Call for application for research scholarships

for post-graduate international candidates

RESEARCH PROJECT N. 32

Title
Analysis and experimental development of mobile applications in 5G networks

Scientific responsible (name, surname, role)
Carla Fabiana Chiasserini, Associate Professor (carla.chiasserini@polito.it)

Short description of the research activity (max 250 words)

5G is a game changer, not only in wireless communications, but also in networking and application development. In this scenario, a new networking paradigm known as Network Slicing has emerged for 5G networks as the most promising approach to support an extremely diverse range of networking and computing requirements.

Network, computing and storage resources are all going to be virtualized, and by enabling per slice management of such virtualized resources, it will be possible to meet specific needs of vertical industries, such as automotive, healthcare and media. The concept can be applied from the edge of the network up to the core and cloud, depending on the latency, energy and bandwidth requirements that have to be addressed.

The research program will tackle this scenario and will use the above innovative paradigm to develop breakthrough technologies and mobile applications. The study will define models for the optimal system design and the evaluation of the system performance. Furthermore, it will develop testbeds for the experimental verification of performance and to show the benefits of the developed solutions. Special emphasis will be given to applications fields such as automotive (connected cars) and IoT, and to their coexistence in urban, dense scenarios.

Specific requirements (experiences, skills)

Excellent programming skills
Good mathematical background
Knowledge of communication networks

Website of the research group (if any)

 https://www.telematica.polito.it/public/faculty/carla-fabiana-chiasserini

Keywords (min 3, max 6)

5G systems, mobile applications, virtualization

Research Area (max 1)

Electronics, Control and Telecommunication Engineering

The present form should be filled in English and sent to scudo@polito.it by 2nd October 2017