

Othon K. Rediniotis, PhD
Professor of Aerospace Engineering
Texas A&M University
College Station, Texas 77843-3141
Phone: 979 845 1658, Fax: 979 845 6051
Email: rediniotis@tamu.edu

Citizenship:

United States Citizen.

Education

Doctor of Philosophy, Engineering Mechanics, October 1992
Virginia Polytechnic Institute and State University (VPI & SU)
Blacksburg, Virginia, (GPA 3.94/4.0).

Master of Science, Engineering Mechanics, May 1990
Virginia Polytechnic Institute and State University
Blacksburg, Virginia.

Bachelor of Science, Mechanical Engineering (five-year degree), June 1987
National Technical University of Athens (N.T.U.A.)
Athens, Greece (GPA 9.0/10.0).

Research Interests/Experience:

- Experimental Techniques in Fluid Dynamics and Intelligent Structures.
- Smart Materials (Shape Memory Alloys and Piezoceramics) and Smart Structures.
- Intelligent Structures and Vehicles (Integration of Sensing, Actuation, Cognition, Decision Making).
- Biomimetic Vehicle Locomotion and Control.
- Micro-Electro-Mechanical Systems (MEMS) and Applications to Flow Control and Intelligent Structures.
- Expertise in Systems Integration and Automation (Software and Hardware) and Digital/Analog Electronics Design and Development: Microprocessor/Microcontroller Systems, PC Interface Adapters, Data-Acquisition systems, Optoelectronics, CCD Imaging, Power Electronics.
- Neural-Network and Fuzzy-Logic System Identification and Control.
- Low-Order Modeling of Intelligent Systems and Control.
- Use and Development of Flow-Diagnostics Techniques: Conventional and Fiber-Optic Laser-Doppler Velocimetry (LDV), High-Speed Particle Image Velocimetry, Multi-Hole Pressure Probes, Hot-Wire Anemometry, Pressure Systems.
- Active Control of Flow Transition and Separation.
- Wavelet Methods in Experimental Techniques, Image Processing, Low-Order System Modeling and Control.
- Extensive Experience with Wind and Water Tunnel Testing.

Research Projects (asterisk * indicates current research project)

External

* Project Title : *PERFORMANCE EVALUATION AND OPTIMIZATION OF THE ZEPHYRGY WIND TURBINE*

Source of Support : Zephyrgy LLC.

Principal Investigator: O.K. Rediniotis

Co-Principal Investigator: P. Cizmas

Number of Students: 1.5

Project Duration : March 20012 ó February 2013

Dollar Amount : \$88,000 (Rediniotisøshare: \$65,000)

Project Title : *ROTATING STALL SUPPRESSION USING OSCILLATORY BLOWING ACTUATION ON BLADES*

Source of Support : Air Force Office of Scientific Research (AFOSR)

Principal Investigator: P. Cizmas

Co-Principal Investigator: O.K. Rediniotis

Number of Students: 2

Project Duration : March 2007 ó December 2009

Dollar Amount : \$300,000 (Rediniotisøshare: \$150,000)

Project Title : *STATION KEEPING OF UNDERWATER ROBOTIC VEHICLES*

Source of Support : Conacyt

Principal Investigator: O.K. Rediniotis

Co-Principal Investigator: T. Kalmar-Nagy

Number of Students: 1

Project Duration : Oct. 2007 ó Sept. 2008

Dollar Amount : \$12,000

Project Title : *UAV HINGELESS FLIGHT CONTROLS VIA ACTIVE FLOW CONTROL*

Source of Support : SBIR from AFRL

Principal Investigator: O. K. Rediniotis

Co-Principal Investigator: John Junkins, John Valasek

Number of Students: 2

Project Duration : May 2005 ó May 2008

Dollar Amount : \$850,000 (TAMUø share: \$405K; Rediniotisøshare: \$200K)

Project Title : *FABRICATION OF INTELLIGENT FLUID DIAGNOSTICS INSTRUMENTATION*

Source of Support : Aeroprobe Corporation

Principal Investigator: O.K. Rediniotis

Co-Principal Investigator: None

Number of Students: 1

Project Duration : January 2000 ó Dec 2008

Dollar Amount : \$450,000

Project Title: *INSTITUTE FOR INTELLIGENT BIO-NANO MATERIALS AND STRUCTURES IN AEROSPACE ENGINEERING*

Source of Support : NASA Headquarters
Principal Investigator: J. L. Junkins
Co-Principal Investigator: 25 co-PIs from several Texas Universities
Number of Students: 2
Project Duration : August 2002 ó August 2007
Dollar Amount : \$15,000,000 (Rediniotisøshare: \$450,000)

Project Title : *ACTIVE CONTROL OF JET ENGINE INLET FLOWS*
Source of Support : Air Force Office of Scientific Research (AFOSR)
Principal Investigator: O.K. Rediniotis
Co-Principal Investigator: R. Bowersox
Number of Students: 2
Project Duration : December 2003 ó December 2006
Dollar Amount : \$275,000 (Rediniotisøshare: \$160,000)

Project Title : *HIGH-EFFICIENCY JET EJECTOR*
Source of Support : Shell Company
Principal Investigator: M. Holtzapple
Co-Principal Investigator: O. K. Rediniotis
Number of Students: 2
Project Duration : June 2004 ó December 2005
Dollar Amount : \$144,000 (Rediniotisøshare: \$53,450)

Project Title : *ACQUISITION AND INSTALLATION OF THE SARIC/KLEBANOFF LOW-TURBULANCE UNSTEADY WIND TUNNEL*
Source of Support : AFOSR
Principal Investigator: W. Saric
Co-Principal Investigator: R. Bowersox, O. K. Rediniotis
Number of Students: 2
Project Duration : June 2004 ó December 2005
Dollar Amount : \$93,000 (this is for the installation of the Saric/Klebanoff Low-Turbulence Unsteady Wind Tunnel in Dr. Saricø Laboratory)

Project Title: *BIOMIMETIC UNDERWATER PROPULSION SYSTEM USING HYBRID SYNTHETIC MUSCLES*
Source of Support : Office of Naval Research and TAO Systems
Principal Investigator: O. K. Rediniotis
Co-Principal Investigator: none
Number of Students: 1
Project Duration : August 2002 ó October 2005
Dollar Amount : \$270,000

Project Title: *RECONFIGURABLE SYNTHETIC JET ACTUATION FOR CLOSED-LOOP HINGELESS FLOW CONTROL*
Source of Support : Wright-Patterson Air Force Research Laboratory
Principal Investigator: O. K. Rediniotis
Co-Principal Investigator: J.L. Junkins
Number of Students: 3

Project Duration : August 2002 ó July 2005
Dollar Amount : \$400,000 (Rediniotis's share: \$320,000)

Project Title: *INNOVATIVE INSTRUMENTATION FOR SIMULTANEOUS MEASUREMENTS USING EXTENDED DYNAMIC RANGE STEREOSCOPIC PARTICLE IMAGE VELOCIMETRY AND FAST RESPONSE PRESSURE SENSITIVE PAINT*

Source of Support : Army Research Office (ARO)
Principal Investigator: R. Bowersox
Co-Principal Investigator: O.K. Rediniotis, T. Strganac
Number of Students: 1
Project Duration : May 2004 ó May 2005
Dollar Amount : \$158,000 (this is for common instrumentation)

Project Title : *DEVELOPMENT OF A MULTIDISCIPLINARY CURRICULUM IN INTELLIGENT SYSTEMS*

Source of Support : National Science Foundation (NSF)
Principal Investigator: D.C. Lagoudas
Co-Principal Investigators: O.K. Rediniotis, T. Strganac, J. Whitcomb, J. Valasek
Number of Students: 4
Project Duration : January 2001 ó December 2004
Dollar Amount : \$500,000 (Rediniotis: 15%)

Project Title: *HIGHLY-COMPACT SMA ACTUATORS ó A FEASIBILITY STUDY OF FUEL-POWERED AND THERMOELECTRIC SMA ACTUATORS*

Source of Support : DARPA,
Principal Investigator: D.C. Lagoudas
Co-Principal Investigator: O.K. Rediniotis
Number of Students: 2
Project Duration : September 2001 ó August 2003
Dollar Amount : \$200,000 (Rediniotis: 50%)

Project Title : *SYNTHETIC JET ACTUATION ó MODELING, ACTUATOR DEVELOPMENT AND APPLICATION TO SEPARATION CONTROL*

Source of Support : Air Force Office of Scientific Research (AFOSR)
Principal Investigator: O.K. Rediniotis
Number of Students: 2
Project Duration : January 2001 ó December 2003
Dollar Amount : \$180,000

Project Title : *ACTIVE SKIN FOR TURBULENT DRAG REDUCTION*

Source of Support : NASA Langley, Virginia
Principal Investigator: Othon K. Rediniotis
Co-Principal Investigator: Dimitris C. Lagoudas
Number of Students: 2
Project Duration: April 2001 - July 2003
Dollar Amount : \$130,000 (Rediniotis: 50%)

Project Title: *MODELING AND CLOSED-LOOP CONTROL OF COMPLEX FLOWS OVER AERODYNAMIC SURFACES*

Source of Support : AFOSR
Principal Investigator: O. K. Rediniotis
Number of Students: 2
Project Duration : October 2001 ó August 2002
Dollar Amount : \$50,000

Project Title : *SMART STRUCTURE TECHNOLOGIES IN INDUSTRIAL ENVIRONMENTS*
Source of Support : Technology Development & Transfer Program, State of Texas
Principal Investigator: D.C. Lagoudas
Co-Principal Investigator: O.K. Rediniotis
Number of Students: 2
Project Duration : January 2000 ó December 2001
Dollar Amount : \$173,000 (Rediniotis: 50%)

Project Title : *SMART SYSTEMS FOR MESO- AND MICRO-AIR VEHICLES*
Source of Support : NAL Research Corporation
Principal Investigator: O.K. Rediniotis
Co-Principal Investigator: D.C. Lagoudas
Number of Students: 1
Project Duration : February 2001 ó August 2002
Dollar Amount : \$40,000 (Rediniotis: 50%)

Project Title : *MEMS-BASED PROBES FOR VELOCITY AND PRESSURE MEASUREMENTS IN UNSTEADY AND TURBULENT FLOWFIELDS*
Source of Support : Air Force Office of Scientific Research (AFOSR)
Principal Investigator: O.K. Rediniotis
Co-Principal Investigator: None
Number of Students: 2
Project Duration : January 1998 ó March 2001
Dollar Amount : \$360,000

Project Title : *NUMERICAL AND EXPERIMENTAL STUDY OF THE AERODYNAMICS OF CAPSULE FREIGHT PIPELINES*
Source of Support: Texas Transportation Institute
Principal Investigator: Othon K. Rediniotis
Co-Principal Investigator: None
Number of Students: 1
Project Duration: April 2000 - December 2000
Dollar Amount : \$37,000

Project Title : *NONLINEAR ACTIVE CONTROL OF EXTERNAL FLUID FLOWS*
Source of Support : Office of Naval Research (ONR)
Principal Investigator: D.C. Lagoudas
Co-Principal Investigator: O.K. Rediniotis
Number of Students: 4
Project Duration : July 1997 ó August 2000
Dollar Amount : \$543,000 (Rediniotis: 50%)

Project Title : *APPLICATION OF ACTIVE MATERIALS AND NEURAL NETWORKS TO AQUATIC BIOMIMETICS (INCLUDES PHASES I AND II)*

Source of Support : Aeroprobe Corp.

Principal Investigator: O.K. Rediniotis

Co-Principal Investigator: D.C. Lagoudas

Number of Students: 2

Project Duration : May 1997 ó July 2000

Dollar Amount : \$282,000 (Rediniotis: 60%)

Project Title : *DEVELOPMENT OF ENABLING TECHNOLOGIES FOR RECONFIGURABLE UNINHABITED AIR VEHICLES*

Source of Support : Advanced Technology Program, State of Texas

Principal Investigator: O.K. Rediniotis

Co-Principal Investigator: D.C. Lagoudas

Number of Students: 2

Project Duration : January 1998 ó August 2000

Dollar Amount : \$173,000 (Rediniotis: 50%)

Project Title : *APPLICATION OF ARTIFICIAL NEURAL NETWORKS TO THE CALIBRATION OF MULTI-HOLE PROBES*

Source of Support : NASA Langley, Virginia

Principal Investigator: Othon K. Rediniotis

Number of Students: 1

Project Duration: September 1995 - November 1998

Dollar Amount : \$95,000

Project Title : *DESIGN AND IMPLEMENTATION OF A SMART FLAP ASSISTED CONTROL SURFACE (SFACS)*

Source of Support : Naval Surface Warfare Center (NSWC).

Principal Investigator: D.C. Lagoudas

Co-Principal Investigator: O.K. Rediniotis

Number of Students: 2

Project Duration : July 1997 ó June 1998

Dollar Amount : \$45,000 (Rediniotis: 50%)

Project Title : *EXPERIMENTAL/NUMERICAL INVESTIGATION OF PERIODIC PHENOMENA IN VORTEX BREAKDOWN*

Source of Support : State of Texas, Advanced Research Program

Principal Investigator: Othon K. Rediniotis

Co-Principal Investigator: Andrew Kurdila

Number of Students: 3

Project Duration: January 1996 - August 1998

Dollar Amount : \$119,900 (Rediniotis: 50%)

Project Title : *AUTORACK CONTAMINANT ABATEMENT STUDY*

Source of Support: Association of American Railroads (formed by large railroad companies, such as Union Pacific, Conrail, etc.)

Principal Investigator: Othon K. Rediniotis

Co-Principal Investigator: None

Number of Students: 1
Project Duration: May 1996 - May 1998
Dollar Amount : \$55,000

Project Title : *FABRICATION OF MULTI-HOLE PROBES*
Source of Support : Aeroprobe Corp.
Principal Investigator: Othon K. Rediniotis
Co-Principal Investigator: None
Number of Students: -
Project Duration: June 1997 ó September 1999
Dollar Amount : \$25,000

Internal

Project Title : *CNC MACHINING CENTER FOR THE AEROSPACE ENGINEERING DEPARTMENT*
Source of Support : PUF Fund
Principal Investigator: D.C. Lagoudas
Co-Principal Investigator: O.K. Rediniotis
Number of Students: 0
Project Duration: -
Dollar Amount : \$60,000 (this is for common instrumentation)

Project Title : *MULTIDISCIPLINARY ANALYSIS AND DESIGN IN AEROSPACE ENGINEERING*
Source of Support : TEES
Principal Investigator: David Darmofal
Co-Principal Investigator: Othon Rediniotis
Number of Students: 2
Project Duration: May 1996 ó May 1998
Dollar Amount : \$34,000 (Rediniotis: 50%)

Project Title : *HIGH SPEED CCD IMAGING SYSTEM FOR THE AEROSPACE ENGINEERING DEPARTMENT*
Source of Support : PUF Fund
Principal Investigator: Othon K. Rediniotis
Co-Principal Investigator: Lagoudas, Strganac, Ward, Martinez
Number of Students: 0
Project Duration: -
Dollar Amount : \$118,700 (this is for common instrumentation)

Project Title : *STUDIES IN LOW DIMENSIONAL DESCRIPTION OF COMPLICATED PHENOMENA AND THEIR CONTROL*
Source of Support : TEES
Principal Investigator: Prabir Daripa
Co-Principal Investigator: Othon Rediniotis
Number of Students: 2
Project Duration: May 1999 ó May 2000
Dollar Amount : \$25,000 (Rediniotis: 50%)

Patents

Rediniotis, O.K. and Kinser, E., "Omni-Directional, Three-Component Velocity Measurement Probe", US Patent No. 5,929,331, Issue Date: July 27, 1999.

Rediniotis, O.K. and Allen, R., "Embedded-Sensor, High Frequency Response, Multi-Hole Probes", US Patent No. 7,010,970, Issue Date: April 21, 2006.

Holtzapfel, M. and Rediniotis, O., "High-Efficiency Jet Ejector and Propulsive Jet", US Patent No. 7,780,099, Issue Date: August 24, 2010.

Weber, J. and Rediniotis, O., "Mitigation of Dynamic Stall on Wind Turbine Blades via Passive Flow Control", provisional patent application submitted.

Disclosures of Invention to TAMU and Resulting Licensing Agreements

Weber, J. and Rediniotis, O., "Mitigation of Dynamic Stall on Wind Turbine Blades via Passive Flow Control", provisional patent application submitted.

Licensing Agreement: 1974TEES03, High-Efficiency Jet Ejector and Propulsive Jet:
L-000913, Terrabon SoluPro, LLC
L-000937, Terrabon AdVE, LLC
L-000936 Terrabon Mix-Alco, LLC

Rediniotis, O.K. and Surendran, A., "Generalized Stock Market Modeling and Forecasting". A company, Orthochronos Forecasting LLC, was formed to market the service. A license agreement has been signed with TEES. Obtained approval from TEES as well as the Board of Regents to serve on the company's Board of Directors.

Licensing Agreement with TEES: L-890 to Orthochronos Forecasting LLC.

Vijayagopal, R. and Rediniotis, O.K., "PROBENET; A Neural-Network-Based, Data-Reduction Code For Multi-Hole Probes". Software licensed to Aeroprobe Corp.

Kinser, E. and Rediniotis, O.K., "OMNI-PROBE; An Omni-Directional Three-Velocity-Component Measuring Probe". Resulted in US Patent No. 5,929,331. Licensed to Aeroprobe Corp.

Galls, S. and Rediniotis, O.K., "AEROVIEW; A PC-Based Data-Acquisition, Data-Reduction And Data-Presentation Package For Wind-Tunnel Testing". Software licensed to Aeroprobe Corp.

Johansen, E. and Rediniotis, O.K., "MULTI-PROBE; A Comprehensive, Interactive Data-Reduction Code For Multi-Hole Probes". Software licensed to Aeroprobe Corp.

Holtzapfel, M. and Rediniotis, O.K., "Novel Jet Engines and Aircraft".

Holtzapfel, M. and Rediniotis, O.K., "Vertical Lift Platform".

Rediniotis, O.K. and Ramakrishnan, V., "Omni-Directional Weather Monitoring Anemometer", in the process of being licensed to Aeroprobe Corp.

Companies Founded:

Aeroprobe Corporation, Blacksburg, VA, 1993.

Orthochronos Forecasting LLC, College Station, TX, 2008.

Honors and Recognitions:

For five consecutive years (1982-1987), received the **National Scholarship Organization of Greece (N.S.O.) Scholarship**, for ranking in the top 5% in the Mechanical Engineering Department of the National Technical University of Athens (N.T.U.A.).

Received twice (1986 and 1987) the **Technical Chamber of Greece Scholarship** and the **Tiftixi Scholarship** for ranking among the top three students (out of 150) in the N.T.U.A. Mechanical Engineering Department.

Received the **Kristina Karidogianni Scholarship and Award** for graduating second (out of 150) from the N.T.U.A. Mechanical Engineering Department.

Was classified as an **Outstanding Scientist** by the United States Department of Labor (E-12 Classification) and was granted Labor Certification waiver by the United States Department of Labor.

Was selected **TEES Select Young Faculty** (award for best young researcher in the College of Engineering at Texas A&M University), Sept. 1998.

Was selected as the **Plank Company Faculty Fellow** for 99-00 (around 10 such awards are given annually in the Texas A&M College of Engineering, consisting of approximately 400 faculty), May 1999.

Was selected **TEES Fellow** (award for the best researchers in the College of Engineering at Texas A&M University; around 10 such awards are given annually in the Texas A&M College of Engineering.), Sept. 1999.

Received the **Outsanding Achievement Award** by the Commonwealth of Virginia for success in the STTR (Small Business Technology Transfer) Program of DOD (Department of Defense), Nov. 1999.

Was an **invited participant in National Academy of Engineering's (NAE) American-German Frontiers in Engineering 2000** (one of 56 participants worldwide).

In **Lexington's Who is Who**, Millenium Edition.

Was selected **TEES Fellow**, College of Engineering, Texas A&M University; Sept. 2000.

Was named **AIAA Associate Fellow**, American Institute of Aeronautics and Astronautics; Jan. 2002.

Was selected **TEES Fellow**, College of Engineering, Texas A&M University; Sept. 2004.

Was selected **E.D. Brockett Professor**, College of Engineering, Texas A&M University; Sept. 2005.

Professional Activities:

President :

Orthochronos Forecasting LLC, College Station, TX. Stock Market Forecasting, Nov. 2008 - present.

Consultant :

Aeroprobe Corp., Blacksburg, VA, September 1992-present. Development of hardware and software for fully-automated velocity- and pressure-measurement systems.

Boeing Company/NASA Langley, Hampton, VA, September 1998. Flow field mapping over a 20% scale wing in wind tunnel testing.

Energy Innovations, Houston, TX, June 1996. Velocity and pressure measurements near a novel perforated jet engine wall.

Boeing Company, Defense and Space Group, Philadelphia, PA, November 1994-December 1994. Detailed spatial mapping of the three-dimensional velocity field for different flow configurations.

Shell Development Company, Houston, TX, September 1994-November 1994. Velocity and pressure measurements in a high-speed, high-swirl duct flow.

United Technologies Research Center, East Hartford, CT, September 1994-December 1994. Study of the flow and temperature field in a commercial heat pump.

Norton Company, Worcester, MA, September 1994-November 1994. Convective-oven design for uniform heat transfer in grinding-wheel curing processes.

AT&T Bell Laboratories, Murray Hill, NJ, June 1994-September 1994. Study of the acoustic behavior of cooling fans and blade design for noise reduction.

ICI Films Inc., Richmond, VA, November 1992-December 1992. Flow-field and heat-transfer measurements to assess the effectiveness of oven nozzles and improve their design to achieve uniform flow characteristics.

ITT Electro-Optical Products, Roanoke, VA, August 1989-December 1990. Performance assessment of industrial ventilation system, atmosphere dispersion.

Presentations:

July 2005, 1st IC-EpsMsO Conference, Athens, Greece, "Biomimetic Underwater Propulsion System Using Hybrid Synthetic Muscles".

Feb. 2005, Rice University, Houston, TX, "Nano-to-Macro Technologies for Drag Reduction and Hinge-less Flow/Flight Control".

Jan. 2004, 42st Aerospace Sciences Meeting and Exhibit, Reno, NV, "Intelligent Multi-Resolution Modelling: Application to Synthetic Jet Actuation and Flow Control".

Jan. 2004, 42st Aerospace Sciences Meeting and Exhibit, Reno, NV, "Distributed Hingeless Flow Control And Rotary Synthetic Jet Actuation".

July 2003, Summer School in Fluid Mechanics, University of Thessaly, Volos, Greece (invited), "Bio, Micro and Nano Technology Applications to Aerospace Engineering".

July 2003, 3rd Bolivarian Congress in Mechanical Engineering (COBIM III), Lima, Peru (invited plenary talk), "Bio, Micro and Nano Technology Applications to Aerospace Engineering".

June 2003, 33rd Fluid Dynamics Conference, Orlando, Florida (invited), "Multi-Hole Probes: Better, Smaller, Faster".

January 2003, 41st Aerospace Sciences Meeting and Exhibit, Reno, Nevada, "Reconfigurable Synthetic Jet Actuation And Closed-Loop Flow Control".

April 2002, IUTAM Conference, Toulouse, France, "Control Of Flow Separation Via Compact, High-Power Synthetic Jet Actuators".

January 2002, 40th AIAA Aerospace Sciences Meeting, Reno, Nevada, "Delta Wing Hingeless Control Via Synthetic Jet Actuation".

January 2002, 40th AIAA Aerospace Sciences Meeting, Reno, Nevada "Characterization of a Compact, High Power Synthetic Jet Actuators for Flow Separation Control".

January 2002, 40th AIAA Aerospace Sciences Meeting, Reno, Nevada "Development Of Unsteady Calibration Facilities And Techniques For Fast-Response Pressure Probes".

January 2001, 39th AIAA Aerospace Sciences Meeting, Reno, Nevada, "High-Power, Compact Synthetic Jet Actuator and Applications to Flow Separation Control".

March 2000, United Technologies Research Center, Hartford, CT, "Flow Separation Control Via Synthetic Jet Actuation".

March 2000, United Technologies Research Center, Hartford, CT, "Development of a Shape Memory Alloy Actuated Underwater Biomimetic Vehicle".

March 2000, Wright Petterson Air Force Research Laboratory, Dayton, OH, "Intellegent Systems in Aerodynamics".

January 2000, 38th AIAA Aerospace Sciences Meeting, Reno, Nevada, "Hingeless Flow Control Over a Delta Wing Planform".

January 2000, 38th AIAA Aerospace Sciences Meeting, Reno, Nevada, "A MEMS-Based Five-Sensor Probe".

January 2000, 38th AIAA Aerospace Sciences Meeting, Reno, Nevada, "Development of a Shape Memory Alloy Actuated Underwater Biomimetic Vehicle".

January 2000, 38th AIAA Aerospace Sciences Meeting, Reno, Nevada, "Simulation of Fish Locomotion and Control".

January 2000, 38th AIAA Aerospace Sciences Meeting, Reno, Nevada, "Flow Separation Control Via Synthetic Jet Actuation".

August 1999, ONR Contractors' Annual Program Review, Durham, New Hampshire, "Application of Active Materials and Neural Networks to Aquatic Biomimetics".

August 1999, AFOSR Contractors' Annual Program Review, Albuquerque, New Mexico, "Development of MEMS-Based Probes for Velocity and Pressure Measurements in Unsteady and Turbulent Flowfields".

August 1999, ONR Contractors' Semiannual Program Review, University of California, Berkeley, California, "Nonlinear Active Control of External Fluid Flows".

June 1999, ONR Contractors' Semiannual Program Review, University of California, Berkeley, California, "Nonlinear Active Control of External Fluid Flows".

January 1999, ONR Contractors' Semiannual Program Review, Naval Postgraduate School, Monterey, California, "Nonlinear Active Control of External Fluid Flows".

November 1998, Invited Presentation, University of Houston, Houston, Texas, "Enabling Technologies for Intelligent Vehicles".

August 1998, AFOSR Contractors' Annual Program Review, Annapolis, Maryland, "MEMS-Based Probes for Velocity and Pressure Measurements in Unsteady and Turbulent Flowfields".

July 1998, ONR Contractors' Biannual Program Review, UCLA, Los Angeles, California, "Nonlinear Active Control of External Fluid Flows".

May 1998, Invited Presentation, General Dynamics "Amphibious Systems, Woodbridge, Virginia, "Enabling Technologies for Intelligent Vehicles".

January 1998, 36th AIAA Aerospace Sciences Meeting, Reno, Nevada, "Miniature Multi-Hole Probes - Their Neural Network Calibration and Frequency Response Enhancement".

September 1997, ONR Contractors' Kick-Off Meeting, Stanford, California, "Nonlinear Active Control of External Fluid Flows".

September 1997, 10th International Symposium on Unmanned Untethered Submersible Technology, Durham, New Hampshire, "Application of Shape Memory Alloys to Aquatic Biomimetics", (invited).

August 1996, ARO Contractors' Annual Review, Raleigh, North Carolina, "Alleviation of Blade-Vortex-Interaction Generated Noise", (invited).

January 1996, 34th AIAA Aerospace Sciences Meeting, Reno, Nevada, "Progress Towards A Reduced Blade-Vortex Interaction Rotor", (invited).

January 1996, 34th AIAA Aerospace Sciences Meeting, Reno, Nevada, "Development of A Nearly-Omni-Directional, Three-Component Velocity Measurement Pressure Probe", (invited).

November 1995, Lockheed-Martin, Marietta, Georgia, "Development of A Nearly-Omni-Directional, Three-Component Velocity Measurement Pressure Probe", (invited).

June 1995, 26th AIAA Fluid Dynamics Conference, San Diego, California, "Instabilities of Vortex Breakdown; Their Structure and Growth", (invited).

January 1995, 33rd AIAA Aerospace Sciences Meeting, Reno, Nevada, "A Wide-Range, High-Accuracy Neural/Fuzzy Calibration Technique for Flow-Diagnostics Instrumentation", (invited).

December 1994, DYNAFLOW, Fulton, Maryland, "Vortex Breakdown Over Delta Wings; An Experimental Investigation", (invited).

June 1994, Symposium on Laser Anemometry, ASME Fluids Engineering Division Summer Meeting, Lake Tahoe, Nevada, "Breakdown of Conical Vortices - An Experimental Investigation Via 3-D LDV Measurements".

July 1993, 25th AIAA Fluid Dynamics Conference, Orlando, Florida, "The Hemisphere-Cylinder in Dynamic Pitch-Up Motions".

January 1993, 31st AIAA Aerospace Sciences Meeting, Reno, Nevada, "3-D LDV Measurements Over Delta Wings in Pitch-Up Motions".

September 1992, Doctoral Dissertation Defense, Virginia Tech, Blacksburg, Virginia, "The Transient Development of Vortices Over a Delta Wing".

May 1989, ESM Fluids Seminar, Virginia Tech, Blacksburg, Virginia, "Vortex Shedding Over Delta Wings".

January 1989, 26th AIAA Aerospace Sciences Meeting, Reno, Nevada, "Periodic Vortex Shedding Over Delta Wing".

April 1988, ESM-AOE Fluids Seminar, Virginia Tech, Blacksburg, Virginia, "A Numerical Study of the Two Dimensional, Turbulent, Incompressible Flow Field Around Single or Multi-Element Airfoils".

Technical Session Chairman:

Technical Session on Application of Neural Networks and Fuzzy Logic to Fluid Mechanics and Heat Transfer, ASME Fluids Engineering Division Winter Annual Meeting, Atlanta, Georgia, November 1996.

Technical Session on Dynamic Studies/Unsteady Aerodynamics, AIAA 34th Aerospace Sciences Conference, Reno, Nevada, January 1996.

Technical Session on Jet Flows, ASME Fluids Engineering Annual Conference, Hilton Head, South Carolina, August 1995.

Technical Session on Fluid Flow Processes, ASME Fluids Engineering Annual Conference, Hilton Head, South Carolina, August 1995.

Organizer:

with D. P. Telionis, International Forum on Neural Networks and Fuzzy Logic - Applications to Fluid Mechanics and Heat Transfer, ASME Fluids Engineering Division Winter Annual Meeting, Atlanta, Georgia, November 1996.

Symposium on Experimental Fluid Dynamics: Active Flow Control, 44th Annual Technical Meeting Society of Engineering Science, October 21 - 24, 2007, College Station, Texas.

Reviewer:

AIAA Journal
Journal of Aircraft
Journal of Fluids Engineering

Memberships:

Associate Fellow, American Institute of Aeronautics and Astronautics
Member, American Society of Mechanical Engineers
Member, Technical Chamber of Greece
Member, Fluid Mechanics Technical Committee, ASME, Fluids Engineering Division

Teaching Experience:

Professor, Aerospace Engineering Department, Texas A&M University, September 2006 to present. Teaching graduate courses in Theoretical and Experimental Fluid Mechanics.

Associate Professor, Aerospace Engineering Department, Texas A&M University, September 2000 to present. Taught (and currently teaching) graduate courses in Theoretical and Experimental Fluid Mechanics. Teaching evaluations between 4.0/5.0 and 5.0/5.0.

Assistant Professor, Aerospace Engineering Department, Texas A&M University, January 1995 to August 2000. Taught junior and senior level undergraduate courses and two graduate courses in Theoretical and Experimental Fluid Mechanics and Heat Transfer. Teaching evaluations between 4.1/5.0 and 5.0/5.0.

Visiting Assistant Professor, Engineering Science and Mechanics Department, VPI&SU, Spring Semester 1993 to Fall Semester 1994. Taught undergraduate classes and laboratories in Statics and Fluid Mechanics. Overall Teaching Evaluations: 3.3/4.0, 3.78/4.0, 3.6/4.0.

Instructor, Engineering Science and Mechanics Department, VPI&SU, Fall Quarter 1988 - Fall Semester 1992. Taught several undergraduate classes and laboratories in Statics and Fluid Mechanics. Overall Teaching Evaluations : 3.2/4.0, 3.4/4.0, 3.55/4.0, 3.45/4.0.

Faculty Advisor, AIAA Student Branch, ΣΓΤ Student Chapter, May 1995-Sept. 1998.

Student Graduated:

A. Masters

Jamie Weber, "Dynamic Stall Mitigation Using Passive Flow Control", Oct. 2012.

Shalom Johnson, "Development Of A Pulse Modulator For Active Flow Control In Turbomachinery", Feb. 2010.

Yogesh Babbar, "Wind Tunnel And Flight Testing Of Active Flow Control On A UAV", March 2010.

Gaurav Agarwal, "Application Of Active Flow Control Technology In An Unmanned Aerial Vehicle", August 2007.

Abhinav Kumar, "Flow Control Optimization in a Serpentine Jet Engine Inlet Duct", August 2007.

Aaron Kirk, "Active Flow Control In An Advanced, Serpentine Jet Engine Inlet Duct", December 2006.

Jonathan Wasylyszyn, "Active Control Of Underwater Propulsor Using Shape Memory Alloys", December 2005.

Ganesh Mohan, "Optimal Dimensionless Design and Analysis of Jet Ejectors as Compressors and Thrust Augmenters", December 2005.

Anmol Agrawal, "Hingeless Flow Control Over An Airfoil Via Distributed Actuation", December 2005.

Adam Miller, "Flow Control Via Synthetic Jet Actuation", October 2004.

Vijay Ramakrishnan, "Calibration And Data Reduction Algorithms For Non-Conventional Multi-Hole Pressure Probes", October 2003.

Ashwin Balasubramanian, "Modeling of DC Motor Driven Synthetic Jet Actuators for Flow Separation Control", August 2003.

Arun Surendran, "Modeling of Seemingly Random Systems with Application to Stock Market Modeling and Forecasting", October 2002.

Raghavendran Mani, "Active Skin Transition Control Via Synthetic Jet Actuation", December 2001.

Hiroshi Oryu, "Transition Control Via Synthetic Jet Actuation," June 1999.

Nick Wilson, "Development of a Shape-Memory-Alloy Actuated Underwater Biomimetic Vehicle," August 1999.

Brian Moeller, "Hingeless Flow Control Over Delta Wing Planforms," May 1999.

Espen Johansen, "Steady and Unsteady Calibration of Multi-Hole Probes," December 1998.

Mahesh Pathak, "A Simple Technique For Frequency Response Enhancement Of Miniature Pressure Probes," December 1998.

Rajesh Vijayagopal, "Neural Network Calibration For Miniature Multi-Hole Pressure Probes," December 1998.

Vinod Srinivasan, "Multi-Disciplinary Simulation of a Flexible Hydrofoil," December 1998.

Jose Gilarranz, "Development of a High-Frame-Rate, High-Resolution Particle Image Velocimetry System and Applications to the Characterization of Synthetic Jet Actuators," June 1998.

Carter T. Nelson, "Effects Of Trailing Edge Flap Dynamic Deployment On Blade-Vortex Interactions," August 1997.

Robert E. Kinser, "Development of Neural Network Calibration Algorithms for Multi-Port Pressure Probes," December 1996.

Samuel. F. Galls, "Development of AeroView - An Interactive Flow Diagnostics Laboratory," December 1996.

Somnath Mani, "A Reduced Blade-Vortex Interaction Rotor," November 1996.

B. Doctorate

Arun Surendran, "Modeling of Seemingly Random Systems, with Application to the Stock Market," June 2009.

Vijay Ramakrishnan, "Development Of An Omni-Directional Weather-Monitoring Anemometer," December 2006.

Hyoung Jun, "Development of a Fuel-Powered, Compact SMA-Based Actuator," October 2003.

Jose Gilarranz, "Development Of High-Power, Compact Synthetic Jet Actuators For Flow Separation Control," December 2001.

Espen Johansen, "Development Of A Fast-Response Multi-Hole Probe For Unsteady And Turbulent Flowfields," December 2001.

Samuel Galls, "Development Of A Computational Model For An Underwater Autonomous Vehicle," August 2001.

Lance W. Traub, "Effects of Spanwise Camber on Delta Wing Aerodynamics: An Experimental and Theoretical Investigation," January 1999.

Students and Professionals Currently Under Advising/Supervision:

Currently advising 1 MS students: Moein Soodavi.

Dissertation:

Rediniotis, O. K., "The Transient Development of Vortices Over a Delta Wing," Doctoral Dissertation, VPI & SU, October 1992.

Diploma Thesis:

Rediniotis, O. K., "A Numerical Study of the Two-Dimensional, Turbulent, Incompressible Flow Field Around Single or Multi-Element Airfoils", Diploma Thesis, N.T.U.A., Athens, Greece, June 1987.

Book Chapters:

Rediniotis, O. K., and Lagoudas D. C., "Shape Memory Alloy Actuators as Locomotor Muscles," in "Fixed and Flapping Wing Aerodynamics for Micro Air Vehicles," ed. Thomas J. Mueller, Progress in Aeronautics and Astronautics, Vol. 195, pp. 483-500, published by AIAA, Nov. 2001.

Journal Publications:

Published, in press or accepted for publication:

1. Rediniotis, O. K., Stapountzis, H. and Telionis, D. P., "Vortex Shedding Over Delta Wings," *AIAA Journal*, Vol.28, pp. 944-946, May 1990.
2. Rediniotis, O. K., Stapountzis, H. and Telionis, D. P., "Periodic Phenomena Over Delta Wings at High Angles of Attack," *AIAA Journal*, Vol. 31, pp. 1555-1562, September 1993.
3. Rediniotis, O. K., Klute, S. M., Hoang, N. T. and Telionis, D. P., "Pitching-up Motions of a Delta Wing," *AIAA Journal*, Vol. 32, pp. 716-725, April 1994.
4. Hoang, N. T., Rediniotis, O. K. and Telionis, D. P., "The Temporal Evolution of a Pair of Streamwise Vortices," *Experiments in Fluids*, Vol. 19, pp. 241-249, November 1995.
5. Donnelly, M. J., Rediniotis, O. K., Ragab, S.A. and Telionis, D. P., "The Interaction of Rolling Vortices with a Turbulent Boundary Layer," *Journal of Fluids Engineering* Vol. 117, No. 4, pp. 564-570, December 1995.

6. Klute, S. M., Rediniotis, O. K. and Telionis, D. P., "Flow Control Over a Maneuvering Delta Wing at High Angles of Attack," AIAA Journal Vol. 34, No. 4, pp. 662-668, April 1996.
7. Rediniotis, O. K., Traub, L.W. and Galls, F.G., "Reynolds Number Effects on Vortex Breakdown of a Blunt-Edged Delta," Journal of Aircraft Vol. 33, No. 4, pp. 835-838, July-August 1996.
8. Hoang, N. T., Rediniotis, O. K. and Telionis, D. P., "Symmetric and Asymmetric Separation Patterns Over a Hemisphere-Cylinder at Low Reynolds Number and High Incidence," Journal of Fluids and Structures, Vol. 11, pp. 793-817, 1997.
9. Rediniotis, O.K. and Chrisanthakopoulos, G., "A Wide-Range, High-Accuracy Neural/Fuzzy Calibration Technique for Flow-Diagnostics Instrumentation," Journal of Fluids Engineering, Vol. 120, No. 1, pp. 95-101, March 1998.
10. Ko, J., Kurdila, A., Gilarranz, J. and Rediniotis, O., "Particle Image Velocimetry via Wavelet Analysis," AIAA Journal, Vol. 36, No. 8, pp. 1451-1459, August 1998.
11. Traub, L. W., Moeller, B. and Rediniotis, O. K., "Low Reynolds Number Effects on Delta Wing Aerodynamics," Journal of Aircraft, Vol. 35, No. 5, pp. 653-656, September-October 1998.
12. Rediniotis, O.K. and Kinser, R.E. "Development of A Nearly-Omni-Directional, Three-Component Velocity Measurement Pressure Probe," AIAA Journal, Vol. 36, No. 10, pp. 1854-1860, October 1998.
13. Traub, L. W., Mani, S., Galls, S. and Rediniotis, O. K., "Application of the Vortex Breakdown Phenomenon in the Attenuation of Trailing Vortices," Aeronautical Journal, Dec. 1998, pp. 439-444.
14. Rediniotis, O. K., "A Computer-Controlled, Precision Pressure Standard," Journal of Fluids Engineering, Vol. 121, No. 1, pp. 210-212, March 1999.
15. Rediniotis, O. K. and Vijayagopal, R., "Miniature Multi-Hole Pressure Probes and Their Neural-Network-Based Calibration," AIAA Journal, Vol. 37, No. 6, pp. 666-674, June 1999.
16. Rediniotis, O. K. and Pathak, M. M., "A Simple Technique for Frequency Response Enhancement of Miniature Pressure Probes," AIAA Journal, Vol. 37, No. 7, pp. 897-899, July 1999.
17. Traub, L. W., Galls, S. and Rediniotis, O. K., "Effects of Wing-Tip Strakes on a Sheared-Tip Wing," Journal of Aircraft, Vol. 36, No. 6, pp. 1055-1062, Nov-Dec. 1999.
18. Rediniotis, O. K., Hoang, N. T. and Telionis, D. P., "The Hemisphere-Cylinder in Dynamic Pitch-Up Motions," AIAA Journal, Vol. 37, No. 12, pp. 1673-1675, Dec. 1999.
19. Hoang, N.T., Rediniotis, O.K. and Telionis, D. P., "The Hemisphere-Cylinder at Incidence at Intermediate to High Reynolds Numbers," AIAA Journal, Vol. 37, No. 10, pp. 1240-1250, Oct. 1999.
20. Hoang, N.T., Rediniotis, O.K. and Telionis, D. P., "The Dynamic Character of the Hemisphere-Cylinder Wake," Experiments in Fluids, Vol. 26, No. 9, p. 415, 1999.

21. Garner, L., Wilson, L., Lagoudas, D. and Rediniotis, O., "Development of a Shape Memory Alloy Actuated Underwater Biomimetic Vehicle," *Journal of Smart Materials and Structures*, Vol. 9, No.5, pp. 673-683, Oct. 2000.
22. Webb, G., Wilson, L., Lagoudas, D.C. and Rediniotis, O.K., "Adaptive Control of Shape Memory Alloy Actuators for Underwater Biomimetic Applications," *AIAA Journal*, Vol. 38, No.2, pp. 325-334, Feb. 2000.
23. Ko, J., Kurdila, A.J. and Rediniotis, O.K., "Divergence Free Bases and Multiresolution Methods for Reduced-Order Flow Modeling," *AIAA Journal*, Vol. 38, No.12, pp. 2219-2232, Dec. 2000.
24. Rediniotis, O. K., Johansen, E. S. and Jones, G., "The Compressible Calibration of Miniature Multi-Hole Probes," *Journal of Fluids Engineering*, Vol. 123, No. 1, pp. 128-138, March 2001.
25. Kurdila A.J., Prazenica, R.J., Rediniotis, O.K. and Strganac, T., "Multiresolution Methods for Reduced Order Models for Dynamical Systems," *AIAA Journal of Guidance, Control and Dynamics*, Vol. 24, No. 2, pp. 193-200, 2001.
26. Moeller, E. B. and Rediniotis, O. K., "Hingeless Flow Control Over a Delta Wing Planform," *Journal of Aircraft*, Vol. 39, No. 6, pp. 1035-1044, Nov.-Dec. 2002.
27. Rediniotis, O., Wilson, L., Lagoudas, D. and Khan, M., "Development of a Shape-Memory-Alloy Actuated Biomimetic Hydrofoil," *Journal of Intelligent Material Systems and Structures*, Vol. 13, No. 1, pp. 35-49, Jan. 2002.
28. Rediniotis, O.K., Ko, J. and Kurdila A.J., "Reduced Order Nonlinear Navier-Stokes Models for Synthetic Jets," *Journal of Fluids Engineering*, Vol. 124, No. 2, pp. 433-443, June 2002.
29. Traub, L. W. and Rediniotis, O. K., "Analytical Prediction of Surface Pressures over a Hemisphere-Cylinder at Incidence," *Journal of Aircraft*, Vol. 40, No. 4, pp. 645-652, July-August 2003.
30. Galls, S. F. and Rediniotis, O. K., "Numerical Simulation of Fish Locomotion and Control," *AIAA Journal*, Vol. 41, No. 4, pp. 605-611, April 2003.
31. Traub, L. W., Miller, A. and Rediniotis, O. K., "Effects of Active and Passive Flow Control on Dynamic Stall Vortex Formation," *Journal of Aircraft*, Vol. 41, No. 2, pp. 405-408, March-April 2004.
32. Balasubramanian, A., Miller, A. and Rediniotis, O.K., "Microstructure Hydrophobic Skin for Hydrodynamic Drag Reduction," *AIAA Journal*, Vol. 42, No. 2, pp. 411-414, Feb. 2004.
33. Traub, L.W., Miller, A. and Rediniotis, O.K., "Effects of Synthetic Jet Actuation on a Ramping NACA 0015 Wing," *Journal of Aircraft*, Vol.41, No.5, pp.1153-1162, 2004.
34. Traub, L.W., Miller, A.C. and Rediniotis, O.K., "Comparisons of a Gurney and Jet-Flap for Hinge-Less Control," *Journal of Aircraft*, Vol. 41, No. 2, pp. 420-423, March-April 2004.

35. Nelson, C. T. and Rediniotis, O.K., "An Active Flap Deployment System for Reduced Blade-Disturbance Interactions," Journal of Fluids Engineering, Vol. 126, No. 6, pp. 1006-1014, Nov. 2004.
36. Traub, L.W., Miller, A., Rediniotis, O.K., Kim, K., Jung, G. and Jayasuriya, S., "Effects of Synthetic Jets on Large Amplitude Sinusoid Pitch Motions," AIAA of Aircraft, Vol. 42, No. 1, pp. 282-285, 2005.
37. Johansen, E. and Rediniotis, O.K., "Unsteady Calibration Of Fast-Response Pressure Probes, Part I: Theoretical Studies," AIAA Journal, Vol. 43, No. 4, pp. 816-826, April 2005.
38. Johansen, E. and Rediniotis, O.K., "Unsteady Calibration Of Fast-Response Pressure Probes, Part II: Water Tunnel Experiments," AIAA Journal, Vol. 43, No. 4, pp. 827-834, April 2005.
39. Johansen, E. and Rediniotis, O.K., "Unsteady Calibration Of Fast-Response Pressure Probes, Part III: Air Jet Experiments," AIAA Journal, Vol. 43, No. 4, pp. 835-845, April 2005.
40. Gilarranz, J. and Rediniotis, O.K., "A New Class Of Synthetic Jet Actuators ó Part I: Design, Fabrication And Bench Top Characterization," Journal of Fluids Engineering, Vol. 127, No. 2, pp. 367-376, March 2005.
41. Gilarranz, J., Traub, L.W. and Rediniotis, O.K., "A New Class Of Synthetic Jet Actuators ó Part II: Application to Flow Separation Control," Journal of Fluids Engineering, Vol. 127, No. 2, pp. 377-387, March 2005.
42. Ramankrishnan, V. and Rediniotis, O.K., "Calibration and Data Reduction Algorithms for Non-Conventional Multi-Hole Pressure Probes," AIAA Journal, Vol. 43, No. 5, pp. 941-952, May 2005.
43. Traub, L.W., Miller, A.C., and Rediniotis, O., "A Preliminary Parametric Study of Gurney Flap Dependencies," Journal of Aircraft, Vol. 43, No. 4, pp. 1242-1244, July 2006.
44. Traub, L.W., Lund, D., Reeder, Z. and Rediniotis, O., "Preliminary Flight Tests of a Hinge-Less Roll Control Effector," Journal of Aircraft, Vol. 43, No. 4, pp. 1244-1246, July 2006.
45. Hyoungh Y. Jun, H.Y., Lagoudas, D.C. and Rediniotis, O.K., "Development Of A Fuel-Powered Shape Memory Alloy Actuator System-Part I: Numerical Analysis," Smart Materials and Structures, Vol. 16, pp. 81-94, Feb. 2007.
46. Hyoungh Y. Jun, H.Y., Rediniotis, O.K., and Lagoudas, D.C., "Development Of A Fuel-Powered Shape Memory Alloy Actuator System ó Part II: Fabrication And Testing," Smart Materials and Structures, Vol. 16, pp. 95-107, Feb. 2007.
47. Traub, L.W., Miller, A.C., and Rediniotis, O., "Investigation of a Synthetic Jet Flap for Pitch Control," Journal of Aircraft (in press).
48. Ramankrishnan, V. and Rediniotis, O.K., "Development of a 12-Hole, Omni-Directional, Flow Velocity Measurement Probe," AIAA Journal, Jun 2007, Vol. 45 Issue 6, pp. 1430-1432.

49. Galls, S. F. and Rediniotis, O. K., "Development of a Computational Hydrodynamic Model for a Biomimetic Underwater Autonomous Vehicle," *AIAA Journal*, May 2007, Vol. 45 Issue 5, pp. 961-971.
50. Mani, R., Lagoudas, D and Rediniotis, O., "Active Skin for Turbulent Drag Reduction," *Journal of Intelligent Material Systems and Structures*, 2008, volume 17, 035004, pp. 1-18.
51. Kirk, A. M., Gargoloff, J. I., Rediniotis, O. K. and Cizmas, P. G. A., "Numerical and Experimental Investigation of a Serpentine Inlet Duct," *International Journal of Computational Fluid Dynamics*, March 2009, Vol. 23, No. 3 Issue 5, pp. 245-258.
52. Telionis, D., Yang, Y., Jones, G. and Rediniotis, O., "Pressure and Velocity Measurements," *Encyclopedia of Aerospace Engineering*, October 2010.

Submitted for Publication:

1. Johnson, S., Carpenter F., Rediniotis, O. and Cizmas, P., "Pulse Modulated Flow Control for Stall Suppression in Turbomachinery," *AIAA Journal of Propulsion and Power*
2. Babbar, Y., Kumar, G. and Rediniotis, O., "Active Flow Control on an Unmanned Aerial Vehicle; Part 1: Design and Wind Tunnel Test," *Journal of Aircraft*
3. Babbar, Y., Beckett, A., Valasek, J. and Rediniotis, O., "Active Flow Control on an Unmanned Aerial Vehicle; Part 2: Vehicle Integration and Flight Test," *Journal of Aircraft*
4. Kirk, A., Kumar, A. and Rediniotis, O., "Active Flow Control in a Compact, Serpentine Jet Engine Inlet Duct," *AIAA Journal*.

Conference Publications:

1. Weber, J. and Rediniotis, O., "Mitigation of Dynamic Stall on Wind Turbine Blades via Passive Flow Control," accepted for presentation at the WINDPOWER 2012 Conference, June 3-6 2012, at the Georgia World Conference Center in Atlanta.
2. Carpenter, F., Johnson, S., Cizmas, P. G. A., and Rediniotis, O., "Internal Plenum Design and Testing for an Oscillatory Blowing Stall Suppression System," *AIAA Paper 2009-1242*, 47th AIAA Aerospace Sciences Meeting, Orlando, FL, Jan. 2009.
3. Agarwal G., Rediniotis O.K., and Babbar Y. "Effectiveness of Trailing Edge Active Flow Control for Pitch Control of Unmanned Aerial Vehicle," *AIAA 2009-1294*, 47th AIAA Aerospace Sciences Meeting and Exhibit, Orlando, Florida, Jan. 2009.
4. Carpenter, F., Johnson, S., Cizmas, P. G. A., and Rediniotis, O., "Single-Stage Axial Compressor for the Study of Rotating Stall Suppression," *AIAA Paper 2008-4994*, 44th AIAA-ASME/SAE/ASEE Joint Propulsion Conference, Hartford, CT, 21-23 July 2008.

5. G. Agarwal and O. Rediniotis, L. Traub, "An Experimental Investigation on the Effects of Pulsed Air Blowing Separation Control on NACA 0015," Paper No. AIAA-2008-737, 46th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, Jan. 7-10, 2008.
6. G. Agarwal and O. Rediniotis, I. Ekoto, "Application of Active Flow Control Technology in an Unmanned Aerial Vehicle," Paper No. AIAA-2008-282, 46th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, Jan. 7-10, 2008.
7. Kirk, A. M., Kumar, A., Gargoloff, J. I., Rediniotis, O. K. and Cizmas, P. G. A., "Numerical and Experimental Investigation of a Serpentine Inlet Duct," AIAA Paper 2007-842, 45th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, January, 2007.
8. G. Agarwal and O. Rediniotis, L. Traub, "Application of Active Flow Control Techniques on NACA 0015," 44th Annual Technical Meeting Society of Engineering Science, College Station, October 21-24, 2007.
9. O. Rediniotis, A. Kirk and A. Kumar, "Active Flow Control of Jet Engine Inlet Flows," 5th IASME / WSEAS International Conference on Fluid Mechanics and Aerodynamics, Athens, Greece, Aug. 25-27, 2007.
10. Kirk, A. M., Kumar, A., Gargoloff, J. I., Rediniotis, O.K. and Cizmas, P.G., "Numerical and Experimental Investigation Serpentine Inlet Duct," Paper No. AIAA 2007-0254, 45th Aerospace Sciences Meeting and Exhibit, Reno, NV, Jan. 2007.
11. Singla, P., Junkins, J.L., Rediniotis, O.K. and Subbarao, K., "Intelligent Multi-Resolution Modelling: Application to Synthetic Jet Actuation and Flow Control," Paper No. AIAA 2004-0774, 42nd Aerospace Sciences Meeting and Exhibit, Reno, NV, Jan. 2004.
12. Traub, L., Miller, A., Singla, P., Tandale, M., Junkins, J.L., Rediniotis, O.K. and Zeiger, M., "Distributed Hingeless Flow Control And Rotary Synthetic Jet Actuation," Paper No. AIAA-2004-0224, 42nd Aerospace Sciences Meeting and Exhibit, Reno, NV, Jan. 2004.
13. Traub, L., Miller, A. and Rediniotis, O.K., "Effects of Synthetic Jet Actuation on a Pitching NACA 0015," Paper No. AIAA 2004-0269, 42nd Aerospace Sciences Meeting and Exhibit, Reno, NV, Jan. 2004.
14. Jun, H., Allen, R.D., Lagoudas, D.C. and Rediniotis, O.K., "Development of the Fuel-Powered Compact SMA Actuator: Second Generation Actuator," SPIE's 10th Annual International Symposium on Smart Structures and Materials, San Diego, CA, March 2003.
15. Khan, M.M., Lagoudas, D.C. and Rediniotis, O.K., "Thermoelectric SMA Actuator: Preliminary Prototype Testing," SPIE's 10th Annual International Symposium on Smart Structures and Materials, San Diego, CA, March 2003.
16. Mani, R., Lagoudas, D.C. and Rediniotis, O.K. "MEMS based Active Skin for Turbulent Drag Reduction", SPIE's 10th Annual International Symposium on Smart Structures and Materials, San Diego, CA, March 2003.

17. Balasubramanian, A., Miller, A.C., Traub, L.W and Rediniotis, O.K., "Biomimetic Nanostructure Skin For Hydrodynamic Drag Reduction," Paper No. AIAA-2003-0785, 41st Aerospace Sciences Meeting and Exhibit, Reno, NV, Jan. 2003.
18. Johansen, E.S., Allen, R.D., Rediniotis, O.K. and Zeiger, M.D., "Embedded-Sensor, Fast-Response, Multi-Hole Probes," Paper No. AIAA-2003-1091, 41st Aerospace Sciences Meeting and Exhibit, Reno, NV, Jan. 2003.
19. Traub, L., Miller, A., Ukapi, U., Rediniotis, O., Jeong, G. and Kim, K., "Reconfigurable Synthetic Jet Actuation And Closed-Loop Flow Control," Paper No. AIAA 2003-0217, 41st Aerospace Sciences Meeting and Exhibit, Reno, NV, Jan. 2003.
20. Zeiger, M. and Rediniotis, O.K., "Embedded-sensor Air-Data Systems for UAVs," AIAA-2002-3496, 1st AIAA UAV Conference, Portsmouth, Virginia, May 20-23, 2002.
21. Traub, L.W., Gilarranz, J.L., and Rediniotis, O.K., "Delta Wing Hingeless Control Via Synthetic Jet Actuation," AIAA Paper 2002-0415, 40th Aerospace Science Meeting and Exhibit, Jan. 2002.
22. Gilarranz, J. L. Traub, L. W., and Rediniotis, O.K., "Characterization of a Compact, High Power Synthetic Jet Actuators for Flow Separation Control, AIAA Paper 2002-0127, 40th Aerospace Science Meeting and Exhibit, Jan. 2002.
23. Johansen, E.S. and Rediniotis, O.K., "Development Of Unsteady Calibration Facilities And Techniques For Fast-Response Pressure Probes," AIAA Paper 2002-0689, 40th Aerospace Science Meeting and Exhibit, Jan. 2002.
24. Gilarranz, J. and Rediniotis, O. K., "Compact, High-Power Synthetic Jet Actuators for Flow Separation Control," AIAA Paper No. 2001-0737, 39th Aerospace Science Meeting and Exhibit, January 2001, Reno, Nevada.
25. Galls, S. F. and Rediniotis, O. K., "Neural Network Navigation of a Biomimetic Underwater Vehicle," AIAA Paper No. 2001-1125, 39th Aerospace Science Meeting and Exhibit, January 2000, Reno, Nevada.
26. Rediniotis and O., Lagoudas, "Shape Memory Alloy Actuators as Locomotor Muscles," presented at the Workshop on Fixed, Flapping and Rotating Wing Micro-Air Vehicles, University of Notre Dame, South Bend, Indiana, June 2000.
27. Moeller, E. B. and Rediniotis, O. K., "Hingeless Flow Control Over a Delta Wing Planform," AIAA Paper No. 2000-0117, 38th Aerospace Science Meeting and Exhibit, January 2000, Reno, Nevada.
28. Allen, R. Traub, L. Johansen, E., Rediniotis, O. K. and Tsao, T. "A MEMS-Based Five-Sensor Probe," AIAA Paper No. 2000-0621, 38th Aerospace Science Meeting and Exhibit, January 2000, Reno, Nevada.
29. Rediniotis, O. K., Lagoudas, D. C. and Wilson, L.N. "Development of a Shape Memory Alloy Actuated Underwater Biomimetic Vehicle," AIAA Paper No. 2000-0522, 38th Aerospace Science Meeting and Exhibit, January 2000, Reno, Nevada.

30. Galls, S. F. and Rediniotis, O. K., "Simulation of Fish Locomotion and Control," AIAA Paper No. 2000-0296, 38th Aerospace Science Meeting and Exhibit, January 2000, Reno, Nevada.
31. Rao, P., Gilarranz, J., Ko, J., Strganac, T. and Rediniotis, O. K., "Flow Separation Control Via Synthetic Jet Actuation," AIAA Paper No. 2000-0453, 38th Aerospace Science Meeting and Exhibit, January 2000, Reno, Nevada.
32. Preetham P. Rao, Thomas W. Strganac, and Othon K. Rediniotis, "Control of aeroelastic response via synthetic jet actuators," AIAA-2000-1415 AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, 41st, Atlanta, GA, Apr. 3-6, 2000
33. Traub, L. and Rediniotis, O. K., "Effects of Anhedral and Dihedral on a 75 Deg. Sweep Delta Wing," AIAA Paper No. 2000-0898, 38th Aerospace Science Meeting and Exhibit, January 2000, Reno, Nevada.
34. Lagoudas, D., Rediniotis, O. and Khan, M. "Applications of Shape Memory Alloys to Bioengineering and Biomedical Technology," Proceedings of the 4th International Workshop on Scattering Theory and Biomedical Applications, pp. 195-207, Oct. 1999, Perdika, Greece.
35. Webb, G., Wilson, N., Lagoudas, D. and Rediniotis, O., "Control of SMA Actuators in Dynamic Environments," SPIE Paper No. 3667-99, SPIE's 6th Annual International Symposium on Smart Structures and Materials, March 1999, Newport Beach, California.
36. Rediniotis, O., Webb, G. and Darmofal, D., "Reduced-Order Transition Control via Optimal Projection," SPIE Paper No. 3667-74, SPIE's 6th Annual International Symposium on Smart Structures and Materials, March 1999, Newport Beach, California.
37. Rediniotis, O., Lagoudas, D., Garner, L. and Wilson, L., "Development of a Spined Underwater Biomimetic Vehicle with SMA Actuators," SPIE Paper No. 3667-33, SPIE's 6th Annual International Symposium on Smart Structures and Materials, March 1999, Newport Beach, California.
38. Rediniotis, O.K., Johansen, E., Tsao, T., Seifert, A. and Pack, L., "MEMS-Based Probes for Velocity and Pressure Measurements in Unsteady and Turbulent Flowfields," AIAA Paper No. 99-521, 37th Aerospace Science Meeting and Exhibit, January 1999, Reno, Nevada.
39. Rediniotis, O.K., Ko, J., Yue, X. and Kurdila, A. J., "Synthetic Jets, their Reduced-Order Flow Modeling and Applications to Flow Control," AIAA Paper No. 99-1000, 37th Aerospace Science Meeting and Exhibit, January 1999, Reno, Nevada.
40. A. Kurdila, C. Prazenica O. Rediniotis, and T. Strganac, "Multiresolution methods for reduced order models for dynamical systems," AIAA-1999-1263 40th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, , St. Louis, MO, Apr., 1999; Collection of Technical Papers. Vol. 1 (A99-24601 05-39).
41. Andrew J. Kurdila (Florida, Univ., Gainesville), Othon Rediniotis, Thomas Strganac, and Jeonghwan Ko, "Multiwavelets and Particle Image Velocimetry Methods," AIAA-1999-1309

AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, 40th, St. Louis, MO, Apr. 12-15, 1999

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