**Open PhD position on WiFi-LTE Coexistence at the   
Department of Computer Science  
Technische Universität Darmstadt, Germany**

We are looking for an excellent, motivated, and self-driven student to conduct research in the field of WiFi-LTE coexistence at Technische Universität Darmstadt, one of the top engineering schools in Germany. The candidate will join the wireless communication group in SEEMOO lab (https://www.seemoo.tu-darmstadt.de) headed by Prof. Matthias Hollick.

**Description:**

Key cellular players plan to deploy LTE in unlicensed spectrum in the fifth Generation (5G) of cellular networks. This introduces a new set of challenges as LTE traditionally operates only in licensed spectrum where the operators have full control of the spectrum. Moreover, LTE will be sharing resources with WiFi in the unlicensed spectrum which can potentially lead to unfairness in resource distribution between the two technologies.

The prospective candidate is expected to identify the key challenges in an ecosystem where both WiFi and LTE are active and propose concrete and practical solutions to overcome the existing obstacles. In addition, the candidate is also provided with the opportunity to leverage the state-of-the-art Software Defined Radio (SDR) platforms available in SEEMOO in order to complement the theoretical research with real-world experimentation.

**Requirements:**

* A Master degree in Telecommunication, Information Technologies, Computer Science or related fields with excellent grades.
* Excellent English language skills.
* Good knowledge of cellular communication systems and WiFi.
* Strong analytical background in optimization and modeling is a plus.
* Strong programing skills in Matlab and C++. FPGA and LabVIEW programing knowledge is a plus.
* Experience with SDR platforms, e.g., USRP, is advantageous.

**Application process:**

We encourage only the highly qualified individuals meeting the above-mentioned requirement to email the following documents in ONE pdf file to Dr. Arash Asadi ([arash.asadi@seemoo.tu-darmstadt.de](mailto:arash.asadi@seemoo.tu-darmstadt.de)) with the subject of “CoLTE PhD Vacancy”. Only shortlisted candidates will be informed of their application status via email.

* Resume/CV showing the applicant’s educational and research background, professional skills, a list of publications, and two references.
* Transcripts for Bachelor and Master degrees.
* A cover letter specifying candidate’s intent to pursue a PhD in our group.