

Department of Mechanical
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Join the Conversation



BUILDING ON A LEGACY OF BRILLIANCE

UF rises to the #7 public university in the nation and ranked 16th for Mechanical and Aerospace Graduate Programs for two consecutive years.

U.S. News & World Report 2020

MAE by the Numbers

445

BS degrees
awarded

22%

female graduates in
May 2019

35+

PhD degrees
awarded

170+

MS degrees
awarded

84%

federally funded
awards

\$13M

(\$12.7M ASEE)
research expenditures



UF MAE WELCOMES NEW FACULTY



Jing Pan (PhD, Purdue University) specializes in engineering dynamic molecular systems. His research aims to develop DNA-encoded molecular machines for biotechnology applications. He has developed synthetic nano-motors, molecular switches, and artificial cells. He conducted his postdoctoral research at Stanford University School of Medicine, where he demonstrated translational impact of his work in molecular diagnostics and cancer therapeutics.



Matthew J. Traum (PhD, Massachusetts Institute of Technology) is Co-Investigator of the MEchanical engineeRing desiGn pEdagogy (MERGE) Lab with teaching and research focus on best practices for Mechanical Engineering Design instruction. Bringing to UF over 10 years of teaching experience both at the college and high school levels, Dr. Traum was previously the founding chief executive of Engineer Inc., an engineering education technology company that designs STEM lab equipment and curricula.



Andrés Rubiano (PhD, University of Florida) currently teaches Mechanical Engineering Design. His work experience includes cardiovascular occluders design, countercurrent fixed-bed gasification of biomass, biomechanical analysis for robotics applications, thermal-structural FEA for mass produced polymer structures, and most recently, organs-on-a-chip at the U.S. Food and Drug Administration.

UF Herbert Wertheim
College of Engineering
Department of Mechanical
& Aerospace Engineering
UNIVERSITY of FLORIDA

PROMOTIONS

Faculty Promotions to Full Professorship

Dr. Anil Rao

Dr. Prabir Barooah

Dr. Lawrence Ukeiley

Dr. Saeed Moghaddam

AWARDS

Congratulations to our new ASME Fellows:

Dr. Thomas Jackson

Dr. Riccardo Bevilacqua

Dr. John Schueller

Dr. S.A. Sherif

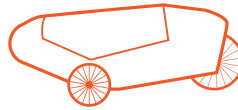
Dr. Raphael Haftka

STUDENT SUCCESS



1st Place

Student Design Competition
Two Years in a Row



8th Place

Human Powered
Vehicle Challenge



5th Place

Innovative Additive
Manufacturing 3D Challenge

RESEARCH HIGHLIGHTS

Flying CubeSat

The ADAMUS and NCR laboratories, led respectively by Dr. Riccardo Bevilacqua and Dr. Warren Dixon, have been selected by NASA's CubeSat Launch Initiative (CSLI) to fly a nanosatellite (also known as CubeSat) within the next 2 years. PhD students Sanny Omar (NASA Fellow) and Camilo Riaño (Fulbright Fellow), along with several undergraduate researchers, are working on the spacecraft assembly and the onboard guidance, navigation and control. This effort has been supported by NASA Kennedy Space Center and Florida's Space Research Initiative (SRI).

SwampSat II Mission

SwampSat II, led by Dr. Norman Fitz-Coy and developed by the students from the Space Systems Group, launched on November 2, 2019 from Wallops Flight Facility, VA as part of NASA's Educational Launch of Nanosatellites (ELaNa) 25 project on the Cygnus NG-12 mission. The Cygnus vehicle has docked to the International Space Station (ISS) and will complete its resupply mission over the next few months. Dr. Robert Moore provided a unique mission opportunity and together we developed our novel VLF antenna-receiver system. Subsystem leads, Bungo Shiotani (MAE, Systems), Ralen Toledo (MAE, Payload), Hasnaa Khalifi (MAE, Attitude Determination and Control), Joe Kleespies (ECE, Avionics), and Jackson Cagle (BME, Software) were instrumental in the design and realization of the satellite.

Pioneering New Autonomy Capabilities

A team led by Dr. Warren Dixon was selected as the winner of the "Air Force Office of Scientific Research (AFOSR) Center of Excellence for Assured Autonomy in Contested Environments." The sponsorship will cover an initial two-year period with \$2 million, with optional extensions up to a total of six years and \$6 million. Dr. Dixon and his colleagues will focus on fundamental research to enable cyber secure robotic systems with new capabilities for U.S. Combat Resources.