



## FACULTY POSITIONS AVAILABLE

### Cyber-Physical Systems and Data-Driven Modeling, Faculty Positions

*Department of Mechanical Engineering and Materials Science, University of Pittsburgh*

The Department of Mechanical Engineering and Materials Science (MEMS) at the University of Pittsburgh (Pitt) invites applications for a **tenure track position in the areas of Cyber-Physical Systems and Data-Driven Modeling**. We are seeking to fill a position in each of these areas. Successful applicants should have the ability to build an externally funded research program, as well as contribute to the teaching mission of the MEMS department. Applicants should have a PhD or ScD in mechanical engineering or a related field. Applicants with outstanding track records at the associate professor and full professor levels are also encouraged to apply, but the focus will be at the assistant professor level.

**Cyber-Physical Systems Position:** Expertise is particularly sought in one or more of the following areas: dynamic systems and control, modeling and simulation, networked control systems, algorithm and system design, sensors and actuators, signal processing, big data and analysis, the Internet of Things, and the Industrial Internet. We are seeking candidates who have strong interdisciplinary interests and who can collaborate across engineering disciplines; although, a primary focus on mechanical engineering is essential. Candidates should clearly explain how their research fits with CPS and how it spans the physical and cyber domains.

**Data-Driven Modeling Position:** Expertise is particularly sought in one or more of the following areas: data-driven discovery of dynamical systems; physics-informed machine learning; data-driven predictive modeling; and multi-fidelity analysis. Candidates with research applications in the areas of data assimilation and forecast, PDE-constrained optimization, control and reinforcement learning and modern computational methodologies are especially encouraged.

We are seeking candidates who have strong interdisciplinary interests and who can collaborate across engineering disciplines, but have a primary focus on mechanical engineering.

The MEMS department currently has 30 tenured or tenure-track faculty members who generate over \$8 million in annual research expenditures. The department maintains cutting-edge experimental and computational facilities in its five core research competencies: advanced manufacturing and design; materials for extreme conditions, biomechanics and medical technologies; modeling and simulation; energy system technologies; and quantitative and in situ materials characterization.

The successful candidate for this position will benefit from the resources, support, and a multidisciplinary research environment fostered by many interdisciplinary centers, including the University of Pittsburgh's Center for Research Computing (<http://www.crc.pitt.edu>).

Qualified applicants should submit their applications through **Interfolio at the following link: <https://apply.interfolio.com/57686>**.

The application should include the following materials in pdf form: a curriculum vitae, a statement of research and teaching plans, and name and contact information of at least three references. **Review of applications will begin on January 1, 2019, and continue until the position is filled.**

Candidates from groups traditionally underrepresented in engineering are strongly encouraged to apply. The candidate should be committed to high-quality teaching for a diverse student body and to assisting our department in enhancing diversity.