



Assistant Professor in Mechanical Engineering

Applications are invited for a tenure-track Assistant Professor position at the University of Maine with a joint appointment of 75% in the Department of Mechanical Engineering and 25% in the prestigious Advanced Structures and Composites Center (ASCC). This is a 50% teaching, 50% research position in mechanical engineering and requires active engagement in service to the University, the State, and the profession. The successful candidate will be expected to lead an externally-funded research program that will be primarily associated with the Green Engineering and Materials (GEM) initiative at the ASCC, develop and teach undergraduate and graduate courses, advise and mentor students, publish and present scholarly works, participate in service activities, and demonstrate commitment to diversity, equity and inclusion. This position is one of four cluster hires in the area of Green Engineering and Materials.

Required Qualifications:

- A Ph.D. in mechanical engineering, manufacturing engineering, or a closely related field by date of hire.
- A well-documented record of high-quality research or industry experience in control of complex systems, robotics, or smart manufacturing.
- Evidence of a strong potential for obtaining extramural funding and supporting graduate students.
- Evidence of a strong potential for teaching excellence, and commitment to diversity, equity, and inclusion in advancing both undergraduate and graduate education.

Preferred Qualifications:

- Desired areas of expertise include, but are not limited to: Design and optimization of large-scale additive manufacturing tools, processes and systems; sustainable manufacturing; industrial automation; self-aware machine/collaborative robots; controls co-design and artificial intelligence applied to additive manufacturing automation; digital twin and simulations in manufacturing; industry 4.0 and Industrial Internet of Things.
- Excellent communication skills and teamwork ability.

The Department of Mechanical Engineering has an ABET accredited BS program with an undergraduate enrollment of over 480 students, the largest in the University of Maine System. The Department's MS and PhD degree programs have a graduate enrollment of over 60 students, the largest in the College of Engineering. In addition to the undergraduate concentration in Aerospace, the Department offers graduate concentrations in Aerospace, Offshore Wind Energy, Robotics & Mechantronics, and Smart Manufacturing. Faculty also teach courses which support interdisciplinary minors in several areas including Robotics and Renewable Energy Engineering, as well as a certificate in Composite Materials and Structures. The faculty are very active in research and scholarly pursuits with over \$3M in new research awards in just the first five months of FY22. Starting in Fall 2022, the Department will be housed

in the Ferland Engineering Education and Design Center, a new 115,000 sf state-of-the-art teaching and laboratory facility on the UMaine campus in Orono.

With 260 faculty, staff and students housed in a 100,000 sf lab, the ASCC is the largest university-based research Center in the state of Maine. The ASCC is planning construction of the GEM lab, a 70,000 sf addition which will house the research Factory of the Future (FoF). The FoF will be a first-of-its-kind testbed for digital flexible manufacturing. The FoF will include AI-enabled arrays of additive, subtractive, and hybrid synchronous robotic manufacturing systems, with Q/A Q/C enabled by real-time sensing and High-Performance Computing (HPC). Work inside of the FoF will include research on the manufacturing and testing of large new systems made from bio-based and other advanced materials, focusing on a unique integration of highly flexible (e.g., robotic, interchangeable end effectors) digital manufacturing processes with non-contact sensing and real-time, closed-loop feedback from the HPC system.

As a former NSF ADVANCE institution, the University of Maine is committed to diversity in our workforce and to dual-career couples. It is our intention to create an environment that is inclusive of all individuals. Therefore, UMaine aspires to become a more diverse community in order to extend its enriching benefits to all participants. An essential feature of our community is an environment that supports exploration, learning, and work free from bias and harassment, thereby improving the growth and development of each member of the community.

About the University

The University of Maine is a community of more than 11,700 undergraduate and graduate students, and 2,500 employees located on the Orono campus, the regional campus in Machias, and throughout the state. UMaine is the state land and sea grant university and maintains a leadership role as the System's flagship university. As a result, it is dedicated to providing excellent teaching, research, and service at the university, state, and national levels. Further information about UMaine can be found at <https://umaine.edu/>

The University of Maine offers a [wide range of benefits](#) for employees including, but not limited to, tuition benefits (employee and dependent), comprehensive insurance coverage including medical, dental, vision, life insurance, and short and long term disability as well as retirement plan options. As a former NSF ADVANCE institution, the University of Maine is committed to diversity in our workforce and to dual-career couples.

UMaine is located in beautiful Central Maine. Many employees report that a primary reason for choosing to come to UMaine is quality of life. Numerous cultural activities, excellent public schools, safe neighborhoods, high quality medical care, little traffic, and a reasonable cost of living make the greater Bangor area a wonderful place to live. Learn more about what the Bangor region has to offer [here](#).

Employees in the University of Maine System are required to comply with UMS COVID protocols which currently include, but are not limited to, being vaccinated, obtaining a qualified vaccination exemption, and/or participating in regular COVID testing. Further information can be found [here](#).

For more information and to apply for this position, go to UMaine HireTouch <https://umaine.hiretouch.com>. (Position ID 73344)

Applicants should submit via HireTouch (1) a cover letter which describes your experience, interests, and suitability for the position, (2) a resume/curriculum vitae, (3) teaching philosophy, (4) research statement, and (5) contact information for three professional references, including postal and email addresses and phone numbers. Review of applications will begin on March 1, 2022 and will continue until the position is filled.

You will also need to submit the affirmative action survey, the self-identification of disability form, and the self-identification of veteran status forms. Incomplete application materials cannot be considered. Materials received after the initial review date will be reviewed at the discretion of the University.

The University of Maine is an EEO/AA employer, and does not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status, gender expression, national origin, citizenship status, age, disability, genetic information or veteran's status in employment, education, and all other programs and activities. The following person has been designated to handle inquiries regarding non-discrimination policies: Amie Parker, Director of Equal Opportunity, 101 North Stevens Hall, University of Maine, Orono, ME 04469-5754, 207.581.1226, TTY 711 (Maine Relay System).