

Assistant or Associate Tenure Track Faculty Position
Department of Mechanical and Aerospace Engineering

The Department of Mechanical and Aerospace Engineering (<https://mae.osu.edu/>) at The Ohio State University invite applications for a tenure track assistant or associate professor faculty appointment in the area of nonequilibrium thermodynamics.

University Overview: [The Ohio State University](#) prides itself on being model 21st-century public, land grant, research, urban, community engaged institution. Ohio State is a top-20 public university, enrolling over 60,000 students, and its Ohio State Wexner Medical Center is one of America's leading academic health centers and recently ranked No. 4 on Forbes' list of best U.S. employers for diversity. (include link) The Ohio State University is in Columbus, Ohio. As the nation's 14th largest city, Columbus invites and embraces cultural and economic diversity. Read more at [Experience Columbus](#).

College Overview: The [College of Engineering](#) offers 14 undergraduate and 13 graduate programs in 12 departments or centers, as well as, three undergraduate and four graduate degrees in the Knowlton School of Architecture, to approximately 10,000 students. The college has recently expanded its degree offerings with a BS in Engineering Technology available on the regional campuses of the university. The college is one of the largest in the field with 405 faculty. The college has 14 National Academy of Engineering members and numerous members of societies and award recipients. In fiscal year 2020, the college had nearly \$138.5 million in externally sponsored research expenditures. Industry R&D expenditures for the College of Engineering in fiscal year 2020 totaled nearly \$44 million.

Columbus Overview

As the nation's 14th largest city, Columbus invites and embraces cultural and economic diversity. We are home to Fortune 500 companies, world-class research institutes, top-ranked hospitals, and the state's capitol. The city was named the 2015 "Intelligent Community of the Year" by the Intelligent Community Forum, called a "Midwestern style capital" by the New York Times and one of the top ten "Best Places to Live" by Money Magazine. Columbus is home to multiple dynamic arts districts. Read more at [Experience Columbus](#).

Department Overview:

The Department of Mechanical and Aerospace Engineering is one of the largest departments in the College of Engineering at The Ohio State University. We are the home to nearly 80 faculty and over 35 dedicated staff members. Approximately 1900 undergraduates are pursuing a degree in either Mechanical or Aerospace Engineering through rigorous programs that feature hands-on, project-based learning. Nearly 300 graduate students are seeking a degree in either Mechanical, Aerospace, or Nuclear Engineering. Our innovative and creative faculty adhere to the philosophy that true innovation depends upon the cooperation of academia, industry, and government working together to advance the goals of science and technology. Our students and faculty regularly collaborate with colleagues in other departments in the College of Engineering and with multiple other colleges across campus. Strong research relationships exist with the Air Force Research Laboratory, NASA Glenn Research Center, GE Aviation, Honda of America, and numerous other industrial partners. Department faculty have over \$26 million in sponsored research expenditures in areas such as advanced transportation systems (automotive and aerospace), energy and environmental quality, materials and manufacturing, micro- and nanotechnology, nuclear energy, and bioengineering while providing leadership for the Center for Automotive Research, The NSF IUCRC Smart Vehicle Concepts Center, the Aerospace Research Center, the Simulation Innovation and Modeling Center, and the Nuclear Reactor Laboratory.

TIU/Position Overview:

The Department of Mechanical and Aerospace Engineering invites applications for a tenure-track faculty position in the interdisciplinary fields of nonequilibrium hypersonic flows, high-enthalpy reacting flows, low-temperature plasmas, and advanced laser diagnostics. The successful candidate is expected to augment the experimental capabilities of the Nonequilibrium Thermodynamics Laboratories, develop a highly visible research program, and expand the collaboration with the Aerospace Research Center, Turbulence and Combustion Research Laboratory, and High-Fidelity Computational Multi-Physics Laboratory. Forging collaboration with the research groups in the fields of Physical Chemistry (Department

of Chemistry and Biochemistry) and Atomic, Molecular, and Optical Physics (Department of Physics) is of particular importance. The successful candidate will teach a range of undergraduate and graduate courses in the areas of thermofluids and optical diagnostics, and mentor students in Mechanical & Aerospace Engineering and potentially other graduate programs.

Required Qualifications:

Applicants are required to hold a doctoral degree in aerospace or mechanical engineering, or in a closely related field, or have equivalent experience.

Desired Qualifications:

- Experimental research in nonequilibrium reacting flows, low-temperature plasmas, and advanced laser diagnostics, with applications to aerothermodynamics, combustion, propulsion, and plasma chemistry
- Creating synergy and developing cross-field collaboration in the emerging high-impact research fields
- Potential for, or the evidence of, the ability to secure federal support for innovative research.
- A commitment to interdisciplinary education and collaborative research
- A track-record of, and strong commitment to, cultivating an equitable, diverse, and inclusive environment, including in faculty and staff development, hiring, and student recruitment

How to Apply:

Interested applicants should submit an application in Academic Jobs Online:

<https://academicjobsonline.org/ajo/jobs/19735>. Please include a cover letter, curriculum vita, diversity statement (*describe experiences, current interests or activities, and/or future goals that promote a climate that values diversity and inclusion in one or more of the areas of scholarship, instruction and outreach*), statements of teaching and research interests, and names and contact information of three references for applicants at the rank of assistant professor) or 5 references for applicants at the rank of associate professor.

The Ohio State University is committed to establishing a culturally and intellectually diverse environment, encouraging all members of our learning community to reach their full potential. We are responsive to dual-career families and strongly promote work-life balance to support our community members through a suite of institutionalized policies. We are an NSF Advance Institution, a member of the Ohio/Western Pennsylvania/West Virginia Higher Education Recruitment Consortium (HERC) and have an excellent partner in The Ohio State University Wexner Medical Center.

The Ohio State University is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to age, ancestry, color, disability, ethnicity, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, gender, sexual orientation, pregnancy, protected veteran status, or any other bases under the law.

Application deadline:

Review of applications will begin on September 27, 2021 and continue until the position is filled.