



## Research Position Available in System Modeling and Control

The Ohio State University Simulation Innovation and Modeling Center (SIMCenter) is seeking highly motivated researchers to join our organization at all levels of experience. Applicants are expected to have experience applying computational methods to solve applied problems; working with industry; writing reports, presentations, technical publications, and proposals; and presenting technical material to sponsors or at conferences. The position is expected to be a two-year appointment. Successful candidates will be considered for long-term employment within SIMCenter or with academic departments.

### Required Skills:

The position requires a PhD and experience with one or more the following areas:

- Multi-physics modeling and simulation of vehicle components and sub-systems (transmissions, suspensions, brake systems, actuators, etc.)
- Dynamic modeling of components using 1-D through 3-D techniques including multi-body dynamics and finite element analyses
- Familiarity with noise and vibration phenomena
- Familiarity with common commercial dynamic simulation, and control system analysis packages
- Experience in FMI linking of models is desired
- Experimental validation of vehicle system dynamics or control models is desired
- Nonlinear system characterization and control methods is desired

### About SIMCenter:

The Simulation Innovation and Modeling Center, or SIMCenter, is a newly formed interdisciplinary research center for the virtual simulation and modeling of product performance and manufacturing processes in the College of Engineering. The SIMCenter researches and applies computer-aided engineering techniques to the design and manufacturing of advanced product and production concepts. Located in Smith Laboratory, the SIMCenter combines expertise from several College of Engineering departments, including mechanical, aerospace, electrical, industrial, materials science, computer science, and Integrated Systems and partnership with Ohio Supercomputer Center.

### Detailed Job Description:

- Conducts applied and fundamental research in computational system dynamics and control
- Develops and maintains competency in commercial computational and control system packages
- Trains students and staff on the appropriate usage of simulation packages
- Assists in the development of sponsor reports, research articles and presentations
- Assists in the development of research proposals and problem-solving tasks

### For More Information:

Send a cover letter and CV to [simcenter@osu.edu](mailto:simcenter@osu.edu) with "System Modeling and Control" as the subject. First consideration of applications will begin on July 20, 2014. Anticipated start date is August of 2014.