THE OHIO STATE UNIVERSITY

College of Engineering

Simulation Innovation and Modeling Center

Smith Laboratory
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Research Position Available in Structural Joints Simulation

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:

- Familiarity with nonlinear finite elements methods and design optimization techniques
- Familiarity with damage mechanisms in brittle and ductile materials
- Modeling of structural joints and adhesives
- Familiarity with commercial FEM software packages (preferably LS-Dyna and Abaqus)
- Multi-physics simulation of problems involving fracture and damage evolution
- Joining of dissimilar materials and integration of smart or composite materials in design
- Inverse and experimental methods used to identify the properties of structural joints

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 mechanics
- Develops and maintains competency in commercial computational 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 with “Structural Joints Simulation” as the subject. First consideration of applications will begin on July 20, 2014. Anticipated start date is August of 2014.