Job Opportunity:
Postdoctoral Scholar in Sustainable Freight Transportation Technologies

The College of Engineering – Center for Environmental Research and Technology (CE-CERT) at the University of California, Riverside, is seeking a highly motivated postdoctoral scholar to join our Transportation Systems Research (TSR) group in conducting research related to sustainable freight transportation technologies. Candidates with knowledge and research experience in freight travel demand modeling, vehicle scheduling and routing, vehicle energy and emissions modeling, geospatial data analysis, advanced optimization, machine learning, and high performance computing, are encouraged to apply.

The TSR group consists of a multidisciplinary team of more than 20 faculty members, graduate and undergraduate students, and staff engineers. We conduct research in the areas of advanced vehicles and intelligent transportation systems with a focus on developing and evaluating technologies that improve the travel and energy efficiencies as well as reduce the environmental impact of transportation activities. Several recent and current research projects involve the development of novel sustainable freight transportation technologies, all the way from conceptualization to design, simulation, prototyping, and real-world demonstration.

Specific activities of the successful candidate may include:
- Develop new vehicle scheduling and routing techniques and evaluate their effectiveness
- Model energy, emissions, and air quality impacts of freight movement
- Conduct field testing of new vehicle scheduling and routing techniques
- Perform mining, analysis, visualization, and interpretation of vehicle activity big data
- Assist in producing high-quality publications, reports, and research proposals
- Support additional related research projects as needed

Required Qualifications:
- Ph.D. in relevant fields of science and engineering
- Programming skills in MATLAB, Python, C/C++, R, and/or JavaScript, and demonstrated versatility working with various tools and programming languages
- Excellent written and verbal communication skills, along with the ability to work effectively and cooperatively in a team as well as independently
- Ability to multitask with strong time management skills

Desired Qualifications:
- Familiarity with freight travel demand modeling tools and procedures, and vehicle scheduling and routing techniques
- Experience with vehicle energy and emissions modeling, air dispersion modeling, and human exposure assessment a plus
- Expertise in geospatial data analysis and database management using relevant software tools and scripting languages (such as ArcGIS, SQL)
- Experience working with large datasets, leveraging high-performance computing resources, and performing big data analysis and visualization

- Knowledge of advanced optimization methods and machine/deep learning techniques, and interest in applying them to solve transportation problems
- Strong publication record

Those interested should send their curriculum vitae and a cover letter to certjobs@cert.ucr.edu with the subject "TSR Postdoc Position". In the cover letter, please provide a statement of research interests and experience.