UNIVERSITY OF SOUTH CAROLINA
College of Engineering and Computing – Department of Mechanical Engineering

Multiple Open-Rank, Tenure or Tenure-Track Faculty Positions

The College of Engineering and Computing at the University of South Carolina is in the process of expanding its tenured and tenure-track faculty. As part of this growth, the Department of Mechanical Engineering seeks dynamic, new, faculty members at all ranks for Fall 2018. Applicants should possess a Ph.D. degree in mechanical, nuclear or aerospace engineering or a closely-related field, a demonstrated record of research accomplishments, and an outstanding capacity for teaching undergraduate and graduate courses. The successful candidate will be expected to develop internationally-recognized, externally-funded research programs that complement existing departmental strengths. We also desire candidates whose expertise aligns with vital cross-cutting initiatives identified by the College. For details on these initiatives, please visit: http://cec.sc.edu/employment.

The Department of Mechanical Engineering houses Nuclear and Aerospace Engineering Programs, therefore, the department will also recruit faculty for these programs. In alignment with these initiatives and to continue to build on our existing nationally-recognized programs, research themes of particular interest to the Department include:

- **Energy & Water**
  enhanced heat transfer, thermo-electric power, drive trains for wind-power, thermo-solar materials for energy, aero-thermal, propulsion, materials for harsh environments, nuclear power, nuclear fuels and materials, nuclear fuel cycle, and nuclear safeguards

- **Smart & Agile Manufacturing**
  metallic materials processing, materials processing with an emphasis on composites, additive manufacturing, solid mechanics including computational & experimental methods, aerospace vehicle design, aerospace structures and materials, and process simulation

- **Smart & Connected Communities**
  structural health monitoring and predictive maintenance, structural design, smart or new sustainable development

The Department also supports the Biomedical Engineering program, and prospective faculty with expertise in this area may apply via: http://cec.sc.edu/jobs/BMED.

Review of applications will begin in November, 2017 and continue until positions are filled. Expected start date is August, 16, 2018. Interested applicants will apply online at http://cec.sc.edu/jobs/EMCH with: (1) a letter of intent, (2) curriculum vitae, (3) a concise description of research plans, (4) a teaching plan, and (5) names & contact information of 3-5 references.

Questions about the departmental search may be directed to:

Department of Mechanical Engineering
Jamil A. Khan, Professor and Chair
khan@cec.sc.edu; Phone: 803-777-1578

The University of South Carolina is an affirmative action, equal opportunity employer, and does not discriminate in educational or employment opportunities or decisions for qualified persons on the basis of race, sex, gender, age, color, religion, national origin, disability, genetics, sexual orientation or veteran status. Minorities and women are encouraged to apply. USC is responsive to the needs of dual career couples.
Department Overview

The Department of Mechanical Engineering at the University of South Carolina, Columbia, is one of the largest and most prominent in the state as well as the holder of a high national reputation. The department offers Bachelor of Science (BS), Master of Science (MS), and Doctor of Philosophy (PhD) degrees in Mechanical Engineering. It also offers Master of Science (MS), and Doctor of Philosophy (PhD) degrees in nuclear engineering, and Master of Science in Aerospace Engineering. Undergraduate Minors in Aerospace Engineering and Nuclear Engineering are also offered. The department is also in the process of starting a Bachelor of Science (BS) in aerospace engineering in the coming year – which will be the only aerospace engineering program in the state of South Carolina.

Current research specialization in the department include materials and structures, fracture mechanics, structural health monitoring, condition based maintenance, composite materials, nuclear materials and fuels, nuclear engineering, enhance heat transfer at micro and nano-scales, energy science spanning combustion, fuel cells, propulsion, plasma and heat transfer.

The department currently has 37 tenured-tenure track faculties and has an enrollment of 860 undergraduates and approximately 150 graduate students. The faculty is highly recognized with three National Science Foundation CAREER Award recipients, 6 ASME Fellows, 1 ASEE Fellow, 2 ANS Fellow and 3 SEM Fellows, and 11 University of South Carolina Teaching Award winners. The department has a current annual research expenditure of ~ 12 million dollars and the scholarly activities of the faculty resulted in 160 journal publications in the 2016 – 2017 academic year.

The mission of the ME department is to be a flagship engineering department that benefits all the people of South Carolina and global society by making a profound impact on current and emerging areas in science and technology, fostering exemplary, synergistic multidisciplinary research and education programs in close partnership with industry and government. In fulfilling its overall mission the department hopes to graduate highly skilled, ethical engineers and provide them with an environment for innovative professional and scholarly development during their stay so that they can thrive in a rapidly changing technological world and be future leaders in their profession and society.