

Dear colleagues and friends,

We look for outstanding, self-motivated PhD students to participate in the first large-scale European Training Network (ETN) on 5G technologies. The selected candidates will be committed to pursue the PhD degree during their work within the project and conduct top-notch research on 5G communications.

We offer:

- 3 PhD vacancies (3 year duration) in Barcelona, Spain (see details below);
- An international environment with excellent researchers;
- Experience from both academic and industrial world;
- Support for career development through training in project management, communications skills, grant writing, business development, among others;
- A very competitive salary according to the MSCA ETN rules for Early Stage Researchers (ESRs).

The fellowship is awarded for a period of 3 years. The ESR will have a regular contract with the same rights and obligations as any other staff member of the host institution. Candidates should start within 3 months of the acceptance of the fellowship.

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Deadline: 31 July 2015 (see application details below)  
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Project details:  
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“5G Wireless” is the first integrated and multi-disciplinary training-through-research network of ESRs and Senior Supervisors, fully committed to re-architecting current cellular principles aiming at making 5G a reality. It will define and optimise radically-changing architectures and technologies, leading to a wholesale re-thinking of cellular operational principles and architectures, network topologies, transmission technologies and methods to their analysis, design and optimisation.

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Network details:  
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5G Wireless – “Innovative Architectures, Wireless Technologies and Tools for High Capacity and Sustainable 5G Ultra-Dense Cellular Networks” involves 5 leading universities/research institutions and 5 industrial partners from 6 different EU countries, offering an inter-sector training approach by exploiting the scientific and the industrial expertise of the consortium. The main goal of the network is to promote the European Research Area by

- (i) leveraging the cooperation among the partners, and
- (ii) providing the next generation of researchers with the required tools to deal with the upcoming 5G challenges.

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Available positions:  
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The positions offered within the project are the following:

Academia (Universities/Research Centres):

- 2 positions in Universitat Politecnica de Catalunya (UPC), Spain, [ellik@tsc.upc.edu](mailto:ellik@tsc.upc.edu)  
ESR1: Hybrid precoding and channel estimation for mm wave communications  
ESR2: Random shape theory modelling and performance evaluation of blockages in urban environments
- 1 position in Iquadrat Informatica S.L., Spain, [projects@iquadrat.com](mailto:projects@iquadrat.com)  
ESR13: Interference-aware Medium Access Control (MAC) protocols for full-duplex communications

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Eligibility criteria:  
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- 1) ESRs shall, at the time of recruitment by the host organisation, be in the first four years (full-time equivalent research experience) of their research careers and not yet have been awarded a doctoral degree.
- 2) At the time of recruitment by the host beneficiary, researchers must not have resided or carried out their main activity (work, studies, etc.) in the country of their host beneficiary for more than 12 months in the 3 years immediately prior to the reference date. Compulsory national service or short stays such as holidays are not taken into account.

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Application details:  
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To apply, please send an email with:

- 1) A cover letter detailing your suitability for the respective position;
- 2) A detailed CV;
- 3) Student's record;
- 4) Name and address of two referees to support your application.

All applications should be sent to [etn.5gw@gmail.com](mailto:etn.5gw@gmail.com) and to the supervisor of the respective position.