

Title/Dept: Assistant Professor in Materials Science and Engineering

Research Focus: Computational Materials Science and Data Science of Manufacturing and Materials Processing

The Department of Materials Science and Engineering (MSE) at the University of California, Irvine (UCI) invites applications for a tenure-track faculty position in the field of computational materials science and/or data science applied to manufacturing and materials processing. We are seeking applicants with proven research experience and interests in some of or all the following areas:

- multi-scale multi-physics modeling of processing parameters/microstructure/properties relationships in materials processes, including atomistic (MD and/or DFT), Monte Carlo, coarse grained, phase field, and multi-scale modeling of material evolution;
- computational design of materials for manufacturing;
- materials informatics applied to manufacturing and/or processing of materials, including methods such as artificial intelligence, machine learning, stochastic design, topology optimization, closed-loop control of processes.

This position is part of a cluster hire in Science and Engineering of Advanced Manufacturing Processes. Manufacturing is rapidly evolving and becoming an incredibly multidisciplinary subject, at the interface of materials science and engineering, mechanical engineering, chemical engineering, nanotechnology, computational science, big data, design and optimization, cybersecurity, biology and medicine. This dramatic change from even 10 years ago presents both a challenge for traditional academic manufacturing programs as well as an incredible opportunity for novel players in this field. With a strong presence in several of the fields mentioned above, and enormous investment in infrastructure that has resulted in the establishment of the **Irvine Materials Research Institute (IMRI)** and the **Institute for Design and Manufacturing Innovation (IDMI)**, UCI is uniquely positioned to rapidly assume a major role in materials science and advanced manufacturing research.

Applicants are expected to have received a doctorate degree from an accredited university in a relevant engineering or applied science discipline, such as Materials Science and Engineering or Mechanical and Aerospace Engineering. Successful candidates will develop a vigorous externally funded research program, maintain a strong publication record, advise and mentor students and postdoctoral scholars, provide outstanding teaching at the undergraduate and graduate levels, and contribute their leadership and innovative thinking toward promoting excellence in the materials science and engineering programs within the MSE department, school and university, as well as providing service and leadership within the MSE professional community at large. Successful candidates will also be expected to facilitate the recruitment and success of students (especially those from underrepresented minorities) pursuing graduate degrees in related programs.

Applications must include a cover letter, three statements that describe research, teaching and service interests, respectively, a curriculum vitae, and three letters of recommendation. A separate statement that addresses the applicant's past and/or potential contributions to diversity, equity and inclusion must also be included in the application materials. Please limit these statements to two pages each. **Applications must be received by December 15, 2021 to receive full consideration.** The position will remain open until filled. Apply online at <https://recruit.ap.uci.edu/JPF07164>.

Founded in 1965, the **Samueli School of Engineering** educates more than 4,600 students with an integrative approach that blends fundamentals, research and hands-on experience. The school includes six academic departments, where faculty conduct world-class research around the four broad themes of environmental sustainability, human health, materials and manufacturing, and mobility and communications. The **Department of Materials Science and Engineering** is a young and enthusiastic department that hosts the **Center for Complex and Active Materials**, a recently awarded NSF MRSEC. The Department's faculty members are conducting cutting-edge multidisciplinary research in five thrust areas: advanced and additive manufacturing; advanced materials characterization; biomaterials, bioinspired and self-assembled materials; energy materials and sustainability; materials for structural applications and extreme environments; modeling, theory and computational approaches to materials science and engineering. The Department offers a well-established, accredited bachelors degree program in materials science and engineering and an undergraduate minor in materials science and engineering, as well as both masters and doctoral degree programs in materials science and engineering.

The **University of California, Irvine** is part of the premier public university system in the world. UCI is a member of the Association of American Universities (AAU) and one of its only two Minority Serving Institutions, is ranked as a top ten public university by U.S. News and World Report, and was identified by the New York Times as No. 1 among U.S. universities that do the most for low-income students. UCI is located in Orange County, 4 miles from the Pacific Ocean and 45 miles south of Los Angeles. Irvine is one of the safest communities in the U.S. and offers a very pleasant year-round climate, numerous recreational and cultural opportunities, and one of the highest-ranked public-school systems in the nation.

The University of California is committed to creating and maintaining a community dedicated to the advancement, application, and transmission of knowledge and creative endeavors through academic excellence, where all individuals who participate in University programs and activities can work and learn together in a safe and secure environment, free of violence, harassment, discrimination, exploitation, or intimidation. With this commitment as well as a commitment to addressing all forms of academic misconduct, UC Irvine conducts institutional reference checks for candidates finalists to whom the department or other hiring unit would like to extend a formal offer of appointment into Ladder Rank Professor or Professor of Teaching series, at all ranks (i.e., assistant, associate, and full). The institutional reference checks involve contacting the administration of the applicant's previous institution(s) to ask whether there have been substantiated findings of misconduct that would violate the University's Faculty Code of Conduct. To implement this process, UC Irvine requires all candidates of Ladder Rank Professor or Professor of Teaching series, at all ranks (i.e., assistant, associate, and full) to complete, sign, and upload the form entitled "Authorization to Release Information" into AP RECRUIT as part of their application. If the candidate does not include the signed authorization to release information with the application materials, the application will be considered incomplete. As with any incomplete application, the application will not receive further consideration. Although all applicants for faculty recruitments must complete the entire application, only finalists (i.e., those to whom the department or other hiring unit would like to extend a formal offer) considered for Ladder Rank Professor or Professor of Teaching series, at all ranks (i.e., assistant, associate, and full) positions will be subject to institutional reference checks.

The University of California, Irvine is an Equal Opportunity/Affirmative Action Employer advancing inclusive excellence. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, protected veteran status, or other protected categories covered by the UC nondiscrimination policy.