Post-doc and PhD/Research Engineer positions in Vehicular Networks

Job description

One post-doc and one PhD/Research Engineer positions are offered in the framework of the European H2020 TransAID (Transition Areas for Infrastructure-Assisted Driving) research project. The project will develop and demonstrate infrastructure-assisted traffic management procedures, protocols and guidelines for smooth coexistence between automated, connected and conventional vehicles. Within the project, the UWICORE lab at UMH leads the design and implementation of V2X communications and networking solutions. The candidates will work on the following topics:

- Design of cooperative V2X sensing mechanisms to enable the cooperative detection and identification of conventional, connected and automated vehicles. It can include the collection and possible aggregation of the information about detected vehicles.
- Define the message flows needed to implement cooperative driving manoeuvres between connected and automated vehicles and road infrastructure, extending the ETSI TC ITS Communications Architecture Facilities.
- Design of reliable V2X communications and networking mechanisms that support the proposed cooperative V2X sensing and driving solutions.
- Definition/extension of V2X Facility-layer message sets to support the proposed cooperative V2X sensing and driving solutions.
- The work will require the design and evaluation of protocols mainly through simulations and real-world implementations; theoretical analyses can be also expected. Some of the solutions will require prototyping in vehicles and one of the two candidates will lead such prototyping.

Post-doc candidate

Candidates should have a PhD in Telecommunications, Electrical, or Computer Engineering (or closely related disciplines), and a proven track record of publications in relevant journals and conferences. Preferably, the candidate should have done the PhD or have experience in vehicular networks or related topics. The candidate should have good programming and simulation skills. Prototyping and experimentation experience will be positively considered but it is not a requirement. Good written and spoken communication skills in English are required, as well as team working skills and availability to travel.

- Post-doc salary: EUR 30800 annual gross.
- Duration: from mid Oct. 2017 up to Aug. 2020 (starting time can be adjusted based on candidates availability).
- Post-doc application form: https://form.jotformeu.com/71953680736365

PhD/Research Engineer candidate

Candidates should have a Master in Telecommunications, Electrical, or Computer Engineering (or closely related disciplines). Interest or experience in one of the following topics is required: vehicular networks, IoT, ad-hoc networks, mobile and wireless networking. The candidate should have good programming skills. Publications in journals and conferences is valuable, but not required. Prototyping and experimentation experience will be positively considered (but not required). Good written and spoken communication skills in English are required, as well as team working skills and availability to travel. The candidate should indicate in the cover letter whether she/he is interested in doing a PhD (not a requirement).

- PhD/Research Engineer salary: EUR 22800 annual gross.
- Duration: from mid Oct. 2017 up to Aug. 2020 (starting time can be adjusted based on candidates availability).
- PhD/Research Engineer application form: https://form.jotformeu.com/71954150236353

Location

The UWICORE (Ubiquitous Wireless Communications Research) lab is part of the Universidad Miguel Hernández de Elche (Spain), www.uwicore.umh.es. The lab activities focus on: vehicular networks, 5G and industrial wireless networks. The lab has significant expertise in the design of wireless networking protocols, resource management and medium access control techniques, system design and optimization, and experimental prototyping. The lab has a strong track record of collaboration with industry, and participation in collaborative European and national projects.

Application

Applications will be continuously evaluated upon reception, and phone interviews will be organized with the selected candidates until the positions are filled. For any additional information, you can send an email to Prof. Miguel Sepulcre (msepulcre@umh.es) and Prof. Javier Gozalvez (j.gozalvez@umh.es).