

Nikos J. Mourtos

I. PERSONAL

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II. EDUCATION

1983-1987 Ph.D., Aeronautical & Astronautical Engineering, Stanford University.
1982-1983 ENGINEER, Aeronautical & Astronautical Engineering, Stanford University.
1980-1982 M.S., Aeronautical & Astronautical Engineering, Stanford University.
1975-1980 B.S., Mechanical Engineering, University of Patras, Greece.

Short Courses & Workshops Attended

03-05Feb.2016 UAV Design w. D. P. Raymer, UCLA.
20Feb.2010 ABET Faculty Workshop on Sustainable Assessment Processes w. G. Rogers, Las Vegas, Nevada.
26Oct.2006 Seeing Faculty as Learners: Three Theoretical Frameworks for Faculty Development w. J. Froyd & J. Layne, Professional and Organizational Development Network in Higher Education Conference, Portland, Oregon.
25Oct.2006 Leading your own workshop on Course Design w. Dee Fink, Professional and Organizational Development Network in Higher Education Conference, Portland, Oregon.
19-20Jan.2005 Working with Others: Communicating more effectively to get the results we want, Cadence University, San Jose, California.
17Oct.2003 SNAME ABET Program Evaluator Training, San Francisco, California.
01May2003 Assessment, workshop w. Joni E. Spurlin, SJSU.
14Mar.2003 Helping new faculty members get off to a good start: A workshop for Administrators and Mentors, w. R. Felder & R. Brent, SJSU.
31Mar-01Apr.2001 ABET Workshop on Engineering Criteria 2000, Los Angeles, California.
22-23Oct.1998 Teaching Effectiveness Workshop, w. R. Felder & R. Brent, FAMU.
01-03Oct.1998 Pacific Crest Teaching Institute, w. D. Apple, SJSU.
15Sep.1998 Portfolios: What are they good for?, w. G. Rogers, NSF/ASEE visiting scholar, SJSU.
16Apr.1998 NSF Shaping the Future of Undergraduate Engineering Education in Science, Mathematics, Engineering & Technology, SJSU.
12Mar.1998 Outcomes Assessment in Engineering Education, w. G. Rogers, NSF/ASEE visiting scholar, SJSU.
16Oct.1997 The Internet in Higher Education: Silicon & Fiber replacing Bricks & Mortar, w. B. Oakley, SJSU.
11Apr.1997 Teaching with Style, w. T. Grasha, SJSU.
12-16Aug.1996 Cooperative Learning, w. K. Smith, Michigan State University.
24-25Jan.1995 Cooperative Learning, w. K. Smith, SJSU.
15-18Jun.1993 Instrumentation for Engineering Measurements, w. A. J. Schiff, Stanford University.
22Jul-02Aug.1991 Aircraft Design Education Seminar, w. J. Roskam, University of Kansas.
23-27Apr.1990 Aircraft Conceptual Design, w. D. P. Raymer, UCLA.
6-7Oct.1988 Aerodynamic Analysis & Design, AIAA Professional Study Series, Palo Alto, California.
11-15Jul.1988 Aircraft Design Short Course, w. L. Nicolai, J. Pinson, et al., Bergamo Center, Dayton, Ohio.

III. PROFESSIONAL CAREER

2012-present Director, Aerospace Engineering Program, San Jose State University, California.
2010-2011 Aerospace Engineering Associate Chair, Department of Mechanical & Aerospace Engineering, San Jose State University, California.
1999-present Professor, Department of Mechanical & Aerospace Engineering, SJSU.
2006-2008 Assistant Director, SJSU Center for Faculty Development & Support.
2004-2006 Coordinator, Aerospace Engineering Program, SJSU
1996-2002 Faculty Instructional Development Coordinator, College of Engineering, SJSU.

1998-2002 Faculty-in-Residence for Innovative Pedagogy, SJSU Institute for Teaching & Learning.
 1991-1999 Associate Professor, Department of Mechanical & Aerospace Engineering, SJSU.
 1988-1991: Assistant Professor, Department of Aerospace Engineering, SJSU.
 1985-1988: Lecturer, Departments of Mechanical and Aerospace Engineering, SJSU.
 1980-1987 : Research Assistant, Joint Institute for Aeronautics and Acoustics,
 Department of Aeronautics and Astronautics, Stanford University, California.
 1987: Teaching Assistant, Department of Mechanical Engineering, Stanford University, California.

A. Workshops for Faculty

	Date	Workshop Title	Duration	No. of participants	Venue
93	26 Jan 2016	Preparing Engineers for the 21 st Century: How to Teach Engineering Students Process Skills	6 hrs	4	Aerospace Engineering, SJSU
92	02 Nov 2015	Preparing Engineers for the 21 st Century: How to Teach Engineering Students Process Skills	1.5 hrs	14	3 rd International Engineering Education & Technology Conference (IETEC'15), Sibiu, Romania.
91	26 – 28 May 2015	Preparing Engineers for the 21 st Century: How to Teach Engineering Students Process Skills	3 days	100+	College of Engineering, Sultan Qaboos University, Muscat, Oman
90	04 Dec 2014	Preparing Engineers for a Globalized Economy: How to Teach Engineering Students Process Skills	3 hrs	26	World Engineering Education Forum (WEEF '14) Dubai, United Arab Emirates
89	03 Nov. 2013	Preparing Students for a Globalized World: How to Teach Engineering Students Process Skills	3 hrs	45	2 nd International Engineering Education & Technology Conference (IETEC'13), Ho Chi Minh City, Vietnam.
88	16 Mar. 2011	A Conversation with Artists Teaching Art	3 hrs	17	Artists Teaching Art Seminar (Art 276), SJSU
87	16 Jan. 2011	Preparing Students for a Globalized World: How to Teach Engineering Students Process Skills	3 hrs	11	1 st International Engineering Education & Technology Conference (IETEC'11), Kuala Lumpur, Malaysia.
86	16 Mar. 2010	1. Course Learning Objectives & Bloom's Taxonomy; 2. Teaching & Learning Styles: The Felder/Silverman model	3 hr	15	Artists Teaching Art Seminar (Art 276), SJSU
85	20 Jan. 2009	Course Learning Objectives & Bloom's Taxonomy	2 hr	12	College of Engineering Qatar University, Doha, Qatar
84	19 Jan. 2009	Program Educational Objectives and Outcomes: How to Design a Sustainable, Systematic Process for Continuous Improvement	2 hr	15	College of Engineering Qatar University, Doha, Qatar
83	04 Jun. 2008	Course Learning Objectives & Bloom's Taxonomy: The Affective Domain	1.5 hr	15	UCSC Extension – Cupertino; SJSU MS Nursing Program
82	09 Apr. 2008	Teaching & Learning Styles: The Kolb Learning Cycle	1.5 hr	1	SJSU Center for Faculty Development & Support
81	08 Apr. 2008	1. Course Learning Objectives & Bloom's Taxonomy 2. Teaching & Learning Styles: The Felder/Silverman model	3 hr	15	Artists Teaching Art Seminar (Art 276), SJSU
80	19 Mar.	Course Design: Blueprint for	1.5 hr	3	SJSU Center for Faculty

	2008	Success: Engaging Students in the Act of Learning: Implementing Active, Cooperative, and Problem-Based Learning			Development & Support
79	05 Mar. 2008	Course Design: Blueprint for Success: What does your Dream Student Look Like? Course Learning Objectives & Bloom's Taxonomy	1.5 hr	6	SJSU Center for Faculty Development & Support
78	27 Feb. 2008	Active Learning – Cooperative Learning – Problem-Based Learning	1 hr	20	College of Business
77	18 Feb. 2008	1. What does it take for Your Students to Learn Something New? Conditions of Learning 2. Course Learning Objectives & Bloom's Taxonomy	2.5 hr	15	Artists Teaching Art Seminar (Art 276)
76	14 Feb. 2008	Course Design: Blueprint for Success: What does it take for Your Students to Learn Something New? Conditions of Learning	1.5 hr	5	SJSU Center for Faculty Development & Support
75	07 Feb. 2008	Scholarly Circle: Getting Started on the Scholarship of Teaching & Learning – Part 2: Methods	2 hr	4	SJSU Center for Faculty Development & Support
74	30 Jan. 2008	Course Design: Blueprint for Success: How to Teach & Assess Design of Experiments	1.5 hr	1	SJSU Center for Faculty Development & Support
73	25 Jan. 2008	Active Learning – Cooperative Learning – Problem-Based Learning	1 hr	40	SJSU Center for Faculty Development & Support; for MUSE Faculty
72	06 Dec. 2007	Scholarly Circle: Getting Started on the Scholarship of Teaching & Learning – Part 2: Methods	2 hr	3	SJSU Center for Faculty Development & Support
71	08 Nov. 2007	Scholarly Circle: Getting Started on the Scholarship of Teaching & Learning – Part 1: Defining Your Research Questions	2 hr	8	SJSU Center for Faculty Development & Support
70	07 Nov. 2007	Scholarly Circle: Getting Started on the Scholarship of Teaching & Learning – Part 1: Defining Your Research Questions	2 hr	8	SJSU Center for Faculty Development & Support
69	01 Nov. 2007	Teaching Students to be Lifelong Learners	1.5-hr	1	SJSU Center for Faculty Development & Support
68	24 Oct. 2007	Active Learning – Cooperative Learning – Problem-Based Learning	1.5-hr	13	UCSC Extension – Cupertino; SJSU MS Nursing Students
67	18 Oct. 2007	Active Learning – Cooperative Learning – Problem-Based Learning	1.5-hr	5	SJSU Center for Faculty Development & Support
66	15 Oct. 2007	Preparing Students for a Globalized World: How to Teach Students Process Skills	1.5-hr	30	School of Nursing (retreat), SJSU
65	10 Oct. 2007	How to Teach and Assess Design of Experiments w. <i>T. Anagnos, C. Komives, K. Mc.Mullin</i>	3-hr	5	IEEE/ASEE Frontiers in Education Conf. Milwaukee, WI
64	26 Sep. 2007	Course Learning Objectives & Bloom's Taxonomy	1.25 hr	20	BSN Associate Degree Program, SJSU
63	19 Sep. 2007	Preparing Students for a Globalized Worl: How to Teach Engineering	1.5-hr	1	SJSU Center for Faculty Development & Support

		Students Process Skills			
62	13 Sep. 2007	Teaching & Learning Styles: The Felder/Silverman model	1.5-hr	2	SJSU Center for Faculty Development & Support
61	12 Sep. 2007	Teaching & Learning Styles: The Felder/Silverman model	2-hr	14	UCSC Extension – Cupertino; SJSU MS Nursing Program
60	02 Sep. 2007	Preparing Students for a Globalized World: How to Teach Engineering Students Process Skills	3.5-hr	15	International Conf. on Engineering Education, Coimbra, Portugal
59	22 Aug. 2007	Course Learning Objectives & Bloom’s Taxonomy	1.5-hr	2	SJSU Center for Faculty Development & Support
58	15 Aug. 2007	Course Learning Objectives & Bloom’s Taxonomy	1-hr	25	SJSU Center for Faculty Development & Support
57	23 May 2007	Course Learning Objectives & Bloom’s Taxonomy	2-hr	18	School of Library & Information Science, SJSU
56	24 Apr. 2007	Teaching & Learning Styles: The Felder/Silverman model	2-hr	18	School of Library & Information Science, SJSU
55	02 Apr. 2007	Assessment Tools: Keep in Mind what ABET is looking for!	2-hr	50	College of Engineering, King Abdul-Aziz University, Jeddah, Saudi Arabia
54	31 Mar. 2007	Engineering Accreditation Process at SJSU	2-hr	50	College of Engineering, King Abdul-Aziz University, Jeddah, Saudi Arabia
53	14 Mar. 2007	Course Design: Blueprint for Success, part 6: How do I Know my Course is Effective? – Diagnostic and Formative Assessment	2-hr	2	SJSU Center for Faculty Development & Support
52	08 Mar. 2007	Course Design: Blueprint for Success, part 5: Lectures, Activities, and Assignments to Address Specific Instructional Objectives	2-hr	1	SJSU Center for Faculty Development & Support
51	29 Feb. 2007	Must one be a Lifelong Learner to be an Educated Person?	1-hr	6	SJSU Center for Faculty Development & Support
50	22 Feb. 2007	Course Design: Blueprint for Success, part 4: Engaging Students in the Act of Learning	2-hr	3	SJSU Center for Faculty Development & Support
49	14 Feb. 2007	Course Design: Blueprint for Success, part 3: The Way We Teach and the Way They Learn: Bridging the Gap	2-hr	2	SJSU Center for Faculty Development & Support
48	08 Feb. 2007	Course Design: Blueprint for Success, part 2: What does your Dream Student Look Like? Course Learning Objectives & Bloom’s Taxonomy	2-hr	4	SJSU Center for Faculty Development & Support
47	31 Jan. 2007	Course Design: Blueprint for Success, part 1: What does it take for Your Students to Learn Something New? Conditions of Learning	2-hr	2	SJSU Center for Faculty Development & Support
46	17–19 Jan. 2007	Course Design: Blueprint for Success	3-Day	10	SJSU Center for Faculty Development & Support
45	29 Nov. 2006	Teaching Students to be Lifelong Learners	1.5-hr	5	SJSU Center for Faculty Development & Support
44	13 Nov. 2006	Program Educational Objectives and Outcomes: How to Design a	1.5-hr	5	SJSU Center for Faculty Development & Support

		Sustainable, Systematic Process for Continuous Improvement			
43	02 Nov. 2006	What does it take for Your Students to Learn Something New? (Conditions of Learning)	1.5-hr	6	SJSU Center for Faculty Development & Support
42	31 Oct. 2006	Course Learning Objectives & Bloom's Taxonomy	1.5-hr	10	College of Business, SJSU
41	28 Oct. 2006	Program Educational Objectives and Outcomes: How to Design a Sustainable, Systematic Process for Continuous Improvement	3-hr	31	IEEE/ASEE Frontiers in Education Conf., San Diego, CA
40	19 Oct. 2006	How do I Know my Course is Effective? Formative and Summative Assessment for Continuous Course Improvement	1.5 hr	7	SJSU Center for Faculty Development & Support
39	21 Sep. 2006	Course Design to Meet the Specs: Lectures, Activities, and Assignments to Address Specific Instructional Objectives	1.5 hr	6	SJSU Center for Faculty Development & Support
38	13 Sep. 2006	Well-Rounded Teaching for Well-Rounded Learning: The Kolb Learning Cycle	1.5 hr	6	SJSU Center for Faculty Development & Support
37	31 Aug. 2006	The Way They Learn and the Way We Teach: Bridging the Gap	1.5-hr	17	SJSU Center for Faculty Development & Support
36	24 Aug. 2006	Instructional Objectives and Bloom's Taxonomy: Understanding by Design	1.5-hr	6	SJSU Center for Faculty Development & Support
35	18 Aug. 2006	Active Learning – Cooperative Learning – Problem-Based Learning	2-hr	24	SJSU Center for Faculty Development & Support
34	03 May 2006	Energy Transformation <i>w. T. Anagnos, C. Komives, K. Mc.Mullin</i>	2-hr	10	NSF-Sponsored; Synopsis, Sunnyvale, CA; for Science Teachers
33	26 Apr. 2006	Energy Transformation <i>w. T. Anagnos, C. Komives, K. Mc.Mullin</i>	2-hr	10	NSF-Sponsored; Synopsis, Sunnyvale, CA; for Science Teachers
32	22 Mar. 2006	Energy Transformation <i>w. T. Anagnos, C. Komives, K. Mc.Mullin</i>	2-hr	8	NSF-Sponsored; Kennedy Middle School, Redwood City, CA; for Science Teachers
31	15 Mar. 2006	Energy Transformation <i>w. T. Anagnos, C. Komives, K. Mc.Mullin</i>	2-hr	8	NSF-Sponsored; Kennedy Middle School, Redwood City, CA; for Science Teachers
30	23 Aug. 2002	Teaching Engineering in the New Millennium	Full-Day	22	Faculty Instructional Development Program, College of Engineering, SJSU
29	19 Apr. 2002	Teaching & Learning Styles: The Kolb Learning Cycle	2-hr	10	SJSU Center for Faculty Development & Support
28	15 Mar. 2002	Teaching & Learning Styles: The Felder/Silverman model	2-hr	7	SJSU Center for Faculty Development & Support
27	15 Feb. 2002	What does it take for Your Students to Learn Something New? Conditions of Learning	2-hr	7	SJSU Center for Faculty Development & Support
26	26 Oct. 2001	Active Learning – Cooperative Learning – Problem-Based Learning	2-hr	6	SJSU Center for Faculty Development & Support
25	10 Oct.	Active Learning – Cooperative	3-hr	11	IEEE/ASEE Frontiers in

	2001	Learning – Problem-Based Learning			Education Conf., Kansas City, MO
24	14 Sep. 2001	Course Learning Objectives & Bloom’s Taxonomy	2-hr		SJSU Center for Faculty Development & Support
23	22 Aug. 2001	Teaching Engineering in the New Millennium	Full-Day	19	Faculty Instructional Development Program, College of Engineering, SJSU
22	27 Apr. 2001	Teaching & Learning Styles: The Kolb Learning Cycle	2-hr	5	SJSU Center for Faculty Development & Support
21	23 Feb. 2001	What does it take for Your Students to Learn Something New? Conditions of Learning	2-hr	4	SJSU Center for Faculty Development & Support
20	22 Jan. 2001	Teaching Design to Freshmen	4-hr	15	Faculty Instructional Development Program, College of Engineering, SJSU; for Engr.10 faculty
19	17 Nov. 2000	Course Learning Objectives & Bloom’s Taxonomy	2-hr	6	SJSU Center for Faculty Development & Support
18	27 Oct. 2000	Active Learning – Cooperative Learning – Problem-Based Learning	2-hr	7	SJSU Center for Faculty Development & Support
17	18 Oct. 2000	Active Learning – Cooperative Learning – Problem-Based Learning	3-hr	7	IEEE/ASEE Frontiers in Education Conf., Reno, NV
16	22 Sep. 2000	Teaching & Learning Styles: The Felder/Silverman model	2-hr	6	SJSU Center for Faculty Development & Support
15	23 Aug. 2000	Teaching & Learning Styles: The Felder/Silverman model	2-hr	13	SJSU Center for Faculty Development & Support
14	19 Jan. 2000	1. Teaching & Learning Styles: The Felder/Silverman model 2. Course Learning Objectives & Bloom’s Taxonomy & Bloom’s Taxonomy	4-hr	16	Faculty Instructional Development Program, College of Engineering, SJSU
13	29 Oct. 1999	What does it take for Your Students to Learn Something New? Conditions of Learning	2-hr	5	SJSU Center for Faculty Development & Support
12	01 Oct. 1999	Teaching & Learning Styles: The Felder/Silverman model	2-hr	19	SJSU Center for Faculty Development & Support
11	23 Aug. 1999	Teaching Skills Workshop	2-hr	9	MPH, Dept. of Health Science, SJSU
10	20 Aug. 1999	Active Learning – Cooperative Learning – Problem-Based Learning	2-hr	11	SJSU Center for Faculty Development & Support
9	27 Apr. 1999	Teaching & Learning Styles: The Felder/Silverman model	2-hr	14	SJSU Center for Faculty Development & Support
8	23 Feb. 1999	What does it take for Your Students to Learn Something New? Conditions of Learning	2-hr	18	SJSU Center for Faculty Development & Support
7	21 Jan. 1999	Introduction to Engineering: A Time for Change	2-hr	4	Faculty Instructional Development Program, College of Engineering, SJSU; for Engr.10 faculty
6	13 Nov. 1998	Teaching & Learning Styles: The Felder/Silverman model	2-hr	7	SJSU Center for Faculty Development & Support
5	16 Oct. 1998	Active Learning – Cooperative Learning – Problem-Based Learning	2-hr	11	SJSU Center for Faculty Development & Support
4	19 Aug. 1998	Active Learning – Cooperative Learning – Problem-Based Learning	2-hr	60	SJSU Center for Faculty Development & Support; New

					Faculty Orientation
3	07 Mar. 1997	What does it take for Your Students to Learn Something New? Conditions of Learning	1.5 hr	8	Lilly Conf. on College & University Teaching, Lake Arrowhead, CA
2	17 May 1996	What does it take for Your Students to Learn Something New? Conditions of Learning	2-hr	12	Faculty Instructional Development Program, College of Engineering, SJSU
1	15 Mar. 1996	Active Learning – Cooperative Learning – Problem-Based Learning	2-hr	18	Faculty Instructional Development Program, College of Engineering, SJSU

B. Courses Taught

- Aerospace: AE 10 Introduction to Aerospace Engineering (developed as a new course)
 AE 15 Air & Space Flight: Past, Present and Future (developed as a new course)
 AE 160 Aerodynamics I (developed as a new course)
 AE 162 Aerodynamics II (developed as a new course)
 AE 164 Compressible Flow
 AE 167 Aerospace Propulsion
 AE 171 A,B Aircraft Design I and II (developed as new courses)
 AE 262 Advanced Aerodynamics (developed as a new course)
 AE 264 Advanced Compressible Flow (developed as a new course)
 AE 271 Advanced Aircraft Design (developed as a new course)
- Mechanical: ME 101 Dynamics
 ME 102 Engineering Mechanics
 ME 111 Fluid Mechanics
 ME 112 Fluid Mechanics Laboratory
 ME 223 Gas Dynamics
 ME 297 Special Topics: Fluid Mechanics / Thermodynamics / Heat Transfer
- General Engineering: ENGR. 10: Introduction to Engineering
 ENGR/PHYS/MATH 96 A : Problem-Based, Integrated Calculus, Physics and Engineering (Team leader in developing / teaching this 10 unit course)
- General Education: AE 96 B From Insects to Jumbo Jets: The Science of Flight (developed as a new course for the SJSU MUSE program)

C. Research Areas

C1. Technical

- Aircraft design.
- Low speed & high angle of attack aerodynamics.
- Modeling and control of vortical flows.
- Boundary layers and flow separation.
- Hot gas ingestion in jet-powered, V/STOL aircraft.

C2. Engineering Education

- Exploring connections between art & creativity in engineering design
- Engineering course design and assessment
- Teaching and assessment of problem solving skills
- Teaching and assessment of engineering design skills
- Program assessment.
- Active, cooperative, problem-based, project-based, and service learning.
- Learning theories: learning styles, taxonomy of educational objectives, conditions of learning.

IV. HONORS & AWARDS

- 2014 Nominated for the SJSU Student Organization Advisor of the Year Award by ΣΓΤ (Aerospace Engineering Honor Society) students
- 2008 Honorable Mention – Provost's Outstanding Scholarship of Teaching and Learning Award
- 2008 ΣΓΤ (Aerospace Engineering Honor Society) Professor of the Year Award
Voted by Aerospace Engineering Students
- 2007 ΣΓΤ (Aerospace Engineering Honor Society) Best Professor Award
Voted by Aerospace Engineering Students
- 2007 Provost's Assessment Award
for Commitment to Program Excellence through Student Learning Assessment
as a member of the SJSU College of Engineering Assessment Committee
- 2007 Appointed Associate Member of the Academic Accreditation Unit, College of Engineering, King Abdul Aziz University, Saudi Arabia
- 2006 UICEE Bronze (5th Place) Award for a distinguished contribution in delivering an outstanding paper to the 9th UICEE Annual Conf. on Engineering Education in Muscat, Oman, Feb. 11 – 15
- 2005 UICEE Diamond (Best Paper) Award for a distinguished contribution in delivering an outstanding paper to the 8th UICEE Annual Conf. on Engineering Education in Kingston, Jamaica, Feb. 7 - 11
- 2004 Honorable Mention Award for Research on College Teaching and Learning
from the SJSU Center for Faculty Development
- 2004 UICEE Silver (4th Place) Award for a distinguished contribution in delivering an outstanding paper to the 7th UICEE Annual Conf. on Engineering Education in Mumbai, India, Feb. 9 - 13
- 2003 UNESCO International Centre for Engineering Education Silver Badge of Honour for distinguished contributions to engineering education, outstanding achievements in the globalization of engineering education through the activities of the Centre, and, in particular, for remarkable service to the UICEE
- 2002 College of Engineering McCoy Family Award for Excellence in Faculty Service
- 2001 Faculty-in-Residence for Collaborative Learning, SJSU Center for Faculty Development & Support
- 2000 Outstanding Zone Campus Representative Award, from the American Society for Engineering Education, for outstanding initiative in representing ASEE on the campus and for stimulating interest among faculty
- 2000 Campus Representative Award, from the American Society for Engineering Education, for outstanding achievement in promoting membership in the PSW section
- 1999 Campus Representative Award, from the American Society for Engineering Education, for outstanding achievement in promoting membership in the PSW section
- 1998 Faculty-in-Residence for Innovative Pedagogy, from the Institute for Teaching & Learning.
- 1998 Outstanding Zone Campus Representative Award, from the American Society for Engineering Education, for outstanding initiative in representing ASEE on the campus and for stimulating interest among faculty
- 1998 SJSU Award on Research in Teaching & Learning, from the Institute for Teaching & Learning.
- 1998 &
- 1997 Who's Who Among America's Teachers: The best teachers in America selected by the best students
- 1997 Ralf R. Teetor Educational Award from the Society for Automotive Engineering for outstanding contributions in engineering education
- 1996 Presidential Special Recognition Award, for exceptional achievements in advancing the University's mission
- 1996 College of Engineering Excellence in Teaching Award, SJSU
- 1995 Teacher Scholar, nominated by the School of Engineering and selected by the SJSU Institute for Teaching & Learning
- 1993 Tenure, Department of Aerospace Engineering, SJSU
- 1991 Summer Faculty Fellowship from ASEE to continue research on Hot Gas Ingestion of Jet V/STOL Aircraft, NASA Ames Research Center
- 1990 Summer Faculty Fellowship from ASEE to research Hot Gas Ingestion of Jet V/STOL Aircraft, NASA Ames Research Center
- 1990 Meritorious Performance & Professional Promise Award for outstanding contributions to the academic community at SJSU

- 1980 Research Assistanship from the Joint Institute for Aeronautics & Acoustics, (Dept. of Aeronautics & Astronautics, Stanford University / NASA Ames Research Center) to perform research on High Angle of Attack Aerodynamics
- 1980 Scholarship from the Institute of Governmental Scholarships for ranking 2nd in the senior Mechanical Engineering class, U. of Patras, Greece
- 1979 Scholarship from the Institute of Governmental Scholarships for ranking 4th in the junior Mechanical Engineering class, U. of Patras, Greece
- 1978 Summer Internship from the International Association for the Exchange of Students for Technical Experience at Brneska Strojirna (Steam Boiler and Gas Turbine Design and Manufacturing Co.) in Brno, Czechoslovakia
- 1978 Scholarship from the Institute of Governmental Scholarships for ranking 1st in the sophomore Mechanical Engr. class, U. of Patras, Greece

V. PUBLICATIONS

Journal Articles – Education

- Mourtos, N.J., Preparing Engineers for the 21st Century: How to Teach Engineering Students Process Skills, **Invited Paper**, International Journal for Quality Assurance in Engineering and Technology Education, to be published, 2016.
- Mourtos, N.J., Defining, Teaching, and Assessing Engineering Design Skills, **Invited Paper**, International Journal for Quality Assurance in Engineering and Technology Education, Special Issue, vol.2, no.1, Jan.-Jun. 2012, pp. 14-30.
- Mourtos, N.J., Challenges Students Face when Solving Open - Ended Problems International Journal of Engineering Education, vol.26, no.4, part 1, 2010.
- Yu, Z. (John), Gee, G., Tabrizi, A., Redd, T., Torres, D., Miller, J., Crossfield, J. & Mourtos, N.J., Development and Implementation of a 3D Laser Scanning Course for Land Surveying Surveying and Land Information Science, vol.70, no.1, 2010, pp.1-6.
- Mourtos, N.J., A Sustainable, Systematic Process for Continuous Program Improvement, **Invited Paper**, UICEE Global Journal of Engineering Education, vol.10, no.2, 2006, pp. 191-204.
- Mourtos, N.J., The Scholarship of Teaching Engineering at San Jose State University; a Faculty Member's Perspective, **Invited Paper**, UICEE Global Journal of Engineering Education, vol.10, no.1, 2006, pp. 73-84.
- DeJong-Okamoto, N., Rhee, J., Mourtos, N.J., Incorporating the Impact of Engineering Solutions on Society into Technical Engineering Courses, **Invited Paper**, UICEE Global Journal of Engineering Education, vol.9, no. 2, 2005, pp.77-87.
- Mourtos, N.J., DeJong-Okamoto, N., Rhee, J., Open-Ended Problem Solving Skills in Thermal-Fluids Engineering, **Invited Paper**, UICEE Global Journal of Engineering Education, vol.8, no. 2, 2004, pp.189-199.
- Mourtos, N.J., From Learning to Talk to Learning Engineering: Drawing Connections across the Disciplines, UICEE World Transactions on Engineering and Technology Education, vol.2, no.2, 2003, pp. 195-200.
- Mourtos, N.J., Allen, E.L., Introducing Cooperative Learning through a Faculty Instructional Development Program, ASEE Journal of Engineering Education, October 2001, pp.669-675.
- Mourtos, N.J., Portfolio Assessment in Aerodynamics, ASEE Journal of Engineering Education, April 1999, pp.223-229.
- Mourtos, N.J., The Nuts & Bolts of Cooperative Learning in Engineering, ASEE Journal of Engineering Education, January 1997, pp.35-37 (Received the **1998 SJSU Award on Research in Teaching & Learning from the Institute for Teaching & Learning**).

Journal Articles – Technical

- Mourtos, N.J., Flow past a Flat Plate with a Vortex / Sink Combination, ASME Journal of Applied Mechanics, June 1996.
- Mourtos, N.J., Control of Vortical Separation on a Circular Cone, The Aeronautical Journal, July 1990. Also, AIAA paper No. 88-0482.

Papers in Conference Proceedings – Education

- Mourtos, N.J., Reflection as a Way to Develop Engineering Process Skills, submitted to the *Annual International Conference on Engineering Education & Teaching*, June 2016.
- Mourtos, N.J., Integrating General Education Outcomes into a Senior Design Capstone Experience, *Proceedings, World Engineering Education Forum*, December 2014.
- Mourtos, N.J., Service Learning in Aerodynamics at San José State University, *Proceedings, 2nd International Engineering and Technology Education Conference*, November 2013.
- Mourtos, N.J., Woodrow, P., Student-Led Active Learning Workshops: Increasing Student Retention, Decreasing Time to Graduation and Providing High-Performing Students with Opportunities to Develop Coaching Skills, *Proceedings, World Engineering Education Forum*, October 2012.
- Mourtos, N.J., Teaching Engineering Design Skills, *Proceedings, 1st International Engineering and Technology Education Conference*, January 2011.
- Mourtos, N.J., Challenges Students Face in Solving Open-Ended Problems, *Proceedings, 7th ASEE Global Colloquium on Engineering Education*, October 2008.
- Anagnos, T., Komives, C., Mourtos, N.J., McMullin, K.M., Evaluating Student Mastery of Design of Experiment, *Proceedings, 37th IEEE / ASEE Frontiers in Education Conference*, October 2007.
- Mourtos, N.J., An Engineering Approach to Course Design, *Proceedings, 6th ASEE Global Colloquium on Engineering Education*, October 2007.
- Huet, I., Mourtos, N.J., Costa, N., Pacheco, O., Models for Research-Based Teaching in Engineering Courses: A Case-Study at the University of Aveiro (Portugal) and San José State University (USA), *Proceedings, 10th International Conference on Engineering Education*, September 2007.
- Mourtos, N.J., Workshop: Program Educational Objectives and Outcomes: How to Design a Sustainable, Systematic Process for Continuous Improvement, *Proceedings, 36th ASEE / IEEE Frontiers in Education Conference*, October 2006.
- Mourtos, N.J., Papadopoulos, P., Agrawal, P., A Flexible, Problem-Based, Integrated Aerospace Engineering Curriculum, *Proceedings, 36th ASEE / IEEE Frontiers in Education Conference*, October 2006.
- Mourtos, N.J., Program Educational Objectives and Assessment: A Systematic Process for Continuous Improvement, *Proceedings, 5th ASEE Global Colloquium on Engineering Education*, October 2006.
- Komives, C., Mourtos, N.J., Anagnos T., McMullin, K.: Enhancing Inquiry Skills in Engineering through a University-School District Partnership, *Proceedings, 9th International Conference on Engineering Education*, July 2006.
- Mourtos, N.J., A Systematic Approach for Defining and Assessing Program Educational Objectives and Outcomes, *Proceedings, World Congress on Computer Science, Engineering, and Technology Education*, March 2006.
- Mourtos, N.J., Program Outcomes and Assessment: A Sustainable, Systematic Process for Continuous Improvement, Lead Paper, *Proceedings, 9th Annual UICEE Conf. on Engineering Education*, February 2006 (Bronze Award).
- Du, W.Y., Furman, B.J., Mourtos, N.J., On the Ability to Design Engineering Experiments, *Proceedings, 8th Annual UICEE Conference on Engineering Education*, February 2005.
- DeJong-Okamoto, N., Rhee, J., Mourtos, N.J., Educating Students to Understand the Impact of Engineering Solutions in a Global / Societal Context, Invited Keynote Address, *Proceedings, 8th Annual UICEE Conference on Engineering Education*, February 2005 (Diamond Award)
- Mourtos, N.J., DeJong-Okamoto, N., Rhee, J., Defining, Teaching and Assessing Problem Solving Skills, *Proceedings, 7th Annual UICEE Conference on Engineering Education*, February 2004 (Silver Award)
- Mourtos, N.J., Defining, Teaching and Assessing Lifelong Learning Skills, *Proceedings, 33rd ASEE / IEEE Frontiers in Education Conference*, November 2003.
- Mourtos, N.J., Allen, E.L., Assessing the Effectiveness of a Faculty Instructional Development Program, part 2: Teaching and Learning Styles, Lead Paper, *Proceedings, 6th Annual UICEE Conference on Engineering Education*, February 2003.
- Mourtos, N.J., Furman, B.J., Assessing the Effectiveness of an Introductory Engineering Course for Freshmen, *Proceedings, 32nd ASEE / IEEE Frontiers in Education Conference*, November 2002.

- Nelson, C., Kirk, D., McMullin, K., Meyers, S., Mourtos, N.J., Viajar, P., Technological Literacy for K-6 Teachers: How Things Are Designed and Work, Invited Paper, *Proceedings, ASEE Annual Conference*, June 2002.
- Mourtos, N.J., McMullin, K., A Comparison of Student Learning and Satisfaction in Online and Onground Engineering Courses, *Proceedings, 4th Annual UICEE Conference on Engineering Education*, February 2001.
- Mourtos, N.J., Allen, E.L., Assessing the Effectiveness of a Faculty Development Program, part 1: Cooperative Learning, Lead Paper, *Proceedings, Global Congress on Engineering Education*, July 2000.
- Mourtos, N.J., A Model of Learning as it applies to Engineering, *Proceedings, ASEE / IEEE Frontiers in Education Conference*, November 1996.
- Mourtos, N.J., The Nuts & Bolts of Cooperative Learning in Engineering, Honorable Mention, Ben Dasher Award Committee, *Proceedings, ASEE / IEEE Frontiers in Education Conference*, November 1994.
- Mourtos, N.J., Using Cooperative Learning in Engineering Courses, *Proceedings, ASEE Pacific South-West Conference*, September 1994.
- Desautel, D., Hunter, J., Mourtos, N.J., Pernicka, H., Development and Integration of Modern Laboratories in Aerospace Education, *Proceedings, AIAA Aerospace Ground Testing Conference*, July 1992.
- Mourtos, N.J., An Integrated Lecture / Laboratory Sequence in Aerodynamics, *Proceedings, ASEE Annual Conference*, June 1990.
- Mourtos, N.J., SJSU Development of Aircraft Design Laboratory, *Proceedings, ASEE Annual Conference*, June 1990.

Papers in Conference Proceedings – Technical

- Villanueva, A. & Mourtos, N.J., A Long-Range, Hydrogen-Powered Transport Aircraft, submitted to *International Symposium on Sustainable Aviation*, Istanbul, Turkey, May 2016.
- Montgomery, S. & Mourtos, N.J., Design of a 5-Kilogram Solar-Powered Unmanned Airplane for Perpetual Solar Endurance Flight, *Proceedings, 49th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit and 11th International Energy Conversion Engineering Conference*, July 2013.
- Rajagopalan, A. S. & Mourtos, N.J., Design of a 4-Seat, General Aviation, Electric Aircraft, *Proceedings, More Electric Aircraft Conference*, November 2012.
- Alioto, V., Buttita, J., Epps, A., Nguyen, D.B., Yahaghi, A., Mourtos, N.J., Design of a Micro-Scale Deployable Unmanned Aerial Vehicle, *Proceedings, Aerospace Engineering Systems Workshop, WSEAS*, April 2009.
- Johnson, K.T., Sullivan, M.R., Sutton, J.E., Mourtos, N.J., Design of a Skydiving Glider, *Proceedings, Aerospace Engineering Systems Workshop, WSEAS*, April 2009.
- Kasarapu, K.C., Ahmed, R., Thomas, S.K., Mourtos, N.J., Design of a Combination 310-Passenger / 120-Ton Cargo Aircraft, *Proceedings, Aerospace Engineering Systems Workshop, WSEAS*, April 2009.
- Morisetty, P., Mourtos, N.J., Design of a 100 - Seat Regional Aircraft, *Proceedings, Aerospace Engineering Systems Workshop, WSEAS*, April 2009.
- Shah, S., Martinez, R., Fernandez, N., Mourtos, N.J., Double Wedge Shockwave Interaction Flow Characterization, *Proceedings, Thermal-Fluids Analysis Workshop, TFAWS-08-1033*, August 2008.
- Casas, L.E., Hall, J.M., Montgomery, S.A., Patel, H.G., Samra, S.S., Si Tou, J., Quijano, O., Mourtos, N.J., Papadopoulos, P.P., Preliminary Design and CFD Analysis of a Fire Surveillance Unmanned Aerial Vehicle, *Proceedings, Thermal-Fluids Analysis Workshop, TFAWS-08-1034*, August 2008.
- Mourtos, N.J. & Roberts, L., Control of Vortical Separation on a Circular Cone, *Proceedings, AIAA 26th Aerospace Sciences Meeting, Paper 88-0482*, January 1988.

Technical Reports

- Mourtos, N.J., Couillaud, S., Carter, D., Hange, C., Wardwell, D., Margason, R.J., Flow Visualization Studies of VTOL models during Hover in Ground Effect, *NASA TM 108860*, January 1995.
- Mourtos, N.J., Margason, R.J., Evaluation of a Prediction Method for V/STOL Aircraft Hot-Gas Ingestion, *NASA TM 103828*, January 1991.
- Mourtos, N.J., Roberts, L., Control of Vortical Separation on Conical Bodies, *Ph.D. Thesis, Aeronautics & Astronautics, Stanford University*. Also, *NASA – Stanford Joint Institute for Aeronautics & Acoustics TR 78*, June 1987.

Mourtos, N.J., Tavella, D.A., The Aerodynamics of Delta Wings of Elliptical Cross-Section with Separated Flow, *NASA – Stanford Joint Institute for Aeronautics & Acoustics TR 69*, December 1985.

Mourtos, N.J., Flow past a Flat Plate with a Vortex / Sink Combination, *NASA – Stanford Joint Institute for Aeronautics & Acoustics TR 58*, September 1984.

Mourtos, N.J., The Aerodynamic Design of a Remotely Piloted Vehicle, *B.S. Thesis, Mechanical Engineering, University of Patras, Greece*, June 1980.

VI. CONFERENCE PRESENTATIONS

- Nov. 2015 Workshop: Preparing Engineers for the 21st Century: How to Teach Students Process Skills, *3rd International Engineering Education & Technology Conference (IETEC)*, **Sibiu, Romania.**
- Dec. 2014 Workshop: Preparing Engineers for a Globalized Economy: How to Teach Engineering Students Process Skills, *World Engineering Education Forum*, **Dubai, United Arab Emirates.**
- Dec. 2014 Integrating General Education Outcomes into a Senior Design Capstone Experience, *World Engineering Education Forum*, **Dubai, United Arab Emirates.**
- Nov. 2013 Workshop: Preparing Engineers for a Globalized World: How to Teach Engineering Students Process Skills, *3rd International Engineering Education & Technology Conference (IETEC)*, **Ho Chi Minh City, Vietnam.**
- Nov. 2013 Service-Learning in Aerodynamics at San Jose State University. *International Engineering Education & Technology Conference (IETEC)*, **Ho Chi Minh City, Vietnam.**
- Oct. 2012 Student-Led Active Learning Workshops: Increasing Student Retention, Decreasing Time to Graduation and Providing High-Performing Students with Opportunities to Develop Coaching Skills, *World Engineering Education Forum (WEEF)*, **Buenos Aires, Argentina.**
- Jan. 2011 Teaching Engineering Design, *1st International Engineering Education & Technology Conference (IETEC) 2011*, **Kuala Lumpur, Malaysia.**
- Jan. 2011 Workshop: Preparing Engineers for a Globalized Economy: How to Teach Engineering Students Process Skills, *1st International Engineering Education & Technology Conference (IETEC) 2011*, **Kuala Lumpur, Malaysia.**
- Oct. 2008 Challenges Students Face in Solving Open-Ended Problems, *7th ASEE Global Colloquium on Engineering Education*, **Cape Town, South Africa.**
- Oct. 2007 Workshop: How to Teach and Assess Design of Experiments, *ASEE / IEEE Frontiers in Education Conference*, **Milwaukee, Wisconsin, USA.**
- Oct. 2007 An Engineering Approach to Course Design, *6th ASEE Global Colloquium on Engineering Education*, **Istanbul, Turkey.**
- Sep. 2007 Models for Research-Based Teaching in Engineering Courses: A Case-Study at the University of Aveiro (Portugal) and San José State University (USA), *10th INEER International Conference on Engineering Education*, **Coimbra, Portugal.**
- Sep. 2007 Workshop: Preparing Engineers for a Globalized Economy: How to Teach Students Process Skills, *10th INEER International Conference on Engineering Education*, **Coimbra, Portugal.**
- Oct. 2006 Workshop: Program Educational Objectives and Outcomes: How to Design a Sustainable, Systematic Process for Continuous Improvement, *36th ASEE / IEEE Frontiers in Education Conference*, **San Diego, California, USA.**
- Oct. 2006 A Flexible, Problem-Based, Integrated Aerospace Engineering Curriculum, *36th ASEE / IEEE Frontiers in Education Conference*, **San Diego, California, USA.**
- Oct. 2006 Program Educational Objectives and Assessment: A Systematic Process for Continuous Improvement, *5th ASEE Global Colloquium on Engineering Education*, **Rio de Janeiro, Brazil.**
- Feb. 2006 Program Outcomes and Assessment: A Sustainable, Systematic Process for Continuous Improvement, Lead Paper, *9th Annual UICEE Conference on Engineering Education*, **Muscat, Oman.** Received the **Bronze Award.**
- Feb. 2005 On the Ability to Design Engineering Experiments, **Lead Paper**, *8th Annual UICEE Conference on Engineering Education*, **Kingston, Jamaica.**

- Feb. 2004 Defining, Teaching, and Assessing Problem Solving Skills, *Lead Paper*, 7th Annual UICEE Conf. on Engineering Education, **Mumbai, India**. Received the *Silver Award*.
- Nov. 2003 Defining, Teaching, and Assessing Lifelong Learning Skills, 33rd ASEE / IEEE Frontiers in Education Conference, **Boulder, Colorado**.
- Feb. 2003 Assessing the Effectiveness of a Faculty Instructional Development Program, part 2: Teaching and Learning Styles, *Lead Paper*, 6th Annual UICEE Conf. on Engineering Education, **Cairns, Queensland, Australia**.
- Nov. 2002 Assessing the Effectiveness of an Introductory Engineering Course for Freshmen, 32nd ASEE / IEEE Frontiers in Education Conference, **Boston, Massachusetts**.
- Mar. 2002 Workshop: A Faculty Reward System Promoting the Scholarship of Teaching and Learning, Lilly Conference on College & University Teaching, **Lake Arrowhead, California**, co-presented w. Harper, V., Sprague, J., Nelson, C. Hegstrom, T., Saylor, C.
- Apr. 2001 A Comparison of Student Learning and Satisfaction in Online and Onground Engineering Courses, 2nd Annual SJSU Conference on the Scholarship of Teaching & Learning, **San Jose, California**.
- Feb. 2001 A Comparison of Student Learning and Satisfaction in Online and Onground Engineering Courses, 4th Annual UICEE Conference on Engineering Education, **Bangkok, Thailand**.
- Oct. 2000 Using Learning Styles Preferences Data to Inform Classroom Teaching and Assessment Activities, IEEE / ASEE Frontiers in Education Conference, **Kansas City, Missouri**.
- Jul. 2000 Assessing the Effectiveness of a Faculty Development Program, part 1: Cooperative Learning, *Lead Paper*, 2nd Global Congress on Engineering Education, **Wismar, Germany**.
- Nov. 1999 Assessing the Effectiveness of a Faculty Development Program, IEEE / ASEE Frontiers in Education Conference, **San Juan, Puerto Rico**.
- Nov. 1997 Portfolio Assessment in Aerodynamics, IEEE / ASEE Frontiers in Education Conference, **Pittsburgh, Pennsylvania**.
- Jun. 1997 Problem-Based, Integrated Calculus, Physics, and Engineering, ASEE Annual Conference, **Milwaukee, Wisconsin**.
- Mar. 1997 Workshop: From Learning to Talk to Learning Engineering: Drawing Connections across the Disciplines, Lilly Conference, on College & University Teaching, **Lake Arrowhead, California**.
- Nov. 1996 A Model of Learning as it Applies to Engineering, IEEE / ASEE Frontiers in Education Conference, **Salt Lake City, Utah**.
- Mar. 1996 Promoting Self-Reflection through Portfolio-Type Activities in a Cross-Disciplinary Setting, Lilly Conference on College & University Teaching, **Lake Arrowhead, California** (co-presented).
- Nov. 1994 The Nuts and Bolts of Cooperative Learning in Engineering, *Honorable Mention*, Ben Dasher Award Committee IEEE / ASEE Frontiers in Education Conference, **San Jose, California**.
- Oct. 1994 Using Cooperative Learning in Engineering Courses, ASEE Pacific South-West Conference, **Sacramento, California**.
- Jun. 1990 An Integrated Lecture / Laboratory Sequence in Aerodynamics, ASEE Annual Conference, **Toronto, Canada**.
- Jun. 1990 SJSU Development of Aircraft Design Laboratory, ASEE Annual Conference, **Toronto, Canada**.
- Jan. 1988 Control of Vortical Separation on a Circular Cone, AIAA 26th Aerospace Sciences Meeting, **Reno, Nevada**.

VII. INVITED TALKS**General**

14Oct.2014 Face to face: Experiences with Different Cultures
Global Student Network, San Jose State University, **California, USA.**

Education

21Apr.2015 Panelist: Teaching to Learn. Learning to Teach, 4th Annual ASEE Engineering Education Colloquium, Stanford University, **California, USA**

20.Jan.2009 Course Learning Objectives & Their Taxonomy: Understanding by Design
College of Engineering, Qatar University, **Doha, Qatar.**

19.Jan.2009 Program Educational Objectives and Outcomes: How to Design a Sustainable, Systematic Process for Continuous Improvement
College of Engineering, Qatar University, **Doha, Qatar.**

18.Jan.2009 Preparing Engineers for the 21st Century
College of Engineering, Qatar University, **Doha, Qatar.**

02.Apr.2007 Assessment Tools – Keep in Mind What ABET is Looking For, College of Engineering, King Abdul Aziz University, **Saudi Arabia.**

31.Mar.2007 Accreditation Process At San Jose State University, College of Engineering, King Abdul Aziz University, **Saudi Arabia.**

14.Oct.2006 From Bumble Bees To Jumbo Jets: The Science Of Flight, 3rd Annual Alumni College, San Jose State University, **California, USA.**

Technical

02.Dec.2003 A Journey Through The History of Flight, Centennial of Flight Celebrations, San Jose State University, **California, USA.**

17.May.1991 From Daedalus to the Orient Express: A Brief History of Aviation, Democritos Professional Society, **California, USA.**

09.Aug.1990 Evaluation of a Prediction Method for V / STOL Aircraft Hot Gas Ingestion, NASA Ames Research Center, **California, USA.**

30.Jun.1988 Control of Vortical Separation on Conical Bodies, Fixed Wing Aerodynamics Branch, NASA Ames Research Center, **California, USA.**

20.Jan.1988 Control of Vortical Separation on Conical Bodies, Colloquium Series, Aerospace & Mechanical Engineering, University of Notre Dame, **Indiana.**

VIII. GRANTS

2015 \$ 27 K, NASA MUREP/SEAP Aeronautics Scholarship Program to support an AE student.

2015 \$ 8.2 K, NASA MUREP/SEAP Aeronautics Scholarship Program to support an AE student.

2014 \$ 7.5 K, NASA Aeronautics Scholarship Program to support an AE student.

2010 \$ 10 K, Google, Dead Downwind Faster Than The Wind project.

1998 \$ 45 K, ITL Knight-Ridder Champions Fellowships, “Explore / Create Multimedia in Engineering Education” (PI).

97-98 \$ 41 K, ITL Learning Productivity Grant, “Problem-Based, Integrated Interdisciplinary Course-Sequence in Math, Physics, and Engineering” (PI).

1995 \$ 11K, NASA Ames Research Center, “An Experimental Investigation of the Effects of Turbulence on Microphone Forebodies” (cont’d).

1994 \$ 33 K, NASA Ames Research Center, “An Experimental Investigation of the Effects of Turbulence on Microphone Forebodies”.

1993 \$ 2.5 K, Graduate Student Stipend Program, “Automobile Aerodynamics”.

1993 \$ 7.2 K, ESL, “Ice Detection on Airplane Wings During Takeoff”.

- 1992 \$ 23 K, NASA Ames Research Center, “An Experimental Study of Spanwise Blowing on Delta Wings”.
- 1992 \$ 5 K, Lockheed Missiles & Space Co., “Modeling of an Attitude Control System”.
- 1991 \$ 19 K, NASA Ames Research Center, “An Improved Prediction Method for Jet-Powered V/STOL Aircraft Hot Gas Ingestion”.
- 1990 \$ 4 K, College of Engineering, SJSU, for summer research.

IX. Reviewer for

- 3rd International Engineering Education & Technology Conference (IETEC 2015)
- Journal of Aerospace Engineering (2014)
- World Engineering Education Forum (WEEF 2014),
- 2nd International Engineering Education & Technology Conference (IETEC 2013)
- International Journal for Quality Assurance in Engineering & Technology Education (2011)
- IGI, Chapter for Book: Work-Integrated Learning in Engineering and Technology: New Approaches and Practices (2010)
- WIETE World Transaction on Engineering & Technology Education (2010)
- International Journal of Engineering Education (2005, 2011)
- UICEE Annual Conference on Engineering Education (2000 – 2007)
- UICEE Global Journal on Engineering Education (2004 - 2007)
- UICEE World Transactions on Engineering & Technology (2002 – 2007)
- ASEE Journal of Engineering Education (1996 – 1999)
- ASME Journal of Applied Mechanics (1997)
- International Journal of Mechanical Engineering Education (1991)
- McGraw-Hill Publishing Co. (2 books: 1997, 2004)
- Thomson Engineering (2 books: 2004)
- John Wiley & Sons (1 book: 2004)
- Monash University, Melbourne, Australia (M.S. thesis: 2003)
- School of Mechanical and Production Engineering,
 - Nanyang Technological University, Singapore (Ph.D. thesis: 1998)
- University of Kuwait (new course proposal: 2004).

X. M.S. Theses / Projects Supervised

- 2015 A redesign of the Yves Rossy wingsuit for ground takeoff capability, Andres Herrera
- 2015 Low cost educational vertical air launch system, Alireza Forouzandeh Tabrizi
- 2015 Design of attitude determination software for a star tracker, Adriana Fukuzato
- 2015 Numerical analysis and optimization of wing-tip designs, Uram Kim
- 2015 Analysis and testing of gelled, high propulsive green propellant for small satellites in low earth orbit, Stephen Lai
- 2015 Advanced airship design, Istiaq Mahmud
- 2015 Liquid oxygen / liquid methane pressure-fed rocket engine, Andrew Masterman
- 2015 Design and analysis of an in-flight braking system, Ashish Raichur
- 2015 Wing sail vs. traditional sail performance comparison, Harrison Turner
- 2014 Design of a Red Bull Flugtag Aircraft, Jennifer Sutton & Martin Sullivan,
2014 SJSU Outstanding Research Award in Aeronautics
- 2014 Aerodynamic Forces and Heat Transfer on a Sphere and a Cone in Hypersonic Flow, Josue Lopez
- 2014 Airfoil Boundary Layer Separation Prediction, Kartavya Patel
- 2014 Design of a Long-Range Supersonic Transport, Seruvizhi.Maharajan
- 2014 Design of a High-Speed Subsonic Wind Tunnel, Jordan Towles-Moore
- 2013 Pressure Distribution on a Swept Wing in Subsonic Flow, Anshul Amin
- 2013 Numerical Analysis of Bird Strike Damage On Composite Sandwich Structure Using Abaqus/Explicit, Rahul Kumar Mav
- 2013 Ultra Portable and Rapidly Deployable Rotorcraft Platform for Tactical Compact Communications Relay, Ben Nikaido

- 2013 Aero-Assist: A Guide Tool to Aid in the Generation of Surface Grids for CFD, Omar Quijano
- 2013 Design of a 5-kg Solar-Powered Unmanned Airplane for Perpetual Solar Endurance Flight, Sean Montgomery, **2013 SJSU Outstanding Research Award in Aeronautics**
- 2013 Video-Guided, Autonomous Pollinator Rotorcraft, Tung X. Dao, **2013 SJSU Outstanding Research Award in Aeronautics**
- 2012 Design of a 4-Seat General Aviation Aircraft, Arvin Rajagopalan
- 2012 CFD Modeling and Analysis of an Arc-Jet Facility using ANSYS Fluent, Srikrishna Srinivasa
- 2012 High Subsonic Lifting Fuselage Transport, Nicholas Nemirsky
- 2012 Solar-Powered UAV: High-Altitude, Long Endurance Applications, Manish Bhatt
- 2012 Miniturization, Integration, Flight Testing, and Performance Analysis of a Scalable, Autonomous, GPS-Guided Parafoil System for Targeted Payload Return, Joshua Benton, **2012 SJSU Outstanding Research Award in Aeronautics**
- 2011 Airworthiness Analysis of a Modified KR-2 Experimental Aircraft, Boris Bravo, presented at the 2012 AIAA Region VI Student Conference
- 2011 Design of a New Stratotanker, I-Chiang Wu
- 2011 Design of a Small, Solar-Powered UAV, Chris Hartney, **1st Place, Masters Division, 2011 AIAA Region VI Student Conference**
- 2011 HALE Solar - Powered Aerial Communicator, Yaser Najafi
- 2011 VASIMR Rocket Design for a Mission to Mars, Mitesh Patel
- 2011 Design of a HoverWing Aircraft, Nita Shah
- 2011 Subsonic Wind Tunnel Wall Corrections on a Wing with a Clark Y-14 Airfoil, Tommy Blackwell
- 2010 Propeller Design for a "Downwind, Faster than the Wind" Vehicle, Shethal Thomas Kodiyattu
- 2010 CFD Wing Optimization for a 310 - Passenger / 120 - Ton Cargo Aircraft, Kapil Chaitanya
- 2010 Design of a 50 - Seat Commuter Aircraft, Rahail Ahmed.
- 2009 Design of an Advanced VTOL Dropship, Dwayne E. Hickman Jr.
- 2009 Fly-by-Wire Flight Control System for Jet Transport Aircraft, Deeptanshu Arnold.
- 2009 Design of a 100 - Seat Regional Aircraft, Praveen Kumar Morisetty.
- 2007 Feasibility Study of the Effectiveness of High-Lift Devices on a Blended Wing Body Transport, Mark Demann, **3rd Place, Masters Division, 2007 AIAA Region VI Student Conference**
- 2007 Design of a Medium Range Blended Wing Body Transport, Dave Matson, **1st Place, Masters Division, 2007 AIAA Region VI Student Conference**
- 2007 Conceptual Design of a Small Hypersonic Transport, John Candeias.
- 2006 Design of an Annular Wing, Ben Affleck.
- 2006 Verification of Airworthiness of Modified KR-2 Aircraft, Michael Nordin.
- 2006 Formation Flying of Jet Transports, Woon-Ho Cho.
- 2006 Mechanical Integration, Testing and Delivery of the Large Area Telescope (LAT) for the GLAST program, Eliazar Ortiz.
- 2005 The Design of a Hybrid Airplane, Jim Colosimo.
- 2005 The Design of a Small, Unmanned Aerial Vehicle, Jeremy Scheerer.
- 2004 A User-Friendly, Interactive Program for Subsonic Jet Engine Compressor Analysis and Design, Sajesh Giri.
- 2003 Three-Dimensional Image Registration, Miki Sode.
- 2003 Numerical Techniques Used in Modeling Species Concentrations & Evaporation Rates in a Multi-Component, Evaporating Droplet, Robert Shearer.
- 2003 Thermochemical Analysis of Hydrogen Peroxide with Applications to Rocket Design, Robert A. Robles.
- 1997 An Experimental Study of the Response of a Microphone Mounted in a Flat Plate, Hedayat U. Hamid.
- 1997 Computational Investigation of the Aerodynamic Characteristics of Delta Wings with various Leading-Edge Shapes, Akbar Sultan.
- 1997 An Automatic Data Acquisition System for the SJSU Subsonic Wind Tunnel, Spiros Agellopoulos.
- 1997 An Experimental & Computational Investigation of the Separated Flow over a Flat Plate with a Vortex/Sink Combination, Marcus Brooks.
- 1996 Computational Investigation of the Low-Speed S1223 Airfoil with and without a Gurney Flap, Edward Tejnil.
- 1996 Pressure Distribution on the Underside of a Flat-Bottom Race Car, Alan Dezzani.

- 1994 Experimental Investigation of Spanwise Blowing on a 40-degree Swept Trapezoidal Wing, Stephane Couillaud.

XI. OTHER ACADEMIC RESPONSIBILITIES

Service to the University

- Ed.D. Leadership Program faculty member, 2009 - present
 University Library Board: AY11-14
 University Assessment Committee: 2011-2013
 Student Evaluation Review Board (SERB): AY09-10 (Chair)
 Director of Doctoral Program in Educational Leadership Search Committee: AY09-10
 Advisory Committee, College of Science STEM NSF Grant: AY08-09, AY09-10, AY10-11
 Committee for the Review of the AVP for Academic Technology: AY07-08
- 06-08 ***Assistant Director, Center for Faculty Development & Support.***
 Support individual faculty, departments, and colleges through workshops and individual consultations in the areas of course design and assessment, effective teaching and innovative pedagogy, program assessment and continuous improvement, with the goal of developing state-of-the-art courses and curricula that prepare our diverse student body for the challenges of the 21st century.
- 02-03 Mentor, "Peer-Partners in Teaching" Program, Center for Faculty Development & Support.
 98-02 Faculty-in-Residence for Innovative Pedagogy, Center for Faculty Development & Support.
 Offered workshops on Cooperative Learning and Learning Styles ; mentored SJSU faculty on teaching-related issues.
- 95-96
 87-88 Volunteer Faculty Mentor.

Service to the College of Engineering

- 13-14 ***Chair***, Carolyn Guidry Professor of Engineering Education Recruiting Committee
 13-14 Member, College of Engineering Strategic Planning Committee
 11-present Assessment Committee
- 96-03 ***Faculty Instructional Development Coordinator.***
 Organized "Conversations on Teaching" (workshops, seminars, informal discussions) on teaching, learning and assessment in engineering; mentored engineering faculty.
- 97-03 ***Coordinator, Introduction to Engineering Course for Freshmen.***
 Responsible for content delivery and course assessment, training new instructors, semi-annual freshman design competition.
- 96-02 ***Campus Representative, American Society for Engineering Education.***
 1995: Co-organizer, ASEE / PSW Conference in San Jose.

Service to the Department of Mechanical & Aerospace Engineering

- 06-13 ***BSAE / MSAE Assessment Coordinator***
 Design assessment process for program educational objectives and program outcomes, collect and analyze data, prepare AE self study reports for ABET and WASC.
- 04-13 ***Chair (04-10), Member (12-13), AE Faculty Search Committee***
 95-present ***Faculty Advisor, ΣΓΤ (Aerospace Honor Society) Student Chapter***
- 10-11 MAE Department Chair Search Committee
 09-12 Undergraduate Studies Committee; ***Chair***, 2010 – present
- 90-98 ***Faculty Advisor for the AIAA Student Chapter***
 1994: Organized Student Conference at SJSU for the PSW Region.
 1991: Organized Short Course in V/STOL Aircraft Design at SJSU with experts from NASA Ames Research Center.
- 04-06 ***AE Program Coordinator, SJSU***
 Plan and develop course and program goals, coordinate curriculum and laboratory development, form and maintain the AE Advisory Board and serve as ad hoc member on this Board, develop AE class schedule, identify, supervise, and evaluate part-time AE faculty, provide orientation and registration assistance to AE students, advise, counsel and guide undergraduate and graduate AE students on personal, academic and professional development, organize outreach activities to promote the AE

- Program, provide graduate and undergraduate student advising, respond to public inquiries regarding the AE Program.
- 02-06 **Program Assessment Coordinator, Mechanical & Aerospace Engineering**, SJSU.
Designed an assessment process for program educational objectives, program outcomes, and program criteria, led department faculty in the implementation of this process, collected and analyzed data, prepared the self study reports for the BSAE and BSME programs, and presented the results to ABET evaluators during a successful accreditation visit (Fall 2005).

XII. OTHER PROFESSIONAL RESPONSIBILITIES

- Faculty Mentor, *Preparing Future Professors*, Stanford University (2014 – 2016)
 - Mentors Ph.D. students who intend to pursue academic careers
- Member, Editorial Board, International Journal for Quality Assurance in Engineering & Technology Education, appointed in 2011.
- Member, Editorial Advisory Board, Global Journal for Engineering Education, appointed in 2010.
- President, Democritos Professional Society (1993 – 1996)
- Vice President, Democritos Professional Society (1991 – 1993)
- Board Member, Democritos Professional Society (1989 – 1991)

XIII. CONSULTING

- 2016-2017 Leadership Team, California Mathematics & Science Partnership (CaMSP) Grant, Cohort 13-New Haven Unified SD. Provide professional development in inquiry-based instruction to teachers during summer intensives and release days.
- 2016 College of Engineering, Sultan Qaboos University, **Muscat, Oman**: visited departments and delivered a 3-day workshop on course design, assessment, and teaching methods to college faculty and administrators.
- 2010 Collaborative Concepts: Development of instructional materials for fluid mechanics
- 2007-2010 External evaluator for “Incorporating 3-D Laser Scanning into Land Surveying Curricula”, NSF-sponsored project at Evergreen College, California.
- 2006-2014 College of Engineering, King Abdul Aziz University, **Jeddah, Saudi Arabia**: ABET EC2000 preparation – Associate Member, Academic Accreditation Unit <<http://engg.kau.edu.sa/AAU/>>
- 2003-2008 “Partnership for Student Success in Science”, an NSF-sponsored project to improve K-12 Science Education (collaboration among nine schools districts, SJSU, Synopsys, and Agilent Technologies), California.
- 2003-2006 External evaluator for “A Model Curriculum for Civil Engineering Technology”, NSF-sponsored project at Evergreen College, California.
- 1996 Expert witness, Collins Schlothauer Attorneys at Law, case involving a gas leak.
- 1992 Wind tunnel testing of golf ball barrier netting for Roxford Fordell.
- 1991 Wind tunnel testing of arrows for Liston & Associates.

XIV. INDUSTRIAL EXPERIENCE

- 1991, 03Jun-16Aug ASEE Summer Faculty Fellow,
STOVL / Powered-Lift Technology Branch, NASA Ames RC.
- 1990, 08Jun-17Aug ASEE Summer Faculty Fellow,
Fixed Wing Aerodynamics Branch, NASA Ames RC.
- 1978, 01Jul-31Aug Design Engineer, Steam Boiler and Gas Turbine Design,
Brneska Strojirna Co., Brno, Czechoslovakia.
- 1977, 01Jul-31Aug Assembly Engineer, Kritikos Cloth-Spinning Co., Patras, Greece.
- 1976, 15Jun-15Sep Powerline Engineer, Scounakis Shipyard, Salamis, Greece.

XV. SOCIETY AFFILIATION

- World Institute for Engineering & Technology Education (2009 – 2014)
- Professional & Organizational Development Network in Higher Education (2006 – present)
- UICEE: UNESCO International Center for Engineering Education (2000 – 2008)
- ASEE: American Society for Engineering Education (1988 – present)
- AIAA: American Institute for Aeronautics and Astronautics (80 – present)
- Demokritos Society of America Think Tank
 - Board Member (1997 – present)
- Democritos Professional Society (1987 – 1996)
- Greek Technical Chamber

XVI. OTHER

- ➔ Cross-Cultural Solutions Volunteer Abroad Program
 - Served as teacher in Magereza Nursery School, Moshi, Tanzania, 16–30 June 2012
- ➔ Traveling – 62 countries
- ➔ Argentine tango
 - Participated in 4 performance teams, including a competition team in the 2015 USA Tango Championships
- ➔ Kayaking
 - Kayaked 80 km in the islands of the San Blaas Archipelago in a team of kayaks led by Kuna guides, Panama (2012)
- ➔ Running, Swimming, Hiking
 - *Olympic Torch Bearer*: Lappas, Greece (1972) & Corfu, Greece (2004)
- ➔ Mountain Climbing
 - Kilimanjaro, Tanzania: 5,895 m (2012)
 - Jbel Toubkal, Morocco: 4,167 m (2010)
 - Triglav, Slovenia: 2,864 m (2008)
 - Mt. Whitney, California, USA: 4,421 (2005)
 - Blue Mountain, Jamaica: 2,256 m (2005)
- ➔ Flying – Private Pilot, 270 hrs in Cessnas 152 and 172