

MECHANICAL ENGINEERING AND AEROSPACE ENGINEERING

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Professors Abdelkefi, Chaitanya, Frankel, Y. Park; **Associate Professors** Drach, Garcia, Gross, Kota, Kuravi, Lee, Shashikanth, Shu, Sun; **Assistant Professors** Alaie, Haghshenas-Jaryani, Liu, Wang; **Professors of Practice** Waller, Choo

A. Abdelkefi, Ph.D. (Virginia Tech)– Nonlinear dynamics, energy harvesting, aeroelasticity, fluid-structure interaction, vibration and controls; S. Alaie, Ph.D. (UNM)– Implantable microsensors, advanced manufacturing and medical devices; V. Chaitanya, Ph.D. (Johns Hopkins)– Materials characterization, materials degradation, corrosion, electrochemistry, failure analysis, energy, bioengineering, additive manufacturing, food-energy-water nexus; V. Choo (Liverpool)-Composite materials, computer applications; B. Drach, Ph.D. (New Hampshire)– Composite materials, additive manufacturing, biomechanics; J. Frankel, Department head, Ph.D. (Virginia Tech)– Heat transfer, hypersonics; G. Garcia, Ph.D. (Texas A&M)– Damage detection, experimental mechanics, vibration; A. Gross, DEngr. (Aachen)– Computational fluid dynamics, fluid mechanics, aircraft design and propulsion, unmanned aerial systems, wind energy; M. Haghshenas-Jaryani, Ph.D. (UT Arlington)– Soft robotics, bio-inspired and bio-mimetic robotics, dynamics and control; K. Kota, Ph.D. (Central Florida)– Heat transfer, functional surfaces, surface-environment interactions, thermal management, space transportation, engineering in public health and medicine; S. Kuravi, Ph.D. (Central Florida)– Renewable energy, thermal systems, concentrating solar power, thermal desalination, energy storage; Y. Lee, Associate Department Head, Ph.D. (Illinois Urbana-Champaign)- Nonlinear dynamics, fluid-structure interactions; Q. Liu, Ph.D. (Universidad Politécnica de Madrid, Spain)- Computational fluid mechanics, modal analysis, data science, rarefied gas dynamics and multiphase flow; Y. Park, Ph.D. (Iowa)– Design optimization, computational solid mechanics, atomistic and molecular simulations; B. Shashikanth, Ph.D. (Southern California)– Fluid mechanics, dynamical systems, controls; F. Shu, Ph.D. (Purdue)– Experimental fluid dynamics, biofluidics, microfluidics, flow control, and hypersonics; L. Sun, Ph.D. (Brigham Young)– Unmanned systems, towed cable systems, sensor network, cooperative estimation and control, optimal control; J. Waller, Ph.D. (U Akron) - Nondestructive evaluation, additive manufacturing and materials; Y. Wang, Ph.D. (Penn State)– Computational fluid dynamics, multi-phase & reacting flows, aerospace propulsion, bio/micro-Fluidics.