Research Positions in Connected and Automated Vehicle Technology

The Transportation Systems Research (TSR) group in the College of Engineering – Center for Environmental Research & Technology at the University of California, Riverside, currently accepts applications for Ph.D. student, postdoctoral scholar, or research staff positions in the area of connected and automated vehicle (CAV) technology. The type of appointment and the level of compensation are negotiable, and will be commensurate with qualifications and experience. Highly self-motivated candidates who possess the required qualifications listed in this announcement are encouraged to apply. Candidates with direct research experience related to CAV technology, in both simulation and real-world settings, are highly encouraged.

The TSR group consists of a multidisciplinary team of more than 20 faculty members, graduate and undergraduate students, and staff engineers, with an annual research budget of over $2.5 million. We conduct research in the areas of advanced vehicles and intelligent transportation systems with a focus on developing and evaluating technologies that improve the efficiency of transportation activities. Several recent and current research projects involve the development of novel CAV applications, all the way from conceptualization to design, simulation, prototyping, and real-world demonstration.

The successful candidate will play an instrumental role in: designing and simulating new CAV applications for both passenger and freight vehicles; developing and implementing integrated vehicle dynamics and powertrain control strategies as well as intelligent energy management systems for advanced vehicles (e.g., plug-in hybrid electric vehicles); creating perception models of the driving environment through fusion of data from on-board sensors and V2X communications; and contributing to the group’s effort to expand the suite of CAV applications and to move them towards a greater level of automation.

Required Qualifications:
- Master’s degree in Automotive Engineering, Computer Engineering, Computer Science, Electrical Engineering, Mechanical Engineering, Systems Engineering or relevant fields (Ph.D. is required for postdoctoral scholar applicants)
- Research experience in connected and automated vehicle technology
- Strong programming skills in C/C++, C#, Matlab/Simulink, Python, and/or SQL
- 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:
- Knowledge in optimization, machine learning, distributed and real-time systems, and/or cyber-physical and embedded systems
- Experience with CAN Bus programming and automotive sensors (e.g., radar, LiDAR)
- Experience with hardware setup and software implementation in automotive applications
- Strong publication record

Those interested should send their curriculum vitae and a cover letter to certjobs@cert.ucr.edu with the subject “CAV Research Position”. In the cover letter, please provide a statement of research interests and experience. Please also indicate the type of appointment (Ph.D. student, postdoctoral scholar, or research staff) that is being applied for.