CURRICULUM VITAE

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PROFESSIONAL EXPERIENCE

Professor of Mechanical Engineering with a secondary appointment in Orthopaedics and Rehabilitation, University of Vermont, Burlington VT, June 1999 - present.

Interim Chairperson, Department of Mechanical Engineering, University of Vermont, Burlington, VT, duties included preparation of materials for a successful ABET site visit, December 1996 - 2000.

Associate Professor of Mechanical Engineering with a secondary appointment in Orthopaedics and Rehabilitation, University of Vermont, Burlington VT, June 1993 - 1999.

Acting Chairperson, Department of Mechanical Engineering, University of Vermont, Burlington, VT, October 1996 - December 1996

Graduate Program Coordinator, Department of Mechanical Engineering, University of Vermont, Burlington, VT, June 1993 - October 1996.

Assistant Professor of Mechanical Engineering, University of Vermont, Department of Mechanical Engineering, Burlington VT, courses taught include Machine Design, Elasticity, Adv. Vibrations, Adv. Dynamics, Adv. Strength of Materials, Finite Element Methods, Computer Aided Drafting and Design and Continuum Mechanics, January 1987 - May 1993.

Associate Research Scientist, The Johns Hopkins University, Department of Civil Engineering, Baltimore, MD, conducted research into the aeroelastic effects of wind loading on cable-stayed bridges, January 1986 - December 1986.

Lecturer, The Johns Hopkins University, Department of Civil Engineering, Baltimore, MD, taught courses in Adv. Structural Analysis, Concrete Design and Stability and Inelastic Analysis of Structures, Fall 1985.

Research Fellow, National Highway Institute, Turner Fairbanks Highway Research Center, McLean VA. Research activities included wind tunnel studies of bridge section models and the instrumentation of a suspension bridge for field studies. June 1984 - October 1985.

Research Consultant, Colorado State University, Ft. Collins, Colo. Duties included the installation and calibration of an active turbulence generator in a low-speed wind tunnel. May 1983 - May 1984.

Assistant in Instruction Princeton University, Dept. of Civil Engineering, Princeton NJ. Assisted in the teaching of a graduate differential equations course and a sophomore strength of materials course. Fall 1981 and Spring 1983.

Laboratory technician Procter and Gamble Co., Cincinnati, OH, assisted in the formulation and testing of new consumer products, Summer 1978.

EDUCATION

Ph.D., May 1986, Princeton University, Department of Civil Engineering, Structures-Mechanics program. Dissertation topic: "The Effects of Turbulence on the Aeroelastic Behavior of Suspension Bridges," advisor RH Scanlan.

M.A., 1983, Princeton University, Department of Civil Engineering.

B.S.E., 1980, University of Pennsylvania, Department of Mechanical Engineering and Applied Mechanics.

REFEREED JOURNAL ARTICLES

Du F, Alghamdi S, Yang J, Huston D, Tan T. (2022) "Interfacial Mechanical Behavior in Nacre of Red Abalone and Other Shells: A Review" ACS Biomater. Sci. Eng, doi:acsbiomaterials.2c00080 in press

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Omwenga M, Wu D, Yu L, Yang L, Huston D, Xia T. (2021) "Cognitive GPR for Subsurface Object Detection Based on Deep Reinforcement Learning" IEEE Internet of Things Journal, Vol. 8, Issue 14, pp. 11594-11606, doi: 10.1109/JIOT.2021.3059281

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Huston DR, Hu JQ, Maser K, Weedon W, and Adam C. (2000) "GIMA Ground Penetrating Radar System for Infrastructure Health Monitoring" Jnl. of Applied Geophysics 43, 139-146.

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Huston DR, Sun XY, Zheng JY, Qin Q, Chen Y, Sansoz F. (2008) “Self-Sealing Tanks and Pressure Vessels” SPIE Smart Structures and Nondestructive Testing Conference, San Diego, March.

Huston D, Sansoz F, Burns D, Tolmie B. (2008) “Meso and Nano Scale Techniques for Self-Healing Wire and Cable Insulation” SPIE Smart Structures and Nondestructive Testing Conference, San Diego, CA.

Huston D. (2006) "Ambulatory Lordosimeter for Posture Control" University of Vermont, General Internal Medicine Writer's Workshop, Burlington, VT.
Friday August 18, 2006
Huston D. (2002) "Root Cause Analysis: Applications to Engineering and Design" General Dynamics Armaments, Burlington, VT, April

Huston D. (2002) "Root Cause Analysis" Dept. of Internal Medicine, University of Vermont, Burlington, VT March

Huston D. (2002) "Ground Penetrating Radar for Inspection of Concrete Bridge Decks" Structural Engineers of New Hampshire, Concord, NH, January

Huston D. (2000) "Biomechanics Instrumentation for Measurement and Rehabilitation" 1st Annual Biomedical Optics Research Review, Optical Sciences and Engineering Research Center, Virginia Tech, Blacksburg, VA April

Huston D. (1999) "Electromagnetic Interrogation of Structures" 4th Army Research Office on Smart Structures, State College, PA, August

Huston D. (1999) "Mechanics Issues in Microelectronic Manufacture" Technical University of Munich, Munich, Germany, July

Huston D. (1999) "Interdisciplinary Engineering Research at a University" Department of Mechanical Engineering, Rochester Institute of Technology, Rochester, NY, May

Huston D "Structural Performance Measurement Techniques" Department of Civil Engineering, Case-Western Reserve University, Cleveland OH, March 1999.

Huston D "Whole Body Vibration – Measurement and Health Issues" Boeing Commercial Airplane Co., Wichita, KS, December 1998.

Huston D "Composite Y-Stage Design: Year 2 " at DARPA X-ray Lithography Symposium, Sanders-Lockheed and Suss Advanced Lithography, Nashua, NH, October 1998.

Huston D "Ground Penetrating Radar for Bridge Deck NDE" New England Transportation Consortium, Concord, NH, May 1998.

Huston D "Biomedical Engineering" BF Goodrich Aerospace, October 1998, Vergennes, VT.

Huston D "Some Issues in Structural Health Monitoring" Department of Civil Engineering, University of Southern California, March 1998, Los Angeles, CA.

Huston D "Vertical Shore Loads and Design Guidelines" National Occupational Injury Research Symposium, October 1997, Morgantown, WV.

Huston D "Composite Y-Stage Design" at DARPA X-ray Lithography Symposium, Sanders-Lockheed and Suss Advanced Lithography, Nashua, NH, September 1997.

Huston D "Actuators" SPIE Lecture at Smart Structures Conference, San Diego, CA, March 1997.

Huston D "Seated Whole Body Vibration - Health Consequences and Dosage Measures" presented at the National Ergonomics Conference, Chicago, IL, April 1996.

Huston D "Smart Structures" to the Vermont Technology Association, Burlington, VT, March 1996.

Huston D "Whole Body Vibration Dosimeter," with C. Choukalos, Vermont Science and Technology Symposium, Dec. 1995.

Huston D "Fiber Optic Sensors for Civil Structures," Proc. Optical Society of America Annual Meeting, Portland, OR, Sept. 1995.

Huston D "New Technologies for Monitoring Structural Performance" ASCE Convention, San Diego, CA, October 1995.

Huston D "Structural Health Warning Systems: Retrofitting for Disaster Readiness" FEMA Conf. on Preparing Our Communities for Changes in Disaster Assistance, Lake Morey, VT Sept. 1995.

Huston D "Load Monitoring for Safe Construction" NIOSH Symposium on Construction Safety, July 1994, Cincinnati, OH.

Huston D "Shoring Load Monitoring," with P Fuhr and T Ambrose, presented at the ACI Fall '94 Conference, Oct. 1994, Tarpon Springs, FL.

Huston D "Advanced Structural Instrumentation" State of Massachusetts Dept. of Transportation and Massachusetts Institute of Technology, Boston, MA, August 1994.

Huston D "Scaling and Antenna Gain in Integrating Fiber Optic Sensors," with WB Spillman Jr., 2nd European Conference on Smart Structures, Glascow, UK, October 1994.

Huston D "Shoring Load Monitoring," with P Fuhr and T Ambrose, American Concrete Institute Convention Tarpon Springs, FL, November 1994.

Huston D "Reinforced Concrete Pullout Determination using Embedded Fiber Optic Sensors," with T Ambrose, M Werner, and P Fuhr, American Concrete Institute Convention Tarpon Springs, FL, November 1994.

Huston D "Sistemas Avanzados para el Monitoreo de la Salud Estructural," 1st Simposium Internacional de Ingeneria Civil, ITESM, Campus Monterrey, Nuevo Leon Mexico, March 1994.

Huston D "Fiber Optic Smart Civil Structures," McGill University, Dept. of Civil Engineering and Applied Mechanics, Montreal, Que., June, 1993.

Huston D "Fiber Optic Instrumentation of the Winooski One Hydroelectric Dam," Vermont Section ASCE, Colchester, VT, Sept. 1992.

Huston D "Installation and Preliminary Results from Sensors Embedded in a Concrete Building," ACI Convention Washington DC, March 1992.

Huston D "Dynamic Testing of Concrete Beams with Fiber Optic Sensors," ACI Convention , Washington DC, March 1992.

Huston D "Fiber Optic Instrumentation of the Stafford Building," ACI Convention March 1992, Washington DC.

Huston D "Strain Gage Instrumentation and Telemetry for the Vermont Spinal Fixator," Howmedica, Inc., Rutherford, NJ, January, 1992.

Huston D "Smart Civil Structures - Current Practice and Opportunities," Grumman Corporate Research Center, Long Island, NY, Dec. 1991.

Huston D "Fiber Optic Instrumentation of the Stafford Building," Vermont Section of ASCE, Burlington VT, October 1991.

Huston D "Optical Fiber Applications for Concrete Testing," 1991 ACI Convention Boston MA.

Huston D "Highway Bridge Member Inspection Using Vibration Instruments," Center for Transportation Studies, Massachusetts Institute of Technology, January 1990.

Huston D "Aerodynamic Retrofit Technologies for Long-Span Bridges," Dept. of Civil Engineering, Rennselaer Polytechnic Institute, November 1989.

Huston D "Long-Span Bridge Aeroelasticity," Dept. of Civil Engineering, Rutgers University, March 1989.

Huston D "Some Aspects of Wind Engineering," Green Mountain Section of the American Society of Mechanical Engineers, January 1988.

Huston D "Complex-Exponential Identification of Bridge Deck Flutter Derivatives," ASCE Engineering Mechanics Specialty Conference, Blacksburg, VA, June 1988.

Huston D "Design of a Vibration Absorber for a Railroad Trestle," for MS Hundal, ASME Vibrations Conf., Boston, MA, September 1987.

Huston D "Impact Testing of a Cable-Stayed Pedestrian Bridge," ASEE National Conf., Reno, NV, June 1987.

Huston D "Experimental Results in Long-Span Bridge Aeroelasticity," Center for Applied Stochastics Research, Florida Atlantic University, December 1987.

Huston D "Field and Wind Tunnel Observations of Vortex-Shedding," ASCE Engineering Mechanics Division Conference, Buffalo, NY, May 1987.

Huston D "The Effect of Large Scale Turbulence on the Aeroelastic Behavior of Long-Span Bridges," Dept. of Civil Engineering, The Johns Hopkins University, May 1986.

HONORS

Best Paper Award for Photo-optical Instrumentation and Design, Journal of Applied Remote Sensing for paper, "Synthetic ultrawideband orbital angular momentum radar," with co-authors D. Orfeo, D. Burns, and T. Xia for papers published in 2021

AASHTO Sweet Sixteen High Value Research Projects "Culvert Inspection Vehicle with Improved Telemetry Range"

Smart 50 2018 Award for Underground Infrastructure Sensing with Burlington, VT, US; Winooski, VT, US; Chattanooga, TN, US, Smart Cities Connect Conference & Expo March 26-29, 2018

Faculty of the Year Award, College of Engineering and Mathematics, University of Vermont, 2016

Faculty of the Year Award, IEEE Green Mountain Section, 2015
Kroepsch-Maurice Teaching Award (top Professor in University of Vermont), 2012
Semi-Finalist MIT Clean Energy Prize 2011
National Highway Institute Research Fellow 1984-85.
Dean's List, School of Engineering and Applied Science, University of Pennsylvania, 1978-79.
National Merit Finalist, Walnut Hills High School, Cincinnati, Ohio, 1976.

PROFESSIONAL SOCIETIES

American Academy of Mechanics.
American Concrete Institute.
American Institute of Aeronautics and Astronautics
American Society of Civil Engineers.
American Society for Engineering Education.
American Society of Mechanical Engineers.
Materials Research Society
SPIE
Society of Automotive Engineers.
Wind Engineering Research Council.
Vibration Institute.

COMMITTEES

Member, SPIE Smart Structures Working Group.

Associate Member ACI Committee 131, Building Information Modeling of Concrete Structures, 2016-present

Associate Member ACI Committee 345, Concrete Bridge Construction, Maintenance, and Repair, 2016-present

Chairman ASCE Technical Advisory Committee for Monitoring the Performance of Structures, 1993 – 2000.

Chairman ASME Green Mountain Section 1989, Vice-Chairman 1990-1991, currently Treasurer.

Vice President, Vermont Patent and Trademark Depository Library, 1996 – 2004.

Member, ASCE SEI Technical Activities Division Bridge Inspection, Management, and Rehabilitation Committee, term ended 9/30/2013

Member, ASCE SEI Technical Activities Division, Committee on Methods of Monitoring Structural Performance, term ended 9/30/2014

Member, ASCE EMI Technical Committee on Structural Health Monitoring and Control, term ends 7/16/2020

Member, ASCE EMI Technical Committee on Experimental Methods

Secretary, NIST Community Resilience Panel, Water/Wastewater Standing Committee, January 2016 - 2018

PROFESSIONAL DEVELOPMENT - SHORT COURSES

Hydrogen Regulations, Codes and Standards – University of Ulster, Belfast, UK, January 2009.

Advanced Motion Control – Galil Inc.- Marlborough, MA 1999.

Designing with Motion – Tech80 – Pointe Claire, Que 1998.

Physical Assessment and Design and Treatment Methodology for Concrete Bridge Components Relative to Reinforcement Corrosion – FHWA SHRP – Manchester, NH 1998.

Fundamentals of Seat Ride Dynamics - SAE - Novi MI - September 1995.

OSHA Construction Safety Standards - ASCE - Lexington MA - February 1994.

Diamond Synthesis and Applications - The Metallurgical Society - Indianapolis, IN - October 1989.

Bridge Inspection and Maintenance - American Society of Civil Engineers and Lichtenstein and Assocs. - June 1989.

Modal Analysis - Advanced Theory and Measurement Techniques - University of Cincinnati - September 1988.

Computer Aided Drafting and Design - Cadam Basic Training Course - Cadam Inc. - Tarrytown NY - February 1987.

Modal Analysis - Basic Theory and Measurement Techniques - University of Cincinnati - December 1986.

PATENTS

Huston DR, Xia T, Burns D. (2021) "Wideband Ground Penetrating Radar System and Method" US Patent 11,029,402

Lee PC, Huston DR, Tan T. (2021) "Self-Stressing Engineered Composite Materials, Methods of Self-Stressing Engineered Composite Materials, and Self-Stressing Reinforcement for Same" U.S. Patent 11,027,519

Huston D, Xia T, Burns D, Orfeo D. (2020) "Vibrating Magnet Antenna" US Patent 10,771,116

Huston D, Esser B, Plumpton J. (2010) "Thermoelectric Device Having an Energy Storage Device Located Between Its Hot and Cold Sides" U.S. Patent 7,655,858, February 2, 2010

Huston D, Esser B, Plumpton J. (2010) "Systems Comprising a Mechanically Actuated Magnetic On-Off Attachment Device" U.S. Patent 7,765,032, July 27, 2010

Huston D, Tolmie B. (2009) "Self-Healing Cable for Extreme Environments" US Patent 7,569,774, August 4, 2009

Huston D, Sauter W, Sonntag P. (2005) "System and Method for Automated Fringe Counting using Image Information" U.S. Patent 6,856,397, February 15, 2005

Huston D, Sauter W, Sonntag P. (2003) "Stiction-Based Chuck for Bulge Tester and Method of Bulge Testing" U.S. Patent 6,539,790, April 2003

PATENT DISCLOSURES AND PATENTS PENDING

Burns D, Huston D, Xia T. (2018) "System and Method for Photogrammetric and Multisensor Position Registration for GPR" provisional US patent application, filing number 62730419, October 2018.

Weiss D, Wrenn S, Uhl FE, Griswold E, Lee PC, Wagner D, Huston D. (2018) "Avian Based Lung Assist Device" non-provisional U.S. Patent Application No. PCT/US 18/15979 January 30, 2018

Bond J, Huston D. (2016) “Curvature Sensing Rosette” invention disclosure to University of Vermont, November 2016

Huston D. (2016) “Ultra Wideband Ground Penetrating Radar” non-provisional US Patent Application, March 6, 2016

Huston D, Stirewalt R. (2015) “Street Level Airway Intubator” invention disclosure to University of Vermont, October 2015

Huston D, Stirewalt R. (2014) “Intubation Device” invention disclosure to University of Vermont, July 2014

Huston D, Pearson S. (2011) “Tire Inflation Device” invention disclosure to University of Vermont, June 2011.

Huston D, Tolmie B. (2009) “Diagnostic Methods for Self-Healing Cables” non-provisional U.S. patent application, August 3, 2009

McLean J, Huston D. (2009) “Invisible Flame and Ultraviolet Light Viewer” invention disclosure to University of Vermont, December 2009

Huston D, Esser B, Plumpton J. (2008) “Active Vibration Damping System” US Patent 7,461,728, December 9, 2008

Huston D, Burns D, Cui J. (2008) “MEMS Gyros for use in Controlling Orientation of Satellites” invention disclosure to University of Vermont, June 2008.

Huston D, Hurley D. (2008) “Spinning Disc with Spiral Aperture Particle Velocimeter” invention disclosure to University of Vermont, August 2008.

Huston D, Esser B. (2007) “Self-Healing Cable Apparatus and Method” US Patent 7,302,145, Nov. 27, 2007

GRANTS RECEIVED

NASA “Fabrication and Validation of Ultra Low Frequency Sensor for Lunar Subsurface Material Characterization: Discovering ISRU Volatiles” T Xia Pi, D Huston Co-PI, $11,656, April 2022

NSF EPSCoR "Track-2 FEC: Advancing Research Towards Industries of the Future to Ensure Economic Growth for EPSCoR Jurisdictions - Advanced Wireless - Integration with Infrastructure System" D Huston PI; T Xia, W Li, E Landis, M O'Leary Co-PIs, $3,995,000 (UVM portion $2,333,662), October 2021

USGS "Multi-Modal UAS Sensor System for Harmful Algal Bloom Mapping and Monitoring" Xia PI, D Huston Co-PI, J Oneil-Dunne Co-PI, $232,545 ($106,545 federal plus $126,000 non-federal match), December 2021

USDOT TDIC "Performance Structural Concrete Optimized for Cost, Durability and Manufacturability" D Huston Project PI, T Tan Co-PI, $503,744 ($251,872 federal and $251,872 match), January 2021

USDOT TDIC "Advanced Sensing Technologies for Practical UAV-Based Condition Assessment." D Huston Project PI; T Xia, E Landis (U Maine), TY Yu (UMass Lowell) Co-PIs, UVM budget $384,000 ($192,000 federal and $192,000 match), April 2021.

US Navy ONR "Communications, Control, Cybersecurity and Electromagnetic Sensing Research for Navy ROTC" D Huston PI; K Burkman, H Ossareh, T Xia, Co-PIs; $202,388, March 2021

US Army CRREL AVATAR "Augmented Reality Integrated Sensing System for Cold Regions" D Huston Project PI, T Xia Co-PI, $241,276, December 2021

US Army CRREL AVATAR "Surface and Subsurface Topography Identification Using Multifunctional Radar and Hyperspectral Imaging" T Xia Project PI, D Huston Co-PI, $270,960, December 2020

US Army, CACI, White River Technologies "Dual Polarization GIMA Antenna" D Huston PI, T Xia Co-PI, $20,000, October 2020

NSF "US Ignite: Collaborative Research: Focus Area 1: Fiber Network for Smart Mapping, Monitoring and Managing Underground Urban Infrastructure PAWR Supplement" D Huston PI, T Xia Co-PI, $40,562, August 2020

UVM-SPARK "Subsurface Infrastructure Mapping with Augmented Reality" D Huston PI, T Xia Co-PI, $45,000, July 2019

NASA VSGC “OAM Microwaves for Sensing and Communication” GRA Fellowship for Dan Orfeo, $28,000 (approx.) July 2019

USDOT TDIC “High Performance Concrete with Post-Tensioning Shrinking Fibers” D Huston Project PI, T Tan Co-PI, $337,886 ($168,943 federal and $168,943 match), November 2018.

VT NASA EPSCoR Small-Scale Research Grants “Shrinking Fibers for Prestressed Delamination Resistant Composites” D Huston PI, $17,563, September 2019

Vermont Agency of Transportation “Hydraulic Inspection Vehicle Explorer (HIVE) Culvert Upgrade” October 2019, $51,525

VT NASA EPSCoR Small-Scale Research Grants “OAM and EM Vortex Radar & Communications” D Huston PI, T Xia Co-PI, $7,550, July 2018

NASA EPSCoR VCSG “Graduate Fellowship” D Huston PI, D Orfeo Graduate Student, $27,295, July 2018

DOD DURIP “OAM and Quantum Penetrating Radar” D Huston PI, T Xia Co-PI, $99,076, June 2018

US Ignite Gigabit Application/Service Development Fund “Augmented Reality App Development for Mapping and Dashboarding Water and Wastewater Infrastructure” D Huston PI, $10,000, November 2017

Vermont Agency of Transportation “Bridge-Stream Network Assessment to Identify Sensitive Structural and Hydraulic Parameters for Planning Flood Mitigation” M Dewoolkar PI, D Huston, A Bomblies, D Rizzo, Co-PIs, $75,000, December 2017

US Army STTR Phase II with White River Technologies “Acoustically/Vibrationally Enhanced High Frequency Electromagnetic Detector for Buried Landmines” T Xia PI, D. Huston Co-PI, $300,000 (UVM subcontract amount) November 2017

VT EPSCoR “Travel to National SBIR/STTR Conference” D. Huston, $850, May 2017.

US Army Night Vision and Electronic Sensors Directorate with White River Technologies and CACI “Multistatic GPR Array Testing” D. Huston PI, T Xia Co-PI. $64,800 (UVM subcontract amount June 2017

US Army SBIR Phase II with White River Technologies "Multi-static Ground Penetrating Radar for Buried Explosive Hazard Detection" D. Huston PI, T Xia Co-PI. $304,000 (UVM subcontract amount) October 2017

US Army SBIR Phase I Option with White River Technologies "Multi-static Ground Penetrating Radar for Buried Explosive Hazard Detection" D. Huston PI, T Xia Co-PI. $15,000 (UVM subcontract amount) September 2017

NIH "Decellularized Avian Lungs for Use in Pulmonary Therapeutics" D Weiss and P Lee (Co-PIs) D Huston Co-I, $425,000 April 2017

NSF "SCC-Planning: Smart Connections for Conserving and Catalyzing Cultural Community Resources" D Rizzo PI; A Zia, M Dewoolkar, D Porter Co-PIs, $99,993, September 2017

NSF "US Ignite: Collaborative Research: Focus Area 1: Fiber Network for Smart Mapping, Monitoring and Managing Underground Urban Infrastructure" D Huston PI, T Xia Co-PI, in collaboration with University of Tennessee at Chattanooga, D Wu PI, Y Liang, L Yang, $202,818 (UVM portion as lead institution), January 2017.

NSF EAGER "Underground Infrastructure Sensing and Mapping for Smart City Maintenance, Sustainability and Usage" D Huston PI, T Xia Co-PI, $200,001, September 2016

UVM-SPARK "Soft Robotic Device for Safe Patient Handling" D Huston PI, S Farrington Co-PI, $25,000, awarded September 2016.

UVM PRSE "Flexible High-Temperature Materials" F Sansoz PI, D Fletcher, D Huston, T Tan, Co-PIs, $75,000

US Army SBIR Phase I with White River Technologies "Multi-static Ground Penetrating Radar for Buried Explosive Hazard Detection" D. Huston PI, T Xia Co-PI. $30,000 (UVM subcontract amount)

US Army STTR Phase I with White River Technologies "Acoustically/Vibrationally Enhanced High Frequency Electromagnetic Detector for Buried Landmines" T Xia PI, D. Huston Co-PI, $60,000 (UVM subcontract amount)

Vermont Agency of Transportation “Monitoring Condition of Structural Elements during Accelerated Bridge Construction” D Huston PI, M Dewoolkar, T Xia, Co-PIs, $144,610, October 2016

UVM SPARK “Low-Cost Ground Penetrating Radar for Roadway Inspection” D Huston PI, T Xia Co-I, $50,000, July 2015

NASA EPSCoR “Self-Healing Conductors in Wiring” D Huston, P Lee Co-PI, Badireddy AR. $5,000 April 2015

UVM SPARK “Reinforcing Composite Structures by pH Responsive Microfibers” PC Lee PI, D Huston and T Tan Co-Is, $44,500, July 2015

NASA EPSCoR “Travel Grant to Participate in Rover Mobility Testing at NASA Glenn Research Center” M Dewoolkar, PI, DR Huston, Co-PI, $2,300, April 2014

NASA EPSCoR “Flexible Thermal Protection Systems: Materials Characterization and Performance in Hypersonic Atmospheric Entry” F. Sansoz Science PI; D. Hitt Admin PI; D Huston, D Fletcher, Y Dubief, T Tan, J Banks, Co-Is, $750,000, June 2014

NASA eXploration Habitat (X-Hab) Academic Innovation Challenge Program "Design of a 'Smart-Structure' Deployable Airlock" D. Hitt PI, D Huston and M Dewoolkar Co-Is, $24,000, May 2014.

Vermont Agency of Transportation “Cost-Effective and Rapid Concrete Repair Techniques” D Huston PI, $50,000, May 2014

Vermont Agency of Transportation “High Speed Ground Penetrating Radar (GPR) for Road Pavement and Bridge Structural Inspection and Maintenance” T Xia PI, D Huston Co-I, $ $138,965, May 2014

NSF “MRI: Acquisition of a High Energy X-ray Microtomography Scanner” M Dewoolkar PI, D Huston et al. Co-Is, $276,793 with $118,625 University of Vermont match, September 2014

Vermont Agency of Transportation and UVM TRC “Prediction and Mitigation of Scour for Vermont Bridges” M Dewoolkar PI; D Huston, J Frolik and D Rizzo Co-Is; $310,478, June 2012

NASA VSGC “Title: Ultraviolet Flame Imaging with Quantum Dot Collimated Optics” D Huston PI, $27,500, September 2013

US Army DURIP "Adaptive and Cognitive Ground and Wall Penetrating Radar System" D. Huston PI, T. Xia Co-I, $188,219, September 2012

NASA EPSCoR "Mechanical Characterization of a Low Strength Material for Rover Mobility Testing and Comparison to Martian Terrain" M Dewoolkar, PI, DR Huston, Co-PI, $27,500, April 2013

NSF VT EPSCoR Innovation Fund with Adv. Photon Sciences "Energy-Harvesting Tire Inflator for Mileage Improvement" S. Pearson PI, D. Huston and B. Boerger Co-Is, $12,000, July 2012.

US Army with Performance Lasers, Inc. STTR Phase II "Compact, Rugged, and Low-Cost Wavelength-Versatile Burst Laser" H Reiger prime PI, D Huston UVM subcontract PI, $225,000 (UVM portion) April 2013

US Air Force with Industrial Measurement Systems, Inc. STTR Phase II "Novel Materials for In-Situ Ablation Sensing" D. Yuhas prime PI, D. Fletcher UVM subcontract PI, D. Huston Co-I, $250,000 (UVM portion) January 2013.

US Army with Performance Lasers, Inc. STTR Phase I "Compact, Rugged, and Low-Cost Wavelength-Versatile Burst Laser" H Reiger prime PI, D Huston UVM subcontract PI, $30,000 (UVM portion) June 2011.

US Park Service Vanishing Treasures "NDT Evaluation of Adobe Wall Structures at Ft. Bowie" D Porter PI, D Huston, R Arndt, J Holmlund Co-Is, $200,000, June 2011

NASA EPSCoR "Prediction and Monitoring of Ablation of Thermal Protective Systems under Atmospheric Reentry Conditions" Y Dubief PI, C Danforth, D Hitt, D Huston, A Brizard, D Fletcher Co-Is, $931,343, September 2011.

NASA VSCG " Hydrogen Flame Imaging" D Huston PI, $5,000, September 2010

NIH SBIR II "Ambulatory Lordosimeter" D Huston, UVM subcontract PI, $275,599 awarded September 2006 – February 2010.

FHWA "Title: Advanced Ground Penetrating Radar" D Huston PI, $250,500, submitted August 2006, awarded October 2006 – February 2010.

USDOT "Advanced Ground Penetrating Radar Systems Research" D Huston PI, $656,600, submitted April 2008, awarded November 2008 – September 2011

US DOT RITA "Safety and Operations of Hydrogen Fuel Infrastructure In Northern Climates" D Huston PI, $220,000, submitted Nov 2006, awarded February 2007 – December 2009

DOT UVM UTC "Title: Emissions and Performance of Alternative Vehicles in Northern Climates" D Huston et al. Co-Is, B Holmen PI, $1,500,000, awarded Dec. 2007

US Navy, "UAV Sensing and Structural Technologies" D Huston PI, $220,000, submitted October 2008, awarded March 2009

NASA EPSCoR "Title: Investigation of Critical Aerothermodynamic Phenomena for Hypersonic Vehicles" D Huston et al. Co-Is, D Fletcher PI, $1,500,000 ($750,000 federal and $750,000 non-federal match) , submitted April 2007, awarded January 2008

NASA EPSCoR, "Micropropulsion and Control Technologies for On-Orbit NanoSat Positioning" D Huston et al. Co-Is, D Hitt PI, $1,500,000 ($750,000 federal and $750,000 non-federal match) , submitted April 2009, awarded September 2009.

NSF VT EPSCoR "Wire Insulation with Enhanced Diagnostics" D Huston PI, $12,000, submitted April 2009, awarded September 2009.

NIST TIPS with Northeastern University "VOTERS – Vehicles of Opportunity with Tire and Electromagnetic Roadway Sensors" D Huston UVM subcontract PI, $500,000 direct funds requested with $277,000 match, submitted Sept 2008, awarded March 2009.

UVM Innovation Fund "Market Study of Self-Healing Wire and Cable Insulation" D Huston PI, B Tolmie and J Monahan Co-Is, $10,000, Sept 2008

VT Next Generation Fund "Robot Equipment" D Huston PI, Y Motai et al. Co-Is, $48,504, March 2007

VT Next Generation Fund "Wireless Sensor Network" X Wang PI, D Huston et al. Co-Is, $11,000, March 2007

VT NSF EPSCoR Innovation Fund "MEMs Gyros for the use in Controlling the Orientation of Small Satellites" D Burns PI, D Huston and J Cui Co-Is, $10,000, Feb 2008

VT NSF EPSCoR Innovation Fund "Self-Sealing Pressure Vessels" D Huston D PI, F Sansoz, and D Savin co-Is, $10,000, Feb 2008

UVM SGA “Robotics Club” Kahn E, Montane P, Huston D, Marri J, Teuscher S, $486, May 2008

DARPA-NAVAIR with JMAR Systems, “Plasma Lithography Advanced Staging and Debris Control” D. Huston PI, $55,000, June 2006.

UVM-URECA “Autonomous Hovercraft” D Huston PI, E Kahn and S Teuscher undergrads, $4,000, November 2005.

DARPA-NAVAIR with JMAR Systems, “X-Ray Point Source and Lithography Station Studies” D. Huston PI, $75,000, June 2005.

NSF VT EPSCoR SBIR Phase 0 with Tolmie Inc. “Self-Healing Wire and Cable Insulation” D Huston PI, $10,000 March 2006.

NSF VT EPSCoR, “Acquisition of Dynamic Test Equipment for Fluid-Saturated Porous Media” M Dewoolkar PI, D Huston et al. Co-Is, $20,000, September 2005.

FHWA “HERMES II--Development of an Advanced Bridge Deck Evaluation Technology” D. Huston PI, $705,000, awarded January 2005 – February 2010.

DARPA/NAVAIR JSAL “Membrane Mask Aeroelasticity” D Huston PI, $61,000 September 2004.

NSF VT-EPSCoR “Image Information Based Nanometrology System” D Huston PI, $10,100 March 2004.

NASA EPSCoR “Self-Healing Wires” D Huston PI, $6,000, September 2004.

Burton Snowboards “Study on Impact Energies on Snowboard Gear and Rider in Park and Pipe Style Riding” $2,800, December 2003

FHWA “Measurement of Electromagnetic Characteristics of Ground Penetration Radars” D. Huston PI, $361,500, July 2003.

NASA EPSCoR IPI “Hierarchical Actuators” M Werner, New Paradigm Automation PI, D Huston Co-I, $15,000, September 2002.

VT-EPSCoR Graduate Student Fellowship "Dynamic Torsional Response of a Tubular Composite Drive Shaft" D. Huston PI, J-G Beliveau Co-I, G. Spencer Grad Student, $50,000, March 2003.

UVM-URECA "High Efficiency Composite Drive Shaft Analysis" D Huston PI, P Bourne undergrad, $4,000, November 2002.

Dupont Photomask Inc., "SAG Adhesive Peel Testing" D Huston PI, $12,500, July 2002.

DOD STTR Phase 1 "High Speed and Signal Density Connector for Telcom and Network Applications" B Tolmie PI, D Huston Co-I, $75,000, July 2002.

DARPA - JSAL, Inc. "In Situ Detection and Correction (ISDC) of Mask Magnification for High-Precision Lithography" D. Huston PI, $270,000, January 2001.

NSF EPSCoR SBIR Phase 0 "Active Vibration Control of Electric Circuit Boards" B. Esser PI, D. Huston Co-I, $10,000, April 2002.

NSF EPSCoR SBIR Phase 0 "Thermoelectric Power Generator for Bridge Monitoring" J. Plumpton PI, D. Huston Co-I, $10,000, April 2002.

VT EPSCoR SBIR Phase 0 "Process for Developing a High Speed and Signal Density Connector for Telcom and Network Applications" B Tolmie PI, D Huston Co-I, $10,000, April 2001.

NSF "Acquisition of Micro-Scale Fabrication Equipment" D Hitt PI, D Huston and W. Varhue Co-Is, $123,334, February 2001.

Microstrain NSF SBIR Phase II, "Robotic Systems for Network Interrogation of Smart Civil Structures" D Huston PI, $100,000, June 2001.

CDC "An Information System to Reduce Medical Errors in Diabetes Care" B Littenberg PI, D Huston et al. Co-I, $253,426, May 2001.

Blodgett Ovens "Automated Oven Door Slam Tester" D Huston PI, $4,800, November 2000.

SAL, Inc. (DARPA) "Precision Staging System for X-Ray Lithography" D Huston PI, $210,000, April 2001.

Microstrain, NSF – SBIR Phase II Subcontract, "Microminiature, High Resolution, Passive Peak Strain Detector for Smart Structures and Materials" D. Huston PI, $55,399, January 2000.

EP Limited - NIH SBIR Phase I Subcontract, "Lordosimeter Evaluation" D Huston PI, $33,000, February 2000.

UVM FAME/SUGR "Six-Bar Steering Mechanism" with O. Fritsch, $1,000, January 2000.

Microstrain Inc. – NSF SBIR Phase I Subcontract "Robotic Systems for Network Interrogation of Smart Civil Structures" D Huston PI, $33,000, January 2000.

NIH NIAMS "Planning Grant for Multipurpose Clinical Research Center" R Galbraith PI, D Huston and several others Co-Is, $100,000, May 1999.

NSF EPSCoR GOALI Phase 0 "Mechanical Electrical and Optical Properties of Strained Superconducting Thin Films" D Huston PI, $9,800, November 1999.

MKS Instruments "Mass Flow Controller – Equipment Gift" D Huston PI, $4,000, November 1998.

SAL, Inc. "Composite Y-Stage Design – Phase II Option Extension", D. Huston PI, $50,000, October 1998.

Dupont Photomask Inc., "Mask Adhesive Peel Testing" D Huston PI, $10,136, October 1998.

SAL, Inc., D Huston PI, "Base Stage Design" $1,882, September 1998.

NSF, "Photonic Test Equipment for Laboratory and Field Use in Fiber Optic Sensing and Smart Structures Research," P Fuhr PI, D Huston Co-I, $91,131, January 1998.

Suss Advanced Lithography, "Composite Y-Stage Design – Phase II," D. Huston PI, $75,000, May 1998.

Hazelett Stripcasting, "Numerical Modeling of Casting" $1,000, December 1997.

Weidlinger Assoc. and Beacon Skanska Construction, "Shoring System Evaluation" $10,000 Dec. 1997.

NSF/EPSCoR Lab to Industry Program, "Thin-Film Blister Testing Apparatus" D Huston PI, W Varhue Co-PI, $80,000, September 1997.

AO/ASIF Research Commission, "Development of a Telemetered Implant to Measure Spinal Loads in Vivo" M Krag PI; B Fleming, B Beynnon, and D Huston Co-Is, $72,785, March 1997.

Suss Advanced Lithography, "Alternative Y-Stage Design" D Huston PI, G Sullivan Co-I, $70,000 May 1997.

UVM Institutional Excellence in Orthopaedics Research Grant, "Pin Force Measurements in a Halo-Vest Orthosis" B Fleming PI, D Huston and M Krag Co-Is, $15,000, December 1996.

Seoul National University, "Fiber Optic Sensor Applications in Structural Health Monitoring" D Huston PI, J Beliveau and P Fuhr Co-Is, $53,000, August 1996.

Cervical Spine Research Society, "Instrumented Halo Vests" M Krag PI, D Huston and B Fleming Co-Is, $10,000, August 1996.

Vermont Back Research Center "Whole Body Vibration Dosimeter", D. Huston PD, $130,000 1995-9.

Vermont Back Research Center "Lifting Assessment" D. Huston PD, $130,000 1996-9.

ROHO Inc., "Testing of Seat Cushions as per Modified SAE J1384 and SAE J1013" D. Huston PI, $13,392, August 1996.

Volvo Corporation, "Whole Body Vibration Facility Support - Year 2" D. Huston PI, with Dept. of Ortho. and Rehab., $50,000, 1996.

Volvo Corporation, "Whole Body Vibration Facility Support - Year 1" D. Huston PI, with Dept. of Ortho. and Rehab., $50,000, 1995.

NIOSH-SBIR Phase II with VT Sensing, "Smart, Safe Scaffolding," P Fuhr PI; D Huston, Co-PIs, $471,479, August 1995.

New England Transportation Consortium, "Nondestructive Testing of Reinforced Concrete Bridges using Radar Imaging Techniques," D Huston PI; P Fuhr, K Maser, W Weedon Co-I's, $225,000, July 1995.

VT-DEM, "Hazard Mitigation Grant Program Assistance for Vermont Organizations," P Fuhr PI, D Huston Co-I, $38,000, March 1996.

Harrington's in Vermont, "Three Load Cell Scale for Indicating Center of Mass," D. Huston PI, $5,669, May 1995.

Vermont Agency of Transportation "Fiber Optic Sensing of Bridge Performance," P Fuhr PI, D Huston Co-PI, $124,670, September 1994.

BF Goodrich/Simmonds Precision "Embedded Acoustic Structural Integrity Monitoring," J Wu PI, D Huston Co-PI, $20,000, June 1994.

NSF-SBIR Phase I, with VT Sensing, Inc., "Fiber Optic Corrosion Sensing on and Within Materials," T Ambrose PI, D Huston and P Fuhr, Co-PIs, $64,897, March 1994.

VT EPSCOR, with VT Sensing, "Machine Guarding by Electromagnetic Field Distortion" T Ambrose PI, D Huston and P Fuhr Co-I's, $4,695, March 1994.

NSF VT-EPSCoR, "NSF - Vermont EPSCoR Cluster for Computational Sciences and Engineering," G Happ PI, D Huston and 9 others Co-PIs, $1,403,052, November 1992.

NIOSH, "Load Monitoring for Safe Construction" D Huston PI; P Fuhr, D Rosowsky, and W Chen Co-PIs, $592,000, Sept. 1993.

Vermont Electromagnetics and UAME, "Development of an Automated Soldering Station - Phase II," D Durham PI, D Huston Co-PI, $35,000, January 1993.

Vermont Electromagnetics and UAME, "Development of an Automated Soldering Station" D Durham PI, D Huston Co-PI, $6,000, May 1992.

VT EPSCoR with VT Sensing, "Load Measurements for Biomedical Applications," P Kajenski PI, D Huston and P Fuhr Co-PIs, $3,109, July 1992.

NSF, "Testing of Large Smart Structures with Embedded Sensors - Renewal," P Fuhr PI, D Huston Co-PI $240,012, December 1992.

NSF, "Engineering Research Equipment: YAG Laser and Signal Processor," D Huston PI, J Wu and W Spillman Co-PIs, $22,990, December 1992.

NIOSH SBIR Phase I, with Rehabilitation Technology Inc., "Active Seat Suspension to Control Low Back Injuries," C Johnson PI, D Huston and D Wilder Co-Is, $49,977, September 1992.

NIOSH SBIR Phase I, with VT Sensing Inc., "Smart, Safe Scaffolding," P Kajenski PI, D Huston and P Fuhr Co-Is, $49,650, September 1992.

University of Vermont Research Advisory Council, "8-Channel Signal Processor Module," D Huston PI, 1991, $11,534.

Federal Highway Administration Grant for Research Fellowship, "Evaluation of Bridge Response to Heavy Truck Traffic," D Huston faculty advisor to Hai-Yan Zhang, 1991, $46,860.

NSF, "Testing of Large Smart Structures Using Embedded Sensors," P Fuhr PI, D Huston and W Spillman Jr Co-PIs, 1990, $49,764.

Whitaker Foundation "Spinal Diagnosis by Vibration Response Analysis," D Wilder PI, D Huston Co-I, 1989, $179,998.

U.S. Dept. of Transportation MIT University Transportation Center, "Highway Bridge Member Inspection Using Vibration Instruments," J Beliveau PI, D Huston Co-PI, 1988, $74,521.

University of Vermont Instructional Development Center, "Development of a Course in Electromechanical Engineering," D Huston 1987, $898.

NSF, "Multichannel Signal Processor," D Huston PI, J Beliveau and B von Turkovich Co-PIs, 1987, $29,060.

NSF, "Computer-Aided Design Laboratory," C. Hermance PI, D. Huston et al. Co-Is, 1987, $48,577.

University of Vermont Research Advisory Council, "Spectrum Analyzer," J Beliveau PI, D Huston and M Pope Co-PIs, 1987, $13,000.

University of Vermont Committee on Research and Scholarship, "Statistical Modal Analysis of Cable Stayed Bridges," D Huston PI, 1987, $4,500.

Ph.D. STUDENTS ADVISED:

Daniel Orfeo – "Shaped and Structured Fields for Underground Remote Sensing and Communication" May 2021

James McLean – "Navigational Complexity within Building Codes" December 2017

Paul Montane – "Ripple Performance Instrumentation, Modeling, and Testing for Wet Tantalum Capacitors" December 2017

David Hurley – "Structural Monitoring and Self-Healing" Jan 2012

Jianhong Cui – "Data Fusion for Structural Health Monitoring" May 2012

Dylan Burns – "Ambulatory Lordosimeter and Sensing" December 2011

Wolfgang Sauter – "Mechanics of Thin Films – Bulging and Stretching" August 2000.

Timothy Neary - "Ultrasonic Damage Detection in Composites," May 1996.

Braden Fleming - "The in Vivo Strain Behavior of the Anterior Cruciate Ligament During Stationary Bicycling: An Experimental and Analytical Investigation," July 1996.

John Novotny – "Experimental and Analytical Investigations of the Glenohumeral Joint" 1999

Bruce Beynnon – "In Vivo Biomechanics of The Anterior Cruciate Ligament, Reconstruction, And Application of a Mathematical Model to the Knee Joint," 1991.

MASTERS THESES ADVISED

Daniel O'Neil – "The Optimization of Rifle Barrel Harmonics" August 2022

Damien Garland – "Active Acoustic Sensing Technologies for Practical UAV-Based Condition Assessment Of Underside Bridge Decks" May 2022

Diarmuid Gregory – "Chitosan-Based Shrinking Fibers for Post-Cure Stressing to Increase Durability of Concrete" October 2021

Yi Liu – "3D Acoustic Pipe Locator Imaging Based on Finite Element Analysis" May 2021

Wilson Ezequelle – "Active Magnetic Sensing for Urban Target Discrimination" June 2020

Jonathan Burton – "Subsurface Sensing with Shakers and Inspection Vehicles" May 2020

Mauricio Pereira – “Ground Penetrating Radar Imaging and Systems” August 2019, awarded Best Masters Thesis in University of Vermont for 2020

Robert Worley II – “Acoustic Emission Sensing for Crack Monitoring in Prefabricated and Prestressed Reinforced Concrete Bridge Girders” November 2018, co-advised with M Dewoolkar

Robert J. Farrell – “Rotating Magnetometry for Terrestrial and Extraterrestrial Subsurface Explorations” August 2018

Enrique Angola – “Novelty Detection of Machinery using a Non-Parametric Machine Learning Approach” May 2018.

Daniel Orfeo – “Mechano-Magnetic Telemetry for Urban Infrastructure Monitoring” December 2017.

Justin Bond – “Status Monitoring of Inflatables by Accurate Shape Sensing” December 2016.

Michael Edwards – “Characterization of Fillite as a Planetary Soil Simulant in Support of Rover Mobility Assessment in High-Sinkage/High-Slip Environments” August 2014, co-advised with M Dewoolkar.

Jonathan Razinger – “Performance Evaluation of an Air-Coupled Phased-Array Radar for Near-Field Detection of Steel” May 2014.

Stephen Pearson – “Nonlinear Ball Chain Waveguides for Acoustic Emission and Ultrasound Sensing of Ablation” May 2014.

Praneet Menon – “Dual Path Gearbox Vibration Health Monitoring” December 2012

Andrew O’Brien – “Lidar Vehicle Position Registration” UVM Computer Science Masters Project, May 2010

Dylan Burns – “Membrane Mask Aeroelasticity” January 2006

David Hurley – “Plasma Lithography Debris Mitigation” May 2007

James Plumpton – “Active Membrane Masks for Improved Overlay Performance in Proximity Lithography” October 2004

Jonathan Miller – “Robotic Sensors for Structural Health Monitoring” March 2004

Graham Spencer – "High Speed Composite Shaft Mechanics" October 2005

Sonja Hoelzl – "Mask Aeroelasticity Testing" Semesterarbeit with Technical University of Munich, August 2003.

Perry Betzler - "Torque Converter Clutch Wear Testing" Diplomarbeit with Technical University of Munich, 2003.

Josef Ponn – "Decamber Test and Analysis of Snowboards" Diplomarbeit with Technical University of Munich, April 2001.

Mourad Othman – "Collaborative and Secure Product E-Commerce in the Virtual Manufacturing Enterprise" Diplomarbeit with Technical University of Munich, April 2001.

Christian Wettach "Analysis of the Plastic and Elastic Strength of Snowboards" Diplomarbeit with Technical University of Munich, 2000.

Andreas Brodale – "Analysis, Validation and Optimization of the Product Flow at the Powder-Coating Facility at FabTech Incorporated" Diplomarbeit with Technical University of Munich, September 2000.

Richard He – "Ultrasound Imaging of Prostate Cancer" December 2001.

Peter Sonntag – "Automated Fringe Counting and Material Property Determination with Bulge Tester" Diplomarbeit with Technical University of Munich, August 2000.

Klaus Schlickenreider – "Design of Bulge Tester" Semesterarbeit with Technical University of Munich, August 2000.

Christoph Brötz – "Konstruktive Entwicklung eines Bulge Testers zur Bestimmung der Materialeigenschaften dünner Filme" Semesterarbeit Nr. 1872 with Technical University of Munich, September 1999.

Audrey Coates – "Multichannel EMG Grid for Monitoring Lumbar Musculature" June 2000.

Kari Suiter – "Gantry Control System for High-Precision Stage" August 2000.

Jing Hu – "Good Impedance Match Antenna (GIMA) Design and Its Applications for Ground Penetrating Radar In Concrete Structures NDE Applications" March 2000.

Alexander Kleehaus – "Entwicklung und Optimierung einer Verdichtereinheit für einen Turbolader" Diplomarbeit Nr. 858 with Technical University of Munich, April 1999.

Andreas Pizzinini – "Konstruktion eines Grundgestells für eine Röntgenlithographie-Maschine" Diplomarbeit Nr. 844 with Technical University of Munich, September 1998.

Noel Pelczarski - "Embedded Sensor Monitoring of Composite Curing" April 1998.

Douglas Hamilton - "Composite Stage Design" April 1999.

Chris Adam - "Ground Penetrating Radar for Nondestructive Evaluation of Concrete Bridge Decks" September 1997.

Robert Church - "Instrumented Lift Box for Ergonomic Assessment" May 1998.

Jason Gill - "Application of Bulge Testing Techniques in Determining the Mechanical Properties of Thin Films" May 1998.

Sean Fahey - "New Steering Mechanism" April 1996.

Jamie Wilsey - "Automated Mass Center Location for Meat Processing" March 1996.

Charles Choukalos - "Digital Vibration Dosimeter," Dec. 1995.

Eric Dion - "The Development of a Transmission System for a Solar Powered Vehicle," March 1995.

Madhiv Naik - "Multi-Axis Motion Control System for a Micro-Miniature Cable Processing Machine," May 1995.

Edgardo Colon-Emeric - "Models of Seated Human Body Vibration" August 1994.

Timothy Ambrose - "Design of an Automated Soldering Station" May 1994.

Shunli Ma - "An Experimental System for Real-Time Study of Blood Coagulation Protein Binding Kinetics under Flow Conditions," October 1993.

David Ogden - "Spinal Characterization by Transverse Tests in Vivo," May 1993.

Kenneth Altshuler - “Wear Testing of Thin Films,” April 1993.

Warren Schmelzer - “A Multi-Degree-of-Freedom Force Balance with Modular Sensing Elements,” April 1992.

William R Graves - “Fixed-Interface Component Mode Synthesis using Complex Substructure Mode Shapes with Non-Proportional Damping,” October 1990.

Mack Gardner-Morse - “Modal Analysis of a Cable-Stayed Pedestrian Bridge,” May 1990.