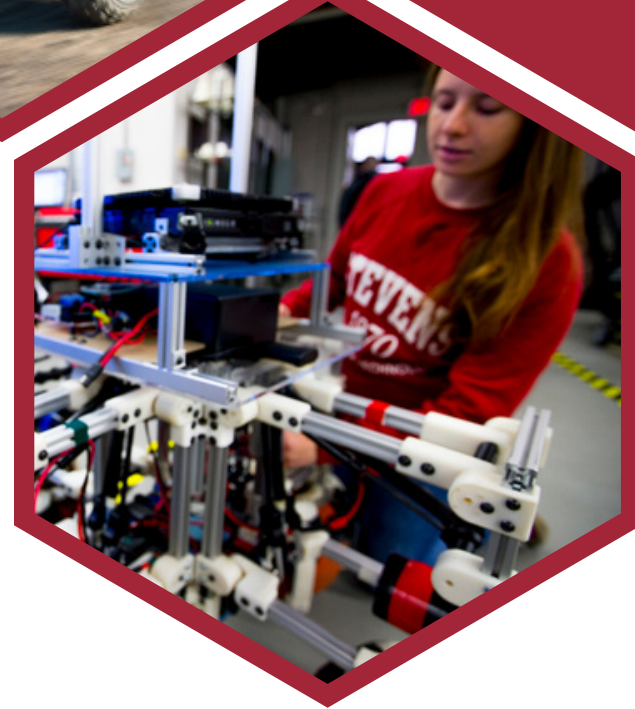
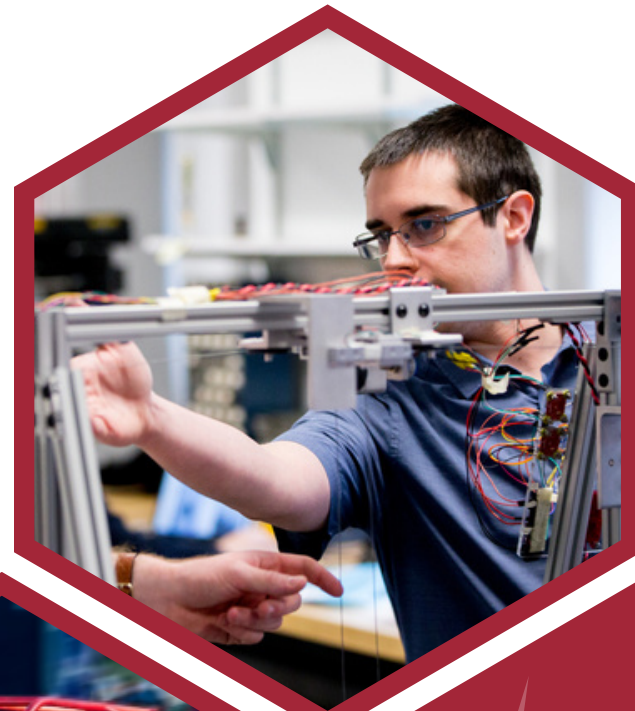


ANNUAL REPORT

2022-2023



Schaefer School of
Engineering and Science

Department of Mechanical
Engineering

TABLE OF CONTENTS

MESSAGE FROM THE CHAIR	1
DEPARTMENT DASHBOARD	2
NEW EAB MEMBERS	3
STUDENT PROGRAMS	4
UNDERGRADUATE	5
SENIOR DESIGN	5
UNDERGRADUATE ENROLLMENT	6
GRADUATE	7
GRADUATE ENROLLMENT	8
FACULTY	9
FACULTY BY RESEARCH AREA	10
SPONSORED RESEARCH	11
ACTIVE RESEARCH AWARDS	12
SAMPLE RESEARCH PROJECTS	13
FACULTY HIGHLIGHTS	18
MEDIA HIGHLIGHTS	19
COMMUNICATIONS	20
STUDENT HIGHLIGHTS	21

MESSAGE FROM THE CHAIR



I am pleased to introduce the annual report for the Mechanical Engineering Department, which provides a comprehensive overview of our achievements, progress, and vision for the future.

Over the past year, our department has continued to make significant strides in the field of mechanical engineering. Our dedicated faculty and researchers have pursued groundbreaking work in various domains, from cutting-edge technology in Micro/Nano/Quantum Technology; Dynamics, Controls, and Robotics Systems; Biomechanical Engineering; Aerospace Engineering; Energy, Thermal-Fluids; and Sustainability and Design Computations and Advanced Manufacturing. Their contributions have not only garnered global recognition but have also played a crucial role in shaping the academic landscape.

At the heart of our mission are our students, who have exhibited exceptional enthusiasm and dedication. We have seen the department attract a diverse and talented group of individuals, bringing fresh perspectives and energy to our educational programs. The success of our graduates, who have ventured into diverse industries and academia, stands as a testament to the quality of education and mentorship they have received during their time here.

This annual report serves as a reflection of our collective efforts and ambitions. It underscores the challenges we have surmounted and the milestones we have achieved. As we set our sights on the future, I am confident that the Mechanical Engineering Department will continue to thrive, driven by the passion and dedication of our community and our unwavering commitment to knowledge and innovation.

I want to express my sincere gratitude to everyone who has supported our department throughout this journey. Your continued dedication and contributions have been instrumental in our success. Together, we are shaping the future of mechanical engineering, and I am excited about the possibilities that lie ahead.

Sincerely,

A handwritten signature in black ink that reads "Souran Manoochehri". The signature is written in a cursive style.

Souran Manoochehri
Professor and Chair of the Department of Mechanical Engineering

DEPARTMENT DASHBOARD

\$6.5M

in Research
Expenditures

Enrollment:

620 UG

212 Master's

69 Ph.D.

\$22M

in Active Awards

36

Full Time Faculty

\$72,100

average starting
salary for
undergrads

\$4.1M

in Research
Awards

96%

of undergraduates
secured jobs or
continuing
education

NEW EAB MEMBERS



JESSICA BLAMICK '17

SENIOR SYSTEMS PROJECT ENGINEER, BOEING PLATFORMS, COLLINS AEROSPACE

Jessica Blamick graduated from Stevens in 2017 with a Bachelor of Engineering in Mechanical Engineering. Currently, she works as a Systems Integration Project Engineer at Collins Aerospace in the Environmental and Airframe Control Systems (EACS) Business Unit.



RICHARD BYRD '93

EXECUTIVE VICE PRESIDENT AND PRESIDENT, INTERVENTIONAL SEGMENT BECTON, DICKINSON AND COMPANY

Richard Byrd graduated from Stevens in 1993 with his Master of Engineering in Mechanical Engineering and Virginia Tech with a Bachelor of Science in Mechanical Engineering. Currently, he serves as executive vice president and president of the Interventional Segment of BD.



MAHANTESH HIREMATH

VICE PRESIDENT, SC SOLUTIONS

Dr. Hiremath graduated from The Ohio State University with a Master of Science and Ph.D. in Civil Engineering and earned a Certificate in Systems Engineering from Stanford University. He has over 30 years of wide range industry experience in space, energy, transportation and infrastructure and served as the 140th President of American Society of Mechanical Engineers (ASME) for term 2021-22.



CARLTON PETERS '99

ASSOCIATE DIVISION CHIEF, INSTRUMENT SYSTEMS AND TECHNOLOGY DIVISION, NASA GODDARD SPACE FLIGHT CENTER

Carlton Peters graduated from Stevens in 1999 with a Bachelor of Engineering in Mechanical Engineering with a concentration on Heat Transfer. Currently, he serves as an Associate Division Chief in the Instrument Systems and Technology Division.



JOE YACCARINO '88

PRESIDENT/CEO, MTF BIOLOGICS

Joe Yaccarino graduated from Stevens in 1988 with a Bachelor of Science in Mechanical Engineering and earned a Master of Business Administration in Marketing/Finance from Pennsylvania. Currently, he serves as the President and CEO of MTF Biologics

THE ME EXTERNAL ADVISORY BOARD IS MADE UP OF TWELVE STEVENS ALUMNI AND INDUSTRY EXPERTS. THE CURRENT MEMBERS OF THE EAB AND THEIR BIOGRAPHIES CAN BE FOUND AT [STEVENS.EDU/ME](https://www.stevens.edu/me).



STUDENT PROGRAMS

MECHANICAL ENGINEERING STUDENT ADVISORY COUNCIL

The Mechanical Engineering Student Advisory Council (MESAC) is a representative body comprised of mechanical engineering students that works closely with faculty and administration to provide input, feedback, and suggestions to enhance the academic experience and program quality within the mechanical engineering department. Its mission is to foster communication, advocate for student interests, and contribute to the overall improvement of the department's educational offerings and resources.

MECHANICAL ENGINEERING GRADUATE ASSOCIATION

The Mechanical Engineering Graduate Association (MEGA) is a student-led organization composed of graduate students pursuing advanced degrees in mechanical engineering. It serves as a platform for networking, professional development, academic collaboration, and social events. The group aims to have a minimum of an academic event, outdoor activity, career event, and social event each semester.

ACADEMIC PROGRAMS

The Department of Mechanical Engineering offers 10 academic programs including:

- Bachelor of Engineering
- 4 Joint Master's Programs
- Master of Engineering
- Master of Science
- Master of Robotics
- Master of Pharmaceutical Engineering
- Doctorate of Engineering

CENTER FOR STUDENT SUCCESS

The ME Center for Student Success is a dedicated resource hub within the Mechanical Engineering Department, aimed at providing academic support, advising, and career guidance to undergraduate and graduate students. It offers a range of services to help students excel in their studies and navigate the challenges of their mechanical engineering programs successfully.

STUDENT-FACULTY EVENTS

The Mechanical Engineering department hosts various events throughout the year, including townhall meetings for open discussions and updates, a lively Springfest celebration for students and faculty to come together, and Bagel Wednesday gatherings, offering a casual space for community building and networking among students and staff.



UNDERGRADUATE

The Bachelor of Engineering in Mechanical Engineering program offers a comprehensive education, equipping students for success in the evolving mechanical engineering field. This foundational program blends theoretical knowledge with practical applications, covering a range of topics including mechanics, thermodynamics, materials science, fluid dynamics, and advanced topics like robotics, sustainable design, and biomechanics.

A significant feature is its focus on hands-on learning through the Design Spine, enhancing problem-solving, critical thinking, and teamwork skills. Upon successful completion of the program, graduates are well-prepared to enter the workforce as mechanical engineers, contributing to industries such as automotive, aerospace, energy, manufacturing, and beyond. They are equipped with the skills to design innovative solutions, optimize processes, and address complex engineering challenges. The Bachelor of Engineering in Mechanical Engineering degree program paves the way for a rewarding and impactful career, while also laying the foundation for further academic pursuits in graduate studies.

SENIOR DESIGN

Senior Design is a yearlong capstone course within the Mechanical Engineering curriculum and is an element of distinction within the department. Students are broken into multi-disciplinary teams with projects spanning areas such as biomedical, defense, robotics, and energy. Some projects are competition based and many are sponsored by various industry collaborators. The industry sponsors for the 2023-2024 academic year include the NASA Jet Propulsion Laboratory, Sigma Design Company, SeebeckCell Technologies, L3Harris, General Dynamics, IEEE, Kearfott, HS Design, St. Joseph's School for the Blind and the Mountain Lakes Public Library.

The 2022-2023 academic year yielded a multitude of projects across many disciplines within mechanical engineering. Below are some highlighted projects.

KEARFOTT RLG MANUFACTURING PROCESS AUTOMATION

The group designed an automated gantry system that can assemble RLGs with high precision and withstand the vertical forces of a JP-504 Press.

PLUME SURFACE INTERACTIONS FOR THE MOON AND MARS

The group developed an experimental setup to model a PSI problem and test vacuum conditions simulating Moon or Mars.

winDIY

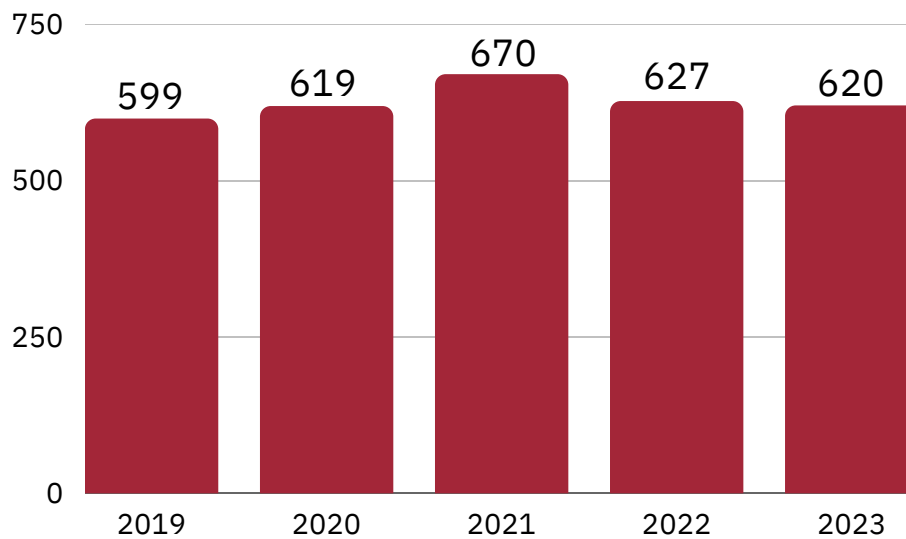
The group designed and built an affordable wind turbine from reclaimed and easily sourceable materials found around the world.

UNDERGRADUATE ENROLLMENT

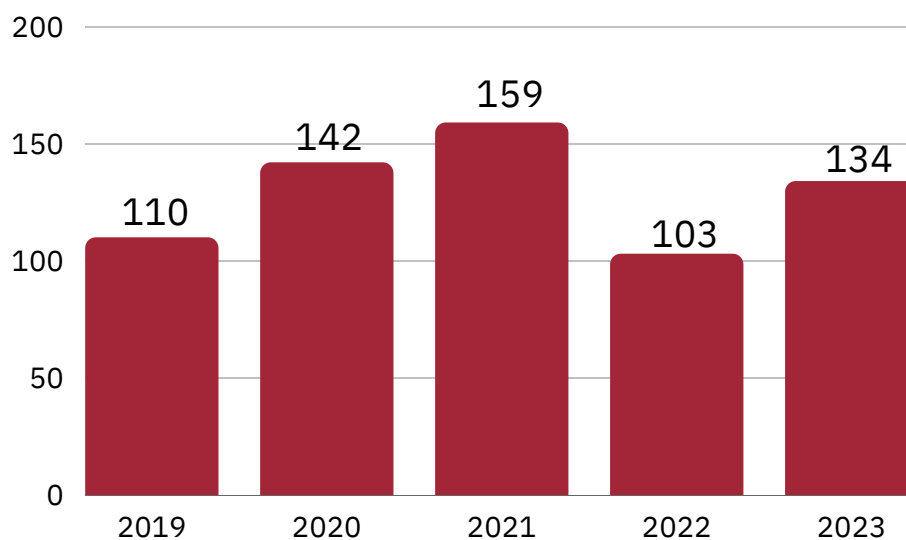
The enrollment statistics for our mechanical engineering department reflects a dynamic and growing interest in the field. Over the past several years, the department has witnessed a steady increase in student enrollment, indicative of the enduring appeal of mechanical engineering as a discipline.

The diverse and ever-evolving nature of this field, encompassing areas such as micro/nano/quantum technology; dynamics, controls, and robotics systems; biomechanical engineering; aerospace engineering; energy, thermal-fluids, and sustainability; and design computations and advanced manufacturing, has attracted a wide spectrum of students.

TOTAL UNDERGRADUATE ENROLLMENT



NEW UNDERGRADUATE ENROLLMENT



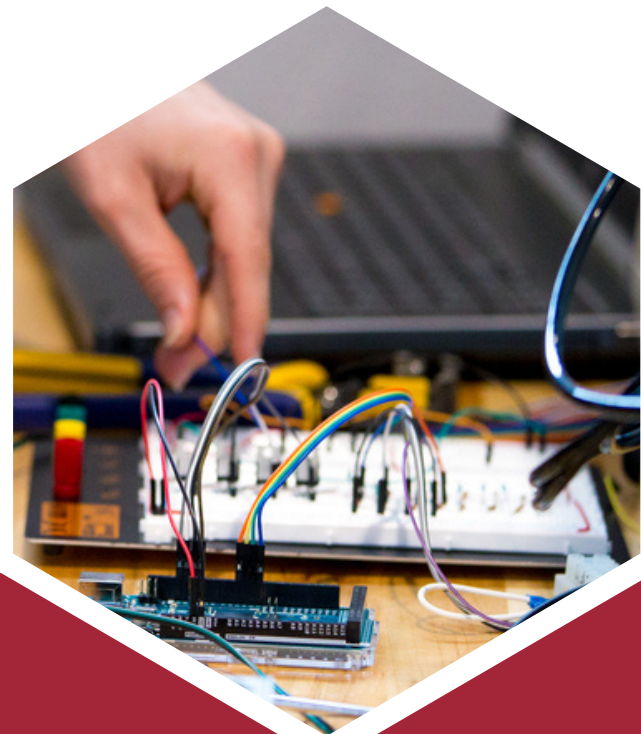
GRADUATE

The Master programs in Mechanical Engineering and the Doctorate in Mechanical Engineering program represent the pinnacle of advanced education and research in the field. These programs cater to individuals who are not only passionate about mechanical engineering but also seek to make significant contributions to the discipline through in-depth study, groundbreaking research, and innovation.

The Mechanical Engineering Department offers 4 Master's Programs and 4 Joint Master's Programs. These programs enhance students technical expertise, leadership, and career prospects within the field. It offers specialized exploration, hands-on experience, and equips graduates to tackle complex challenges, lead engineering teams, and drive innovation.

The Doctorate in Mechanical Engineering program is the highest academic pursuit, focusing on cutting-edge research. Candidates work closely with faculty mentors, conduct original research, and encourage interdisciplinary collaboration. Graduates become experts in their research area, contributing to academia, industry, and society.

Both programs foster exploration, critical thinking, and innovation. Graduates emerge as leaders, problem solvers, and visionaries shaping the future of mechanical engineering through research and transformative ideas, either in industry or advancing knowledge.

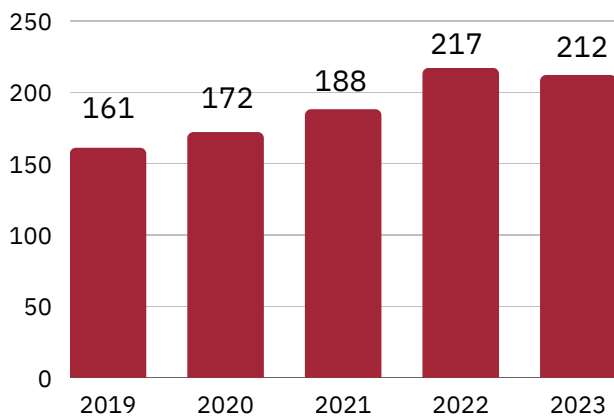


GRADUATE ENROLLMENT

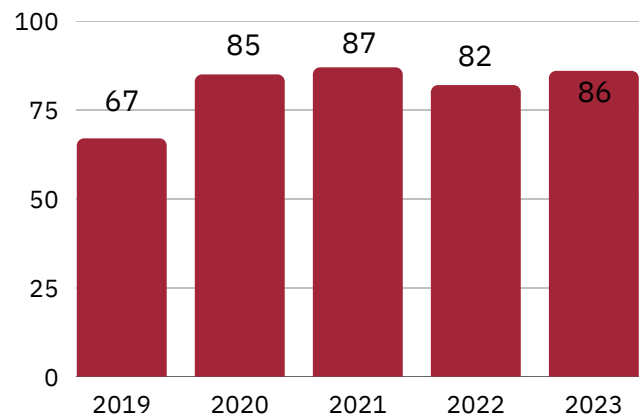
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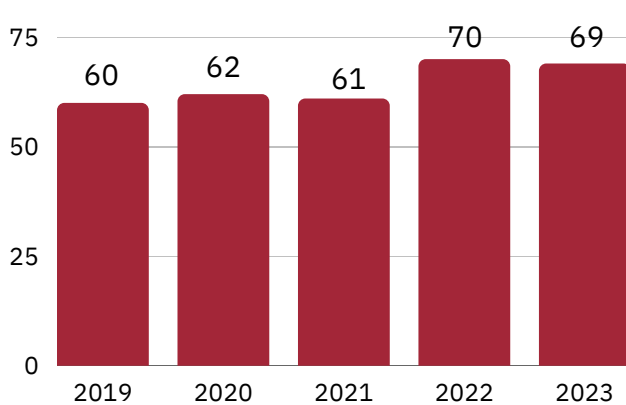
TOTAL MASTER'S ENROLLMENT



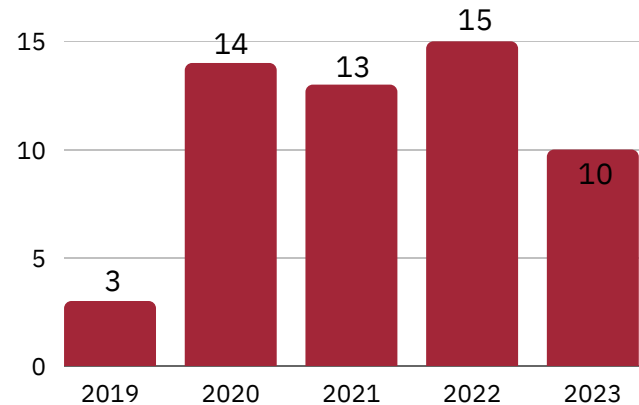
NEW MASTER'S ENROLLMENT



TOTAL PH.D. ENROLLMENT



NEW PH.D. ENROLLMENT



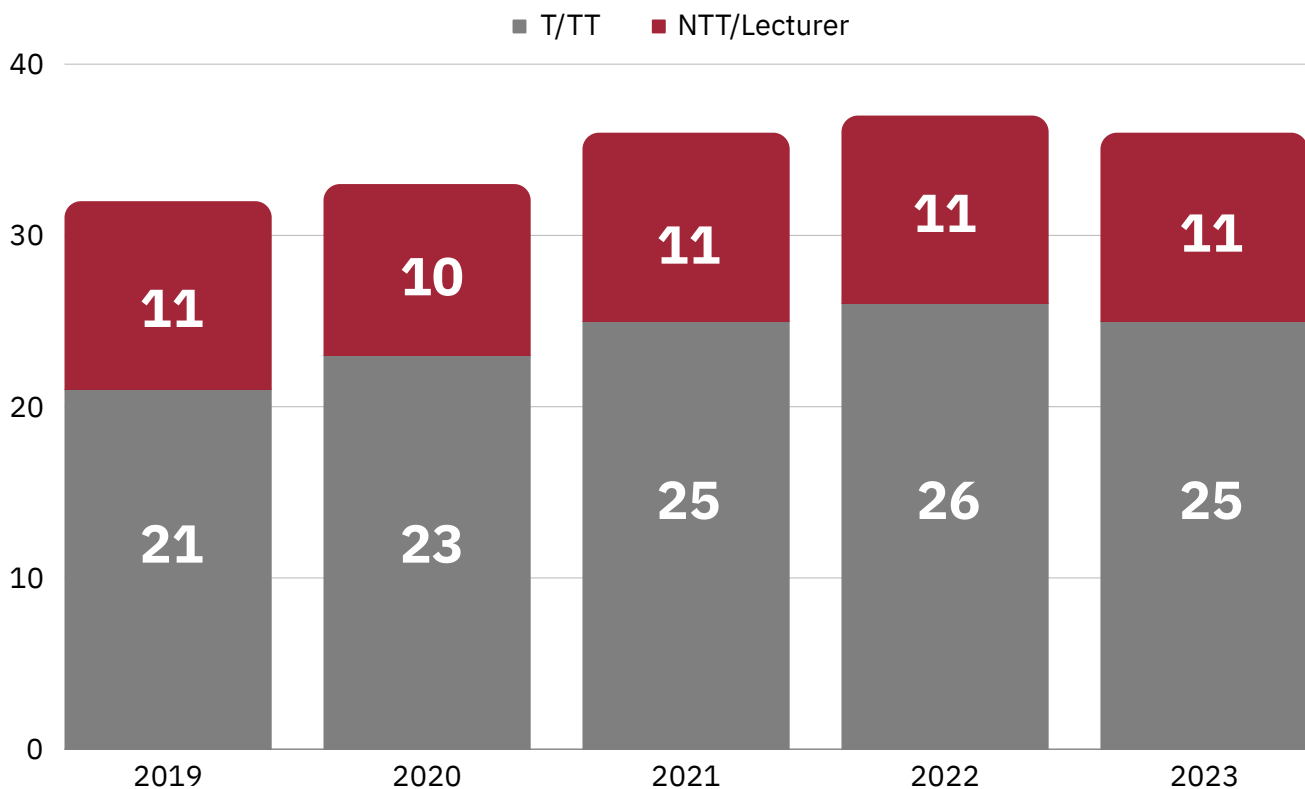


FACULTY

BY THE NUMBERS

Our world-class faculty, comprising 36 members, practice diverse activities across engineering. They prioritize hands-on learning and research, providing students with experiential knowledge and abundant resources. Globally recognized for their contributions to research, teaching, and professional practice, our faculty's expertise spans various disciplines, fostering intellectual curiosity and academic excellence.

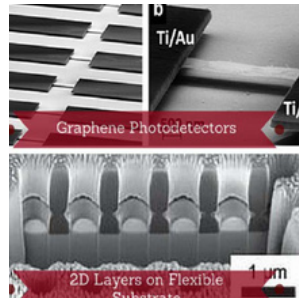
Our faculty's commitment to both theory and application drives groundbreaking research addressing pressing global challenges. Their insights advance the field of Mechanical Engineering and hold far-reaching implications for industries, societies, and communities. Out of our 36 faculty members, 25 are Tenure or Tenure Track (T/TT), and 11 are Teaching Track. The faculty size trend over the past five years is illustrated below.



T/TT FACULTY BY RESEARCH AREA

MICRO/NANO/QUANTUM TECHNOLOGY

Chang-Hwan Choi
Frank Fisher
Shima Hajimirza
Yong Shi
Eui-Hyeok Yang
Annie Zhang



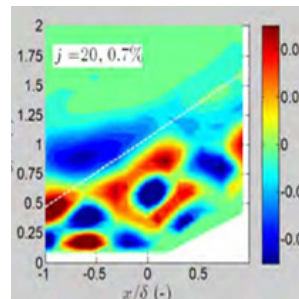
DYNAMICS, CONTROLS, AND ROBOTIC SYSTEMS

Gizem Acar
Brendan Englot
Christophe Pierre
Kishore Pochiraju
Hamid Jafarnejad Sani
Christopher Sugino
Long Wang
Damiano Zanotto



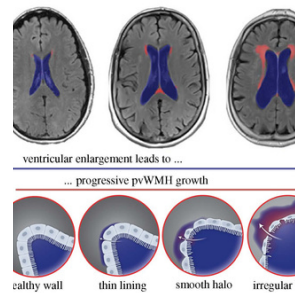
AEROSPACE ENGINEERING

Nick Parziale
Christophe Pierre
Jason Rabinovitch
Siva Thangam



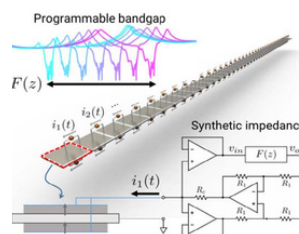
BIOMECHANICAL ENGINEERING

Robert Chang
Long Wang
Johannes Weickenmeier
Damiano Zanotto



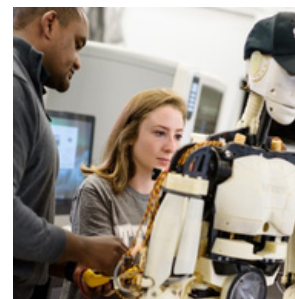
ENERGY, THERMAL-FLUIDS AND SUSTAINABILITY

Chang-Hwan Choi
Hamid Hadim
Shima Hajimirza
Nick Parziale
Jason Rabinovitch



DESIGN COMPUTATIONS AND ADVANCED MANUFACTURING

Robert Chang
Chang-Hwan Choi
Sven Esche
Souran Manoochchri
Kishore Pochiraju

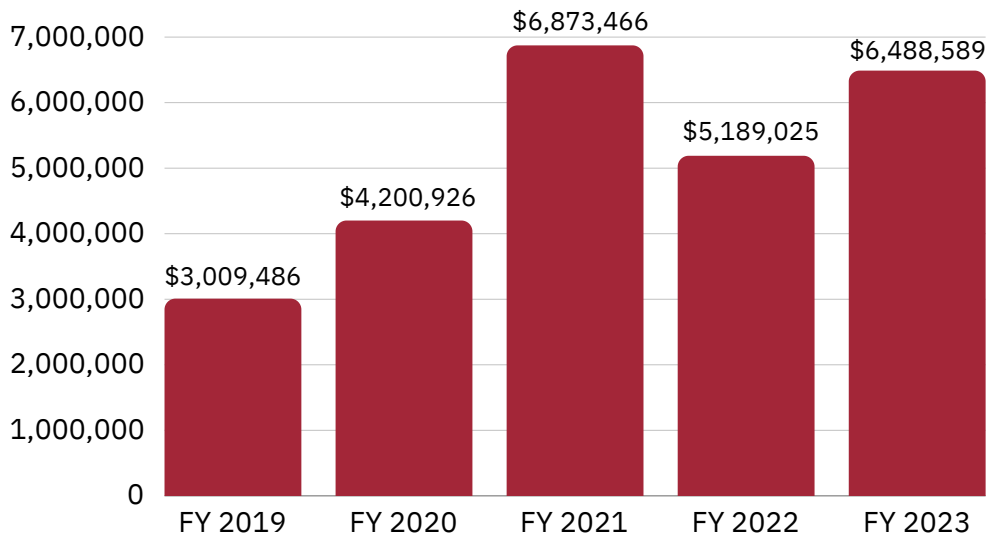




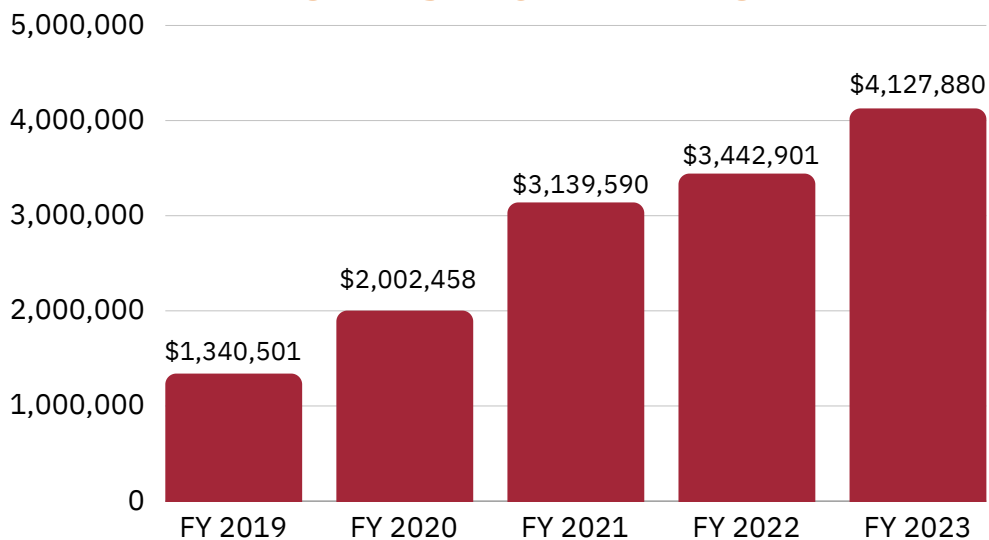
Sponsored Research

The Department of Mechanical Engineering is dedicated to innovative, interdisciplinary research, fostering collaboration among esteemed faculty members. Research areas include hypersonic reactive flows, mobile robotics navigation, biomechanics of soft materials, and 2D material development. The department has experienced significant research growth, securing nearly \$22 million in active awards from various government and industry sources in 2023. Our institution's substantial research expenditure underscores our commitment to advancing knowledge and driving innovation, acknowledging research's pivotal role in shaping industries, economies, and societies.

ANNUAL RESEARCH AWARD



ANNUAL RESEARCH EXPENDITURE





Active Research Awards

Our faculty and students engage in research endeavors that encompass everything from cutting-edge scientific exploration to practical, real-world applications. In the past year, we've seen an increase in multi-PI grants, leading to more funding and larger research labs. This funding has enabled new research projects and boosted our scholarly work. It's worth noting that our active awards come from various sources adding up to \$22 million in 2022-2023.

Sponsor	Award	Percent
National Science Foundation	\$6,716,354.00	30.70%
US Department of Defense - Office of Naval Research	\$3,029,339.00	13.85%
Raytheon Company	\$1,507,358.00	6.89%
U.S. Army Medical Research Acquisition Activity	\$1,497,728.00	6.85%
U.S. Air Force Office of Scientific Research	\$1,486,134.00	6.79%
DOD-Combat Capabilities Devel Command Armaments Ct	\$1,141,865.37	5.22%
Leidos, Inc	\$960,000.00	4.39%
Perspecta Labs Inc.	\$779,987.00	3.57%
University of Minnesota	\$776,037.00	3.55%
Georgia Institute of Technology	\$452,155.00	2.07%
National Institutes of Health	\$424,050.00	1.94%
CORVID Technologies LLC	\$413,315.00	1.89%
Kaswin	\$379,904.00	1.74%
US Department of Agriculture	\$375,000.00	1.71%
University of Washington	\$364,498.39	1.67%
The Frank Semcer, Sr. '65 Fellowship Fund	\$350,000.00	1.60%
U.S. Army-Picatinny	\$331,852.00	1.52%
Consolidated Edison, Inc.	\$250,000.00	1.14%
Muscular Dystrophy Association	\$200,000.00	0.91%
SEO YEONG Co., Ltd.	\$158,666.91	0.73%
US Dept of Defense - Off Deputy Asst Sec	\$95,539.64	0.44%
National Aeronautics and Space Administration	\$61,695.00	0.28%
Nanohmics, Inc.	\$47,835.00	0.22%
New Jersey Health Foundation	\$35,000.00	0.16%
Duke University	\$23,833.00	0.11%
Cal Tech Jet Propulsion Lab	\$17,000.00	0.08%
Total	\$21,875,146.31	



Sample Research Projects

ADVANCING ROBOT-ASSISTED EXERCISE THERAPY

DAMIANO ZANOTTO AND KISHORE POCHIRAJU

Principal investigator (PI) Damiano Zanotto, Associate Professor of Mechanical Engineering, and co-PI Kishore Pochiraju, Professor of Mechanical Engineering and Associate Dean for Undergraduate Studies, along with co-PI Dr. Karen Nolan of the Kessler Foundation, were awarded a grant from the Department of Defense for their project "Machine Learning Methods to Individualize Powered Orthotic Intervention for Improved Functional Recovery after Lower Extremity Trauma."



This project addresses two major drawbacks of current orthotic technology for patients with reconstructed lower limbs: namely the lack of automated procedures to fabricate AFOs that conform to a patient's body, in order to improve comfort; and the lack of control methods to self-tune the level of assistance of a powered AFO to the user's changing motor performance, in order to promote their active participation in therapeutic exercises and enhance rehabilitation outcomes.

SOFTWARE FOR PHOTOREALISTIC 3D SITE MODELING

BRENDAN ENGLOT AND HAMID JAFARNEJAD SANI



Associate Professor, Geoffrey S. Inman Junior Professor Brendan Englot and Assistant Professor Hamid Jafarnejad Sani were awarded a grant from the Raytheon Company for their project "Neural Implicit Rendering from Varying Altitudes with Nimble Algorithms."

The goal of this project is to develop algorithm-based software systems that create photorealistic 3D site models from a limited source of images taken at varying altitudes.

DEVELOPING ROBOTIC HAND TECHNOLOGY AND DIGITAL HUMAN MODEL

LONG WANG

Assistant Professor of Mechanical Engineering Long Wang was awarded a grant by the National Science Foundation (NSF) for his project titled "Tool-Grasping Compliance and Stability of Underactuated Hands in Model-Mediated Telemanipulation." The project uses artificial intelligence to develop a complete, cost-effective solution for operating remotely controlled robotic hands with high levels of control, dexterity, and situational awareness to perform complex manual manufacturing tasks.



Dr. Wang, was also awarded a grant from the Defense Health Agency award for his project "Digital Human Model for Use in Simulation Environments for Tactile Human/Robot Interaction" (with Corvid Technologies as prime). The work aims to develop a biomechanically accurate digital human model with advanced biometrics capabilities for use in simulations for employing autonomous robots to locate and extract wounded soldiers from high-risk environments.

OMNIPHOBIC ANODIC COATINGS

CHANG-HWAN CHOI



Professor Chang-Hwan Choi was awarded a grant from the National Science Foundation for his project "I-Corps: Omniphobic Anodic Coatings."

This I-Corps project aims to develop and commercialize novel anodic coatings that can make metallic surfaces omniphobic to repel various types of fouling and corrosive agents in both solid and fluid states. The key feature of the omniphobic anodic coating is to retain water-immiscible gas (e.g., air) or liquid (e.g., lubricant oil) in the nanopores formed in the anodizing process of metal after the hydrophobic or oleophilic surface treatment of the anodized oxide layer.

AI-ENABLED SHOE INSOLES

DAMIANO ZANOTTO

Associate Professor Damiano Zanotto was awarded a grant from the National Science Foundation for his project “I-Corps: AI-Enabled Shoe Insoles to Assess Walking Function in Real Life Environments.”

The project entails the validation of the commercial potential of new machine learning algorithms to improve the accuracy and personalization of wearable gait monitoring devices, enabling the collection of more accurate and granular data on people's walking function in real-life settings. This technology could be used to better understand how disease trajectories are affected by new treatments for neurological conditions and to reduce the cost of clinical trials. Besides Zanotto (Technical Lead), the team includes Dr. Ton Duong (Postdoctoral Associate at Stevens, Entrepreneurial Lead) and Michael Rowling (Chief Operating Officer at ProtoKinetics LLC, Industrial Mentor).



HYPERSONIC TURBULANCE

NICK PARZIALE



Associate Professor Nick Parziale has been awarded a grant from the Office of Naval Research for his project "Turbulence Quantities in Supersonic and Hypersonic Flows."

The goal of his project is to make revolutionary advances in aerodynamics by studying how air moves around vehicles traveling at high speeds. The work will test canonical geometries to generate different US-Navy-relevant conditions in the well characterized Mach 6 Stevens Shock Tunnel. Pressure, heat-transfer, and skin-friction surface data will be collected in concert with tagging velocity (TV) which will serve as a comprehensive reference for high-speed turbulence computations.

3D PRINTING BIOMIMETIC MUSCLE TISSUES

ROBERT CHANG



Associate Professor and Associate Chair for Graduate Studies in the Department of Mechanical Engineering Robert Chang was awarded a grant from the New Jersey Health Foundation for his project "A 3D Printed Electrophysiological Model of Biomimetic Muscle Tissues."

This work aims to advance a fundamentally new class of soft musculoskeletal therapies enabled by emergent in situ fabrication capabilities and electromechanical conditioning protocol for maturing tissues. This will make lasting impact for patients, contributing to a decrement in the adverse clinical impact of such injuries.

MECHANICS-DRIVEN PERSPECTIVE ON MICROSTRUCTURAL CHANGES DURING AGING

JOHANNES WEICKENMEIER

Assistant Professor of Mechanical Engineering Johannes Weickenmeier was awarded a grant from the National Institute of Health (NIH) for his project titled "The Clinical Significance of Incidental White Matter Lesions on MRI Amongst a Diverse Population with Cognitive Complaints (Diverse VCID)."

The primary goal of this big center grant (under the leadership of UC Davis) is to determine characteristics of white matter lesions, and synergies with comorbidities along the AD/ADRD spectrum, that may cause (and do not cause) cognitive decline and dementia outcomes in diverse U.S. populations. Clinical trial-ready biomarkers of vascular contributions to cognitive impairment and dementia (VCID) shall be utilized, further developed, and/or subject to implementation research in this program. Dr. Weickenmeier's contributions will focus on mechanics-driven perspectives on microstructural changes during healthy and AD-related aging.



NONLINEAR ANALYSIS OF CENTRIFUGAL COMPRESSORS

CHRISTOPHE PIERRE



Professor of Mechanical Engineering and Jess H. Davis Endowed Chair
Christophe Pierre was awarded a grant from GUIde Consortium for his project "Development of a Predictive Software Suite for the Nonlinear Analysis of Centrifugal Compressors and Axial Turbine Stages."

This award is part of a project in collaboration with Polytechnique Montreal and McGill University. The GULde Consortium consists of NASA and turbomachinery industrial partners and is managed by Duke University.

NEAR SURFACE PSI AND SUPERSONIC PARACHUTES

JASON RABINOVITCH

Assistant Professor Jason Rabinovitch was awarded a grant from NASA for his project "Observed High-Altitude Surface Erosion During the Mars Science Laboratory and Mars 2020 Landings." This project studies plume-surface interactions (PSI), as a design driver for the landing systems for Mars missions. In addition to the negative consequences of near-surface PSI (terminal descent), it is important to be able to predict the first point in a vehicle's trajectory where it is expected that the exhaust from a spacecraft's engines will begin to modify the surface.



Dr. Rabinovitch was also awarded a grant from the Jet Propulsion Laboratory, California Institute of Technology for his project "Modeling Low-Density Textile Permeability for Mars Supersonic Parachute Inflations." This project studies experimental efforts to provide detailed surface characterization and reconstruction for parachute materials. These detailed surface reconstructions enable computations to use these as-measured geometries instead of simplified or approximate geometries, which represents an important step forward in surface permeability modeling efforts for supersonic parachute inflation for Mars spacecraft.



Faculty Highlights



BRENDAN ENGLOT

ASSOCIATE PROFESSOR

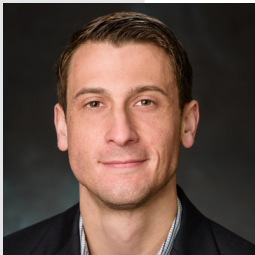
The Stevens Institute for Artificial Intelligence (SIAI) is an interdisciplinary, tech-driven collaboration of engineering, business, systems and design experts working toward solving global problems. Brendan Englot, Associate Professor of Mechanical Engineering has been appointed as the new director of SIAI.



EH YANG

PROFESSOR

Professor Eui-Hyeok Yang was named Distinguished Lecturer of the IEEE Sensors Council for the period of 2023-2025. Yang was selected based upon his academic reputation, expertise, and insights into the future of sensor technology. Professor Yang's work was also selected as a finalist for the "Best Paper Award" at the 23rd IEEE International Conference on Nanotechnology.



NICK PARZIALE

ASSOCIATE PROFESSOR

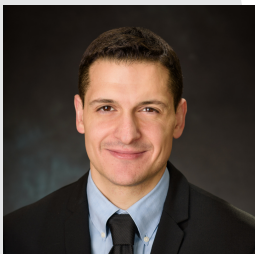
Associate Professor Nick Parziale has been formally elected as an Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA). The prestigious election is awarded to those who have made notable and valuable contributions to the arts, sciences, or technology of aeronautics or astronautics



JASON RABINOVITCH

ASSISTANT PROFESSOR

Assistant Professor Jason Rabinovitch is one of six scientists who have been selected to identify new, unanticipated scientific approaches based on missions to Venus. The newly-established group is a joint committee of NASA and the European Space Agency.



DAMIANO ZANOTTO

ASSOCIATE PROFESSOR

Associate Professor Damiano Zanotto, was honored as Outstanding Associate Editor of IEEE Robotics and Automation Letters (RA-L) at the annual IEEE International Conference on Robotics and Automation. IEEE RA-L is one of the top two leading publications in robotics, with a JCR impact factor of 5.2 and a h5-index of 106 in 2022.

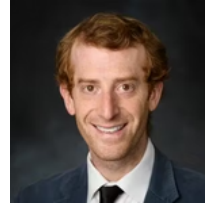


Media Highlights



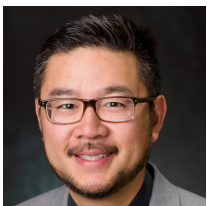
Brendan Englot appeared in the following media reportings:

- IEEE Spectrum’s story “Underwater Robots Get a Boost in Mapping the Ocean”
- ASME’s video “Is This ROV the Future of Underwater Mapping?”
- Lifewire’s story “How This Agile, Soccer-Playing Dog Robot Could Lead to Better Future Robotics”
- Robotics 24/7’s story “A Conversation with Brendan Englot, Stevens Institute’s New Director for Artificial Intelligence”
- CBS Radio’s story “Brendan Englot Discusses Challenges to Search and Rescue Mission for Titan”
- Fox News’ story “New Assets ‘On-Scene’ in Missing Titanic Submarine Search After Canadians Pick Up ‘Underwater Noises’”
- Fox News’ story “What Is an ROV? Deep-Sea Tech Used in Titanic Submarine Search”
- Business Insider’s story “It Would Be Too Risky to Try to Recover the Remains of Those Lost in the Titan Sub Implosion, Underwater ROV Expert Says”

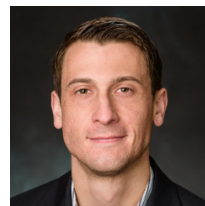


Jason Rabinovitch appeared in the following media reportings:

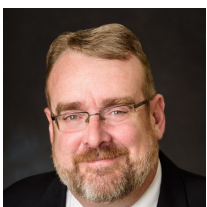
- CNET’s story titled “No, NASA’s Revolutionary Hubble Space Telescope Is Not Dead Yet”
- Europa Press’ story titled “Ingenuity Levanta Mucho Más Polvo en Marte Que Si Volase en la Tierra”
- Digital Trends’ story titled “Ingenuity Helicopter Helps Researchers Learn About Dust on Mars”
- Space.com’s story titled “Mars Helicopter Ingenuity’s Historic 1st Flights Shed Light on Martian Dust Dynamics”



Robert Chang appeared in ASME’s video “Bridging Biology and Mechanical Engineering in Biomanufacturing and Bioprinting.”



Nicholaus Parziale appeared in ASME’s video “How to Study Hypersonic Flight Without Leaving the Ground? This Shock Tunnel Goes to Mach 6.”



Frank Fisher appeared in NJBIZ’s story “Engineering a Solution to a Shortage.”

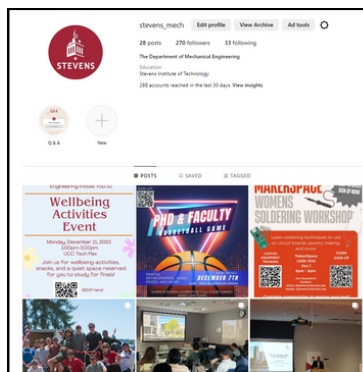
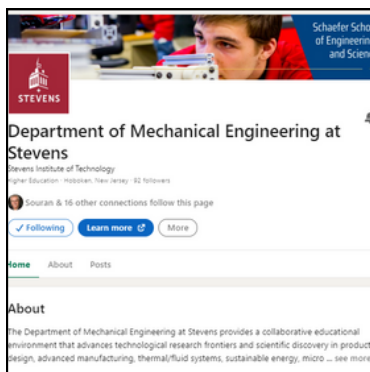
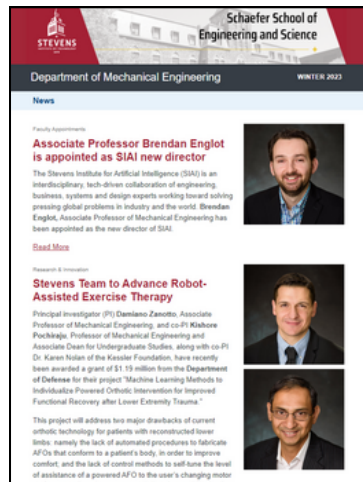
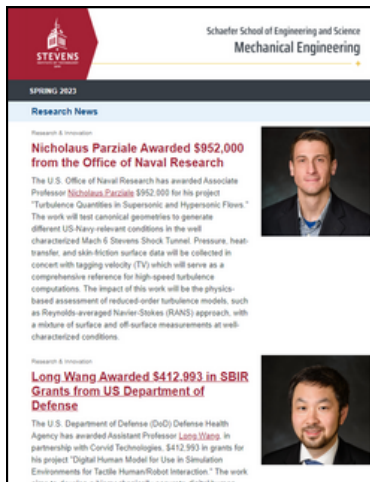
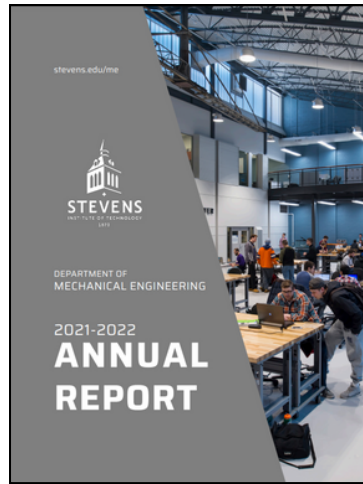


Souran Manoochchri appeared in NJBIZ’s story “How Technology is Transforming Manufacturing Processes.”



Communications

The Mechanical Engineering department maintains robust communication efforts through the distribution of a student newsletter, The Innovator, a department newsletter, with research highlights, news, and events. Additionally, the department utilizes a dedicated SharePoint website as a central information hub, and actively engage with the community through our social media accounts on Instagram, X and LinkedIn.





Student Highlights



ASME STUDENT INTERVIEWS

The American Society of Mechanical Engineers (ASME) visited campus to interview 10 students. Among the interviewees were Kevin Castner, Lauren Cunniff and Sebastian Almonte.



AUTONOMOUS ROBOT COMPETITION

ME undergraduate students Matthew Franklyn and Alex Wu and ECE undergraduate student Elizabeth O'Connor won the second place prize of \$500 at the 2023 Gallois Autonomous Robot Competition.



SENIOR DESIGN AWARD

ME undergraduate students Murray Elinson, Marcel Grygo, Kristina Sunada, Joseph Tsui and Steven Zheng and ECE undergraduate students Anthony Paolantonio and Kalani Pigao received the John Barnes Senior Design Award for their project titled "Djembot."



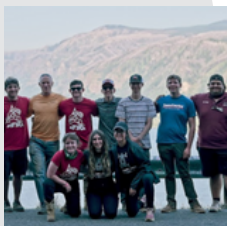
2023 ANSARY ENTREPRENEURSHIP COMPETITION

ME undergraduate students Dolcinea Carroll, Justine Schleuss, Stephen Schmidt, Jack Staub, Aaron Stultz and Peter White won the second prize of \$5,000 at the 2023 Ansary Entrepreneurship Competition for their project titled "No-Till Drill."



DOCTORAL STUDIES AWARD

Lauren Cunniff received the Albert and Mildred Buzzelli M.E. Doctoral Studies Award for 2023-2024 academic year.



STEVENS SAW BAJA TEAM

The Stevens SAE Baja team represents the university in international design competitions each year. This past year the interdisciplinary team of undergraduate students competed in the SAE Baja Competition in Oregon.

CONTACT



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Mechanical Engineering
Department at Stevens



Schaefer School of
Engineering and Science

Department of Mechanical
Engineering

