

Pre-doctoral Research Position in the Mobile Communications Group at UIB

November 6th, 2015

The Mobile Communications Group at the *Universitat de les Illes Balears* (UIB, Mallorca) invites applications for one pre-doctoral research position. The position is initially funded for 2 years but it is anticipated that additional funding will be made available to allow the completion of the UIB's PhD program. The successful applicant will hold a Master Degree in Telecommunication or a closely related field. It is anticipated that the position may be available as early as January 2016.

The position is associated with the "Enabling technologies for Licensed and unlicensed Shared Access communications," ELISA, project (TEC2014-59255-C3-3-R), a coordinated research program comprising the *Centre de Tecnologies de Telecomunicacions de Catalunya* (CTTC, Barcelona), *Universidad Carlos III de Madrid* (UC3M, Madrid) and the *Mobile Communications Group at Universitat de les Illes Balears* (UIB, Mallorca), and funded by the Spanish Ministry of Science and Innovation. ELISA project aims at designing interference management techniques for shared access either licensed or unlicensed (e.g. high speed Wifi) and 5G networks. The subproject at UIB aims at the design of scheduling and radio resource allocation techniques for interference management in open spectrum systems with cellular infrastructure. One of the main objectives will be the derivation of a unified physical layer framework that incorporates different combinations of the considered transmission technologies and suitable waveforms (e.g., OFDM, FBMC, GFDM). Another important objective will focus on the development of a formal and unifying framework addressing the problem of scheduling and resource allocation in open spectrum dense heterogeneous cellular networks using coordinated large-scale multi antenna techniques and intra- and inter-tier interference coordination procedures.

CANDIDATE PROFILE: Master degree in Telecommunications or related subject together with a high level of mathematical and analytical ability. Expertise in mobile communications networks and systems. High-level language programming skills (Matlab, C). Proficiency in English (proofs of technical writing skills in English, in the form of conference/journal publications will be specially considered). Spanish or Catalan would be an asset. Strong motivation.

REQUIREMENTS: Eligible applicants must hold a Master degree or its academic equivalent (in the sense of fulfilling the admission criteria into the [Doctoral Degree in Information and Communications Technology](#)) from an official institution.

CONDITIONS: The studentship consists of 14 pays/year of circa 1.100 euros (net) each, plus health insurance (employer's contribution).

APPLICATIONS: Applications should include:

- Full CV (with contact information)
- Transcript of all modules and results from university-level courses
- Research statement and topics of particular interest to the candidate (300 words, in English).
- Summary of the final year/master project most recently undertaken (300 words, in English).
- Two reference letters (with contact information)

We are particularly interested in candidates with a good balance of academic qualifications and know-how in their field of knowledge and possibilities to take up the work in January 2016. The application documents must be submitted in pdf format to Profs. Guillem Femenias and Felip Riera-Palou (guillem.femenias@uib.es, felip.riera@uib.es).

Deadline for applications: December 15, 2015. Applications will be considered on receipt, therefore applying before the deadline is encouraged.