

Ph.D. Position in Numerical Modeling and Computation for
Multiphysics Systems
University of South Carolina

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Job Title Ph.D. Position in Numerical Modeling and Computation for Multiphysics Systems

Department Mechanical Engineering

https://sc.edu/study/colleges_schools/engineering_and_computing/faculty-staff/yi_wang.php

Institution University of South Carolina
Columbia, South Carolina

Date Posted Apr. 20, 2019

Application May 1, 2020

Deadline

Position Start Available Immediately

Date

Job Categories Graduate Student

Academic Water Resources Engineering

Field(s)

Transportation Engineering

Sustainable Engineering

Structural Engineering

Ocean Engineering

Naval Architecture & Marine Engineering

Mechatronics

Mechanical Engineering

Manufacturing & Quality Engineering

Industrial & Systems Engineering

Engineering Physics

Engineering Mechanics

Energy Technology

Construction Engineering/Management

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Civil Engineering
Bioengineering (all Bio-related fields)
Aerospace/Aeronautical/Astronautics
Engineering - Other

Job Website <https://yiwangusc.wixsite.com/yiwang>

Apply By Email yiwang@cec.sc.edu

Job Description

PhD positions in Mechanical Engineering are immediately available within the research group of Dr. Yi Wang at the University of South Carolina-USC (Columbia/Main campus, <https://yiwangusc.wixsite.com/yiwang>).

Numerical Modeling and Computation for Multiphysics Engineering Systems Design

We will investigate reduced order modeling and computational methodology for simulation analysis and design of multiphysics systems for a variety of engineering applications, which include but not limited to aerospace and aeroservoelasticity, energy materials and management, additive manufacturing, and microfluidics & nanofluidics.

Research efforts will include

- Development of reduced order models for multiphysics engineering systems
- Development of data mining, machine learning, and optimization algorithms

The preferred qualifications include:

- Background in numerical algebra and computational mechanics
- Experience in developing numerical models, codes, and computation algorithms (CFD and FEM)
- Strong hands-on experience with computing in Matlab, C/C++, Python, or other object-oriented programming languages
- Strong interest and self-motivation to perform cutting-edge research and conquer challenges in real-world engineering and to publish high-impact papers

USC is the flagship university in the State of South Carolina, and the Ph.D. program at the department of Mechanical Engineering is ranked No. 31 nationally by the National Research Council (NRC) (<http://www.me.sc.edu/about/>), and the College of Engineering and Computing is ranked No. 1 in the

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State of South Carolina for faculty research productivity.

The group of Dr. Wang focuses on computational and data-enabled science and engineering (CDS&E) and its applications in real-world multiphysics systems, including micro/nanofluidics, energy management, additive manufacturing, aerodynamics & aerospace. CDS&E, recently emerging as a focal point of multidisciplinary research has been applied to essentially each phase of technology development and industrial engineering, from conceptualization, virtual prototyping and design, and automation and control, to final verification and validation (V&V). Our group aims to discover and develop new methodologies, framework, and capabilities to bridge CDS&E and system engineering in the real world and with particular emphasis on multiphysics and engineering intelligence. To apply, please send your CV/Resume, publications, etc. in a single PDF (for Ph.D. applicants, transcripts, and GRE scores are also required) to Dr. Wang (yiwang@cec.sc.edu) with the email subject "Position Application".

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Yi Wang
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