

Tenure-Track or Tenured Faculty Position in Optimization and Stochastic Modeling

The High-performance Materials Institute (HPMI) at the Florida State University invites applications for a tenure-track or tenured faculty position in the field of Optimization and Stochastic Modeling at the Associate Professor level or close to promotion to that level.

The candidate will be expected to work closely with faculty members of diverse technical backgrounds that currently work at HPMI. The High-Performance Materials Institute is a major multidisciplinary research institute at Florida State University. HPMI is a leading world-class center of excellence for research, education and commercialization in the fields of advanced composites, multifunctional nanomaterials, advanced manufacturing and process modeling and optimization. Currently, HPMI has 17 affiliated faculty members, 5 postdoc fellows and more than 90 students, including 40 PhD students from Industrial and Manufacturing Engineering, Electrical & Computer Engineering, and Materials Science and Engineering. With support from the University and the State, as well as grants from federal and industrial entities, HPMI has developed comprehensive research facilities for advanced composites, nanomaterials and advanced manufacturing as well as quality control and process modeling/optimization. HPMI is housed in the 47,000 ft² Materials Research Building, which contains about 60 equipment items valued at almost \$10M. Currently, HPMI is conducting research on 18 active research projects, 6 of which are NSF sponsored projects including scalable nanomanufacturing, REU and GOALI projects.

Qualifications: We are particularly interested in candidates with strong methodological background in optimization and stochastic modeling, and a desire to apply the methodology to problems in health care, energy systems and advanced manufacturing. Applicant must hold a doctorate with four or more years of the academic experience in Industrial Engineering, Operation Research, Systems Engineering or related field, with research and teaching excellence in these areas. The position will involve teaching optimization courses at undergraduate and graduate levels, and performing interdisciplinary and synergistic research with the existing FSU research centers. Therefore, desired qualifications include the capability in teaching undergraduate and graduate level optimization courses (linear, nonlinear, convex and/or combinatorial optimization, Markov decision processes and applied probability), a commitment to a collaborative, interdisciplinary approach to research and teaching, and a strong record of research papers and grants.

Expected Synergy with current FSU centers: We are particularly interested in candidates demonstrating the capability to collaborate within and outside our associated centers including the Aerospace, Mechatronics and Energy Center (AME), the Applied Superconductivity Center (ASC), the Center for Advanced Power Systems (CAPS), the Florida Center for Advanced Aero-Propulsion (FCAAP), the National High Magnetic Field Laboratory (NHMFL) and the Energy & Materials Initiative team in various projects, including:

- Optimizing processes for scaling-up nanomaterial production,
- Optimizing statistical inference with big data,
- Optimizing control in autonomous intelligence, and
- Optimizing the smart grid configuration and design.

All applications must be follow the instructions specified at <http://research.fsu.edu/ads/strategic-faculty-recruitment>.