CURRICULUM VITAE
Dr. Swaminadham Midturi

EDUCATION

Ph.D. in Mechanical Engineering, Indian Institute of Technology, Kharagpur, India, 1976.
M. Tech. Mechanical Engineering, Indian Institute of Technology, Kharagpur, India, 1971
B.E. in Mechanical Engineering, Government College of Engineering, Anantapur, India, 1966

AREAS OF EXPERTISE

Mechanics of Materials, Mechanical Design, Structural Dynamics and Active Control, Machinery Vibrations, Aircraft Engine Dynamics, Laser Interferometry, Thin Film Structures, and Cellular (Metallic foam) materials

PROFESSIONAL EXPERIENCE

Professor (January 2001- August 15, 2016) and Chair (January 2001-December 2007) of the Department of Engineering Technology at the University of Arkansas at Little Rock (UALR).

Current status: Emeritus Professor at UALR from August 15, 2016

Jan. 1990- Dec. 2000, Professor Texas A&M University, College Station, TX

Summer 1997 Consulting Engineer at Boeing in Houston, Texas
Worked on the critical design review of International Space Station (ISS) components, -- Control Moment Gyros (CMG) for the ISS attitude control, and the CMG support structures

November 1997- 2000 Worked on a Research Project on diagnostics of whirl tower and auto-clave facilities for helicopter rotor blades re-manufacturing, a sponsored project from Corpus Christi Army Depot, Texas.

1985-1989 Research Engineer, University of Dayton Research Institute, Dayton, Ohio. Also on-site Research and Project Engineer in the Aero Propulsion Laboratory, Wright Patterson Air Force Base, US Air Force. Worked on bladed-disk dynamics research, development of non-contact blade tip vibration measurement method/system, application of image-derotated laser interferometric methods for vibration measurement, and testing metal matrix **c**omposite blades, and exit-nozzles of engines.

1983-1985 Assistant Professor and later Assoc. Professor of Mechanical Engineering at the University of Hartford, Connecticut. Also as Consulting Engineer at the United Technologies Research Center., East Hartford, Connecticut. Worked on turbo fan vibration control using piezoelectric crystals, spin-pit test rig diagnostics, bladed-disk shroud friction damping mechanics, rotor and case interaction model development and analysis.

1981-1983 Research Fellow of the Alexander von Humboldt Foundation of Germany, University of Hannover. Worked on vibrations of cooled blades of aero engines sponsored by MTU and Brown Boveri, design and installation of a large laser holographic test-setup for vibration testing.

1973-1981 Scientist and Project Leader, Propulsion Division, National Aeronautical Laboratory, Bangalore, India. Worked on vibrations of turbine components -- turbine blades, rotors and disks, laser holographic measurements laboratory with funding from UNESCO.

1967-1973 Lecturer and Ph D student in Mechanical Engineering at IIT, Khragpur. Taught Engineering Mechanics, Mechanics of Materials, Machine Design, and Vibrations, and Instrumentation.
1966-1967 Junior Engineer in Hampi Hydroelectric Plant, Karnataka, India.
Operation and maintenance of hydraulic turbines and other mechanical equipment.

Other Related Academic Work
Visiting Professor, Princeton University, New Jersey 7/2007-1/2008
Visiting Scientist, Swiss Institute for Micro Technology, summer 2004.
Invited Speaker at the Indo-USA Conference on Engineering Education Collaboration: Accreditation and Accountability in Engineering Education, June 2008
NSF Panelist for Micro/Nano Civil and Mechanical Systems Division, 2/2008
Chair of the Donaghey College of Engineering Task Force to develop new initiatives in engineering
ETAC/ABET Evaluator, Since 1997- Present.
Member, Board of Directors, Tau Alpha Pi, Engineering Technology National Honor Society

Research Proposals Submitted during my tenure at UALR

1.Exploring the Effect of Density Variation on Hardness and Fatigue Properties of Sintered Powder Metal (P/M) Parts with Spencer E. Young, Undergraduate student in MET, submitted to Arkansas Department of Higher Education (State Undergraduate Research Funding), October 19, 2015.

2. Research Experiences to Teachers SITE: Embedding Engineering Research for Next Generation Science Teaching submitted to NSF (National Science Foundation) , April 8, 2015

3.Thermo-mechanical Properties of Cellular Materials, Arkansas Space Grant Consortium, 2010-2012

4. NSF Major Research Instrumentation Proposal to conduct micro mechanical testing of flexible thin films, 1/24/2008 and re-submitted in Jan 22, 2009, not funded.

5. Industrial Assessment Center proposal to the U.S. Department of Energy (to train undergraduate students in energy audits of industries, not funded), Jan. 2006.

6. Signed a Confidential Teaming Agreement with Anteon Corporation, VA to work on Air Force Air Vehicles Directorate on Structural Technology Evaluation and Analysis Program. Total $24 Million for 5 years (My share would depend on the specific research tasks), not funded.

7. Arkansas Industrial Workforce Energy Education Initiative Project Director, from the US Department of Energy, 2006-2007 funded.
8. Interactive Energy Management Tool from the Arkansas Department of Economic Development, Co-PI funded, the follow-up grant was approved for a year 9/1/05-8/31/06.

9. Electronic Holography for Structural Analysis (DURIP Equipment Grant) to ARO/AFOSR, 8/19/ 2003 (not funded)

10. RET Site at UALR on Smart Materials, Structures, and Systems (REU Site) to NSF 9/15/2003 (not funded)

AWARDS AND RECOGNITION

Honorary Commander of the Little Rock Air Force Base, 2005.
Member, Board of Directors, Tau Alpha Pi National Honor Society, 2001- 2007
Engineering Technology Accreditation Commission/ABET Evaluator from fall 1997-Present
Panelist for National Science Foundation ILI and International Programs
Outstanding Faculty Award from the Engineering Technology Department at Texas A&M, 1994
ASME Region X Faculty Advisor Award, 1993
Alexander von Humboldt Fellowship of West Germany, 1981-1983
UNESCO Visiting Scientist Fellowship, 1977
National Merit Scholarship for Engineering, 1961-1966.

SERVICE TO THE DEPARTMENT AND UNIVERSITY (INTERNAL)

Member Ph.D Committee, Zhu Rai, Graduated May 2014: Thesis on Meta materials
Member, Ph.D committee for Bio Liu, Applied Science, 2004-2008
Ph. D thesis Advisor, Asif. M. Mughal, Applied Science Dept, UALR (2003-2007)
Member Ph. D committee Imran Khan, Applied Science Dept, UALR (2002 -2006)
Member Ph.D committee, Ms. Paulami Roy, Applied Science, UALR. (2005 -)
Graduate Thesis Co-Chairman, M.S. degree for Scott M. Fernero, Dept. of Electrical Engineering, Texas A&M University, 1998 -2000.
Graduate Committee Member, M.S. in Mechanical Engineering, Srinand S. Karuppor, Mechanical Engineering Department, Jan. 1996- July 1997.
Graduate Committee Member, M.S. in Mechanical Engineering, David L. Ransom, 1997.
Graduate Committee Member, Ph.D. in Mechanical Engineering, Chinta Murali, Mechanical Engineering Department, 1994-1997. Graduated in Dec. 1997

SERVICE TO PROFESSIONAL SOCIETIES (EXTERNAL)

Session Chairman, MET Sponsored Session on Applied Research, International Mechanical Engineering Congress and Exposition, Nov. 14-19, 1999, Nashville, TN.
Secretary (1994, 95), Treasurer (1995), Chairman(1996), and Ex-Officio(1997) of Brazos Valley Section of ASME at College Station, TX
Founding Member of the ASME-Tech Student Chapter at Texas A&M University, College Station, TX
Reviewer of ILI Proposals to National Science Foundation, January 1997.
Session Organizer on Friction in Turbine Components at International Gas Turbine Institute Conference, Houston, 1993.

Reviewed Papers for ASME Design Engineering Conferences, Winter Annual Meetings, International Gas Turbine Institute Conferences, 1993 - Present.

INDUSTRIAL SEMINARS / WORKSHOPS CONDUCTED:

Predictive maintenance method short courses to the employees of Green Bay Packaging Company, Morrilton, Arkansas, 2008

Efficient operation of industrial equipment to industry workers from Arkansas 5-7 2 Day workshops on behalf of US DOE 2006-2007

Technical Presentation on Vibration Engineering and Applications to General Motors employees, 1998 and 1999.

Preventive and Predictive Maintenance Engineering to Texas A&M Power Plant and Utilities, February-April, 1996.

CONSULTING

New staircase designs for Century Industries, 2010.

Innovative rotating valve for fuel admission in diesel engine to improve fuel efficiency, McLean & England Associates, LLC, October-December 2004.

Worked with Applied Materials, Inc, Austin, TX on Wafer Lift Mechanism

Taught Mechanical Design Review courses for Test Masters for P.E. Exam, April 1997 and October 1997.

Worked with Boeing Company in Houston, TX on Space Station Components, Stress and Vibration problems, Summer 1997.

LIST OF PUBLICATIONS/PRESENTATIONS

Yadullah Babayev and Swaminadham Midturi, Mechanical Properties of Low Density Pre-alloyed Powder Steels, Paper submitted to the 18th International Conference on Metallurgy and Material Science, Istanbul, Turkey Sept. 29- Oct. 1, 2016. **Dr. Yaduallah is a Fulbright scholar from Azerbaijan, and he has been working with me since Aug. 2015—August 2016**.

Balasubramanian, R., and S. Midturi, Time and Frequency Analysis of Traveling Waves in Elastic Media, Proc. International Conference on Advances in Mechanical Engineering, May 29-31, 2013, Pune, India.

Balasubramanian Ramanan , and S. Midturi., Defect Identification by Lamb Waves: Signal Analysis (with) Arkansas Academy of Sciences Conference, Little Rock, April 2013.

Bala Chandran Kalidass, Brent Kessee, Sudheesh Kakarla, and S. Midturi, Images and Sounds from Deformation in Metallic Foams, The 2012 UALR Research and Creative Activities EXPO, **First Prize Poster** for Undergraduate Engineering and Technology Research, April 13, 2012.

James Playford, Rahul, KJ, **S. Midturi**, and Julian Post, Deformation Mechanisms of Metallic Foams, 95 th Arkansas Academy of Sciences Conference at the University of Arkansas, Monticello, AR April 8-9, 2011**. First Prize for Presentation**

James Playford, Rahul, KJ, Pidugu, S, **S. Midturi**, Thermal Conductivity of Open Cell Cellular Foams, 95 th Arkansas Academy of Sciences Conference at the University of Arkansas, Monticello, AR April 8-9, 2011.

James Playford, Rahul, KJ, S. Pidugu**, S. Midturi,** Thermal Conductivity of Open Cell Aluminum and Stainless Steel Foams, American Society of Mechanical Engineers Region E SPDC Conference at the University of Arkansas at Fayetteville, AR March 29-30, 2011. **First Prize for Poster**

S. Midturi, S. Pidugu, James Playford, Rahul KJ., Thermal Characterization of Open Celled Aluminum and Stainless Steel Foams Abstract to 2011 ASME International Conference at Denver, CO, November, 2011

Midturi Swaminadham, Stress-strain Behavior of Nano/micro Thin film Materials, Jr. of Engineering and Applied Sciences, Vo. 5, No. 3, March 2010.

Midturi, Swaminadham, Onobu, A., Winston Soboyejo, Large Strain Behavior of Nano Gold Films on Thick PDMS Substrates, NSF sponsored 4th U.S-Africa Materials Conference, December 10-14, 2007, Dar Es Salaam, Tanzania.

Midturi, S. Accreditation, Evaluation, and Assessment: Point of View of New and Developing Engineering Programs, International Conference on Engineering Education, April 9-11, 2007, Kuwait.

Midturi, S., and S. Pidugu., Educational Models for Energy Workforce Development, Proc. The 2006 ASEE Conference, Chicago, June 2006.

Midturi, S., and S. Pidugu., Energy Workforce Training, Future Need, and Projections, Proc. Industrial Energy Technology Conference may 9 –12, 2006 New Orleans, LA.

Midturi, S., Publicizing and Promoting Engineering Technology Discipline Through Ranking, Presented at the Engineering Technology Leadership Institute, Rochester, NY, October 2- 4, 2005.

Midturi, S., Sensor Based Failure Analysis of Rolling Element Bearings, Paper included in the Agenda of 2005 ASME International Conference at Orlando, FL November 5-9, 2005.

Midturi, S. , 2005 Web Based Energy Management Tool, Presented at the CAPPA Conference, Little Rock, AR, U.S.A, September 20, 2005.

Midturi, S., 2004, "Automated Diagnostics of Whirl Tower Test Facility," Proc. The 58th Meeting of the Society for Machinery Failure Prevention Technology, pp. 233-240, Norfolk, VA.

Midturi, S., 2004, "Interactive Energy Management Tool: Progress and Update," Presented at the DOE South East Regional Conference, Biloxi, MS May 28-29, 2004.

Pidugu, S.B. and Midturi, S., 2004, "Environmental Awareness and Clean Environment Technology," *Proc. 38th ASEE Midwest Section Meeting*, Pittsburg State University, Pittsburg, Kansas, September, 2004.

Midturi, Swaminadham, Kinematics and Kinetics of Optical MEMS Platform, Report to the Institute for Microtechnology, Uni. Neuchatel, Switzerland (Collaborated with Dr. Wilfried Noell), June, 2003

Midturi, Swaminadham, An Analytical Model to Predict Dynamic Response of a AFM MicroProbe, Report to the Institute for Microtechnology, Uni. Neuchatel, Switzerland,(Collaborated with Drs. Akiyama and Urs Staufer), July 2003.

Midturi, Swaminadham, 3-D Kinematics of Tilting Optical Platform, Report to Institute of Mcrotechnology, University of Neuchatel, Switzerland, July 2003. (with Dr. Wilfried Noell of IMT)

Midturi, Swaminadham, Foundation Blocks of MEMS Technologies, Memphis Area Science and Engineering Conference Paper Presented at Christian Brothers University, Memphis, TN May 10, 2002

Midturi, Swaminadham, Knowledge Base for Wealth Producing Careers: an Advisor's Point of View, The 56th Annual Conference of the Arkansas Counseling Association, Hot Springs, AR November 14 – 16, 2001

Midturi, Swaminadham, Extending the Service Life of Equipment for Profitability, Arkansas Manufacturing Association Magazine, June 2001

Midturi, Swaminadham, ' Dynamic Signal Analysis for Condition Assessment of Gears', Presented at the International Mechanical Engineering Congress and Exposition, Nov. 14-19, 1999, Nashville, Tenn. U.S.A.

Midturi, Swaminadham, "Fourier and Wavelet Transform Features for Whirl Tower Diagnostics", Proceedings on CD-ROM IEEE -International Conf. On Digital Signal Processing, March 16-19, 1999 at Phoenix, Arizona, U.S.A.
(Co-authors: Scott Fernero(EE),N. Kehtarnavaz(EE), Don. A. Phillips(IE))

Midturi, Swaminadham, "Bearing Compliance Effects on Rotor Critical Speeds," Presented at the XIX South Eastern Conference on Theoretical and Applied Mechanics, at Florida Atlantic University, FL, May, 1998.

Midturi, Swaminadham, "Simulation of Impact Response of Turbomachinery Blades," Proc. IV Conference on Computer Simulation UP 98 at Universidad Pan-American, McLeod Institute for Simulation Studies, Mexico City, Mexico, pp 60-65, February 18-20, 1998.

Midturi, Swaminadham, "Damage and Structural Integrity of Turbine Blades," Presented at the International Mechanical Engineering Congress and Exposition, Dallas, TX, November 16-21, 1997.

Midturi, Swaminadham, "Limiting Vibration in Space Lattices," Feature Article in Mechanical Engineering Magazine, Vol. 119, No. 12, pp 88-89, 1997.

Midturi, Swaminadham, "PC Based, Automated Vibration Testing of Structural Components," Journal of Computers in Education, Vol. VII, No. , pp 14-19, Oct-.Dec. 1997.

Midturi, Swaminadham, "Teaching Engineering and Engineering Technology Courses to Non-majors," Proceedings 1997 ASEE/GSW Annual Conference at University of Houston, Houston, TX March 23-25, 1997.

Midturi, Swaminadham, "Smart Materials and Their Applications in Structural Systems," Proceedings Engineering and Architecture Symposium at Prairie View A&M University, Prairie View, Texas, pp. 55-60, February 6-7, 1997.

Midturi, Swaminadham, "Dynamics of Deployable Space Structures," International Mechanical Engineering Conference & Exposition, ASME paper # 96 - WA/MET -3, Atlanta, Georgia, November 17-22, 1996.

Midturi, Swaminadham, "Applied Research for Engineering Technology Majors," Proceedings of the ASEE Gulf - Southwest Section Meeting, San Antonio, Texas, pp. 764-678, March 27-29, 1996.

Midturi, Swaminadham, "Deployable Solar Boom Vibration and Damping Measurements", Proceedings E&A Symposium, Prairie View A&M University, Prairie View, Texas, pp 389-394, February 5-6, 1996.

Midturi, Swaminadham, David L. Ransom, and J. A. Morgan, "Pneumatic Bearing Application to Reduce Shaft Vibration," International Mechanical Engineering Congress and Exposition at San Francisco, CA, ASME Paper # 95-WA/MET-8, November 12-17, 1995.
Midturi, Swaminadham, "Excellence and Utility in Tripartite Mission of Engineering Institutions," Proceedings of the ASEE Gulf-Southwest Section Meeting, Beaumont, TX, pp. 241-246, March 30- 31, 1995.

Midturi, Swaminadham, "Vibration Research in Turbomachinery Blades and Bladed-Disks," E & A '95 Symposium, Prairie View A&M University, Prairie View, Texas, Proceedings of E & A, Vol. 1, pp. 56 - 60, January 30-31, 1995.

Midturi, Swaminadham and M. Chinta, "Vibrations of Rotating Turbine Blades with Flexible Roots," Journal of Sound and Vibration, Vol. 174, No. 2, pp. 284-288, July 7, 1994.

Midturi, Swaminadham, "Instrumentation Laboratory for Mechanical Vibration and Machine Diagnostics," Proceedings of NSF-Sponsored Poster Session in ASEE Conference, Edmonton, Canada, June 26-29, 1994.

Midturi, Swaminadham and Uma J. Doma, "Step-by-Step Instructions for Structural Testing, Analysis and Reporting (STAR) Software," Mechanical Vibration Laboratory Technical Memorandum MVL-TM-1- 1994.

Midturi, Swaminadham, "Undergraduate Laboratory Experiences of Single Degree of Freedom System Vibrations," Proceedings of ASEE-GSW Conference, Baton Rogue, LA, Vol. 2, pp. 727-735, March 24-25, 1994.

Midturi, Swaminadham, "Machinery Maintenance Course in MET Curriculum," Proceedings of ASEE-GSW Conference, Baton Rogue, LA, Vol. 2, pp. 801-809, March 24- 25, 1994.

Midturi, Swaminadham and David A. Hamilton, "Vibration Control of Deployable ASTROMAST Boom-Preliminary Experiments," Proceedings of NASA Dual-Use Space Technology Transfer Conference, NASA CP 3263, Vol. 1, pp. 305-313, February 1-3, 1994.

Midturi, Swaminadham, "Computer Simulation of Multi-rigid Body Dynamics and Control," Presented to the 3rd. Air Force/NASA Symposium On Recent Advances in Multi-Disciplinary Analysis & Optimization, San Francisco, CA, September 24-26, 1990.

Midturi, Swaminadham, "Laser Interferometric Application for Mode Shape Analysis of Rotating Disks," 1990 SEM Fall Conference on Hologram Interferometry and Speckle Metrology, Baltimore, MD, November 5-8, 1990.

Midturi, Swaminadham, "Non-Intrusive Vibration Measurements of Rotating Bladed-Disks," Proceedings of the 61st. Shock and Vibration Symposium, JPL, Pasadena, CA, Oct. 16-18, 1990.

Midturi, Swaminadham, "Large-Amplitude Oscillations of A Spinning Disk - Experimental Investigation," Proceedings of the 8th. International Modal Analysis Conference, FL, pp. 161-167, Jan 29 - Feb. 1, 1990.

Midturi, Swaminadham & Robert J. Dominic, "Measurement of the Critical Speed Response of Turbine Disks," Proceedings of the ASME Vibrations Conference, Montreal, Canada, DED-Vol. 18-3, pp. 215-222, September 1989.

Midturi, Swaminadham, Robert J. Dominic, John D. Reed & William Strange, "Noncontact Blade Deflection Measurement Systems for Rotating Bladed Disks," ISA Paper #89-0046, Proceedings of the Instrument Society of America Conference, Orlando, FL, April 1989.

Midturi, Swaminadham & Robert J. Dominic, "Evaluation of Plane-Of-Light, Non-Interference Stress Measurement Systems for Measuring Bladed Disk Vibrations," UDR-TR-89-18, University of Dayton Research Institute, Dayton, OH, March 1989. Also published as Wright Research and Development Center Technical Report, WRDC-TR-89-2125, 1989.

Midturi, Swaminadham & M.L. Soni, "On Model Generation & Modal Analysis of Flexible Disks," Presented at the 14th. AIAA Minisymposium, Holiday Inn, Dayton Mall, March 1988.

Midturi, Swaminadham, J. Michael Aulds, Robert J. Dominic & Robert E. Blanchard, "Plane-of-Light Sensors for Deflection Measurements of Turbomachinery Blades," Presented at the 29th. Structural Dynamics Conference, Williamsburg, VA, April 18-20, 1988.

Midturi, Swaminadham, M. Soni, W. Stange, & J. Reed, "On Model Generation & Modal Analysis of Flexible Bladed Disk Assemblies," The 1987 ASME Design Technology Conference, Boston, MA, September 27-30, 1987.

Midturi, Swaminadham, "Stiffness Singularities in NASTRAN Analysis of Advanced Compressor Blade Vibrations," 3rd Annual AIAA Mini symposium at the University of Dayton, Dayton, OH, March 24, 1987.

Midturi, Swaminadham, "Modal Response of A Rotating Bladed Disk Assembly", Proceedings of the 5th. International Modal Analysis Conference, London, England, April 06-09, 1987.

Midturi, Swaminadham, "Free Vibration Analysis of Annular Sector Plates," Journal of Sound & Vibration, Vol. 95, No. 3, pp. 333-340, August 1984.

Midturi, Swaminadham, "Analytical & Experimental Investigations of Vibrations of Hollow Blade Models of Turbines," Forschungsberichte (Research Report) to Deutsche Forschungsgemeinschaft,
Bonn. February 1983. Also, VDI, Forschung in Ingenieurwesen Bd. 50, No. 1, p. 1-5, 1984.

Midturi, Swaminadham, "Vibrations of Plates Discretely Supported Along Their Diagonals," Proceedings of the 6th. World Conference on Theory of Machines & Mechanisms, N. Delhi, India, Vol. 1, pp. 568-572, December 15-20, 1983.

Midturi, Swaminadham, "Vibrations of Circular Plates with Mixed Boundary Conditions," Proc. the 9th. Canadian Congress on Applied Mechanics, Saskatoon, May 13-June 03, 1983.
Midturi, Swaminadham, "Vibrations of An Elastic Beam with A Flexible Support," Presented at the Conference of the Gesselschaft fur Anagawandete Mathematik & Mechanik at Budapest, Hungary, April 13-16, 1982. Also,
Zeitschrift fur Angawandete Mathematik & Mechanik, 63, pp. 105-107, 1983.

Midturi, Swaminadham, "Large Deformation Whole-Field Measurements of Isotropic Plates by Sandwich Hologram Interferometry," Proceedings of the European Mechanics Colloquium 152, University at Wuppertal, Wuppertal, W. Germany, September 21-24, 1982.

Midturi, Swaminadham, "Acoustic Imaging Methods for Mechanical Testing," Project report to the Deutsche Forschung Gemeinschaft, June 1982.

Midturi, Swaminadham, "Analysis of Recent Vibration Measurement Techniques in Turbomachinery Blades," Proceedings of the SESA/JSME International Conference on Experimental Mechanics, HI, USA, May 23-28, 1982.

Midturi, Swaminadham, K. Rajanna, and RMVGK Rao, "Effects of Moisture & Glass Content on The Poisson Ratio of FRP Plates as Determined by Laser Holography," Journal of Fibre Science & Technology, Vol.15, pp. 235-242, 1981.

Midturi, Swaminadham, and K. Rajanna, "White Light Holographic Interferometry," National Aero. Lab. Tech. Memo, December 1980.

Midturi, Swaminadham, "A Note on The Frequencies of A Beam with A Heavy Tip Mass," Journal of Sound & Vibration, 66(1), pp. 144-147, 1979.

Midturi, Swaminadham, "Identification of Resonant Frequencies of Rotating Beams with the Use of PZT Crystals," SESA Experimental Mechanics, pp. 76-80, February 1979.

Midturi, Swaminadham, "Vibrations of Rotating, Pre-twisted & Tapered Blades," International J. Mechanics & Machine Theory, Vol. 12, pp. 331-337, 1977.

Midturi, Swaminadham, "Laser Holography System," National Aero. Lab. Tech. Memo, December 1977.

Midturi, Swaminadham, "Study of Vibrations of Rotating Blades," ASME Paper, No. 77-DET-147, September 1977.

Midturi, Swaminadham, "Frequency Dependence of A Turbine Blade on Elastic Constant," Session of the Aero. Soc. India, Bombay, 1976.

Midturi, Swaminadham, "Vibration Measurements on Rotating Blades," Proc. Symposium Blade Design & Development, Bharat Heavy Electricals Ltd., Hyderabad, September 1975.

Midturi, Swaminadham, "Effects of Taper & Centrifugal Force on Frequencies of A Rotating Blade: Theoretical Analysis," Proc. Indian Soc. Theory. & Applied Mechanics Congress, December 1974.

Midturi, Swaminadham, "Piezoelectric Crystals As Vibration Transducers," National Aero. Lab. Tech. Memo., December 1974.

RESEARCH & DEVELOPMENT GRANTS - FUNDED

U.S. DOE on Workforce Development, $150,000 (2005-2006)
Arkansas Energy Office Interactive Energy Management Tool, $100,000 (2004-06)
Predictive Maintenance Methodologies for Corpus Christi Army Depot Equipment,

March 1997, funded for $482,000 (PI - Don Philips of IE) and Engineering Technology Midturi's share $110,000, November 1, 1997.
This contract is extended for one year starting May 1, 1999. Funding amount is $475,000, and Engineering Technology -Midturi's share is $105,000 for May 1, 1999 through April 30,2000.
Magneto-rheological Fluids for Cutting Tool Vibration Reduction, supported by Society of Manufacturing Engineers. $9,000, 1996-1997.
Society of Manufacturing Engineers grant for ALGOR Finite Element software Beta Testing, $20,000, 1995.
Active Control of Shaft Vibration by Air Jets, supported by Texas A&M University Mini-grant for $1,300, 1995.
Lockheed Leadership Grant, used for program development, $6,000, 1993-1995.
Oak Ridge National laboratory Faculty Research Travel Grants 1994-1997 to study Vibrations of large electrical motors, 1994 - Present, Cost Reimbursement Program.
Parker Hannifin Equipment Grant (with Don Rice), valued at $75,000, 1994.
Equipment Grant from Dean's Office (EEAF Return) to procure Ultrasonic Testers, $8,000, 1994.
NASA Johnson Space Center Sponsored Research on Dynamics of Deployable Space Structures for $58,969. The work entailed development of active control of vibrations by piezo-electric crystals, September 1993 - August 1994.
ARCO Chemical Company Grant for the development of Vibrations and Machine Diagnostics Laboratory, $5,000 in 1993, $40,000 in 1994.
Faculty Study Abroad (International) Program-Pilot Program to Mexico, valued at $3,000, Summer 1994.
National Science Foundation sponsored Instrumentation Laboratory Development Project for $108,974. With 50% cost sharing. A state-of-the-art vibration and machine diagnostics laboratory was set up in the ETID department, September 1992 - August 1993.
TEKTRONIX grant for matching funds for the NSF- ILI grant $28,000, 1993.
Texas A&M university Honors Program Grant to develop an Honors Course on Theory of Vibrations and Applications, $2,000, 1993.
Equipment Grant from Dean's Office (EEAF Return) to procure Universal Testing Machine, $20,000, 1992.
Texas A&M University Mini-grant for research on Shape Memory Metals Applications for Vibrations, $1,000, 1992.
Du-Pont Grant for Universal Computer Controlled Universal Testing Machine for $65,000, 1992.

RESEARCH AND DEVELOPMENT GRANTS - NOT FUNDED

Automation Across ET Curriculum and Beyond to the National Science Foundation, $ ~ 500,000 June 5, 2001
Center for Learning and Teaching with an Emphasis on Applications of Math and Physics to Engineering, NSF $200,000 March 15, 2001
Mistuning of Aircraft Engine Turbine Bladed Disks to the Air Force Office of Scientific Research, $ 300,000, September 2001
(all the above at UALR)
Active Control of Shaft Vibrations by Hydraulic Actuators, to Texas Higher

Education Coordinating Board, July 1997, for $107,139.
Active Fixture for Large Aerospace Structures Vibration Testing, to NASA Johnson Space Center, March 1997, for $68,000.
Increasing Junior College Transfers to Better Meet the Needs of the Energy/Petrochemical Industry, to ARCO Foundation, November 13, 1996, for $100,000.
Increasing Junior College Transfers to Better Meet the Needs of the Energy/Petrochemical Industry, to Lyondell Petrochemical Foundation, November 1, 1996, for $100,000.
Structural Analysis of Micro-Sensor Packages to Motorola Foundation, September 1996, for $53,303.
Magneto-rheological Fluids for Active Suppression of Structural Vibration, to Rockwell International, 1995, for $60,000.
Texas A&M Coalition for Junior College Faculty to Enhance Instruction in Mechanics, Materials Testing, Design and Manufacturing, to National Science Foundation, $228,605, April 1995.
Electro-Optic Holography for Vibration and Non-Destructive Testing, Texas Higher Education Coordinating Board, $188,607, August 1991.