

UVM Mechanical Engineering Graduate Program Alumni-2021-01-10

Last Name, First Name	Degree	Year	Thesis Title
Yao, Selina Xiangxiao	PhD	2020	Using Dielectric Characterization to Study Transport and Thermal Properties of Gas/Supercritical Fluid Embedded Polymer Solution
Fang, Qiongjiali	PhD	2020	Understanding Grain Boundary and Stress Concentration Effects on Strengthening Mechanisms in Nanotwinned Metals
Jin, Xing	PhD	2020	Three-Phase Hybrid Model of Bacterial Biofilm Growth
Penide-Fernandez, Rodrigo	PhD	2020	Experimental and Computational Studies of Heat Transfer in Flexible Two-Dimensional Woven Fiber Ceramic Materials
Burton, Jonathan Robert	MS	2020	Subsurface Sensing With Shakers and Inspection Vehicles
Ezequelle, Wilson	MS	2020	Active Magnetic Sensing for Urban Target Discrimination
Freiheit, Collin J.	MS	2020	Reference Governors for Time-Varying Systems and Constraints
Heffernan, Thomas Joseph	MS	2020	Microwave Assisted Heating of a Ferromagnetically-Doped Propellant for Small Satellites : An Efficacy Study
Hurwitz, Zachary Lawrence	MS	2020	Economic Efficiency and Carbon Emissions in MES With Flexible Buildings
Jagun, Precious T.	MS	2020	Characterization of the University of Vermont Plasma Torch and Simulation of Pyrolysis Gas and Plasma Interactions
Laracy, Aidan Ridner	MS	2020	The Iteration Domain Reference Governor, a Constraint Management Scheme for Batch Processes
Ligon, Samuel Braggins	MS	2020	Optimization of Mixing Efficiency in Low Reynolds Unlike Doublet Injectors by Incorporating Swirl
Seksinsky, Drue	MS	2020	Modeling Volcanic Ash Particle Impingement in the Hot Sections of a Gas Turbine Engine
Valdez, Eduardo Enrique	MS	2020	Knee Articular Cartilage Material Properties Estimation Through FEA
Whitmore, Samuel	MS	2020	Numerical Simulations of an Inductively Coupled Plasma Torch
Etter, Jennifer	PhD	2019	Development and Characterization of Multi-Crosslinking Injectable Hydrogels for Use in Cell and Drug Delivery
Hinckley, David	PhD	2019	Multi-Objective Optimization Mission Design for Small-Body Coverage Missions
Pearl, Jason	PhD	2019	Quadrature-Based Gravity Models for the Homogeneous Polyhedron
Pereira, Mauricio	MS	2019	Ground Penetrating Radar Imaging and Systems
Herrmann-Stanzel, Roland	MS	2019	Energy Accommodation From Surface Catalyzed Reactions in Air Plasmas
Adamowicz, Lukas	MS	2019	Functional Rotation Axis Based Approach for Estimating Hip Joint Angles Using Wearable Inertial Sensors : Comparison to Existing Methods
Reilly, James	MS	2019	Design, Prototyping and Fabrication of Powder Spray Device for Dehydrated Biological Particulates
Angola Abreu, Enrique	MS	2019	Novelty Detection of Machinery Using a Non-Parametric Machine Learning Approach
Brancoforte, Kyle	MS	2019	<i>Non-thesis</i>
Mills, Ryan	MS	2019	<i>Non-thesis</i>
Norris, Keith	MS	2019	<i>Non-thesis</i>
Termine, Julia	MS	2019	<i>Non-thesis</i>
Hagan, Daniel	PhD	2018	Large Eddy Simulation of Oscillatory Flow Over a Mobile Rippled Bed Using an Euler-Lagrange Approach
Farajidizaji, Farzad	PhD	2018	Numerical Modeling of Collision and Agglomeration of Adhesive Particles in Turbulent Flows
Shuster, Samuel B. F.	MS	2018	Design and evaluation of a tactile texture production system
McCune-Sanders, W. Jason	MS	2018	An autothermal, representative scale test of compost heat potential using geostatistical analysis
Orfeo, Daniel J.	MS	2018	Mechano-Magnetic Telemetry For Urban Infrastructure Monitoring
Kim, Eric S.	MS	2018	Smart in situ fibers and their applications
Farrell, Robert J.	MS	2018	Rotating Magnetometry for Terrestrial and Extraterrestrial Subsurface Explorations
Diez-Romero, Sandra	MS	2018	Crystallization Study of Polymers Under High Pressure Gas / Supercritical Fluid
Bernard, Donald E.	MS	2018	Optimization of Turbulent Prandtl Number in Turbulent, Wall Bounded Flows
Tomko, Timothy A.	PhD	2017	Bioprospecting For Genes That Confer Biofuel Tolerance To Escherichia Coli Using A Genomic Library Approach
McLean, James S.	PhD	2017	Navigational Complexity Within Building Codes
Curtis Saunders, Daniel	PhD	2017	Wind Turbine Wake Interactions - Characterization of Unsteady Blade Forces and the Role of Wake Interactions in Power Variability Control
Montane, Paul	PhD	2017	Ripple Performance Instrumentation, Modeling, and Testing for Wet Tantalum Capacitors

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Kim, Sundong (Eric)	MS	2017	Smart In Situ Fibers And Their Applications
McCune-Sanders, William J.	MS	2017	An Autothermal, Representative Scale Test Of Compost Heat Potential Using Geostatistical Analysis
Arcovitch, Cory M.	MS	2017	Fabrication And Thermoelectric Characterization Of Stretchable Conductive Latex-Based Composites
Karasinski, Michael A.	MS	2017	Manufacturing Microfluidic Flow Focusing Devices For Stimuli Responsive Alginate Microsphere Generation And Cell Encapsulation
Martin, Nicholas C.	MS	2017	Steady State Simulation of Pyrolysis Gases in an Inductively Coupled Plasma Facility
Tillson, Corey	MS	2017	Investigation of Pyrolysis Gas Chemistry in an Inductively Coupled Plasma Facility
Bond, Justin M.	MS	2017	Status Monitoring Of Inflatables By Accurate Shape Sensing
Wood, Stephanie	MS	2017	Gravitational Potential Modeling of Near-Earth Contact Binaries
Green, Adam	PhD	2016	Structure and Dynamics of Two Flow Fields Used for Particle Deposition onto and Removal from a Substrate
Allen, Luke D.	MS	2016	Assessment Of Surface-Catalyzed Reaction Products From High Temperature Materials In Plasmas
Pearl, Jason Michael	MS	2016	Two-Dimensional Numerical Study of Micronozzle Geometry
Gagne, Kevin R.	MS	2016	Development of an Additively Manufactured Microthruster for Nanosatellite Applications
Crocker, Ryan	PhD	2015	Direct Numerical Simulation of Ablative Boundaries in Turbulent and Laminar Flows
Owens, Walten	PhD	2015	Aero-Thermal Characterization of Silicon Carbide Flexible TPS Using a 30KW ICP Torch
Lutz, Andrew	PhD	2015	Experimental Investigation and Analysis of High-Enthalpy Nitrogen Flow Over Graphite
Dougherty, Maximilian J.	PhD	2015	Numerical Simulations of Reacting Flow in an Inductively Coupled Plasma Torch
Hinckley Jr., David William	MS	2015	Multi-Satellite Formation Trajectory Design with Mission Constraints Over a Region of Interest Using Differential Evolution
Tomko, Timothy A.	MS	2015	Bioprospecting for Genes that Confer Biofuel Tolerance to Escherichia Coli Using a Genomic Library Approach
Pond, Ian Bradbury	MS	2015	Toward an Understanding of the Breakdown of Heat Transfer Modeling in Reciprocating Flows
Fang, Qiongjiali	MS	2015	The Interaction Mechanisms of a Screw Dislocation with a Defective Coherent Twin Boundary in Copper
Charron, Patrick Nelson	MS	2015	Burst Pressure Properties and Ex Vivo Analysis of Alginate-Based Hydrogels for Tissue Sealant Applications
Turner, William James	MS	2015	Understanding and Improving Microbial Biofuel Tolerance as a Result of Efflux Pump Expression Through Genetic Engineering and Mathematical Modeling
Edwards, Michael B.	MS	2015	Characterization of Fillite as a Planetary Soil Simulant in Support of Rover Mobility Assessment in High-Sinkage/High-Slip Environments
Fuhrmann, Andrew Paul	MS	2015	Effect of Rainfall Events on the Thermal and Moisture Exposure of Underground Electric Cables
Connor, Christopher Benoit	MS	2015	<i>Non-thesis</i>
Bruce, Kyle	MS	2015	<i>Non-thesis</i>
Smith, Dustin	MS	2015	<i>Non-thesis</i>
Wood, Erin Leigh	PhD	2014	An Atomic Force Microscopy Nanoindentation Study of Size Effects in Face-Centered Cubic Metal and Bimetallic Nanowires
McDevitt, Ryan M.	PhD	2014	A Discrete Multiphase Approach to Monopropellant-Based Micropropulsion
Pearson, Stephen	MS	2014	Nonlinear Ball Chain Waveguides for Acoustic Emission and Ultrasound Sensing of Ablation
Hagan, Daniel	MS	2014	Numerical Study of Particle Bed Scour by Vortices
Ghazi, Christopher Joseph	MS	2014	Measurement of Fluid and Particle Transport Through Narrow Passages
Faletta, Melissa Kathleen	MS	2014	Segregation of Particles of Variable Size and Density in Falling Suspension Droplets
Koch, Meredith Ericson	MS	2014	Mechanical Optimization of Poly (Vinyl Alcohol) Cryogels to Activate Osteochondral Mechano Transduction Pathways
Razinger, Jonathan S.	MS	2014	Performance Evaluation of an Air-Coupled Phased-Array Radar for Near-Field Detection of Steel
Porter, Aaron	MS	2014	Atomistic Simulation Study of Thermal Transport in Nano-Twinned Silicone Materials
Merkel, Daniel R.	MS	2014	Fabrication and Testing of Flexible Indium Antimonide Nanowire Networks
Kuzma, Justin D.	MS	2014	<i>Non-Thesis</i>
Faryniarz, Luke	MS	2014	Mathematical Modeling of Hydrogen Peroxide Catalysis for Mems Thruster Applications
Vachon, Nicholas	PhD	2013	A Bound-Vortex Surface Impingement Method for Dust Particle Removal and Enhanced Heat Transfer

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Sankaran, Simtha Renjitham	PhD	2013	An Overset Grid Vorticity Transport Method for Flow Past Fixed and Moving Bodies
Gu, Jingjun	PhD	2013	Roles of Surface and Internal Structures in the Mechanical Behavior of Carbon Nanofibers
Uhl, Jurgen	MS	2013	Pyrolysis Investigation in an ICP Torch Facility
Smith, Silas F.	MS	2013	Investigation of Subsonic and Supersonic Flow Characteristics of an Inductively Coupled Plasma Torch
Sala, Kyle P.	MS	2013	Analysis of Stochastic Methods for Predicting Particle Dispersion
Rothaupt, Michael	MS	2013	-
Menon, Praneet P.	MS	2013	A Diagnostics Approach for Helicopter Drive Train Systems
Sturnick, Daniel	MS	2013	The Relationship Between Knee Joint Geometry and Risk of Suffering Anterior Cruciate Injury: A Prospective Study with a Nested Case-Control Analysis
Simtha, Renjitham	PhD	2012	An Overset Grid Vorticity Transport Method for Flow Past Fixed and Moving Bodies
Cui, Jianghong (Hunter)	PhD	2012	Multiple Sensor Periodic Nondestructive Evaluation on Concrete Bridge Deck Maintenance
Menon, Praneet	MS	2012	A Diagnostics Approach for Helicopter Drive Train Systems
Sala, Kyle	MS	2012	ANALYSIS OF STOCHASTIC METHODS FOR PREDICTING PARTICLE DISPERSION
Uhl, Jurgen	MS	2012	Pyrolysis Simulation in an ICP Torch Facility
Widdis, Stephen	MS	2012	Computational and Experimental Studies of Catalytic Decomposition of H ₂ O ₂ Monopropellant in MEMS-Based Micropropulsion Systems
Burns, Dylan	PhD	2011	Advanced Structural Measurement and Control
Hurley, David	PhD	2011	Embedded and remote systems for damage detection, assessment, and repair
Cowley, Leonie	MS	2011	Mechanical Role of Phospholipid Bilayers in Boundary Lubrication of Synovial Joints
Dougherty, Maximilian	MS	2011	Investigations of Surface-Catalyzed Recombination Reactions in the Mars Atmosphere
Greenfield, Ben	MS	2011	Numerical Simulations of Multiphase Flow in Supersonic Micro-Nozzles
Lutz, Andrew	MS	2011	Investigation of CN Production From Carbon Materials in Nitrogen Plasmas
Malina, Evan W.	MS	2011	Mechanical Behavior of Atomically Thin Graphene Sheets using Atomic Force Microscopy Nanoindentation
Maynard, Auston	MS	2011	Particle Removal from a Surface by a Bounded Vortex Flow
McDevitt, M. Ryan	MS	2011	Numerical Study of Disperse Monopropellant Microslug Formation at a Cross Junction
Owens, Walten	MS	2011	Development of a 30K W Inductively Coupled Plasma Torch for High Temperature Aerospace Material Testing at UVM
Qian, Dongmin	MS	2011	Efficiency analysis of solar panel dust mitigation using an electric curtain
Veselis, Meaghan	MS	2011	<i>non-thesis</i>
Barbir, Ana	PhD	2010	Mechanobiology of the rat intervertebral disc in compression and torsion
Hewitt, Gregory F.	MS	2010	A Computational Investigation of Particle Focusing and Dispersion in Corrugated Tubes
Nadler, Michael	MS	2010	Experimental Measurement of Mixing Lengths of Converging Particulate Flows in a Microchannel
Vachon, Nicholas M.	MS	2010	A Bound Vortex Surface Impingement Method for Adhered Dust Particle Removal
Louisos, William F.	PhD	2009	Numerical Studies of Viscous Flow in Supersonic Micronozzles
Michalek, Arthur James	PhD	2009	Structural Influences of Damage to the Intervertebral Disc Anulus Fibrosus at Multiple Scales
Kahn, Ezra	MS	2009	non-thesis option
McCabe, Justin W.	MS	2009	Monopropellant Fuel Injection Using Two-Phase Micro-Slug Formation
Thompson, Corinna Sue	MS	2009	Analysis of Spectrally Resolved Shock-Layer Emission
Dupont, Virginie	PhD	2008	Multiscale Modeling of Contact Plasticity and Nanoindentation in Nanostructured FCC Metals
Korecki, Casey L.	PhD	2008	Effects of compression loading, injury, and age on intervertebral disc mechanics, biology and metabolism using large animal organ and cell culture systems
Rollin, Bertrand	PhD	2008	On the Influence of Large Scale Forcing and Flow Topology on the Dynamics of Small-Scale Turbulent Transport
Hurley, David	MS	2008	Laser Copper Plasma X-ray Source Debris Characterization

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Knight, Jason	MS	2008	non-thesis
Mandell, Joshua	MS	2008	non-thesis
Martin, Thomas	MS	2008	non-thesis
Languerand Lagies, Dulcie	MS	2007	Multiscale Investigation of the Mechanical Properties of High-Strength Polymeric Fibers
Lubinski, Jacob	MS	2007	Biomechanical and Swelling Behaviors of the Intervertebral Disc in Varying Osmotic Environments
Peach, John	MS	2007	non-thesis
Wigdalski, Adam	MS	2007	Numerical Simulations of Convection in a Cavity Driven by an Oscillating Heated Boundary
Zilic, Adis	MS	2007	Numerical Simulations of Supersonic Flow in a Linear Aerospike Micro Nozzle
Burns, Dylan	MS	2006	Aerolastic Mechanics of Thin Film Membranes in Proximity Lithography
Spencer, Graham Thornton	MS	2006	Composite Drive Shaft Dynamic Response Optimization
Stevenson, Kevin	MS	2006	Electrochemical Synthesis and Mechanical Properties of Nickel Nanostructures
Bartlett, Brent	MS	2005	Design of a Microturbine Driven by Catalytically Decomposed Hydrogen Peroxide
Korecki, Casey	MS	2005	Development of an Organ Culture System for Evaluating Damaging Compression Loading on Intervertebral Disc Explants
Louisos, William F.	MS	2005	Viscous effects in 2-D supersonic micro-nozzle flow
McGarry, Matthew T.	PhD	2004	Numerical simulations of arterial and venous bleeding
Kujawa, Jeffrey P	MS	2004	Numerical simulations of steady and transient flow in a supersonic MEMS nozzle
Miller, Jonathan	MS	2004	Robotic systems for inspection surveillance of civil structures
Plumpton, James Osborne	MS	2004	Active membrane masks for improved overlay performance in proximity lithography
Harris, Timothy R.	PhD	2003	Geometric effects on separation surfaces in converging microchannel flows
Kosmopoulos, Victor	PhD	2003	Trabecular bone damage and repair
Miller, Mark S.	PhD	2002	Locomotor activity of Drosophila melanogaster (Fruit flies) during microgravity and hypergravity exposure
Rohyans, Kevin	MS	2002	Quasi-Static Profiles of a Compound Drop Growing From a Submerged Concentric Needle Arrangement
Coulson, Rebecca	MS	2002	Effects of smooth muscle cell activation and ischemia on the mechanical properties of cerebral arteries
He, Zhi	MS	2001	Quantitative Sonographic Prostate Cancer Characterization
Steward, Anthony	MS	2001	Material structural characterization using dynamic system analysis
Patterson, Michael K.	PhD	2000	The geometric dependence of the thermal conductivity of heterogeneous media
Sauter, Wolfgang	PhD	2000	Thin film mechanics bulging and stretching
Coates, Audrey D.	MS	2000	The design, development, and validation of the EMG grid
Hu, Jing Qiong	MS	2000	Good impedance match antenna (GIMA) design and its applications for ground penetrating radar in concrete structures NDE applications
Suiter, Kari E.	MS	2000	Gantry control and design of an X-ray stepper y-stage
Liebschner, Michael	PhD	1998	Hydraulic strengthening and intrinsic permeability coefficient of cortical bone tissue
Saxena, Rakesh	PhD	1998	A Three-Dimensional Finite Element Scheme to Investigate the Apparent Mechanical Properties of Trabecular Bone
Novotny, John	PhD	1997	Experimental and analytical investigations of the glenohumeral joint
Adam, Christopher S.	MS	1997	Ground Penetrating Radar for Non-Destructive Evaluation of Concrete Bridge Decks

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Fleming, Braden C.	PhD	1996	The in vivo strain behavior of the anterior cruciate ligament during stationary bicycling : an experimental and analytical investigation
Neary, Timothy Edward	PhD	1996	In-situ measurement of lamb wave phase velocities in composite plates with an application for defect detection
Fahey, Sean O'Flaherty	MS	1996	A novel eight-member mechanism with application in precision two wheel automotive steering including a detailed discussion of Ackermann's patent moveable axles
Brown, Jerry L.	PhD	1995	The effects of electromagnetic stirring on solidification in investment casting
Ambrose, Timothy P.	MS	1994	Automation of Wire Handling and Stripping Manufacture of Multiconductor Coaxial Cable
Altshuler, Kenneth J.	MS	1993	The Study of Friction and Wear Using a Pin-on-Disk Tribometer
Anderson, Todd	MS	1993	A Dynamic Femoral Hip Prosthesis
Diehl, Matthew D.	MS	1992	Modeling of Thermal Benefits for Diamond Coated Alumina Tool Inserts
Beynon, Bruce	PhD	1991	The <u>In vivo</u> biomechanics of the anterior cruciate ligament, reconstruction, and application of a mathematical model to the knee joint
Medoff, Howard P.	PhD	1990	The relationship between performance, comfort and safety in alpine ski boots
Smith, Suzanne D.	PhD	1988	The biodynamic response characteristics of a seated primate to whole-body gz vibration exposure using the non-invasive impedance technique
Steinhurst, William Ronald	PhD	1988	On some aspects of the thermoplastic instability in engineering
Vorsteveld, Lolke Geert	PhD	1988	Geometric considerations in the ignition process of solid propellants : theory and experiment
Rong, Hong	MS	1988	Damping Synthesis Using Free Interface Complex Substructure Modes
Dansereau, Jean	PhD	1987	Rib cage deformation in scoliosis
Wilder, David Gould	PhD	1985	On loading of the human lumbar intervertebral motion segment
Brown, Christopher	PhD	1983	Material Behavior During Chip Formation
Merten, Charles William	PhD	1983	Thermal shock/fatigue of WC-Co alloys
Durham, Delcie	PhD	1981	Modelling adiabatic deformation: the metallurgical requirements
Algera, Robert	MS	1979	Human Body Dynamics Duing Restrained Fall
Wilder, David Gould	MS	1978	On the mechanics of the lumbar spine
Buturla, Edward Michael	PhD	1976	Convergence investigations of parabolic and hyperbolic finite element formulations
Henderer, Willard Everett	PhD	1976	On the art of tapping metals
Crowninshield, Roy Douglas	PhD	1975	On the biomechanics of the knee
Jacobs, Carl Henry	PhD	1974	An analysis of the drilling characteristics of bovine bone
Kumble, Raghvir G.	PhD	1973	The evaluation of anisotropy and plane strain properties of cast and wrought materials

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Murphy, Michael Clifford	PhD	1972	The principles of fracture mechanics applied to the failure modes of fiber reinforced composites and to the fatigue of selected brittle resins and glass
Pope, Malcom Henry	PhD	1972	On the Fracture of Bone Substance
Das, Prasanta	MS	1971	Dynamics of passenger restraint systems
Skinner, David Robert	MS	1971	A finite element model for static and dynamic analyses of axisymmetric shells
Amidon, John Leonard	MS	1970	Application of the Hydraulic Analogy to Supersonic Flow over Bluff Bodies
Buturla, Edward Michael	MS	1970	Optimization of photographic registration in a thermal environment
Ettlinger, Carl Frederick	MS	1970	On the prevention of ski injuries
Das, Pranab Kumar	MS	1969	An energy absorber utilizing plastic deformation of metal
Ghose, Sunil Kumar	MS	1969	Two-phase blowdown from vessels including bubble rise and condensate drop dynamics [
Makkenchery, Suresh	MS	1969	A water reactor pressurizer model with bubble rise and condensate drop dynamics
Mastro, Giustino	MS	1969	A further investigation to determine an index to adjust snow ski bindings : with emphasis on ski binding characteristics and analysis of ski accident statistics
Murphy, Michael	MS	1969	The dependance of glass reinforced resin composite fracture energy on temperature and humidity
Prabhu, Manohar S.	MS	1969	The effect of vapor velocity in laminar film condensations on a vertical wall
Carnes, William O	MS	1968	The fracture energy of composite materials
Bloom, George Henry	MS	1968	The effect of surface finish on the dynamic fatigue of glass rods subjected to Hertzian stress
Brosseau, Timothy Lee	MS	1967	A numerical method for determining transient thermal stresses in centrally heated short hollow cylinders
Gallo, James David	MS	1967	The behavior of conical indentation fractures in glass
Lee, Robert Bruce	MS	1967	A transient thermal and residual stress analysis model comnsidering elastic-plastic strain in a thin disk
Gerry, Donald John	MS	1966	Fracture energy determination of selected brittle materials using an original technique
Trevaskis, Walter Allen	MS	1965	Statistical estimation of frangible circuit failure using probit analysis.
Kellogg, David Holt	MS	1964	The effect of absorbed coupling agents on the glass-finish-resin interface
Miner, Louis H.	MS	1964	On the strength of glass with different methods of loading
Shakun, Wallace	MS	1964	Mathematical model of a dynamic system having multiple degrees of freedom
Seibert, Willard Julius	MS	1963	Static fatigue characteristics of fiber glass filament wound pressure vessels
Berg, William Henry	MS	1962	A factorial experiment to determine the significant characteristics of a hydraulic motor
Breed, John Lincoln	MS	1962	The dynamic mechanical properties of polymethylmethacrylate cantilevers at resonance
Ozaltin, Oguzcan	MS	1962	The surface effects of various environments and the thermosetting resins on glass
Matta, Joseph Tannus	MS	1961	The effect of temperature and time on the shrinkage stresses within thermosettings