & others)

Research Alliance for the Prevention of Infectious Diseases (RAPID) 2008-2012. Total: \$2,400,000 CA. Source: Saskatchewan Health research Foundation (Chief investigator: A. Potter, A. Ross & others)

Impact of the Three Gorges Dam on transmission and future control of human schistosomiasis in China. 2010-2014. Total \$1,370,000 AU. Source: NHMRC Chief Investigator: D. McManus, G. Williams, Y. Li, & A. Ross & others

Innovative approaches to eliminate schistosomiasis from the Philippines- a pilot study. 2011-2012. Total: \$180,000 AU. Source: UBS Optimus Foundation Chief Investigators: A. Ross & R. Olveda

A cheap, easy, fast, wet/dry latrine in rural/refugee areas. 2011-2012. Total \$100,000 SF. Source: UBS Optimus Foundation Chief Investigators: D. Stewart, A. Ross, & D. Gray

Integrated Control for the Elimination of Schistosomiasis from the Philippines. 2012-2017. Total: \$1,799,346.89 AU. Source: NHMRC. Chief Investigators: A. Ross, R. Olveda & 7 others

A school-based health education package for the prevention of soil-transmitted helminth infections in China and the Philippines. 2013–2017. Total: 1,658,610.19 AU. Source: NHMRC. Chief Investigators: D. Gray, G. Williams, D. McManus, K. Halton, R. Olveda, A. Clements. A Ross, YS Li

Influenza vaccination After Myocardial Infarction (IAMI trial) - A multicenter, prospective, randomized controlled clinical trial based in selected hospitals in Dhaka, Bangladesh. 2019-2021. Total: \$519,000 USD. Source: Sanofi Pasteur. Chief Investigators: Ole Fröbert, Zubair Akhtar, Allen

Ross, Mohammad Abdul Aleem, Firdausi Qadri, Allen Ross, Sayera Banu, Fahmida Chowdhury, Md. Khalequzzaman.

An effectiveness trial (phase IV) to evaluate protection of children and pregnant women by influenza vaccine in rural Bangladesh. 2019-2022. Total: \$ 1,495,754 USD. Source: GLOBVAC. Chief Investigators: K. Zaman, J. Clemens, A. Ross, Md. Yunus, M. Rahman, R. Cox, K. Brostad, K. Mohn, D. Kainov, A. Rahman, A. Khan.

A multicentre phase II/III double-blind, randomized, placebo controlled study to evaluate the efficacy and safety of VPM1002 in the prevention of tuberculosis (TB) recurrence in pulmonary TB patients after successful TB treatment. 2019-2021. Total: \$ 631,178 USD. Source: Serum Institute of India Pvt. Ltd. Chief Investigators: K. Zaman, J. Clemens, A. Ross, S. Banu, S. Hosain, Md. Yunus, Md. Mustafizur, S. Islam, A. Islam.

A Phase III, Randomized, Observer-blind, Multicenter Study to Evaluate the Efficacy, Immunogenicity and Safety of Seqirus' Cell-Based Quadrivalent Subunit Influenza Virus Vaccine (QIVc) Compared to a Non-Influenza Vaccine when Administered in Healthy Subjects aged 6 Months through 47 Months. 2020-2021. Total: \$375,000 USD. Source: Seqirus UK Ltd. Chief Investigators: K. Zaman, A. Brookes, A. Ross, G. Goswami, M. Rahman.

A Phase II clinical trial to evaluate the safety and immunogenicity of two novel oral polio type 2 vaccine candidates in healthy newborns. 2020-2021. Total: \$1,381,678 USD. Source: Gates Foundation. Chief Investigators: K. Zaman, J. Clemens, A. Ross, S. Hosain, Md. Yunus, Md. Mustafizur, S. Islam, A. Islam.

Ivermectin and doxycycline for the treatment of high-risk Bangladesh patients diagnosed with COVID-19: a randomised, double-blind, placebo-controlled trial. 2020-2021. Total requested \$225,000 USD. Source Beximco Pharma. Chief Investigators: Wasif A. Khan, A. Ross, JD Clemens, K Zaman, and others.

A randomized, double-blind placebo-controlled trial to evaluate the safety and efficacy of a SARS-CoV-2 inactivated vaccine among healthcare workers in Bangladesh. 2020-2021. Total requested \$7,500,000 USD. Source Sinovac, China. Chief Investigators: Wasif A. Khan, A. Ross, JD Clemens, K Zaman, and others.

COVID-19: Surveillance using environmental samples in Bangladesh. 2020-2021. Total requested \$350,046 USD. Source: Gates Foundation. Chief Investigators: R. Haque, A. Alam, A. Ross, Mami Taniuchi and others.

Is a bovine transmission blocking vaccine the missing link for the elimination of human schistosomiasis from Asia? A Phase IIIb Split-plot RCT. 2021-2027. Total requested: 7,500,000 USD Source: NIH, USA. Chief Investigators: A. Ross, D. Harn, R. Olveda, K. Zaman, S. Ng, M. Inobaya, Z. Rahman, T. Chau (pre-approved).

Interrogating the immune response to fractionated *P. falciparum* asexual and sexual blood-stage parasites to inform the rational development of a whole parasite blood-stage vaccine. 2020-2022. Total requested: \$1,350,000 USD. Source: Gates Foundation. Chief Investigators: M. Good, D. A. Bayih, D. Stanisic, A. Ross, E. Gadisa, J Akter, A Abdissa, S Ng, A. Aseffa (under review).

Publications : journal articles and book chapters; H-index 37 based on 4585 citations

Schematic overview: Total publications = 130; Peered Review Publications = 121; Book Chapters = 7; First author publications = 44; Last author publications = 34.

Publications :

1. Katzmarzyk PT, Leonard WR, Stephen MA, Berti PR, **Ross AG**. Differences between observed and predicted energy costs at rest and during exercise in three subsistence-level populations. *Am J Phys Anthropol*. 1996 Apr;99(4):537-45.
2. Leonard WR, Katzmarzyk PT, Stephen MA, **Ross AG**. Comparison of the heart rate-monitoring and factorial methods: assessment of energy expenditure in highland and coastal Ecuadoreans. *Am J Clin Nutr*. 1995 May;61(5):1146-52.
3. Li Y, **Ross AG**, Li Y, He YK, Luo XS, McManus DP. Serological diagnosis of *Schistosoma japonicum* infections in China. *Trans R Soc Trop Med Hyg*. 1997 Jan-Feb;91(1):19-21.
4. **Ross AG**, Li YS, Sleight AC, McManus DP. Schistosomiasis control in the People's Republic of China. *Parasitol Today*. 1997 Apr;13(4):152-5.
5. Li Y, Yu DB, Li YS, **Ross AG**, McManus DP. Infections with hepatitis B virus in three villages endemic for schistosomiasis japonica in the Dongting Lake region of China. *Ann Trop Med Parasitol*. 1997 Apr;91(3):323-7.
6. **Ross AG**, Yuesheng L, Sleight AS, Yi L, Williams GM, Wu WZ, Xinsong L, Yongkang H, McManus DP. Epidemiologic features of *Schistosoma japonicum* among fishermen and other occupational groups in the Dongting Lake region (Hunan Province) of China. *Am J Trop Med Hyg*. 1997 Sep;57(3):302-8.
7. Li YS, **Ross AG**, Yu DB, Li Y, Williams GM, McManus DP. An evaluation of *Schistosoma japonicum* infections in three villages in the Dongting lake region of China. I. Prevalence, intensity and morbidity before the implementation of adequate control strategies. *Acta Trop*. 1997 Oct 14;68(1):77-91.
8. **Ross AG**, Li YS, Williams GM, Li Y, Sleight AS, Zhang X, Zhou D, McManus DP. An examination of current control strategies for Asian schistosomiasis in the Dongting lake region of China. II. A five year follow-up survey on Qingshan island. *Acta Trop*. 1997 Oct 14;68(1):93-104.
9. Li YS, **Ross AG**, Li Y, Zhang X, Wu Z, Yu X, Luo X, He Y, Lin J, McManus DP, Zhou D. Acquired immunity and re-infection to *Schistosoma japonicum* I. Baseline epidemiological data from an endemic island area in the Dongting lake region, Hunan Province. *Chinese Journal of Schistosomiasis Control*, 1998. 10, 76-79 (in Chinese).
10. Waine GJ, Yang W, **Ross AG**, Li YS, Sleight AC, Kalinna BH, Scott JC, Mazzer D, Li Y, McManus DP. Differential antigen-stimulated proliferation of human mononuclear cells by recombinant *Schistosoma japonicum* antigens in a Chinese population. *Clin Exp Immunol*. 1998 Apr;112(1):69-73.
11. Zhou H, **Ross AG**, Hartel GF, Sleight AC, Williams GM, McManus DP, Luo XS, He Y, Li YS. Diagnosis of schistosomiasis japonica in Chinese schoolchildren by administration of a questionnaire. *Trans R Soc Trop Med Hyg*. 1998 May-Jun;92(3):245-50.
12. **Ross AG**, Li Y, Sleight AC, Williams GM, McManus DP. Faecal egg aggregation in humans infected with *Schistosoma japonicum* in China. *Acta Trop*. 1998 Jun 30;70(2):205-10.
13. Waine GJ, **Ross AG**, Williams GM, Sleight AC, McManus DP. HLA class II antigens are associated with resistance or susceptibility to hepatosplenic disease in a Chinese population infected with *Schistosoma japonicum*. *Int J Parasitol*. 1998 Apr;28(4):537-42.
14. **Ross AG**, Sleight AC, Li YS, Williams GM, Li Y, Waine GJ, Tang GT, Forsyth SJ, McManus DP. Epidemiological identification of Chinese individuals putatively susceptible or insusceptible to *Schistosoma japonicum*: a prelude to immunogenetic study of human resistance to Asian schistosomiasis. *Ann Trop Med Parasitol*. 1998 Oct;92(7):765-74.
15. **Ross AG**, Yuesheng L, Sleight AC, Williams GM, Hartel GF, Forsyth SJ, Yi L, McManus DP. Measuring exposure to *S. japonicum* in China. I. Activity diaries to assess water contact and comparison to other measures. *Acta Trop*. 1998 Nov 30;71(3):213-28.
16. Li YS, **Ross AG**, Li Y, Zhang X, Wu Z, Yu X, Luo X, He Y, McManus DP. Acquired immunity and re-infection to *Schistosoma japonicum*: Susceptible and insusceptibility to re-infection to *Schistosoma japonicum* identified by epidemiological characteristics. A Symposium on the third meeting of medical platyhemintology, Medical Parasitological Branch, Chinese Association of Preventive Medicine, 1998. p. 88-90 (in Chinese).
17. **Ross AG**, Sleight AC, Yuesheng L, Williams GM, Waine GJ, Forsyth SJ, Yi L, Hartel GF, McManus DP. Measuring exposure to *S. japonicum* in China. II. Activity diaries, pathways to

- infection and immunological correlates. *Acta Trop*. 1998 Nov 30;71(3):229-36.
18. **Ross AG**, Li Y, Booth M, Sleight AC, Williams GM, McManus DP. Five year impact of chemotherapy on morbidity attributable to *Schistosoma japonicum* infection in the Dongting Lake region. *Trop Med Int Health*. 1998 Oct;3(10):837-41.
 19. Li YS, **Ross AG**, Sleight AC, Li Y, Waine GJ, Williams GJ, Tanner M, McManus DP. Antibody isotype responses, infection and re-infection for *Schistosoma japonicum* in a marshland area of China. *Acta Trop*. 1999 Jul 30;73(2):79-92.
 20. McManus DP, **Ross AG**, Sleight AC, Williams GM, Yang W, Li YS, Li Y, Acosta L, Waine GJ. Production of interleukin-10 by peripheral blood mononuclear cells from residents of a marshland area in China endemic for *Schistosoma japonicum*. *Parasitol Int*. 1999 Aug;48(2):169-77.
 21. Li YS, Sleight AC, **Ross AG**, Li Y, Williams GM, Forsyth SJ, Tanner M, McManus DP. A 2-year prospective study in China provides epidemiological evidence for resistance in humans to re-infection with *Schistosoma japonicum*. *Ann Trop Med Parasitol*. 1999 Sep;93(6):629-42.
 22. Dongbao Y, **Ross AG**, Musheng X, Yuesheng L, Yan C. Highlights on the World Bank Loan Schistosomiasis Control Program in China (1991-1998): a special focus on Hunan Province. *Southeast Asian J Trop Med Public Health*. 1999 Dec;30(4):657-63.
 23. Li Y, Waine GJ, Xinyue Z, **Ross AG**, Li YS, Li H, Yang W, He , Peng X, McManus DP. (Acquired immunity and reinfection to *Schistosoma japonicum* II: Study on the proliferation of peripheral blood mononuclear cells from 117 residents living in an endemic area of S.japonica. *Chinese Journal of Schistosomiasis Control*. 1999. 11, 69-74 (in Chinese).
 24. Li YS, Sleight AC, **Ross AG**, Williams GM, Tanner M, McManus DP. Epidemiology of *Schistosoma japonicum* in China: morbidity and strategies for control in the Dongting Lake region. *Int J Parasitol*. 2000 Mar;30(3):273-81.
 25. Li Y, Waine GJ, Li YS, **Ross AG**, Zhang X, Li H, Sleight AC , McManus DP. Acquired immunity and reinfection to *Schistosoma japonicum* III. Study on associations between cytokine production by peripheral blood mononuclear cells in vitro and resistance to *Schistosoma japonicum* infection in residents from an endemic area. *Chinese Journal Schistosomiasis Control*. 2000. 12 (2) 75-79 (in Chinese).
 26. **Ross AG**, Sleight AC, Li YS, Williams GM, Aligui GD, McManus DP. Is there immunity to *Schistosoma japonicum*? *Parasitol Today*. 2000 Apr;16(4):159-64.
 27. Li YS, Sleight AC, **Ross AG**, Li Y, Williams GM, Tanner M, McManus DP. Two-year impact of praziquantel treatment for *Schistosoma japonicum* infection in China: re-infection, subclinical disease and fibrosis marker measurements. *Trans R Soc Trop Med Hyg*. 2000 Mar-Apr;94(2):191-7.
 28. Li Y, Sleight AC, Williams GM, **Ross AG**, Forsyth SJ, Tanner M, McManus DP. Measuring exposure to *Schistosoma japonicum* in China. III. Activity diaries, snail and human infection, transmission ecology and options for control. *Acta Trop*. 2000 May 31;75(3):279-89.
 29. **Ross AG**, Sleight AC, Li Y, Davis GM, Williams GM, Jiang Z, Feng Z, McManus DP. Schistosomiasis in the People's Republic of China: prospects and challenges for the 21st century. *Clin Microbiol Rev*. 2001 Apr;14(2):270-95.
 30. McManus DP, **Ross AG**, Williams GM, Sleight AC, Wiest P, Erlich H, Trachtenberg E, Guanling W, McGarvey ST, Li YS, Waine GJ. HLA class II antigens positively and negatively associated with hepatosplenic schistosomiasis in a Chinese population. *Int J Parasitol*. 2001 May 15;31(7):674-80.
 31. Li Y, Sleight AC, **Ross AG**, Li Y, Zhang X, Williams GM, Yu X, Tanner M, McManus DP. Human susceptibility to *Schistosoma japonicum* in China correlates with antibody isotypes to native antigens. *Trans R Soc Trop Med Hyg*. 2001 Jul-Aug;95(4):441-8.
 32. **Ross AG**, Li Y, Williams GM, Jiang Z, McManus DP. Dam worms. *Biologist (London)*. 2001 Jun;48(3):121-4.
 33. Guo JG, **Ross AG**, Lin DD, Williams GM, Chen HG, Li Y, Davis GM, Feng Z, McManus DP, Sleight AC. A baseline study on the importance of bovines for human *Schistosoma japonicum* infection around Poyang Lake, China. *Am J Trop Med Hyg*. 2001 Oct;65(4):272-8.
 34. Li YS, Li Y, Zhang X, Yu X, Peng X, **Ross AG**, McManus DP. Acquired Immunity and reinfection to *Schistosoma japonicum* IV. Levels of specific antibody isotype and reinfection nine months after treatment. *Chinese Journal Schistosomiasis Control*. 2001. 13 (1) 4-8 (in Chinese).

35. Yu DB, **Ross AG**, Williams GM, Li YS, McManus DP. Determinants of hepato- and splenomegaly in Hunan, China: cross-sectional survey data from areas endemic for schistosomiasis. *Ann Trop Med Parasitol*. 2001 Oct;95(7):707-13.
36. Li YS, Zhang X, Li Y, Sleight AC, **Ross AG**, Williams GM, Tanner M, McManus DP. Acquired Immunity and reinfection to *Schistosoma japonica* V. A prospective study on the susceptibility and resistance in humans to re-infections. *Chinese Journal Schistosomiasis Control* 13 (5) 273-275 (in Chinese).
37. **Ross AG**, Bartley PB, Sleight AC, Olds GR, Li Y, Williams GM, McManus DP. Schistosomiasis. *N Engl J Med*. 2002 Apr 18;346(16):1212-20.
38. Williams GM, Sleight AC, Li Y, Feng Z, Davis GM, Chen H, **Ross AG**, Bergquist R, McManus DP. Mathematical modelling of schistosomiasis japonica: comparison of control strategies in the People's Republic of China. *Acta Trop*. 2002 May;82(2):253-62.
39. Perry HB, **Ross AG**, Fernand F. Assessing the causes of under-five mortality in the Albert Schweitzer Hospital service area of rural Haiti. *Rev Panam Salud Publica*. 2005 Sep;18(3):178-86.
40. Shah SM, **Ross AG**, Chotani R, Arif AA, Neudorf C. Tuberculin reactivity among health care workers in nonhospital settings. *Am J Infect Control*. 2006 Aug;34(6):338-42.
41. Vickers D, **Ross AG**, Mainar-Jaime RC, Neudorf C, Shah S. Whole-cell and acellular pertussis vaccination programs and rates of pertussis among infants and young children. *CMAJ*. 2006 Nov 7;175(10):1213-7.
42. **Ross AG**, Vickers D, Olds GR, Shah SM, McManus DP. Katayama syndrome. *Lancet Infect Dis*. 2007 Mar;7(3):218-24
43. Zhang W, **Ross AG**, McManus DP. Mechanisms of immunity in hydatid disease: implications for vaccine development. *J Immunol*. 2008 Nov 15;181(10):6679-85.
44. McManus DP, Li Y, Gray DJ, **Ross AG**. Conquering 'snail fever': schistosomiasis and its control in China. *Expert Rev Anti Infect Ther*. 2009 May;7(4):473-85. doi: 10.1586/eri.09.17.
45. Gray DJ, Williams GM, Li Y, Chen H, Forsyth SJ, Li RS, Barnett AG, Guo J, **Ross AG**, Feng Z, McManus DP. A cluster-randomised intervention trial against *Schistosoma japonicum* in the Peoples' Republic of China: bovine and human transmission. *PLoS One*. 2009 Jun 12;4(6):e5900. doi: 10.1371/journal.pone.0005900.
46. McManus DP, Gray DJ, Li Y, Feng Z, Williams GM, Stewart D, Rey-Ladino J, **Ross AG**. Schistosomiasis in the People's Republic of China: the era of the Three Gorges Dam. *Clin Microbiol Rev*. 2010 Apr;23(2):442-66. doi: 10.1128/CMR.00044-09.
47. **Ross AG**, Hou XY, Chen SX, McManus DP, Li Y. A 36-year-old Chinese man with high fever, abdominal pain, watery diarrhea, and myalgia. *Schistosoma japonicum*. *Clin Infect Dis*. 2010 May 1;50(9):1256-7, 1322-4. doi: 10.1086/651600.
48. Premkumar K, **Ross AG**, Reeder BA, Lowe J, Troy C, Bolster C. Technology Enhanced Learning of Community Health in Undergraduate Medical Education. *Canadian Public Health Association Journal*. 2010. Mar-Apr;101(2):165-70.
49. Gray DJ, McManus DP, Li Y, Williams GM, Bergquist R, **Ross AG**. Schistosomiasis elimination: lessons from the past guide the future. *Lancet Infect Dis*. 2010 Oct;10(10):733-6. doi: 10.1016/S1473-3099(10)70099-2. Epub 2010 Aug 10.
50. Li Y, Chen D, **Ross AG**, Burke ML, Yu X, Li RS, Zhou J, McManus DP. Severe hepatosplenic schistosomiasis: clinicopathologic study of 102 cases undergoing splenectomy. *Hum Pathol*. 2011 Jan;42(1):111-9. doi: 10.1016/j.humphath.2010.05.020. Epub 2010 Oct 20.
51. Li Y, **Ross AG**, Hou X, Lou Z, McManus DP. Oriental schistosomiasis with neurological complications: case report. *Ann Clin Microbiol Antimicrob*. 2011 Feb 7;10:5. doi: 10.1186/1476-0711-10-5.
52. Gray DJ, **Ross AG**, Li YS, McManus DP. Diagnosis and management of schistosomiasis. *BMJ*. 2011 May 17;342:d2651. doi: 10.1136/bmj.d2651.
53. McManus DP, Gray DJ, **Ross AG**, Williams GM, He HB, Li YS. Schistosomiasis research in the dongting lake region and its impact on local and national treatment and control in China. *PLoS Negl Trop Dis*. 2011 Aug;5(8):e1053. doi: 10.1371/journal.pntd.0001053. Epub 2011 Aug 30.
54. Rey-Ladino J, **Ross AG**, Cripps AW, McManus DP, Quinn R. Natural products and the search for novel vaccine adjuvants. *Vaccine*. 2011 Sep 2;29(38):6464-71. doi: 10.1016/j.vaccine.2011.07.041. Epub 2011 Jul 23.

55. **Ross AG**, McManus DP, Farrar J, Hunstman RJ, Gray DJ, Li YS. Neuroschistosomiasis. *J Neurol*. 2012 Jan;259(1):22-32. doi: 10.1007/s00415-011-6133-7. Epub 2011 Jun 15.
56. Xu B, Gordon CA, Hu W, McManus DP, Chen HG, Gray DJ, Ju C, Zeng XJ, Gobert GN, Ge J, Lan WM, Xie SY, Jiang WS, **Ross AG**, Acosta LP, Olveda R, Feng Z. A novel procedure for precise quantification of *Schistosoma japonicum* eggs in bovine feces. *PLoS Negl Trop Dis*. 2012;6(11):e1885. doi: 10.1371/journal.pntd.0001885. Epub 2012 Nov 15.
57. Gordon CA, Acosta LP, Gray DJ, Olveda RM, Jarilla B, Gobert GN, **Ross AG**, McManus DP. High prevalence of *Schistosoma japonicum* infection in Carabao from Samar Province, the Philippines: implications for transmission and control. *PLoS Negl Trop Dis*. 2012;6(9):e1778. doi: 10.1371/journal.pntd.0001778. Epub 2012 Sep 20.
58. Yang YR, McManus DP, Gray DJ, Wang XL, Yang SK, **Ross AG**, Williams GM, Ellis MK. Evaluation of the tuberculosis programme in Ningxia Hui Autonomous region, the People's Republic of China: a retrospective case study. *BMC Public Health*. 2012 Dec 23;12:1110. doi: 10.1186/1471-2458-12-1110.
59. **Ross AG**, Olds GR, Cripps AW, Farrar JJ, McManus DP. Enteropathogens and chronic illness in returning travelers. *N Engl J Med*. 2013 May 9;368(19):1817-25. doi: 10.1056/NEJMra1207777.
60. **Ross AG**, Cripps AW (2013). Enteropathogens and chronic illness in returning travelers – Reply from the authors. *New England Journal of Medicine* 2013; Aug 22;369(8):784. doi: 10.1056/NEJMc1308293.
61. **Ross AG**, Ditangco RA, Belimac JG, Olveda RM, Mercado ES, Rogers GD, Cripps AW, Lam A, Crowe SM. HIV epidemic in men who have sex with men in Philippines. *Lancet Infect Dis*. 2013 Jun;13(6):472-3. doi: 10.1016/S1473-3099(13)70129-4.
62. **Ross AG**, Olveda RM, Acosta L, Harn DA, Chy D, Li Y, Gray DJ, Gordon CA, McManus DP, Williams GM. Road to the elimination of schistosomiasis from Asia: the journey is far from over. *Microbes Infect*. 2013 Nov;15(13):858-65. doi: 10.1016/j.micinf.2013.07.010. Epub 2013 Aug 23.
63. Olveda DU, Li Y, Olveda RM, Lam AK, Chau TN, Harn DA, Williams GM, Gray DJ, **Ross AG**. Bilharzia: Pathology, Diagnosis, Management and Control. *Trop Med Surg*. 2013 Aug 20;1(4). pii: 135.
64. Olveda DU, Li Y, Olveda RM, Lam AK, McManus DP, Chau TN, Harn DA, Williams GM, Gray DJ, **Ross AG**. Bilharzia in the Philippines: past, present, and future. *Int J Infect Dis*. 2014 Jan;18:52-6. doi: 10.1016/j.ijid.2013.09.011. Epub 2013 Oct 26.
65. Li YS, McManus DP, Lin DD, Williams GM, Harn DA, **Ross AG**, Feng Z, Gray DJ. The *Schistosoma japonicum* self-cure phenomenon in water buffaloes: potential impact on the control and elimination of schistosomiasis in China. *Int J Parasitol*. 2014 Mar;44(3-4):167-71. doi: 10.1016/j.ijpara.2013.10.007. Epub 2014 Jan 17.
66. **Ross AG**. Research that does not consider participants' health needs is unethical. *BMJ*. 2014 Feb 11;348:g1423. doi: 10.1136/bmj.g1423.
67. Papier K, Williams GM, Luceres-Catubig R, Ahmed F, Olveda RM, McManus DP, Chy D, Chau TN, Gray DJ, **Ross AG**. Childhood malnutrition and parasitic helminth interactions. *Clin Infect Dis*. 2014 Jul 15;59(2):234-43. doi: 10.1093/cid/ciu211. Epub 2014 Apr 4.
68. Olveda DU, Olveda RM, Montes CJ, Chy D, Abellera JM 3rd, Cuajunco D, Lam AK, McManus DP, Li Y, **Ross AG**. Clinical management of advanced schistosomiasis: a case of portal vein thrombosis-induced splenomegaly requiring surgery. *BMJ Case Rep*. 2014 Jun 17;2014. pii: bcr2014203897. doi: 10.1136/bcr-2014-203897.
69. Gray DJ, Li YS, Williams GM, Zhao ZY, Harn DA, Li SM, Ren MY, Feng Z, Guo FY, Guo JG, Zhou J, Dong YL, Li Y, **Ross AG**, McManus DP. A multi-component integrated approach for the elimination of schistosomiasis in the People's Republic of China: design and baseline results of a 4-year cluster-randomised intervention trial. *Int J Parasitol*. 2014 Aug;44(9):659-68. doi: 10.1016/j.ijpara.2014.05.005. Epub 2014 Jun 11.
70. Olveda DU, Olveda RM, Lam AK, Chau TN, Li Y, Gisparil AD 2nd, **Ross AG**. Utility of

Diagnostic Imaging in the Diagnosis and Management of Schistosomiasis. Clin Microbiol. 2014 Apr 15;3(2). pii: 142.

71. Rey-Ladino J, **Ross AG**, Cripps AW. Immunity, immunopathology, and human vaccine development against sexually transmitted *Chlamydia trachomatis*. Hum Vaccin Immunother. 2014;10(9):2664-73. doi: 10.4161/hv.29683.
72. McManus DP, Bieri FA, Li YS, Williams GM, Yuan LP, Henglin Y, Du ZW, Clements AC, Steinmann P, Raso G, Yap P, Magalhães RJ, Stewart D, **Ross AG**, Halton K, Zhou XN, Olveda RM, Tallo V, Gray DJ. Health education and the control of intestinal worm infections in China: a new vision. Parasit Vectors. 2014 Jul 24;7:344. doi: 10.1186/1756-3305-7-344.
73. Olveda DU, Olveda RM, McManus DP, Cai P, Chau TN, Lam AK, Li Y, Harn DA, Vinluan ML, **Ross AG**. The chronic enteropathogenic disease schistosomiasis. Int J Infect Dis. 2014 Nov;28:193-203. doi: 10.1016/j.ijid.2014.07.009. Epub 2014 Sep 20.
74. Inobaya MT, Olveda RM, Chau TN, Olveda DU, **Ross AG**. Prevention and control of schistosomiasis: a current perspective. Res Rep Trop Med. 2014 Oct 17;2014(5):65-75.
75. **Ross, A.G.** Prudent care of head trauma in the elderly: a case report. J Med Case Rep. 2014 Dec 20;8(1):448.
76. **Ross AG**, Olveda RM, Li Y. An audacious goal: the elimination of schistosomiasis in our lifetime through mass drug administration. Lancet. 2015 May 30;385(9983):2220-1. doi: 10.1016/S0140-6736(14)61417-3. Epub 2014 Nov 20.
77. Inobaya MT, Olveda RM, Tallo V, McManus DP, Williams GM, Harn DA, Li Y, Chau TN, Olveda DU, **Ross AG**. Schistosomiasis mass drug administration in the Philippines: lessons learnt and the global implications. Microbes Infect. 2015 Jan;17(1):6-15. doi: 10.1016/j.micinf.2014.10.006. Epub 2014 Oct 31.
78. **Ross AG**, Olveda RM, Yuesheng L. Are we ready for a global pandemic of Ebola virus? Int J Infect Dis. 2014 Nov;28:217-8. doi: 10.1016/j.ijid.2014.09.001. Epub 2014 Oct 18.
79. **Ross AG**, Olveda RM, Chy D, Olveda DU, Li Y, Harn DA, Gray DJ, McManus DP, Tallo V, Chau TN, Williams GM. Can mass drug administration lead to the sustainable control of schistosomiasis? J Infect Dis. 2015 Jan 15;211(2):283-9. doi: 10.1093/infdis/jiu416. Epub 2014 Jul 28
80. **Ross, A.G.**, YS Li. Reply to Wang and Liang. Journal of Infectious Diseases. 2014 Sep 9. pii: jiu507.
81. Gordon CA, Acosta LP, Gobert GN, Olveda RM, **Ross AG**, Williams GM, Gray DJ, Harn D, Li Y, McManus DP. Real-time PCR demonstrates high prevalence of *Schistosoma japonicum* in the Philippines: implications for surveillance and control. PLoS Negl Trop Dis. 2015 Jan 21;9(1):e0003483. doi: 10.1371/journal.pntd.0003483. eCollection 2015.
82. Gordon CA, Acosta LP, Gobert GN, Jiz M, Olveda RM, **Ross AG**, Gray DJ, Williams GM, Harn D, Li Y, McManus DP. High prevalence of *Schistosoma japonicum* and *Fasciola gigantica* in bovines from Northern Samar, the Philippines. PLoS Negl Trop Dis. 2015 Feb 2;9(2):e0003108. doi: 10.1371/journal.pntd.0003108. eCollection 2015.
83. Gordon CA, McManus DP, Acosta LP, Olveda RM, Williams GM, **Ross AG**, Gray DJ, Gobert GN. Multiplex real-time PCR monitoring of intestinal helminths in humans reveals widespread polyparasitism in Northern Samar, the Philippines. Int J Parasitol. 2015 Jun;45(7):477-83. doi: 10.1016/j.ijpara.2015.02.011. Epub 2015 Apr 6.
84. **Ross AG**, Ditangco RA, Belimac JG, Olveda RM, Mercado ES, Chau TN, Crowe SM. The dire sexual health crisis among MSM in the Philippines: an exploding HIV epidemic in the absence of essential health services. Int J Infect Dis. 2015 Aug;37:6-8. doi: 10.1016/j.ijid.2015.06.001. Epub 2015 Jun 10.
85. **Ross AG**, Crowe SM, Tyndall MW. Planning for the Next Global Pandemic. Int J Infect Dis. 2015 Sep;38:89-94. doi: 10.1016/j.ijid.2015.07.016. Epub 2015 Aug 4.
86. **Ross AG**. Richer countries should help poorer ones plan for the next pandemic. BMJ. 2015 Nov

- 17;351:h6156. doi: 10.1136/bmj.h6156.
87. Vinluan ML, Olveda RM, Olveda DU, Chy D, **Ross AG**. Access to essential paediatric eye surgery in the developing world: a case of congenital cataracts left untreated. *BMJ Case Rep*. 2015 Apr 22;2015. pii: bcr2014208197. doi: 10.1136/bcr-2014-208197.
88. Vinluan ML, Olveda RM, Ortanez CK, Abellera M, Olveda DU, Chy DC, **Ross AG**. Access to essential paediatric surgery in the developing world: a case of imperforate anus with rectovaginal and rectocutaneous fistulas left untreated. *BMJ Case Rep*. 2015 Oct 21;2015. pii: bcr2015210084. doi: 10.1136/bcr-2015-210084.
89. Olveda RM, Tallo V, Olveda DU, Inobaya MT, Chau TN, **Ross AG**. National survey data for zoonotic schistosomiasis in the Philippines grossly underestimates the true burden of disease within endemic zones: implications for future control. *Int J Infect Dis*. 2016 Apr;45:13-7. doi: 10.1016/j.ijid.2016.01.011. Epub 2016 Jan 25
90. Olveda DU, McManus DP, **Ross AG**. Mass drug administration and the global control of schistosomiasis: successes, limitations and clinical outcomes. *Curr Opin Infect Dis*. 2016 Aug 31.
91. **Ross AG**, Olveda RM, McManus DP, Harn DA, Chy D, Li Y, Tallo V, Ng SK. Risk factors for human helminthiasis in rural Philippines. *Int J Infect Dis*. 2017 Jan; 54:150-155. doi: 10.1016/j.ijid.2016.09.025.
92. Olveda DU, Inobaya M, McManus DP, Olveda RM, Vinluan ML, Ng SK, Harn DA, Li Y, Guevarra JR, Lam AK, **Ross AG**. Biennial versus annual treatment for schistosomiasis and its impact on liver morbidity. *Int J Infect Dis*. 2017 Jan;54:145-149. doi: 10.1016/j.ijid.2016.10.001.
93. Olveda DU, Inobaya M, Olveda RM, Vinluan ML, Ng SK, Weerakoon K, McManus DP, Ramm GA, Harn DA, Li Y, Lam AK, Guevarra JR, **Ross AG**. Diagnosing schistosomiasis-induced liver morbidity: implications for global control. *Int J Infect Dis*. 2017 Jan;54:138-144. doi: 10.1016/j.ijid.2016.10.024.
94. **Ross AG**, Chau TN, Inobaya MT, Olveda RM, Li YS, Harn DA. A new global strategy for the elimination of schistosomiasis. *Int J Infect Dis*. 2017 Jan;54:130-137. doi: 10.1016/j.ijid.2016.09.023.
95. Yu W, **Ross AG**, Olveda RM, Harn DA, Li YS, Chy D, Ng SK, Williams. Risk of human helminthiasis: geospatial distribution and targeted control efforts. *Int J Infect Dis*. 2017 Feb 14. pii: S1201-9712(16)31656-3. doi: 10.1016/j.ijid.2016.12.013.
96. Choong M, Chy D, Guevarra JR, **Ross AG**. The clinical management of electrical burns in the developing world: a case of electrical burn injury left untreated leading to amputation. *BMJ Case Rep*. 2017 Feb 15;2017. pii: bcr2016218188. doi: 10.1136/bcr-2016-218188.
97. **Ross AG**. Vaccination alone will not halt the next global pandemic. *BMJ* 2017;357:j2864; doi: <https://doi.org/10.1136/bmj.j2864>
98. **Ross AG**, Papier K, Luceres-Catubig R, Chau TN, Inobaya MT, Ng S. Poverty, dietary intake intestinal parasites and nutritional status among school-age children in the rural Philippines. *Trop. Med. Infect. Dis*. 2017, 2, 49; doi:10.3390/tropicalmed2040049
99. Cai P, Weerakoon KG, Mu Y, Olveda DU, Piao X, Liu S, Olveda RM, Chen Q, **Ross AG**, McManus DP. A Parallel Comparison of Antigen Candidates for Development of an Optimized Serological Diagnosis of Schistosomiasis Japonica in the Philippines. *EBioMedicine*. 2017 Sep 18. pii: S2352-3964(17)30364-X. doi: 10.1016/j.ebiom.2017.09.011.
100. Weerakoon KG, Gordon CA, Williams GM, Cai P, Gobert GN,4, Olveda RM, **Ross AG**, Olveda DU, McManus DP. Droplet digital PCR diagnosis of human schistosomiasis japonica: parasite cell-free DNA detection in diverse clinical samples. *J Infect Dis*. 2017 Sep 27. doi: 10.1093/infdis/jix521.
101. Inobaya MT, Chau TN, Ng SK, MacDougall C, Olveda RM, Tallo V, Landicho JM,

- Malacad CM, Aligato MF, Guevarra JR, **Ross AG**. Mass drug administration and the sustainable control of schistosomiasis: community health workers are vital for global elimination efforts. *Int J Infect Dis*. 2018 Jan;66:14-21. doi: 10.1016/j.ijid.2017.10.023. Epub 2017 Nov 8.
102. He P, Gordon CA, Williams GM, Li Y, Wang Y, Hu J, Gray DJ, **Ross AG**, Harn D, McManus DP. Real-time PCR diagnosis of *Schistosoma japonicum* in low transmission areas of China. *Infect Dis Poverty*. 2018 Jan 31;7(1):8. doi: 10.1186/s40249-018-0390-y.
103. Inobaya MT, Chau TN, Ng SK, MacDougall C, Olveda RM, Tallo V, Landicho JM, Malacad CM, Aligato MF, Guevarra JR, **Ross AG**. Mass drug administration and the sustainable control of schistosomiasis: a comprehensive evaluation of patient compliance in the Philippines. *Clinical Microbiology and Infection. Parasit Vectors*. 2018 Jul 31;11(1):441. doi: 10.1186/s13071018-3022-2. 104.
104. Weerakoon KG, Gordon CA, Williams GM, Cai P, Gobert GN, Olveda RM, **Ross AG**, Olveda DU, McManus DP. Co-parasitism of intestinal protozoa and *Schistosoma japonicum* in a rural community in the Philippines. *Infect Dis Poverty*. 2018 Dec 10;7(1):121. doi: 10.1186/s40249-018-0504-6. 105.
105. Cai P, Mu Y, Olveda RM, **Ross AG**, Olveda DU, McManus DP. Circulating miRNAs as footprints for liver fibrosis grading in schistosomiasis. *EBioMedicine*. 2018 Nov;37:334-343. doi: 10.1016/j.ebiom.2018.10.048. Epub 2018 Oct 25.
106. Cai P, Weerakoon KG, Mu Y, Olveda RM, **Ross AG**, Olveda DU, McManus DP. Comparison of Kato Katz, antibody-based ELISA and droplet digital PCR diagnosis of schistosomiasis japonica: Lessons learnt from a setting of low infection intensity. *PLoS Negl Trop Dis*. 2019 Mar 4;13(3):e0007228. doi: 10.1371/journal.pntd.0007228. eCollection 2019 Mar.
107. Hu F, Ge J, Lv SB, Li YF, Li ZJ, Yuan M, Chen Z, Liu YM, Li YS, **Ross AG**, Lin DD. Distribution pattern of the snail intermediate host of schistosomiasis japonica in the Poyang Lake region of China. *Infect Dis Poverty*. 2019 Mar 29;8(1):23. doi: 10.1186/s40249-019-0534-8.
108. Khan SI, Md Masud R, Crowe SM, Rahman M, Hellard M, Sarker MS, Chowdhury EI, Rana AM, Sacks-Davis R, Banu S, **Ross AG**. People who inject drugs in Bangladesh - the untold burden! *Int J Infect Dis*. 2019 Mar 27. pii: S1201-9712(19)30138-9. doi: 10.1016/j.ijid.2019.03.009.
109. Williams GM, Li YS, Gray DJ, Zhao ZY, Harn DA, Shollenberger LM, Li SM, Yu X, Feng Z, Guo JG, Zhou J, Dong YL, Li Y, Guo B, Driguez P, Harvie M, You H, **Ross AG**, McManus DP. Field Testing Integrated Interventions for Schistosomiasis Elimination in the People's Republic of China: Outcomes of a Multi-factorial Cluster-Randomized Controlled Trial. *Front. Immunol.*, 03 April 2019 | <https://doi.org/10.3389/fimmu.2019.00645>.
110. **Ross AG**, K Zaman, J Clemens. Health Concerns in Urban Slums: A glimpse of things to come? *JAMA*. Published online May 3, 2019. doi:10.1001/jama.2019.3774.
111. Rimi N, Hassan M, Chowdhury S, Rahman M, Sultana R, Biswas P, Debnath N, Islam S, **Ross AG**. A Decade of Avian Influenza in Bangladesh: Where Are We Now? *Trop Med Infect Dis*. 2019 Sep 11;4(3). pii: E119. doi: 10.3390/tropicalmed4030119. Review.
112. Mu Y, Cai P, Olveda RM, **Ross AG**, Olveda DU, McManus DP. Parasite-derived circulating microRNAs as biomarkers for the detection of human *Schistosoma japonicum* infection. *Parasitology*. 2019 Dec 16:1-21. doi: 10.1017/S0031182019001690.
113. **Ross AG**, Rahman M, Alam M, Zaman K, Qadri F. Can we WaSH infectious diseases out of slums? *Int J Infect Dis*. 2020 Jan 18;92:130-132. doi: 10.1016/j.ijid.2020.01.014.
114. Gordon CA, Krause L, McManus DP, Morrison M, Weerakoon KG, Connor MC, Olveda RM, **Ross AG**, Gobert GN. Helminths, polyparasitism, and the gut microbiome in the Philippines.
115. Khan SI, Khan MNM, Irfan SD, Rumayan Hasan AM, **Ross AG**, Horng LM, Lachowsky N, Knudson G, Azim T. The Effects of Methamphetamine Use on the Sexual Lives of Gender and Sexually Diverse People in Dhaka, Bangladesh: A Qualitative Study. *Arch Sex Behav*. 2020 Apr 1. doi: 10.1007/s10508-020-01674-2.

116. Cai P, Mu Y, Olveda RM, **Ross AG**, Olveda DU, McManus DP. Serum Exosomal miRNAs for Grading Hepatic Fibrosis Due to Schistosomiasis. *Int J Mol Sci*. 2020 May 18;21(10):E3560. doi: 10.3390/ijms21103560.
117. Poise AO, McManus DP, Weerakoon KG, Olveda R, **Ross AG**, Rogers MJ, Gordon CA. Molecular identification of *Ancylostoma ceylanicum* in the Philippines. *Parasitology*. 2020 Aug 24;1-16. doi: 10.1017/S0031182020001547.
118. Aziz A, Raqib R, Khan W, Rahman M, Haque R, Alam M, Zaman K, **Ross A G**. Integrated control of COVID-19 in resource poor countries. *Int J Infect Dis*. 2020 Sep 8:S1201-9712(20)30724-4. doi: 10.1016/j.ijid.2020.09.009.
119. Ahmed S, Karim MM, **Ross AG**, Hossain MS, Clemens JD, Sumiya MK, Phru CS, Rahman M, Zaman K, Somani J, Yasmin R, Hasnat MA, Kabir A, Aziz AB, Khan WA. A five-day course of ivermectin for the treatment of COVID-19 may reduce the duration of illness. *Int J Infect Dis*. 2020 Dec 2;103:214-216. doi: 10.1016/j.ijid.2020.11.191.
120. Banu S, Haque F, Ahmed S, Rahman M, Khatun K, Alam S, Sultana S, Paul K, Kabir S, Rahman S, **Ross AG**, Clemens JD, Creswell J. Social enterprise model (SEM) for private sector tuberculosis screening and care in Bangladesh. *PLoS One*. 2020 Nov 23;15(11):e0241437. doi: 10.1371/journal.pone.0241437. eCollection 2020.
121. Islam SKS, Rumi TB, Kabir SML, van der Zanden AGM, Kapur V, Rahman AKMA, Ward MP, Bakker D, **Ross AG**, Rahim Z. Bovine tuberculosis prevalence and risk factors in selected districts of Bangladesh. *PLoS One*. 2020 Nov 10;15(11):e0241717. doi: 10.1371/journal.pone.0241717. eCollection 2020.
122. Sarwar G, Khan M, Irfan S, Gourab G; Rahman M, **Ross A G**, Khan S. Safety in oral sex is a myth among gender and sexually diverse people: Challenges and way forward. *Archives of Sexual Behavior* (under review).
123. **Ross AG**, Harn D, Olveda R, Chy D, Inobaya M, Guevarra J, Li Y, Shollenberger L, Gray D, McManus D, Williams G. First vaccine for schistosomiasis *NEJM* (under review).

Book Chapters (7):

1. Qiang L., Z. Xiang, C. Jackel-Cram, **A.G. Ross**, Lorne A. Babiuk (2008). Innate immune responses to viral infections: A story of Hepatitis C virus and host chemokines. *Recent Developments in Immunology*, 2008: 299-313.
2. Olveda DU, **Ross AG**. 2016. Chronic Schistosomiasis. In: Jamieson BGM, editor. *Schistosoma: Biology, Pathology and Control*. Boca Raton, Florida: CRC Press (Taylor and Francis group). A Science Publishers Book. pp.
3. **Ross AG**, Li YS. 2016. Life Cycle of Schistosomiasis. In: Jamieson BGM, editor. *Schistosoma: Biology, Pathology and Control*. Boca Raton, Florida: CRC Press (Taylor and Francis group). A Science Publishers Book. pp.
4. Li YS, **Ross AG**. 2016. Acute Schistosomiasis. In: Jamieson BGM, editor. *Schistosoma: Biology, Pathology and Control*. Boca Raton, Florida: CRC Press (Taylor and Francis group). A Science Publishers Book. pp.
5. **Ross AG**, Huntsman RJ. 2016. Neuroschistosomiasis: pathogenesis and clinical manifestations. In: Jamieson BGM, editor. *Schistosoma: Biology, Pathology and Control*. Boca Raton, Florida: CRC Press (Taylor and Francis group). A Science Publishers Book. pp.
6. Olveda RM, **Ross AG**. 2016. Chemotherapy against schistosomiasis. In: Jamieson BGM, editor. *Schistosoma: Biology, Pathology and Control*. Boca Raton, Florida: CRC Press (Taylor and Francis group). A Science Publishers Book. pp.
7. **Ross AG**, Olveda RM, Ly YS. 2016. Future directions: road to elimination. In: Jamieson BGM, editor. *Schistosoma: Biology, Pathology and Control*. Boca Raton, Florida: CRC Press (Taylor and Francis group). A Science Publishers Book. pp.

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ALEXANDER "SASHA" M. SIDORKIN

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EXPERIENCE

- 02/2017-Present **Dean** and Professor, College of Education, California State University Sacramento | \$14.5 million budget | 90 FT faculty, ~150+ adjunct faculty, 28 staff.
- Lead a successful transition to online operations in Spring 2020, extended to 2020/21.
 - Rebuilt enrollments in master's programs.
 - Helped develop Online Curriculum and Instruction MA, Maker Education Certificate, online MA in Instructional Design, five MAT programs.
 - Initiated a partnership with school districts to improve teacher retention.
 - Developed policies: Tenure and promotion, College policy, operations manual.
 - Automated office procedures by building web-based tools and workflows.
 - Increased revenues from self-support programming.
 - Participated in all stages of the fundraising cycle, raised on average ~\$100,000 a year.
- 07/2013-01/2017 **Dean**, Graduate School of Education, and **Director**, Center for the Study of Innovations in Education, Institute of Education, National Research University – Higher School of Economics | \$8 million budget | ~50 faculty, 14 staff.
- Started a PhD programs, helped develop national standards for doctoral education.
 - Founded a research center for the study of innovation in education.
 - Developed key academic policies for the School.
 - Represented Russian Federation at OECD's Commission for Education Research and Innovation.
 - Assisted in securing a corporate gift of 1.3 million from Sberbank.
- 07/2010-06/2013 **Dean**, Feinstein School of Education and Human Development, Rhode Island College | \$10 million budget | ~100 FT faculty, ~80 adjunct faculty, 12 staff.
- Youth Development BA, a new program; initiated revisions of multiple programs.
 - Developed self-support programming.
 - Improved the School's public image through state-wide coalitions and networks.
 - Lead a successful NCATE accreditation.
- 07/2006-06/2010 **Director**, School of Teacher Education, University of Northern Colorado.
- Developed policies: School Charter, Tenure and Promotion policy.
 - Automated office procedures.
 - Developed new programs: Secondary MAT, Hybrid Ph. D., Early Childhood Education BA.
 - Doubled self-support revenues by establishing several new remote sites, actively marketing programs.
 - Lead a successful NCATE accreditation.
- 05/2004-06/2006 **Division Chair**, Educational Foundations and Inquiry, Bowling Green State University.
- 08/1999-05/2004 **Assistant, Associate** Professor, Educational Foundations and Inquiry, Bowling Green State University.
- 09/1996-08/1999 **Research Associate**, University of Washington .
- 09/1997-09/1999 **Postdoctoral fellow**, National Academy of Education/Spencer Foundation.
- 08/1985-08/1991 **Assistant Professor**, Novosibirsk State Pedagogical University, Russia.
- 09/1983-05/1990 **Teacher** of History, Social Studies, Psychology and Public Speaking, Board member. Novosibirsk Public Schools; Karakovsky Laboratory School, Moscow, Russia.

SERVICE

2019-2020	Chair , Executive Committee, CSU System-wide organization of Deans of Education.
2017-present	Chair , Social Impact Committee, Salvation Army Sacramento Advisory Board.
2014-present	Editor , <i>Russian Education and Society</i> , Taylor and Francis.
2013-2016	Founder and Jury Member , <i>National Competition "Innovations in Education,"</i> Russia.
2012-2013	Member , <i>Education and Arts Committee</i> established by Mayor-Elect of Central Falls, RI.
2012-2013	Member , <i>Providence Afterschool Alliance</i> Board of Directors.
2011-2013	Editor , <i>Syllabus</i> , a peer-refereed journal of college syllabi.
2010-2013	Member , <i>Ready to Learn Providence</i> Governing Board.
2005-2008	Executive Director , <i>Philosophy of Education Society</i> .
2004-2006	Senator , Faculty Senate, Bowling Green State University.
2001-2004	Chair , School of Leadership and Policy Studies Curriculum Committee.
2003-2004	President , <i>Ohio Valley Philosophy of Education Society</i> .

EDUCATION

1996	Ph. D. in Education , University of Washington.
1992	M. A. in Peace studies , University of Notre Dame.
1991	Ph. D. in Education (Кандидат педагогических наук) Research Institute for Theory and History of Education, Moscow, Russia.
1985	Specialist (Диплом), double major Teacher of History/Government and Youth Development , Novosibirsk State Teachers University, Novosibirsk, Russia.

RECOGNITION

2014	Institute of Education, HSE University, <i>The Pioneer Award</i> , HSE University Russia.
2011	Inspiring Minds, <i>Innovation in Education Award</i> , RI.
2009	University of Northern Colorado, <i>Excellence in Academic Leadership Award</i> .
2006	BGSU, <i>Undergraduate Student Government's Faculty Excellence Award</i> .
1997	National Academy of Education/Spencer Foundation, <i>Postdoctoral Fellowship</i> .
1993-1995	NAFSA/Association of International Educators <i>Scholarship</i> .
1991-1992	Institute for International Peace Studies, <i>International Scholarship</i> .
1991	Znaniye National Society <i>National Award for the Best Popular Book of the Year</i> .
1987	The Institute for Educational Research, Moscow, <i>Junior Scholar of the Year Award</i> .

LANGUAGES

- English and Russian – fluent speaking and writing
- Spanish – beginner
- German – reading with dictionary

SELECTED GRANTS

*Provided leadership and support to many more grant applications; the list below includes only those where I was officially listed as the PI.

- 2016, \$18,000,000. *Analytical support of identification and diffusion of the most promising innovations in Russian education*, Federal Ministry of Education and Science.

- 2014. \$ 3,000,000. *Modules in the Research Master's Program in Education*, Federal sub-grant by the Russian Ministry of Education and Science.
- 2012. \$50,000. *Common Core Standards and College Preparedness in Rhode Island*, Rhode Island Office of Higher Education.
- 2007. \$160,000. *Reading in the Social Studies Project: Teaching Reading in Civics, Economics, Geography and History* grant.
- 2005. \$36,000. *Civics Mosaic*, Regional coordinator for the State of Ohio and Toledo region.
- 2005. \$4,800. *Improving Literacy through Service Learning*, Partnerships for Community Actions Grant.
- 2004. \$37,000. *Civics Mosaic*, Civic Education Exchange Program Regional Coordinator.
- 2002. \$25,000. *Ohio Learning Network Implementation Grant*.
- 2002. \$12,000. *Ohio Learning Network Readiness Grant*.
- 2002. \$7,000. *Undoing the Digital Divide: Infusing Technology in a Social Foundations of Education Course*, PICT Project Grant.
- 2001. \$6,000. *Manifesto of Relational Pedagogy*, National Academy of Education Collaborative Project Grant.
- 2001. \$14,190. *Pedagogy of Relation: Mutuality, Authority, And Polyphony*, Spencer Foundation Small Research Grant.
- 2001. \$10,000. *Using Web Technology to Overcome Fragmentation of a Multi-Sectioned Course*, Bowling Green State University Tech Grant.
- 1999. \$6,000. *Progressive Prehistory of Soviet Education*, National Academy of Education Collaborative Project Grant.
- 1997. \$40,000. *Monologism in Education*, National Academy of Education/Spencer Foundation Postdoctoral Fellowship.

SCHOLARSHIP

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BOOKS AND EDITED VOLUMES

1. Sidorkin, A. M. and Warford, M. K., Eds. *Reforms and Innovation in Education*. Springer, Cham, 2017.
2. Sidorkin, A. M. *Labor of Learning: Market and the Next Generation of Educational Reform*. Rotterdam: Sense Publishers, 2009.
3. Bingham, C. W., and Sidorkin, A. M., Eds. *No Education without Relation*. New York: Peter Lang, 2004.
4. Sidorkin, A. M. *Learning Relations: Impure Education, Deschooled Schools, and Dialogue with Evil*. New York: Peter Lang, 2002.
5. Sidorkin, A. M. *Beyond Discourse: Education, the Self and Dialogue*. Buffalo: SUNY Press, 1999.
6. Сидоркин, А. М. *Парад предрассудков* [The Prejudices and Superstitions Parade]. Moscow: Znanie, 1992.
7. Сидоркин, А. М. *Пособие для начинающих Робеспьеров* [A Beginning Robespierre's Guide]. Moscow: Znanie, 1990.
8. Сидоркин, А. М. *Методология системного подхода в педагогике* [Methodology of the Systems Approach in Educational Theory], Monograph, Moscow: Research Institute for Theory and History of Education, 1989.

BOOK CHAPTERS

1. Sidorkin, A. M. "Human Capital and Innovations in Education. " In *Reforms and Innovation in Education*, pp. 127-139. Springer, Cham, 2017.
2. Sidorkin, A. M. "The Emancipation of Children. " In *Schools in Transition*, pp. 289-301. SensePublishers, Rotterdam, 2017.
3. Sidorkin, A. M. "On the essence of education. " In *Making Sense of Education*, pp. 93-99. Springer, Dordrecht, 2012.
4. Sidorkin, Alexander. "The gift and dialogue. " *Dialogiste prespektiver: nar vi er forskjellige*: Oslo: Universitets forlaget, 2009.
5. Sidorkin, A. M. "Carnival and Dialogue." In *Dialogue as a means of collective communication*, pp. 277-288. Springer, Boston, MA, 2005.
6. Sidorkin, A. M. "Doing and talking. " In *Dialogue as a means of collective communication*, pp. 241-253. Springer, Boston, MA, 2005.
7. Sidorkin, A. M. "Relations Are Rational: Toward an Economic Anthropology of Schooling," in *No Education Without Relation*, Bingham, Charles Wayne, and Alexander M. Sidorkin, eds., New York: Peter Lang, 2004.
8. Sidorkin, A. M. "A Case for a Pedagogy of Relation," in *No Education Without Relation*, Bingham, Charles Wayne, and Alexander M. Sidorkin, eds., New York: Peter Lang, 2004.

PEER-REFEREED PAPERS

1. Sidorkin A.M. "Disruptive Innovation and the Relational Novelty." *Educational Theory*, forthcoming.
2. Sidorkin A. M. "Baumol's Cost Disease and the Trinitarian Pedagogy. " *Studies in Philosophy and Education* 38 no. 6 (2019): 591-600.
3. Moe, M., and A. M. Sidorkin. "The Polyphonic Embodied Self and Educational Organization: A Case of Theory Transplantation. " *Interchange* (2018): 1-13.
4. Saur, E., and A. M. Sidorkin. "Disability, Dialogue, and the Posthuman. " *Studies in Philosophy and Education* 37, no. 6 (2018): 567-578.
5. Sidorkin, A. M. "There's more to education than equality of opportunity" *Philosophy of Education Archive* (2018): 239-242.
6. Sidorkin, A. M. "The Paranoid Mind and Transcendence," *Philosophy and Education Archive* (2018), forthcoming.
7. Sidorkin, A. M. "Cyborgs forever. " *Philosophy of Education Archive* (2017): 101-106.
8. Sidorkin, A. M. "Education for Jobless Society. " *Studies in Philosophy and Education* 36, no. 1 (2017): 7-20.
9. Sidorkin, A. M. "Campbell's Law and the Ethics of Immensurability. " *Studies in Philosophy and Education* 35, no. 4 (2016): 321-332.
10. Sidorkin, A. M. "Idolaters, Iconoclasts, and Iconophiles: The Productive Ideal and Philosophy of Education. " *Philosophy of Education Archive* (2014): 302-310.
11. Сидоркин А. М., "Прагматический либерализм и модернизация воспитания" [The Pragmatic Liberalism and the Modernization of Vospitaniye], *Вопросы Образования* 2, 2014, 279-298.
12. Сидоркин А. М., "Профессиональная подготовка учителей в США: уроки для России" [Teacher training in the US: Lessons for Russia], *Вопросы Образования* 1, 2013.
13. Sidorkin, A. M. "The Russian Method. " *Other Education* 1, no. 1 (2012): 61-78.
14. Sidorkin, A. M. "Mad hatters, jackbooted managers, and the massification of higher education. " *Educational Theory* 62, no. 4 (2012): 487-500.
15. Sidorkin, A. M. "The institution and the virtue. " *Philosophy of Education Archive* (2012): 439-441.

16. Sidorkin, A. M. "Are schools improvable? A rumination on positionality. " *Philosophy of Education Archive* (2010): 278-285.
17. Sidorkin, A. M. "On the Essence of Education" *Studies in Philosophy and Education* 30/5 (2011): 521-527.
18. Sidorkin, A. M. "Doomed to Act: Why Postmodern Education May Be Impossible, Not Just (Im) possible. " *Philosophy of Education Archive* (2011): 280-282.
19. Sidorkin, A. M. "John Dewey: a case of educational utopianism. " *Philosophy of Education Archive* (2010): 191-199.
20. Sidorkin, A. M. "Compliance without Paternalism. " *Philosophy of Education Archive* (2008): 78-80.
21. Sidorkin, A. M. "What Do We Want Them to Want to Do? " *Proceedings of the 11th Biennial Conference Education and Multicultural Education*, 2008.
22. Sidorkin, A. M. "Is schooling a consumer good? A case against school choice, but not the one you had in mind. " *Philosophy of Education Archive* (2007): 75-83.
23. Sidorkin, A. M. "Human Capital and Labor of Learning: A Case of Mistaken Identity," *Educational Theory*, 57/2, 2007, 159-170.
24. Sidorkin, A. M. "The New Slavery, or Chrysalization of Class", *Philosophy of Education Archive* (2006): 417-425.
25. Sidorkin, A. M. "The Student Error," *Philosophy of Education Archive* (2005): 137-145.
26. Sidorkin, A. M. "Chayanov's Rule and School Reform. " *Philosophy of Education Archive* (2005): 67-76.
27. Sidorkin, A. M. "In the event of learning: Alienation and participative thinking in education. " *Educational Theory* 54, no. 3 (2004): 251-262.
28. Sidorkin, Alexander. "Panopticon of a Second Kind: Self-Reforming during the Era of Excellence. " *Journal of Thought* 39, no. 2 (2004): 17-33.
29. Fischer, John M., Lynne Hamer, Judith Zimmerman, Alexander Sidorkin, Art Samel, Lucy Long, and Julie McArthur. "The unlikely faces of professional development in urban schools: Preparing at-risk students and colleges for one another. " *educational HORIZONS* 82, no. 3 (2004): 203-212.
30. Sidorkin, A. M. "Student labor and evolution of education. " *World Futures* 60, no. 3 (2004): 183-193.
31. Sidorkin, Alexander. "Cold Calling and the Wonderful World of Relations. " *Philosophy of Education Archive* (2003): 204-207.
32. Sidorkin, Alexander. "Lyotard and Bakhtin: Engaged diversity in education. " *Interchange* 33, no. 1 (2002): 85-97.
33. Bingham, Charles, and Alexander M. Sidorkin. "Aesthetics and the paradox of educational relation. " *Journal of philosophy of education* 35, no. 1 (2000): 21-30.
34. Sidorkin, A. M. "The labor of learning. " *Educational Theory* 51, no. 1 (2001): 91-107.
35. Sidorkin, A. M. "Authoritarianism and Democracy in Soviet Schools: A Tale of John Dewey's Ideas and the Woman Who Brought down the Berlin Wall," *East/West Education* 19, 1998-2000, 121-130.
36. Sidorkin, A. M. "Toward a Pedagogy of Relation," *Philosophical Studies in Education* 32, 2000, 9-14.
37. Sidorkin, A. M. "Dialogue with Evil. " *Journal of Thought* 34, no. 3 (1999): 9-19.
38. Sidorkin, A. M. "The fine art of sitting on two stools: Multicultural education between postmodernism and critical theory. " *Studies in Philosophy and Education* 18, no. 3 (1999): 143-156.
39. Sidorkin, A. M. "Alas, Poor Hamlet – or Identity Crisis for Dummies," *Philosophy of Education Archive* 1998: 269-71.
40. Sidorkin, A. M. "Redefinition of Plurality: On the Value of Double Messages. " *Education and Society* 16, no. 1 (1998): 99-104.
41. Sidorkin, A. M. "Authenticity-Dialogicality-Recognition: An Improbable Journey," *Philosophical Studies in Education* (1997): 83-90.

42. Sidorkin, A. M. "Carnival and domination: Pedagogies of neither care nor justice. " *Educational Theory* 47, no. 2 (1997): 229-23.
43. Sidorkin, A. M. "The Glass Bead Game. " *Philosophy of Education Archive* (1996): 315-317.
44. Sidorkin, A. M. "The Pedagogy of the Interhuman," *Philosophy of Education Archive* (1995): 412-419.
45. Sidorkin A. M. "The Communard Movement in Russia," *East-West Education*, 16/2 (Fall 1995): 148-59.

BOOK REVIEWS

1. Sidorkin, A. M. "Review of *Journey into Dialogic Pedagogy* (Eugene Matusov)," *Power and Education* 2/1, 2010: 109-111.
2. Sidorkin, A. M. "Schools of Recognition: Identity Politics and Classroom Practices," Review of Charles Bingham, *Schools of Recognition. Educational Studies* 34/1, Spring 2003: 102-105.
3. Sidorkin, A. M. "Democracy, education, and antipodes. " Review of *Creating and Managing the Democratic School* by J. Chapman, I. Froumin, and D. Aspin, Eds., *East-West Education*, Volume 17, Spring and Fall 1996, Numbers 1 and 2: 135-38.

EDITOR REVIEWED PAPERS

1. Sidorkin, Alexander. "Educating for a jobless society". *UNESCO Futures of Education Ideas LAB*. 16 November 2020.
2. Сидоркин, А.М. «Открытие нового мира [The Discovery of a New World]», Директор Школы, 8/2020, 61-67.
3. Сидоркин, А. М. "Революция данных [The Data Revolution]," *Учительская газета*, №26 от 30 июня 2014 года.
4. Sidorkin, A. M., Artem M. Kulakov "The problem of the Invisible in Education," *Journal of Siberian Federal University. Humanities & Social Sciences* 11 (2015 8) 2632-2637.
5. Sidorkin, A. M. "University Ratings: Imperfect but Indispensable," *Higher Education in Russia and Beyond*, 04 2015: 8-10.
6. Сидоркин, А. М. «Зачем России «Орлёнок»? [Why does Russia need Orlyonok?], *Ориентир*, 2015. № 1(11): 19-22.
7. Сидоркин, А. М. «Общественно-педагогическая практика в подготовке учителей [Service learning in teacher preparation]», *Психологическая наука и образование*. 2014. Т. 19. № 3. С. 74-77.
8. Сидоркин, А. М. «Социальное воспитание в гонке образований [Social education in the global education race]», *Сибирский педагогический журнал*, 2013, Т. 2, 16-20.
9. Sidorkin, A. M. "Syllabus, the genre. " *Syllabus* 1, no. 1 (2012).
10. "Response to Frank Margonis' Review of *Labor of Learning: Market and the Next Generation of Educational Reform*," *Studies in Philosophy and Education* 29/6, 2010: 577-578.
11. Сидоркин, А. М. "Феномен Листпеда с точки зрения дискретности," *Магия Листпеда: Педагогические принципы адапционного сбора студентов [Listped magic: The educational foundation of the adaptive retreat for freshmen]*, N. P. Anijnikееva, T. A. Romm eds., Novosibirsk, NSPU Publishing, 2010: 34 - 38.
12. Сидоркин, А. М. "Как перевести непереваемое: российская традиция воспитания и перспективы глобализации образования [Translating the untranslatable: The Russian character education tradition and perspectives of globalization]," *Воспитание: традиции и перспективы [Traditions and perspectives of character education]*. Proceedings of the Fifth Siberian Education Seminar, Novosibirsk, Russia, March 17 - 19 2010): Volume 1. Novosibirsk, NSPU Publishing, 2010: 24 - 26.
13. Sidorkin A. M. "Mentorship program essential for new teachers," *Greeley Tribune*, April 10, 2008, A8.

14. Сидоркин, А. М. "Будущее воспитания и воспитание будущего, [The future of education and education for the future]," *Воспитательная работа в школе [Community education in schools]*, 2008, 3: 24-26.
15. Сидоркин, А. М. "Нерыночная экономика школы" [The non-market economy of schooling], *Narodnoye Obrazovaniye [People's Education]* 10, 2008: 223-231.
16. Sidorkin A. M. "Spinoza or Spanish?" Straw Poll Contribution, *The Philosophers' Magazine* Volume 38, 2007, 10.
17. Сидоркин, А. М. "Факультет ненужных вещей: Смысл и основная проблема воспитания. [Faculty of useless things: Meaning and the core problem of education]." *Новые Ценности Образования: Контексты и подтексты образования. [New Educational Values: Contexts and Subtexts of Education]* 5-6/29-30, 2006: 43-48.
18. Сидоркин, А. М. "Театральность школы [The theatricality of schooling]," *Na Putiakh k Novoy Shkole* 1, 2004, 3-6.
19. Сидоркин, А. М. "Российская теория воспитания в контексте мирового образования [The Russian character education theory in the global educational context]," *Живая педагогика: Открытость, культура, наука, образование [The Living Pedagogy: Openness, culture, scholarship, education]*, Moscow: Narodnoye Obrazovanie, 2004, 61-67.
20. Сидоркин, А. М. "Педагогическая наука и образовательная практика: Экономическая антропология школы [Educational research and educational practice: The Economic Anthropology of Schooling]," *Живая Педагогика: Открытость. Культура. Наука. Образование [Pedagogy, Alive: Openness. Culture. Scholarship. Education]*, Moscow: Narodnoye Obrazovanie, 2004, 244-247.
21. Сидоркин, А. М. "Эволюционная теория коллективного воспитания [An evolutionary theory of the collective education]," *Na Putiakh k Novoy Shkole* 5, 2003, 41-43.
22. Спирин, А., Сидоркин, А. М. "Школа отношений [The relational School]," *Народное образование* 3 (2003): 92-97.
23. Сидоркин, А. М. "Система В. А. Караковского: модель гуманистической воспитательной системы современной массовой школы." *Гуманистические воспитательные системы вчера и сегодня (в описаниях их авторов и исследователей)*. Редактор-составитель Е. И. Соколова; Под общ. ред. Н. Л. Селивановой. – М.: Педагогическое общество России, 1998. – С. 178–196.
24. Сидоркин, А. М. "К вопросу о развитии понятия воспитательная система школы" [On development of the concept of School-wide Educational System], *Классный руководитель*. 1997/2, 23-28.
25. Сидоркин, А. М. "К вопросу о развитии понятия воспитательная система школы" [Toward development of the educational system concept], *Методология, теория и практика воспитательных систем: поиск продолжается [Methodology, Theory and Practice of Educational Systems: Inquiry Continued]*, Moscow: Research Institute for Theory of Education and Pedagogy, 1996, 28-33.
26. Сидоркин, А. М. "Диалог в воспитании" [Dialogue in Education]. *Народное образование*, 1995. Numbers 8-9, 110-114.
27. Сидоркин, А. М. "Диалог в воспитании: к постановке проблемы" [Dialogue in Education: Framing the Problem], *Гуманизация образования*. 2/1995, 9-16.
28. Сидоркин, А. М. «О начальном этапе моделирования воспитательной системы. » *Моделирование воспитательных систем: теория — практике: Сб. науч. ст. /Под ред. Л. И. Новиковой, Н. Л. Селивановой. М.: РОУ, 1995. - С. 69-77.*
29. Сидоркин, А. М. "Методы воспитания. " *Российская педагогическая энциклопедия: В 2-х тт. ; Гл. ред. В. В. Давыдов. Большая Российская энциклопедия, 1993. – Т. 1. – С. 569–570.*
30. Сидоркин, А. М. "Единство организованности и общинности как условие становления и развития гуманистической воспитательной системы школы" [Linking Organization and Community for Building a

- Humanistic School]. *Воспитательная система массовой школы: проблемы гуманизации* [Public schools: Humanization Issues]. Moscow: Research Institute for Theory and History of Education, 1992, 22-28.
31. Сидоркин, А. М. “Процесс развития воспитательной системы школы. Его закономерности.” [Development of School-wide Educational System: Patterns and Regularities]. *Воспитательная система учебного заведения* [Educational System of a Learning Organization]. Moscow: USSR Federal Committee for Public Education, 1992, 14-29.
 32. Сидоркин, А. М. “Вопросы методологии изучения воспитательных систем” *Педагогическая теория: идеи и проблемы*: Сб. науч. тр. Ответств. ред. В. С. Шубинский. М.: ИТПИМИО, 1992: 80-86.
 33. Сидоркин, А. М. “Рождение Николаевского научно-практического центра ‘Воспитательная система школы.’” [Nikolaev” Holistic School” Research-and-Training Center]. *Воспитательная система школы* [Holistic School]. Moscow: Pedagogicheskoe Obshchestvo RSFSR, 1991: 27-48.
 34. Сидоркин, А. М. “Воспитательная Система – Школа Караковского” [Karakovsky's Holistic School]. *Narodnoe Obrazovanie*, 10/1991: 42-48.
 35. Сидоркин, А. М. “Процесс развития воспитательной системы школы” [Evolution of a Holistic School] *Sovetskaya Pedagogika*, 11/1991: 65-69.
 36. Сидоркин, А. М. Методологический синтез теории и истории педагогики в исследовании воспитательных систем [Methodological Synthesis of Theory and History of Education in Holistic School Research]. *Воспитательная система школы: история и современность* [Holistic School: History and Present Time] Vladimir: P. I. Lebedev-Poliansky Teachers College, 1990, 8-10.
 37. Сидоркин, А. М. “Воспитательный процесс и воспитательная система” [Educational Process and the Holistic School] *Методология и методы современных педагогических исследований* [Methodology and Methods of Contemporary Educational Research]. Moscow: Academy of Educational Sciences, 1989, 10-12.
 38. Сидоркин, А. М. “Соотношение объяснения и понимания в период кризиса одной из специальных наук” [Explanation and Understanding in One Social Science’s Crisis] *Объяснение и понимание в специальных общественных науках* [The Explanation and Understanding in Social Sciences]. Moscow: Institute of Philosophy, 1989, 171-179.
 39. Сидоркин, А. М. “Общее, особенное и единичное в развитии воспитательной системы школы” [The Universal, the Particular, and the Singular in the Development of a Holistic School]. *Воспитательная система учебного заведения как объект педагогического управления* [Pedagogical Management of School's Educational System]. Proceedings of the All-Union Conference, V. 1. Riga: Latvian State University, 1989, 15-17.
 40. Сидоркин, А. М. “Игровой аспект воспитания” [The Play-like Dimension of Education]. *Игра в воспитательном процессе* [Play in Educational Process]. Novosibirsk: NGPI, 1989, 62-80.
 41. Сидоркин, А. М. “К вопросу о сущности воспитания: Игровой аспект воспитательного взаимодействия” [On the Essence of Education: Play-like Aspects of the Educational Interaction]. *Теоретико-методологические проблемы образования в условиях становления системы непрерывного образования* [Theoretical and Methodological Educational Issues in the Development of a Continuous Education System]. Moscow: Academy of Educational Sciences, 1988, 96-98.
 42. Сидоркин, А. М. “О сущности педагогических явлений” [On the Essence of Educational Phenomena]. *Педагогическая наука в условиях перестройки* [Educational Theory and Perestroika]. Moscow: Russian Educational Society, 1988, 65-69.

Search Committee for
President, Florida State University

Alexander "Sasha" Sidorkin,
Dean, College of Education
California State University - Sacramento
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3/20/2021

My main strength is the ability to predict the future. All executives do that; I am just better than most. I asked faculty to plan for online teaching at least two weeks before the University went online in Spring of 2020. My college started to plan for the eventual Fall 21 reopening full two months before the rest of the university did. There is nothing supernatural in this ability; it is just a habit to think ahead, and a well-developed sense of organizational imagination. To me, the future looks like rows of dominoes set to tip from now to a point sometime in the few months or years. Each piece tips the next. I have learned how an academic machinery works and does not work, and what happens when if you set certain things in motion.

I tend to question every process, every requirement, every workflow, and look for ways to make them more efficient and less annoying. This is just how my mind works, making me an obsessive improver. Eliminating an extra step or an extra signature makes my day. Getting rid of a whole process makes me happy for a week. Micro-barriers that universities allow to grow like weeds disproportionately affect students and faculty of color and people with disabilities. Yet once you remove a barrier, everyone benefits. "This is how it has always been done" is my least favorite argument. I found that maintaining a full harmony may be incompatible with moving an organization forward.

What other people may only think, I tend to say out loud. Better decision-making requires truth, clarity, and trust. For me, directness indicates respect. I am very careful and respectful but prefer to lay out options and interests on the table for all to see.

Universities are becoming IT companies whether they like it or not. Every decision, every project has a technology dimension. I expect academic leaders to develop a sophisticated understanding the role of information technologies in improving equity and efficiency of an academic institution. Such a shift may be difficult, for few of us were trained to run a technology-intensive organization.

Higher education is in the era of significant transformations, and I would like to be an actor rather than a spectator in it. The position of President attracts me because many of my quests for reform require a campus-wide approach. To try out my ideas of a relation-centered and technology-enhanced university, I need the ability to interact with all university divisions. The antiracist

movement challenges universities to play more active role in reducing racism, and it should be an important part of the reinvention.

I am a first-generation college student and an immigrant who came to the US in 1991 just before the collapse of the Soviet Union. My father was a blue-collar factory worker, and my mother a payroll clerk at a construction company. Both were born to peasant families and moved to a large industrial city in Siberia in the mid-1950s. The rural children were taught well by political exiles and passed the respect for knowledge onto my brother and me. My only ambition is to pay forward the debt I incurred from my many teachers. I know how to lead, collaborate, manage, build, and solve complex problems. I never forget why we do what we do, never let the mission to take the back seat.

Leadership without a strategy is narcissism. My ability to articulate an organization's vision is based on sustained dialogue with many people across divisions. I am good at hearing what people believe in, what they want and need, assessing limitations and opportunities, and presenting it back to them as a vision. I am a keen student of higher education in North America and around the world. I am beginning to understand where it is all going.

My record of innovation is informative. For example, at Bowling Green State University, I helped launch an MA program in Cross-Cultural and International Education. At the University of Northern Colorado, my colleagues and I developed a successful partnership program in Early Childhood Education and created a hybrid Ed.D. in Educational Studies. As Dean of the Feinstein School of Education at Rhode Island College, I initiated the creation of a B.A. in Youth Development, one of the first of its kind in the United States. I doubled the size of off-campus operations at the University of Northern Colorado and pioneered a similar program at Rhode Island College. At Higher School of Economics, I built a new master's program in Evidence-based educational policy, and a highly successful doctorate in Education. At Sac State, I initiated new program initiatives, including a master's degree in Workforce Development, and an online MA in Curriculum and Instruction.

I have taken my units through four successful national accreditation visits and have been a key participant in several regional accreditations as well. These included initiating and completing several external program reviews. The budget I currently oversee is \$13.2 million. I direct the entire cycle, from budget development to resource allocation, to cost control and compliance. I can get geeky with budgets, and enjoy a good spreadsheet the way other people admire a piece of art. I have experience in all stages of fundraising cycle, from "friend-raising" to donor relationship maintenance.

My best qualities are the ability to find common ground, to negotiate a compromise, to match resources with needs, and to support other people's ideas and passions. I like to recognize faculty achievements and accomplishments, push them further, support ambition, and develop leaders. I can get along with most people by trying to see their point of view, by being transparent to the extent possible, and always by keeping my word.

My College was first to eliminate the achievement gap between under-represented minority students and the rest. I cannot claim full credit for the achievement because my colleagues have

been working at it long before I came. My contribution has been to foster the culture of student success, inclusive learning environments, and reducing institutional barriers.

I have reshaped marketing and recruiting operations at every place I have served in a leadership position. Just within the last three years, I was able to bring back from hiatus several graduate programs that suffered from low enrollment and created new ones – all because of social media marketing and direct mailing campaigns. My preferred approach is to change the culture of an institution so that every faculty member, chair, and dean thinks of PR and marketing as an essential part of his or her responsibilities. I have hired an in-house marketing specialist for my College, whose contribution to program growth has been invaluable.

I have been successful in leading my College through transition to online instruction in connection with the COVID-19 health emergency. We have transitioned the entire College's staff to a telecommuting regime, while maintaining the same or better level of support to faculty and students. We completed Fall 2020 and some of Spring 2021 semester fully online with no disruptions. Before the crisis, I organized faculty learning communities on online pedagogy, and it helped us to transition relatively painlessly.

In me, you will find someone willing to learn with you and from you, someone able to lead with care and respect for your traditions. Feel free to contact my references—or indeed, anyone who has ever worked with me—to find out more about my leadership and management style and abilities. My detailed online CV can be found at <http://sidorkin.net>. A more conventional version of my CV is also enclosed. Please feel free to browse through my blog <http://sidorkin.blogspot.com>. It offers insight into both my ideas and my values.

I hope you might give me the chance to bring all my energy, commitment, and experience to Florida State University.

A handwritten signature in black ink, appearing to read "A. Sidorkin". The signature is fluid and cursive, with a stylized "A" and "S".

Character of Leadership Strength Assessment Interpretation

Overview

Thank you for completing the free Character of Leadership Strength Assessment. As part of the Character of Leadership model we identified specific leadership behaviors related to the seven elements of the model. The assessment asked you to identify how often you perform each of the behaviors well. On the following page you will see your average scores for each of the model elements; Faith, Justice, Temperance, Hope, Wisdom, Love and Courage.

Interpretation

- The elements on which you scored 8 or higher represent your strengths. These elements provide a strong foundation for your leadership.
- The elements on which you scored 5 to 7, represent moderate strengths. With some focus and refinement, you could turn these elements into strengths.
- For any element that scored less than 5 consider making a deliberate effort to build strength in that element.

With that said, please be aware that no leader scores high in all the elements. For any element in which you scored 5 make plans to develop this element.

Develop Strengths

As you develop your strengths follow these steps:

1. Identify specific activities related to the element you wish to strengthen
2. Commit those activities to a written plan
3. Share that plan with your own leader and your team so they can help you

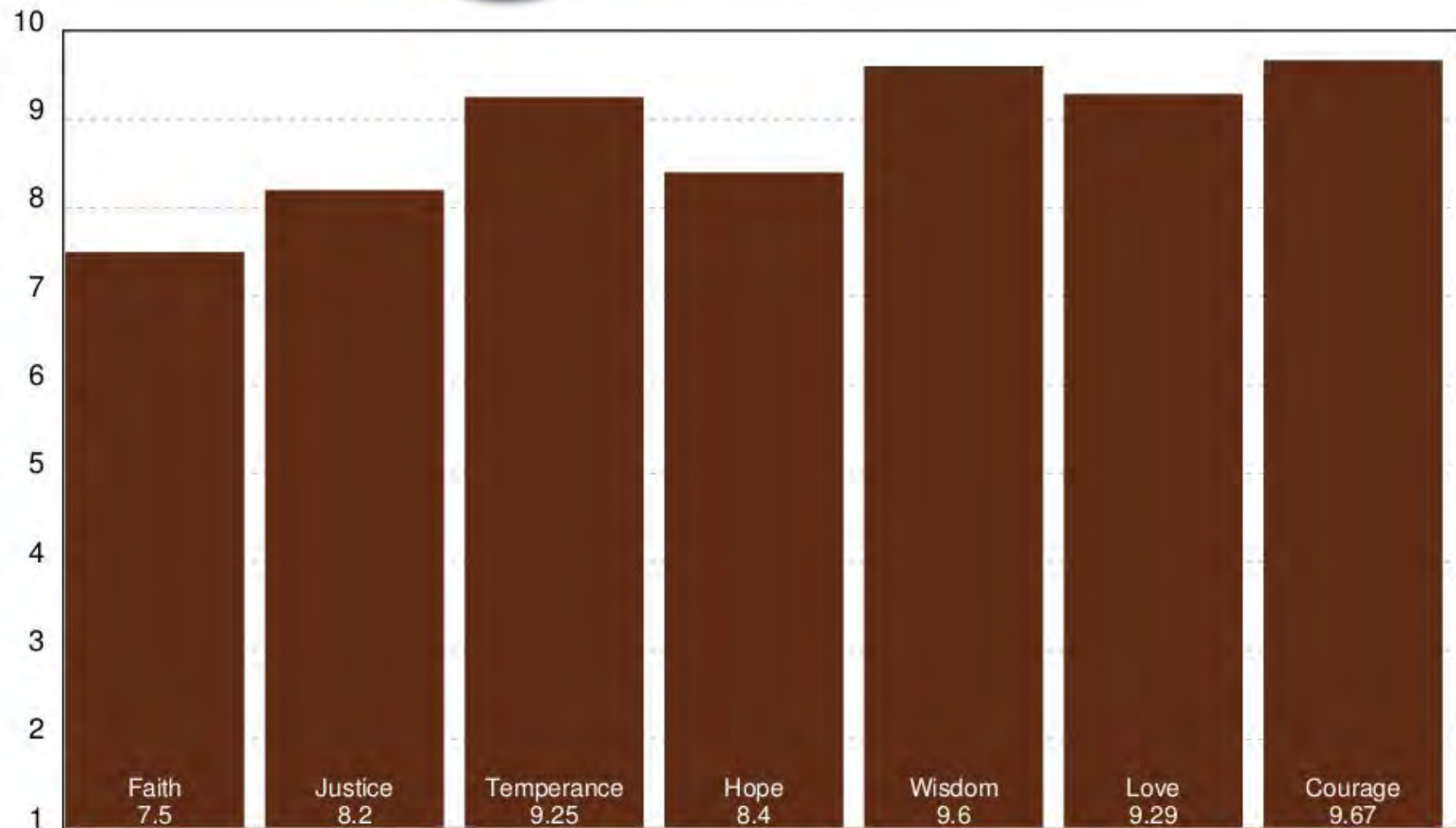
Leadership development takes time so don't be in a hurry to gain strength in the elements. You can return to this free assessment at any time to test your progress. If you want a comprehensive assessment of your strengths using a multi-rater or 360° assessment go to www.characterofleadership.com and click Assessments.

Questions

If you have questions to ask or stories to share please contact us by calling 208.344.0471 or sending a note to phil@leadershipadvisors.com.



Character of Leadership Strength Assessment



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I give the search committee and/or the search firm a blanket permission to contact anyone who has ever worked with me in any capacity.



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Completed assessments

Module	Score
Context and Principles of Strategic Management	100%
External Strategic Management Principles	100%
Competitive Strategies	80%
Management Errors	100%

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Mr Amar Hocine ZIREG

Born: April 25th 1968
02, Cité des jardins Ras el oued
W: BBA Algeria
E-mail: zirega@live.fr

EDUCATION

University of Constantine Algeria from September 1986 - July 1990,
Licence degree: (Full-time **4 years** degree) with thesis: The principles of democracy (110 pages).
Administrative Sciences and Law, Equivalent to Master's degree.

High school Salem Sraifeg from September 1983 – July 1986
Diploma: Baccalaureate of Human sciences and letters grade: 16.12 / 20

Middle School Bachir Ibrahimi from September 1979 – July 1983
Diploma: BEM: Middle School Brevet grade: 16.35 / 20

Primary School Abderrezak Laidi from September 1974 – July 1979
Normally the duration is Six years while I have finished it within just five years.
Grade: 9.20 / 10

I have finished my studies in 16 years instead of 17 years normally, because in primary school I have access from the fourth year to the sixth year without going through the fifth year

WORK EXPERIENCE

General Manager, August 1990 - present
Company: ZIREG Group of companies

Responsibilities: The first responsible of the enterprise: Plan and direct all aspects of an organization's policies, objectives, and initiatives, responsible for the short and long-term profitability and growth of the company.
Responsible for the success or failure of the company: P&L responsibility, Operations, marketing, strategy, financing, creation of company culture, human resources, hiring, firing, compliance with safety regulations, sales...
Maximizes profit and return on invested capital by accomplishing objectives; serving customers; maintaining the company's stability; ensuring growth; builds and maintains organizational reputation in the community...
"The most important is not to be king, but to build a kingdom". "Manager predict the future, while leader create it"

Teaching experience: 02 years as volunteer: management secondary level.

Achievement

Have transformed the small enterprise into a small Group :(managers predict the future, while leaders create it) ; Managers are people who do things right, while leaders are people who do RIGHT THINGS at the right time, with the right manner and right people with the minimum of costs and without failure....

Currently, I am trying to develop a new approach in leadership and management, entitled: Flexible company; as a solution to business problems in order to survive, make a profit and stop bankruptcy and failure. Means that the financial criteria are not the only criteria to evaluate the success of a company, but we must use financial and NON financial criteria to obtain the true result of the evaluation of a Company....

Competencies

- **Problem Solving:** Identify and resolve problems time efficiently; Gather and analyze information; Develop solutions; Use reason.
- **Strategic Leadership and Vision:** The ability to think strategically, help create and execute business plans and demonstrate strong leadership within the financial departments and with the management team as a whole.
- **Self Confidence:** self-confident without being arrogant. That Means the ability to transmit appropriate messages to appropriate audiences, a willingness to admit mistakes and the ability to offer input without insisting on being right.
- **Oral Communication:** Speak clearly and persuasively; listens and get clarification when necessary; Respond informatively to questions.
- **Written Communication:** Write clearly and concisely; Edit work; Varies writing style to meet specific needs; Present data effectively; Able to read and interpret written information.
- **Planning/Organizing:** Prioritize and plan work activities; Use time efficiently; Plan for additional resources; Set goals and objectives.
- **Professionalism:** Approach others in a polite and tactful manner; Maintain composure and react well under pressure; Treat others with respect and consideration; Accepts responsibility for own actions; Follows through on commitments.
- **Quality:** Demonstrate accuracy and thoroughness; Apply feedback to improve performance; Monitor own work to ensure quality.
- **Adaptability:** Adapt to changes in the work environment; Manage competing demands; Change approach or method to best fit the situation; Able to deal with occasional change, delays, or unexpected events.
- **Reliability:** Work reliably to produce timely, accurate information and is willing to do whatever is necessary to bring about results.
- **Cost Management:** Valuate expenses; negotiate rates with vendors, and isolate cost saving opportunities.
- **Entrepreneurial Spirit** – with a great feel for opportunity cost.

My experience summary 29+ years of management and leadership experience:

- 1- "Managers predict the future, while leaders create it».
- 2- "Managers are people who do things right, while leaders are people who do right things «managers manage things, while Leaders lead people ".
- 3 - « If the changes outside the enterprise are better than the changes inside it, the end is very near».
- 4-Human capital management is not luxury things, but a necessary and required for survive of the enterprise: exemplarity, equity...
- 5-The bad decisions are rapidly made.
- 6-A good analyze of the problem is equivalent of 50% of solution ;" A train can hide another "; If you search good answers you should ask good and smart questions ;
- 7-The most important is not to be King, but to build a kingdom .
- 8-Before leading people you must lead yourself:(Time management, stress management, crisis management...;
- 9-It is not sufficient that your are better , you must be the BEST .
- 10- Management By Objectives, (goals oriented) result oriented
- 11- If the problems have no solution you must create it.
- 12-At the critical moments, you feel you are alone but you must go-ahead.

Skills and abilities

Critical Thinker, entrepreneurial spirit, innovative, collaborative leadership, energetic, dynamic, result-oriented, charismatic, Honest. An excellent relationship builder, team builder Leadership, Executive management, crisis management, change management, business development, strategic management...

No cigarettes, No drugs,

Informatique skills :Windows ,Word ,Excel

Languages proficiency: English, French

Our BRAINBENCH ASSESSMENT RESULT; -MANAGING PEOPLE-(year: 2006)

Brainbench and Other Certifications

Name: Date: Authority:

2006-01-30 Brainbench

Completed Tests

Name: **Managing People** (U.K.) Score: 2.79 Date: **2006-01-30**

Scored higher than 75% of all previous test takers

PhD research proposal
Mr Amar Hocine Zireg

The Impact of Leadership on Employee Performance.

Case study the banks in Algeria

Title

The Impact of leadership on employee performance

Case study the banks in Algeria

ABSTRACT

This research study is about the impact of leadership styles on employee performance. The main objective of this study is to explore the relationship between leadership styles and employee performance. An organization culture has pivotal role in formulating the leadership styles of an organization. Further, the purpose of research is to study the relationship between the leadership styles and employee performance case study of the banks in Algeria. Various statistical tests and modified multifactor leadership questionnaire will be used to analyse data and to predict the different leadership styles.

Keywords: *leadership, organizational performance, leadership styles, employee performance.*

Introduction

"Leadership consists of method, not magic" (Schmoker, 2001, p. 19). The role of leader is vital for the survival and progress of an organization. Leadership helps in developing the organization's objectives, values and vision. Leaders which measure up to the standards of cultural elements are able to accomplish employee effectiveness. Organization develops culture from its leadership and culture has also greatly affected on leadership. The leadership behaviour and competence have consistent relationship with employee effectiveness and performance. The organizational culture also plays very important role in developing and shaping the leadership style. Leaders involve influencing personnel to persuade them achieve the organizational objectives. Moreover, effective heads not only influence subordinates, but also ensure that they achieve their highest potential performance. As a pivotal component of the system their behaviour is one of the basic stimulants to make organization more effective.

Leadership styles and employee performance are considered to be main pivotal sources of success for any organization and if any of these are fragile or having shakable foundation, then organization remain wandering and no appropriate vision is either designed or followed and values remain alive merely in black and white

STATEMENT OF PROBLEM

"What is the impact of Leadership on employee performance?"

And how culture plays a moderating role between leadership styles and employee performance”?

Aim of the Study

The aim of this study is to explore how the different types of leadership styles would have an effect on the productivity and performance of the employees. This study would analyze these different styles and would make recommendation for further studies.

Contribution to Literature

There have been several discussions on the impact of different leadership styles on the employees performance, this study will also be taking a look at whether any of the widely discussed leadership theories I.e. Laissez-faire, transactional and transformational theories is the most effective when utilized singly or whether they would better-off when used along with one another.

AIMS AND OBJECTIVES

Objective of this study

To explore the relationship between various leadership styles and perceived employee performance taking into accounts the moderating role of organizational culture.

Research questions

This study shall address the following research question:

1. Is there a significant relationship between leadership style and performance?
2. Is there a significant relationship between laissez-faire leadership styles and performance?
3. Is there a significant relationship between transformational leadership style and performance?
4. Is there a significant relationship between transactional leadership style and performance?

Specific Aims

A-*This study is aimed at exploring:*

- a. *The relationship between Transformational leadership style and employee perceived performance and employee resilience.*
- b. *The relationship between Laissez Fair leadership style and employee perceived performance and employee resilience.*
- c. *The relationship between Transactional leadership style and employee perceived performance and employee resilience.*

- d. To identify the relevant leadership styles.
- e. Evaluate the Leadership styles of Managers/leaders and employees' commitment
- f. Evaluate if there is any significant relationship between Managerial style and employees' commitment
- g. To find out which leadership style is better for employees' commitment to organization.
- h. To Compare leadership styles, employees' commitment and their financial performance and provide analysis with recommendations.
- i. To examine the influence of these leadership styles on employee performance.

B- Study the effect of the culture of the organization between leadership styles and performance of employee.

BACKGROUND

Literature Review

Leadership is simply "the art of influencing people so that they will strive willingly towards the achievement of goals" (Igbaekemen, 2014). Leadership plays a crucial role in creating an enthusiastic atmosphere and culture in an organization (Alghazo & Al-Anazi, 2016). Managers and leaders play a critical role in achieving productivity in organizations, as they are in charge of setting direction and executing, on behalf of all employees to achieve organizational goals. This study theoretically explores the impact of managers' leadership styles on subordinates' performance. It has followed comprehensive literature review as the main research tool and the paper is framed as a concept paper with the discussion on empirical insights. Finally, it concludes the paper with some research directions and priorities for the future studies.

Leadership "is a term that can be referred to a variety of thing, a person, a position, or a process". Mullins (2002) says there are over 400 definitions of leadership. Leadership being such a widely written about subject, has a variety of meanings by many scholars each trying to compare what the writer perceives to be leadership. As Burns (1978) rightly acknowledged, "Leadership is the most observed and least understood phenomenon on earth"

Leadership is key to good performance since it coordinates both utilization of human and other resources in the organization (Nawoselng'ollan & Roussel, 2017). Good leader motivates employees and motivated employees does not only increase his or her job performance and commitment within an organization, but also goes beyond the job requirements thus increasing the organization's general performance and making it more profitable. To minimize this pressure and to induce growth of the organizations, employee commitment is a crucial need. According to Hersey & Blanchard (1984), at least equal emphasis must be given to improve the quality of leadership if business is to succeed in achieving greater employee commitment and thereby its profitability. Many previous studies have identified that employee commitment and leadership styles are major factors which determines the success or failure of an organization (Brockner et al., 1992; Meyer et al., 2004; Allen & Myer, 1990; Bass, 1997; Bass et al., 2003; Trottier et al., 2008)

According to Lee and Chuang (2009), the excellent manager not only inspires subordinates potential to enhance efficiency but also meets their requirements in the process of achieving organizational goals. Fry (2003) explains leadership style as the use of leading strategy to offer inspiring motive and to enhance the staffs' potential for growth and development.

Leadership style is viewed as a combination of different characteristics, traits and behaviours that are used by leaders for interacting with their subordinates. (Mitonga-Monga & Coetzee, 2012). Mitonga-Monga and Coetzee (2012) consider leadership as the pattern associated with managerial behaviour, which is designed to integrate the organizational or personal interest and effects for achieving particular objectives. Harris et al (2007) also postulated that leadership style can be defined as the kind of relationship that is used by an individual so as to make people work together for a common goal or objective. According to modern leadership styles, leadership styles can be categorized as follows: (1) transformational leadership style, (2) transactional leadership style, (3) culture based leadership, (4) charismatic leadership, and (5) visionary leadership (Harris, et al., 2007).

Empirical Studies:

Ojokuku, et al. (2012) conducted a research on the Impact of leadership Style on Organizational Performance: A Case Study of Nigeria Bank in Nigeria. The sample size used by the researchers is 60. The study contained twenty of random picked banks in Ibadan, Nigeria. A structured questionnaire was used to collect data from the heads of accountants, heads of operations, and branch managers on face-to-face basis. Inferential statistical tool was used and one hypothesis was formulated to analyse data. Regression analysis was used to study the dimensions of significant effect of leadership style on followers and performance. The findings showed that there was positive and negative correlation between performance and leadership style. There was 23 percent variance of performance found in leadership style jointly predict organizational performance. This study concluded that transformational and democratic leadership styles have positive effect on both performance and followers, and are highly recommended to banks especially in this global competitive environment. Dalluay & Jalagat (2016) conducted a research on title Impacts of Leadership Style effectiveness of Managers and Department Heads to Employees' job Satisfaction and Performance on Selected Small-Scale Businesses in Cavite, Philippines. The sample size

used is 150. Survey questionnaires were designed to study the effects of manager leadership styles on employees' performance and satisfaction. 150 respondents were selected from corporations in Cavite, Philippines through random sampling with Slovin formula with $n = \frac{N}{1 + Ne^2}$. Data were analysed by using weighted mean, percentages, multiple regression and correlation coefficient. Percentages specifically were used to analyse demographic variables (gender, age, length of service and leadership styles). Weighted mean were used to survey questionnaires on leadership styles, and correlation coefficient and multiple regression were used to study the relationship between variables on leadership style, job performance and job satisfaction. The finding concluded that corporations should constantly making the most of leadership style which enhances employees performance and employee job satisfactory level even though there is still rooms for improvements.

A researched was conducted by Widayanti & Putranto (2015) on Analysing the Relationship between Transformational Leadership and Transactional Leadership Style on Employee Performance in PT.TX Bandung in Indonesia. The sample size used by the researcher is 92. The objective of this research is to find the relationship between transactional and transformational leadership to employee performance and the significant relationship between these two variables. This research consists of primary and secondary data. Primary data was collected through Multifactor Leadership Questionnaire (MLQ) based on Slovin Theory method. Secondary data was collected from the office assessment of employee performance. Validity and reliability test were used to measure quality of data. Multiple regression analysis is used to find the relationship because it has more than one independent variable. Data was sent for pass the classic assumption tests such as multicollinearity test, normality test, heteroscedasticity test and autocorrelation test before multiple regression analysis. The result proved that transactional and transformational leadership has positive relationship and it effects to employee performance either concurrently or partially.

Akram, et al. (2012) conducted a research title How Leadership Behaviours Affect Organizational Performance in Pakistan. Sample size used by the researchers is 1000, where 500 questionnaires were distributed to managers and another 500 to employees of various private and public sector companies in 66 cities through random selection. Non-probability sampling technique is used in this study. Two questionnaires were designed for managers and employees. Questions were related to leadership behaviours and organizational performance. Five point Likert scale was applied. Correlation analysis and regression analysis were applied to analyse the relationship and the effect of leadership behaviours on performance. SPSS version 16 was used to analyse the reliability of questions, and the reliability was checked in term of Cronbach's Alpha. The findings concluded that leadership behaviours are interrelated and have high positive impact with employee performance.

Nasir, et al. (2014) did a research on The Relationship of Leadership Styles and Organizational Performance among IPTA Academic Leaders in Klang Valley Area in Malaysia. The study used correlation methods to measure the relationship between leadership styles and organizational performance. Five public universities in Selangor were chosen. 201 academic leaders were chosen as the sample size. The questionnaire prepared in a form of closed-ended questions. The survey instruments from Kouzes and Posner Leadership Practices inventory-Individual Contribution Self Survey (1997) and

Multifactor Leadership Questionnaire (MQL) had been adapted. Likert-Scale was used. All data were analysed by using SPSS version 20.0. The hypothesis testing from normality test with Normal Probability Plots for variables and other visual presentation measures such as histogram and box plot. Pilot test is used to test the consistency of questionnaire. Cronbach's alpha is used to test reliability. The findings concluded that leadership behaviours are interrelated and have high positive impact with organizational performance.

Leng, et al. (2014) did research on title in The Impact of Leadership Styles on Employee Commitment in Retail Industry in Malaysia. Sample size used by the researchers is 384. The researchers used questionnaires as the research instrument. SAS software version 9.3 was used to run tests of reliability, Pearson correlation and linear regression. The findings concluded that there was a significant impact of leadership styles towards employee commitment.

Sakiru, et al. (2013) conducted a research on title in Relationship between Employee Performance, Leadership Styles and Emotional Intelligence in an Organization in Malaysia. Sample size used by the researchers is 180. Data was collected using three instruments; Multifactor Leadership Questionnaire, ECP and parastatal performance evaluation process.

Work performance was taken and recorded using organization's performance evaluation process. ECP factors are used to measure emotional intelligence. Cronbach's alpha reliability coefficient is used for MQL factors. Linear regression analysis is used. These findings concluded that there is a substantial relationship between worker performance with emotional intelligent and leadership style.

Ismail, et al. (2011) worked on a research titled Interaction between Leaders and Followers as an Antecedent of Job Performance: An Empirical Study in Malaysia. Sample size used by the researchers is 200. This study used a cross-sectional method to integrate the research literature, the in-depth interview, pilot study and the actual survey to collect data. Convenience sampling technique was used. SPSS version 16 is used to analyse validity and reliability of data. Pearson correlation analysis and descriptive statistic is used to access research variables. Standardized coefficient of Stepwise regression analysis was used. The findings confirmed that interaction between leaders and followers does act as full antecedent of job performance.

Based on various studies conducted before, several variables have been adopted in this study to measure employee performance. Democratic leadership has been adopted as an independent variable (Iqbal, Haider and Anwar, 2015). Autocratic leadership was also adopted as an independent variable (Akor, 2014; Iqbal, Anwar and Haider, 2015;). Laissez-faire leadership was also adopted as an independent variable (Wang & Huynh, 2013; Barbu, 2011). Employee performance has been adopted as the dependent variable (House, 1991; Haddad, 2011; Sean & Hong, 2014; Malik, 2014).

Research Hypothesis

A hypothesis testing is used to explore a problem using several hypotheses Sekaran, U (2000).Shalini,p(2001) as cited by Sarantakos, (1993) a hypothesis can be defined as a tentative explanation of the research problem, a possible outcome of the research, or an educated guess about the research outcome." Sarantakos,(1993).Using the research questions above, the following hypotheses were tested.

The below depicted hypotheses has developed to predict the various relationships between variables.

H1; There is a significant relationship between Transactional leadership and employee performance.

H2; There is significant relationship between Transformational leadership and employee performance.

H3; There is significant relationship between Laissez -fair leadership and employee performance.

H4; There is a significant relationship between the culture and leadership.

SIGNIFICANCE OF STUDY

This study is very significant because it would help in achieving effective leadership styles in organization. The result of this study would contribute to the knowledge base essential for the practice of educational administration by explaining the relationship between leadership styles and employee performance. This study has significant for not only for higher education administration practices but also for the smooth operations of technical and vocational practices. The results obtained for this study would provide information to administrators based on research and theory to assist them in their administration responsibilities. Administrators would learn about leadership with the performance of employee and different leadership styles suited to their personality, knowledge and situations affecting their roles. So this study provides new knowledge and reinterprets existing ideas in an original way.

Study importance

- This study linked a set of variables that weren't linked by previous studies. It combined leadership styles and organizational commitment in one study model.*
- This study dealt with a topic that is relatively new; also the Arab and African library lacks such studies.*

The results of this study will benefit Algerian banks to improve banking performance and promote it by adopting an effective leadership style and increasing employee organizational commitment, thus increasing their profitability, efficiency and effectiveness.

- The results of this study are expected to benefit decision makers at Algerian banks in clarifying the impact of the leadership styles in organizational commitment.*

Research design and methods

Schematic diagram of Theoretic framework

Theoretical Framework

According to model three leadership styles works as independent variables that impacts on organizational performance, a dependent variable. Culture distorts the relationship of leadership styles and performance. Transformational, transactional and Laissez-Faire styles affects on employee performance. Culture is the moderating variable.

Types of leadership styles

1. Autocratic Leadership
2. Democratic Leadership
3. Laissez –faire Leadership
4. Transformational Leadership
5. Strategic Leadership
6. Transactional Leadership
7. Bureaucratic Leadership
- 8.

Transformational leadership is a theory of leadership where a leader works with teams to identify needed change, creating a vision to guide the change through inspiration, and executing the change in tandem with committed members of a group;^[2] it is an integral part of the Full Range Leadership Model. Transformational leadership is when leader behaviors influence followers and inspire them to perform beyond their perceived capabilities. Transformational leadership inspires people to achieve unexpected or remarkable results. It gives workers autonomy over specific jobs, as well as the authority to make decisions once they have been trained. This induces a positive change in the followers attitudes and the organization as a whole.

Transactional Leadership

Leader influences on individual through a system of reward and punishment. This shows that if the follower does something good, then he/she will be rewarded and if he/she does something wrong then they will be penalized. use "transactions" between a leader and his or her followers - rewards, punishments and other exchanges - to get the job done. The leader sets clear goals, and team members know how they'll be rewarded for their compliance.

Laissez-Faire Leadership

The French term "laissez faire" literally translates to "let them do," and leaders who embrace it afford nearly all authority to their employees, known as non-directional leadership because the leader provides little or no direction to the followers, also known as delegative leadership, laissez-faire leadership is a method that assesses the unique talents of each employee, and assigns responsibilities accordingly. In other words, as long as the actions of an employee are not adversely affecting the company, employees are allowed to use their own skills and ideas to complete their tasks how they see fit.

Employee Performance

Employee performance is defined as how an employee fulfills their job duties and executes their required tasks. It refers to the effectiveness, quality, and efficiency of their output. Performance also contributes to our assessment of how valuable an employee is to the organization. Each employee is a serious investment for a company, so the return that each employee provides must be significant.

Organizational Culture

It is an idea in the field of organizational studies and management which describes the psychology, attitudes, experiences, beliefs and values (personal and cultural) of an organization.

Population and Study Sample

We will include some organizations Data will be collected from managerial staff(top and middle management), academics and other librarian & Admin staff.

Sample Size and Selection of Sample

Number of questionnaires will be distributed 300

The study will use quantitative approaches, and a questionnaire was designed. A five-point Likert scale questionnaire will be used to determine the impact of leadership style on employee performance. SPSS software will be used in analysing the questionnaires. Demographic analysis, normality test, reliability test (Cronbach's Alpha), descriptive analysis and regression analysis were presented.

The Questionnaires would be distributed among 300 employees through which their leadership style and employees' commitment would be evaluated while Descriptive Statistics, Pearson's Correlation and Multiple regression techniques would be used to evaluate the relationship between leadership styles, employees' commitment to organization.

Purpose of the Study:

The importance of leadership style is not unknown and it is shown by a significant number of studies that have been conducted on leadership style in developed and developing countries (Babatunde, 2015; Iqbal, et al., 2015; Mohammed, et al., 2014; Paracha, et al., 2012; Zumitzavan & Udchachone, 2014). Today, the high pressure on the businesses, the long work hours, stress, employees' lack of commitment, job dissatisfaction and high employee turnover in most of the organizations have intensified the need for effective leadership. In order to maintain the growth and achieve higher objectives, the top management in the organizations needs to understand the problems and make strategies to satisfy, retain, and motivate employees to exert extra efforts. In other words, it needs such leadership that enables the employees achieve organizational goals efficiently and effectively. Leaders should have the ability to motivate its employees to exert extra efforts to achieve higher goals. Moreover, the existing leadership (managers) should adopt such leadership styles that help to augment subordinates' satisfaction, their efforts and performance. According to the Full Range of Leadership (FRL) model by Bass and Avolio (1994), the most effective leadership styles are transformational and transactional

leadership styles, if adopted collectively, to motivate subordinates, influence their behaviors and attitudes and improve their performance. Although FRL model has been validated in numerous settings to measure the impact of both transformational and transactional leadership styles, yet the researchers are unable to reach some final conclusion that what types of leadership styles should be used in which settings. It might be due to the difference of organizational culture. Leadership is not the same thing across cultures (Bhagat & Steers, 2009) and leadership styles may be perceived differently in different settings. Therefore, there is an acute need to study this concept to examine the universality of Full Range Leadership model. Accordingly, the purpose of the current study is to examine the impact of full range leadership styles on the employee performance.

RESEARCH METHODOLOGY

Research is simply the process of finding solutions to a problem after a thorough study and analysis of the situational factors. The research topic on which the research is being done demonstrates the impact of leadership on employee performance. To analyze the results two types of data is being used, primary data and secondary data. Primary data is the data which is collected by researchers themselves for the specific research purpose. This, for example, consists of interviews transcripts, questionnaire responses and observation records. Data collection is not so easy process as it may consume time and expenses and it is not necessary that all the information needed is gained but as soon as you receive the information primary data is ready. Secondary data is said to be the existing data which is used by a researcher rather than by collecting new information. Secondary data can be collected from, for example, survey data, office of population census and social trend figures. Secondary data can be quite helpful if the researcher cannot find any sources from which to collect their own data. This is also quite a fast and a cheap method to use previous data. (Chourton & Brown 2010, 218-220).

Methodology

In this study I will follow a deductive approach where the explanations and arguments are supported by empirical evidences and associated theories. I have reviewed journal articles, industry publications as well as reports from credible web sites to understand —the extent to which the leadership styles impact on employee performance. Accordingly, literature review will be employed as the main research tool. The study will be organized as a concept paper whilst arguments were empirically supported. Finally, I will discussed and conclude the paper postulating future research directions in line with the synthesized discussions.

Research design and data collection

This research is basically collected through primary data by sending out the questionnaires and conducting an interview. The study applies both the quantitative and qualitative research methods. Most of the scholars implement different methods to carry out the research which depends on the purpose of research and type of information required. Both qualitative and quantitative research methods inside any of these rules should be used. (Porter & Coggin 1995).

Data Collection Sources

.Data will be collected through the following sources:

.Published literature sources

.Surveys (email and mail)

.Interviews (telephone, face-to-face or focus group) more than 20 interviews.

.Observations

. Documents and records

Data Management

We will use different software to manage the data. Statistical Product and Service Solutions SPSS, Microsoft Office.

Data analysis and interpretation

Data will be analysed through SPSS Statistical Product and Service Solutions

Following statistical tests will be applied for the analysis of data:

- **Descriptive statistics**

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. ... Descriptive statistics are typically distinguished from inferential statistics. With descriptive statistics you are simply describing what is or what the data shows

- **Mean & Standard Deviation**

The standard deviation (SD) measures the amount of variability, or dispersion, from the individual data values to the mean, while the standard error of the mean (SEM) measures how far the sample mean of the data is likely to be from the true population mean. ... SD is the dispersion of individual data values.

- **ANOVA analysis of variance**

An ANOVA tests the relationship between a categorical and a numeric variable by testing the differences between two or more means. This test produces a p-value to determine whether the relationship is significant or no.

- **Correlation Analysis**

Correlational analysis is a statistical technique employed to investigate the magnitude and significance of such relationships. This paper presents commonly used techniques to examine bivariate relationships of interval/ratio, ordinal and nominal variables.

- **Regression Analysis**

Regression is a statistical method used in finance, investing, and other disciplines that attempts to determine the strength and character of the relationship between one dependent variable (usually denoted by Y) and a series of other variables (known as independent variables).

Possible Methodological Limitations

There may be some possible Methodological limitations in this study

Lack of available and reliable data

I will contact many banks' directors in order to get information and permission to collect data.

Lack of prior research studies on the topic

There is a lack of prior research studies on my topic especially what concerning banks in Algeria but I will try to resolve it by making a deep research on internet especially Google scholars and other research engine and by visiting libraries and learning famous journals.

Possible Limitations of the Researcher

There may be some possible limitations of this research

Time constraints

The time available to study a research problem and to measure change over time is constrained by the deadline of my assignment. But I think I will be able to complete well before the assignment's deadline.

Limited access to data

My study depends on having access to people, organizations, or documents and, for whatever reason, access may be denied or otherwise limited, but I will do my possible in order to get access by using different manners.

Time framework

Duration: 36 months

The initial estimation of the timetable of the dissertation, when will each of the key stages start and finish, there are likely to overlaps between the stages.

Refining proposal: 02 Months.

Literature review: 12 months.

Developing research methods: 12 months.

Fieldwork: 02 months.

Analysis: 04 months.

Writing the draft: 04 months.

Revision and final submission: 02 months.

Summary and conclusion

Today, contemporary organizations are characterized by such constantly changing dynamics as complexity of customization, and competitiveness; importance of people rather than strategies; reliance on technology and the rise of the knowledge economy among many other challenges (Helgesen, 1990; Phillips, 1993; Shakeela, 2004; Kupperts, 2007). Indeed, this is the more reason why leadership style and employees' resilience are crucial to the success and survival of an organization now more than before.

Therefore, this study may give us the finding that whether there exists significant relationship between leadership styles and employees performance and at what magnitude and why most staff lack the inspiration and commitment to the organization.

References

1. *Armstrong, M. (2009). A handbook of human resource management practice. London: Kogan*
2. *Lee and Chuang (2009). The Impact of Leadership Styles on Job Stress and Turnover Intention: Taiwan Insurance Industry as an Example. hcleee@ttu.edu.tw*
3. *Fry, L. W. (2003). Towards a Theory of Spiritual Leadership. The Leadership Quarterly, 14, 693-727.*

4. Kuppers, W. (2007). *Perspectives on Integrating Leadership and Followership*. *International Journal of Leadership Studies*, Vol. 2 Iss. 3, 194-221 *Leadership Quarterly*, 13(6), 797-837.
5. Helgesen, S. (1990). *The female advantage: Women's ways of leadership*. New York, N.Y.: Currency and Doubleday.
6. Shakeela, M. (2004). *A measure of leadership behaviour: Does the age-old measure require redefinition?* *Research and Practice in Human Resource Management*, 12(2), 140-151
7. Kuppers, W. (2007). *Perspectives on Integrating Leadership and Followership*. *International Journal of Leadership Studies*, Vol. 2 Iss. 3, 194-221 *Leadership Quarterly*, 13(6), 797-837.
8. Kuppers, W. (2007). *Perspectives on Integrating Leadership and Followership*. *International Journal of Leadership Studies*, Vol. 2 Iss. 3, 194-221 *Leadership Quarterly*, 13(6), 797-837.
9. PeterLok, John Crawford 2004. *The Effects of Organizational Culture and leadership style on job satisfaction and organizational commitment*.
10. N Fowler - *Leadership in Healthcare and Public Health*, 2018 – Ohio State. pressbooks.pub To build resilience: Leader influence on mental hardiness PT Bartone, CL Barry, RE Armstrong - *Defense horizons*, 2009 - questia.com
11. *The Impact of Management Activities and Leadership Styles on Family-Owned Businesses: A Theoretical Perspective* V Indermun - *Arabian Journal of Business and Management ...*, 2013 - platform.almanhal.com
12. [PDF] of Dissertation *A Study of Leadership Styles and Organizational Performance* MP Karnsomdee - *Development (OECD)*, 2004 - libdcms.nida.ac.th
13. Bass & Avolio, 1994. *Improving Organizational Effectiveness Through Transformational Leadership*. London: SAGE Publications.
14. Bhargavi, S. & Yaseen, A., 2016. *Leadership Styles and Organizational Performance*. *Strategic Management Quarterly*, 4(1), pp. 87-117.
15. Choi, S., 2007. *The lessons of exemplary models for democratic governance*. *International Journal of Leadership Studies*, 2(3), pp. 243-262. Creswell, J. W., 2014. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. London, United Kingdom: SAGE Publications.
16. Elenkov, D. S., 2002. *Effects of leadership on organizational performance in Russian companies*. *Journal of Business Research*, 55(6), pp. 467-480.
17. Avrea, C., Ilies, L. & Stegorean, R., 2011. *Determinants of organizational performance: The case of Romania*. *Management & Marketing*, 6(2), pp. 285-300.
18. Germano, M. A., 2010. *Leadership Style and Organizational Impact*. [Online] Available at: <http://alaapa.org/newsletter/2010/06/08/spotlight/>

- 19.Harris, A. et al., 2007. *Distributed leadership and organizational change: Reviewing the evidence. Journal of Educational Change*, 8(4), pp. 337-347.
- 20.Igbaekemen, G. O. & Odivwri, J. E., 2015. *Impact of leadership style on organization performance: A critical literature review. Arabian Journal of Business and Management Review*, 5(5), pp. 1-7.
- 21.Iqbal, N., Anwar, S. & Haider, N., 2015. *Effect of leadership style on employee performance. Arabian Journal of Business and Management Review*, 5(5), pp. 1-6.
- 22.Jyoti, J. & Bhau, S., 2015. *Impact of transformational leadership on job performance: Mediating role of leader– member exchange and relational identification. SAGE Open*, 5(4), pp. 1-13.
- 23.Klein, A. S., Cooke, R. A. & Wallis, J., 2013. *The impact of leadership styles on organizational culture and firm effectiveness: An empirical study. Journal of Management & Organization*, 19(3), pp. 241-254.
- 24.Kumar, R., 2005. *Research Methodology. London: SAGE Publications.*
- 25.Longe, O. J., 2014. *Leadership style paradigm shift and organisational performance: A case of the Nigerian Cement Industry. African Research Review*, 8(4), pp. 68-83.
- 15.Mitonga-Monga, J. & .
- 26.Coetzee, M., 2012. *Perceived leadership style and employee participation. African Journal of Business Management*, 6(15).
27. Obiwuru, T. C., Okwu, A. T., Akpa, V. O. & Nwankwere, I. A., 2011. *Effects of leadership style on organizational performance: A survey of selected small scale enterprises in Ikosi-Ketu council development area of Lagos State, Nigeria. Australian Journal of Business and Management Research*, 1(7), pp. 100-111.
- 28.Ojokuku, R. M., Odetayo, T. A. & Sajuyigbe, A. S., 2012. *Impact of leadership style on organizational performance: a case study of Nigerian banks. American Journal of Business and Management*, 1(4), pp. 202-207.
29. Rukmani, K., Ramesh, M. & Jayakrishnan, J., 2010. *Effect of leadership styles on organizational effectiveness. European Journal of Social Sciences*, 15(3), pp. 365-369.
- 30.Sofi, M. A. & Devanadhen, D. K., 2015. *Impact of Leadership Styles on Organizational Performance: An Empirical Assessment of Banking Sector in Jammu and Kashmir. IOSR Journal of Business and Management*, 17(8), pp. 31-45.
- 31.Sougui, A. o., Bon, A. T. B. & Hassan, H. M. H., 2015. *The Impact of Leadership Styles on Employees' performance in Telecom Engineering companies, s.l.: International Conference on Tourism and Hospitality.*

32. Uchenwamgbe, B.-B. P., 2013. *Effects of Leadership Style on Organizational Performance in Small and Medium Scale Enterprises (SMEs) in Nigeria*. *European Journal of Business and Management*, 5(23), pp. 53-73.
33. Vigoda-Gadot, E., 2012. *Leadership style, organizational politics, and employees' performance: An empirical examination of two competing models*. *American Journal of Business and Management*, 36(5), pp. 661- 683.
34. Wang, F. J., Chich-Jen, S. & Mei-Ling, T., 2010. *Effect of leadership style on organizational performance as viewed from human resource management strategy*. *African Journal of Business Management*, 4(18), pp. 3924-3936.
35. Wang, G., Oh, I.-S. & Courtright, S. H., 2011. *Transformational leadership and performance across criteria and levels: A meta-analytic review of 25 years of research*. *Group & Organization Management*, 36(2), pp. 223-270.
36. Xu, G. Y. & Wang, Z. S., 2008. *The impact of transformational leadership style on organizational performance: The intermediary effects of leader-member exchange*. Long Beach, CA, USA, IEEE Xplore, pp. 1090-1097.
37. Zhu, X. W., 2002. *The impacts of leadership, member satisfaction, and teamwork quality on team performance: An example on ERP project team, Taoyuan, Taiwan*: National Central University
38. Ebrahim Hasan Al Khajeh (2018), *Impact of leadership on organizational performance* *Journal of Human Resources Management Research*, DOI: 10.5171/2018.687849
39. Richard et al. (2009): *Measuring Organizational Performance: Towards Methodological Best Practice*. *Journal of Management*.
40. Upadhaya, B., Munir, R., & Blount, Y. (2014). *Association between Performance Measurement Systems and Organisational Effectiveness*. *International Journal of Operations & Production Management*,
Styles of Leadership. (n.d.). Retrieved February 21, 2015, from <http://ctb.ku.edu/en/table-of-contents/leadership/leadership-ideas/leadership-styles/main> Lithuanian manufacturing companies. *South East European Journal of Economics and Business*, 3(2), 57-66.
- McColl-Kennedy, J. R., & Anderson, R. D. (2002). *Impact of leadership style and emotions on subordinate performance*. *The Leadership Quarterly*, 13(5), 545-559.
- Ojokuku, R. M., Odetayo, T. A., & Sajuyigbe, A. S. (2012). *Impact of leadership style on organizational performance: A case study of Nigerian Banks*. *American Journal of Business and Management*, 1(4), 202-207.

Wang, H., Law, K. S., Hackett, R. D., Wang, D., & Chen, Z. X. (2005). Leader-member exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Academy of management Journal*, 48(3), 420-432.

Goleman, D. (2000). Leadership that gets results. *Harvard business review*, 78(2), 78-93.

MacKenzie, S. B., Podsakoff, P. M., & Rich, G. A. (2001). Transformational and transactional leadership and salesperson performance. *Journal of the academy of Marketing Science*, 29(2), 115-134.

Graeff, C. L. (1997). Evolution of situational leadership theory: A critical review. *The Leadership Quarterly*, 8(2), 153-170.

Vecchio, R. P. (1987). Situational Leadership Theory: An examination of a prescriptive theory. *Journal of Applied Psychology*, 72(3), 444.

Hartog, D. N., Muijen, J. J., & Koopman, P. L. (1997). Transactional versus transformational leadership: An analysis of the MLQ. *Journal of occupational and organizational psychology*, 70(1), 19-34.

Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management journal*, 49(2), 327-340.

Northouse, P. G. (2012). *Leadership: Theory and practice*. Sage.

Leadership Styles: Choosing the Right Approach for the Situation. (n.d.). Retrieved February 21, 2015, from http://www.mindtools.com/pages/article/newLDR_84.htm

Leadership Styles. (n.d.). Retrieved February 21, 2015, from

<http://guides.wsj.com/management/developing-a-leadership-style/how-to-develop-a-leadership-style/>
Transformational Leadership Style. (n.d.). Retrieved February 21, 2015, from <http://smallbusiness.chron.com/advantages-transformational-leadership-style-18809.h>

Styles of Leadership. (n.d.). Retrieved February 21, 2015, from <http://ctb.ku.edu/en/table-contents/leadership/leadership-ideas/leadership-styles/main> Lithuanian manufacturing companies. *South East European Journal of Economics and Business*, 3(2), 57-66.

McColl-Kennedy, J. R., & Anderson, R. D. (2002). Impact of leadership style and emotions on subordinate performance. *The Leadership Quarterly*, 13(5), 545-559.

Ojokuku, R. M., Odetayo, T. A., & Sajuyigbe, A. S. (2012). Impact of leadership style on organizational performance: A case study of Nigerian Banks. *American Journal of Business and Management*, 1(4), 202-207.

Wang, H., Law, K. S., Hackett, R. D., Wang, D., & Chen, Z. X. (2005). Leader-member exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Academy of management Journal*, 48(3), 420-432.

Goleman, D. (2000). Leadership that gets results. *Harvard business review*, 78(2), 78-93.

MacKenzie, S. B., Podsakoff, P. M., & Rich, G. A. (2001). Transformational and transactional leadership and salesperson performance. *Journal of the academy of Marketing Science*, 29(2), 115-134.

Graeff, C. L. (1997). Evolution of situational leadership theory: A critical review. *The Leadership Quarterly*, 8(2), 153-170.

Vecchio, R. P. (1987). Situational Leadership Theory: An examination of a prescriptive theory. *Journal of Applied Psychology*, 72(3), 444.

Hartog, D. N., Muijen, J. J., & Koopman, P. L. (1997). Transactional versus transformational leadership: An analysis of the MLQ. *Journal of occupational and organizational psychology*, 70(1), 19-34.

Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management journal*, 49(2), 327-340.

Northouse, P. G. (2012). *Leadership: Theory and practice*. Sage.
Leadership Styles: Choosing the Right Approach for the Situation. (n.d.). Retrieved February 21, 2015, from http://www.mindtools.com/pages/article/newLDR_84.htm
Leadership Styles. (n.d.). Retrieved February 21, 2015, from [http://guides.wsj.com/management/developing-a-leadership-style/how-to-develop-a-leadership-style/Transformational Leadership Style](http://guides.wsj.com/management/developing-a-leadership-style/how-to-develop-a-leadership-style/Transformational%20Leadership%20Style). (n.d.). Retrieved February 21, 2015, from <http://smallbusiness.chron.com/advantages-transformational-leadership-style-18809.htm> View publication stats

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Sincerely,

Mr. Amar Hocine Zireg

March 30, 2021

Statement of leadership philosophy for education

School leaders can no longer serve as simple managers of the school (Kotter, 2001). They must be transformational leaders where they build buy-in and unify a group towards a common goal (Kotter, 2001). My educational leadership philosophy focuses on providing instructional leadership to effect change and maintain a healthy school culture to improve student learning.

The instruction practices at a school should be rooted in data-driven instruction where all teachers and support staff are invested in the students' learning. By using research-based strategies that work and the examination of qualitative and quantitative data we can improve student outcomes. School leaders must serve as the instructional leader of the school by assisting teachers with implementation of the curriculum and serving as the lead learner. President should ensure the teachers are using a backward design method for the curriculum, which requires teachers to use data and the Common Core Standards to first establish what students need to know, and then plan assessments and lessons to get them to that point (Wiggins & McTighe, 2005). It is my job, as the school leader, to lead this process, and ensure teachers are continually reviewing instructional strategies to support student learning. School leaders can no longer serve as simple managers of the school (Kotter, 2001). They must be transformational leaders where they build buy-in and unify a group towards a common goal (Kotter, 2001).

"Everything [in leadership] has to be intentional" (Brown, 2016). This quote sums up my philosophy on educational leadership well. My vision and philosophy will serve as the guiding principles for every action I take as a leader. Every decision will intentionally work to further the school's progress towards the common goal. With an educational leadership philosophy focused on providing a world-class learning environment and strong instructional leadership, I will have a strong foundation to effect change in my school.

The school is the safest place for students. It is the only place where they get a hot, nutritious meal and it is the only place where there are adults who love them and who they can trust. It is an administrator's job to ensure that the school environment is safe and secure. This goal relies on everyone in the building doing his or her part to achieve it. Emergency plans must be clear and practiced often. A school-wide discipline plan must be in place that provides incentives for positive behavior and addresses negative behaviors by helping students understand consequences and how to make better choices. The school must be kept clean and well maintained. Well-maintained facilities produce a positive learning environment for students and a positive image of the school for the community. School leaders must also take care to ensure that the school culture is positive, making it a place people want to teach and learn. The school should feel like a small community where everyone is a contributing member to its success. The faculty needs to collaborate with one another and have the ability to provide input on important decisions regarding student learning.

One of the most important aspects of a school leader's job is to facilitate the change process. In the current educational climate of our country, schools must continually seek ways to improve their processes in order to push the performance levels of students even higher. In order to lead this change process, school leaders must do a number of things. They must cultivate buy-in for the change process by using data to drive decisions and setting goals. They must allow teachers to be a part of the data process, which will identify areas where change is needed, and then implement and monitor the action plan to make this change. It is president's job to create a culture of collaborative inquiry within in the school where teachers will work together to implement new instructional strategies to improve student learning (Love, Stiles, Mundry, & DiRanna, 2008).

How can you create a culture of innovation in your district? Innovative organizations are consistently able to do these few things (adapted from Hoque 2014):

- Listen to insights and ideas from inside and outside your community.
- Stay open to ideas from "novices"—including students—and "backroom tinkerers."
- Collaborate with outside experts and organizations to bring new perspectives and ideas into the innovation process.
- Go flat in your management structure to eliminate long approval processes and disjointed lines of communication.
- Embrace failure, because unintended results and accidents can lead to innovative discoveries. And consider these other ideas:
- Be intentional about what you want to accomplish. Make sure your school community knows what your vision and mission are, so people can align their thinking with those goals (Kaplan 2013).
- Train staff to help them understand and develop entrepreneurial skills, such as creative and critical thinking, problem solving, risk assessment and risk-taking, and communication and collaboration.
- Look at problems from multiple angles, and dig down to identify root causes (Microsoft Educator Network).
- Create spaces and times to focus on innovation (Microsoft Educator Network), such as innovation labs, events, and structured and unstructured time for collaboration, where innovators can brainstorm, work with others tackling similar problems, and share their experiences (Markman 2012, Schwartz 2010, Kaplan 2013).
- Maximize diversity of people, perspectives and experiences to generate new ideas (Linkner 2011).
- Pilot ideas with small populations—in a classroom, a few classrooms or a school or with a targeted group of students. Monitor and adjust strategies to improve implementation and measure the impact. If the idea works, don't keep it under wraps: scale it up.
- Reward risk takers with informal recognition and symbolic gestures, such as sharing success (and failure) stories that celebrate lessons learned (Kaplan 2013).

Mr. Amar Hocine Zlreg