Position Title: Ph.D. opportunity: Water Resources Engineering, University of South Carolina (with Dr. Erfan Goharian)

Start date: Fall 2019 (later start dates could be arranged)

Description: I am looking for two enthusiastic, talented and creative Ph.D. students to join iWERS research group at the Dept. of Civil and Environmental Engineering of USC to conduct fundamental and applied research in water resources engineering and management.

Focus of the first Ph.D. student will be on using emerging artificial intelligence methods to improve knowledge of flood detection, modeling, and management. The main objective will be developing in situ gauge measurement, such as satellite images, to deliver near real-time information pre-, during, and post-flooding.Focus of the second Ph.D. student will be on developing enhanced simulation and optimization techniques for complex water resources systems. Potential research applications include utilizing hydrological forecast systems, developing multi-purpose reservoirs simulation and optimization models, and forming novel integrated water resources management processes.

These positions may have funding/tuition support, depends on the students' background and level of experience. Any continuation of financial support is contingent upon the students' satisfactory academic and research progress, and the availability of external funding.

Minimum Requirements

Bachelor of Science degree (completed prior to start date) in civil and environmental engineering, earth science, mathematics or related field. Students with master's degrees (MS or MSc) in related fields may be given prioritized consideration.Computational proficiency (coding in one of MATLAB, Python, R, Fortran, C, C++, etc.)Strong research background in AI, such as data mining, machine learning, deep learning, and image segmentationExperience in developing and running simulation and optimization modelsStrong communication skills, both written and oralAbility to work independently and as a member of a diverse team

Preferred Skills and Experience

Experience in authoring/co-authoring scientific publications.Experience presenting scientific findings at conferences.A solid interdisciplinary academic and leadership skill records.Fieldwork experience is an advantage.

How to apply

Interested candidates should send the following items via email to Dr. Erfan Goharian at goharian@cec.sc.edu. You can find further information on: http://www.sc.edu/study/colleges_schools/engineering_and_computing/apply/graduate/index.php.

A written statement (max. 1 page) describing your interest and motivations in the position.A current C.V. with the list of 3 references including contact information.Unofficial transcripts and GRE scores.Applicant whose native language is not English should send TOEFL or the IELTS scores.