

Positions Available for Wireless Communications and Networking Research

The Ubiquitous Wireless Communications Research (UWICORE, www.uwicore.umh.es) laboratory is part of the Communications Engineering Department of the Miguel Hernandez University of Elche in Spain. UWICORE is a very active Spanish research laboratory with close links with national and international industry. Its research activities are focused in: multi-hop cellular networks, vehicular communications and networks, heterogeneous wireless systems, and wireless system design and optimization. The laboratory has also strong expertise in the implementation of research hardware and software testbeds.

The laboratory is leading the project OPPORTUNITIES, a nationally funded research project working in the area of multi-hop cellular networks with mobile relays (MCN-MR). MCN-MR integrate cellular and ad-hoc technologies through the use of mobile relaying techniques in order to improve the system capacity and user-perceived QoS by substituting long-distance cellular links with various multi-hop transmissions with improved link budgets. To this aim, MCN-MR technologies would use the mobile terminals communications and computing capabilities in an opportunistic and collaborative operational framework. In this context, the project OPPORTUNITIES is investigating contextual, adaptive and opportunistic communications and networking techniques to improve the reliability and energy/resources efficiency of mobile relaying schemes in MCN systems. In addition to analytical and simulation research work, the project has a strong experimental focus.

UWICORE is looking to hire two junior Research Engineers to work on the OPPORTUNITIES project. Ideally, the candidates would be interested in conducting a PhD, although this requirement is not mandatory (we are currently not looking for postdocs). The research topics include: opportunistic and adaptive cross-layer transmission techniques for peer-to-peer communications, opportunistic networking for multi-hop mobile relaying, and end-to-end opportunistic MCN-MR communications and networking solutions. The selected candidates will also be involved in the project management activities.

Candidate Requirements

- Masters (5 years degree) in Telecommunications, Electronics or Computer Science. Electronics or Computer Science candidates must demonstrate sufficient knowledge of wireless communications & networking. Master level studies are required to enter the PhD program.
- Candidates without working experience but with a very good grade record are very welcome.
- Strong background on communications systems and networks. Good knowledge of mobile/wireless communication technologies.
- Strong programming capabilities (mainly in C/C++, Matlab and Linux environments). Experience in mobile/wireless communications simulation and/or testbed implementation will be valuable.
- Good English level (written and spoken).
- Hard working and work-quality driven engineers with a passion for research and going beyond technology limits. Candidates with initiative and willing to take research & management responsibilities.
- Team working skills, and good written and oral communication skills.

Starting date and duration: as soon as possible. The positions remain open until they are filled. The project lasts until the end of 2014, with the possibility for additional funding (up to a total maximum of 3 years) in the case the candidate conducts a PhD as part of its research within OPPORTUNITIES. The annual gross salary for these junior positions is 18900 euros.

Contact information: interested candidates must email a research statement (where the candidate should describe its interest for research and how he can benefit the project activities), CV and academic record to Dr. Javier Gozalvez (j.gozalvez@umh.es). The research statement and CV must be written in english. If the candidates have already published scientific works, they can include sample publications together with the other documents. There is no need to include references at this first stage.