

Full Professor Position with Emphasis on Sustainable Advanced Manufacturing Process Design and Control



DEPARTMENT OF
MECHANICAL, AEROSPACE &
BIOMEDICAL ENGINEERING

The Department of Mechanical, Aerospace and Biomedical Engineering (MABE) at The University of Tennessee, Knoxville, is seeking exceptionally qualified candidates for a tenured faculty appointment at the rank of Full Professor in mechanical engineering.

Manufacturing is expected to become the single largest funding area at multiple federal agencies due to existing and future supply chain issues related to all aspects of our economy and defense. The global climate/energy challenge requires incorporation of sustainability (via energy and materials reduction) into all manufacturing processes. This optimization will be achieved through emerging artificial intelligence (AI) and physics-informed algorithms applied to traditional (e.g., casting, forging, and machining) and emerging (hybrid = additive + metrology + subtractive) manufacturing processes. The ideal candidate will have established expertise and an active, leading research program in sustainability, advanced manufacturing, and/or smart process design & control. For example, machine learning-enabled process control for advanced manufacturing of metal, polymer, and composite structural materials to help usher in a new generation of sustainable, high-performance hierarchical materials. The candidate is expected to pursue and leverage opportunities for multidisciplinary collaboration and funding across the College of Engineering, the university, and with Oak Ridge National Laboratory through the Institute for Advanced Materials and Manufacturing ([IAMM](#)), the University of Tennessee - Oak Ridge Innovation Institute ([UT-ORII](#)), and the Bredesen Center for Interdisciplinary Research and Graduate Education ([Bredesen Center](#)), among others.

The Tickle College of Engineering (tickle.utk.edu) is undergoing a period of substantial growth in both physical infrastructure and research expenditures as it seeks to become a Top 25 ranked public institution. The college presently has eight departments with 183 faculty members, 3,529 undergraduates and 714 doctoral students. The department (mabe.utk.edu) currently has 40 tenured/tenure track faculty members and enrolls some 1,549 undergraduate and 254 graduate students.

Applicants must hold a doctorate degree in mechanical engineering or a closely related field and be eligible for appointment at the rank of full Professor. The Knoxville campus of the University of Tennessee is seeking candidates who have the ability to contribute in meaningful ways to the diversity and intercultural goals of the University.

Review of applications will begin December 15, 2022 and will continue until the position is filled. The anticipated start date of the new position is August 1, 2023. Salary is commensurate with the position and experience of the applicant. Applications should be submitted through Interfolio at <https://apply.interfolio.com/117277>, and must include (1) a concise letter of intent outlining the applicant's research and teaching goals and

objectives; (2) a comprehensive curriculum vitae; (3) a research statement; (4) a statement on teaching interests; (5) a diversity statement; and (6) the names, addresses, and telephone numbers for five references. Inquiries should be addressed to the Search Chair, Associate Professor Brett Compton at MabeMEsearch2023@mabe.utk.edu.

The University of Tennessee is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services. All qualified applicants will receive equal consideration for employment without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, physical or mental disability, or covered veteran status.