



MASTER THESIS STUDY: PERFORMANCE EVALUATION OF 5G USE CASES

Description

This is an opportunity for a Master of Science student to work with technology leading radio network performance modeling in the mobile industry.

The next-generation wireless technology 5G is developed to enable use cases such as e.g. broadband experience everywhere anytime, smart vehicles (transport & infrastructure), media everywhere, critical control of remote devices and interaction human-IoT. The task of the thesis is to model and analyze radio performance, deployment and spectrum need of a selected 5G use case. An example scenario could be to analyze broadband needs of public transport vehicles where many people are consuming high resolution media to understand spectrum need as well as comparing different radio solutions such as covering from conventionally deployed base stations and moving base stations deployed onboard the vehicles.

Advanced radio network 3D modeling techniques will be used in order to model and analyze different aspects of the use case. Visualization of radio performance results in a 3D view may be part of the study. The result of the thesis should be concluded in a presentation and a report. The report may also include methodology improvements and changes in the radio network simulation process.

The project is intended for one master thesis student, and is expected to be performed in Kista, starting in 2017 Q1 and ending 6 months later.

Qualifications

You should be a **Master of Science** student in electrical engineering, applied physics or similar. Courses in wireless communication theory and signal processing as well as experiences of communication systems are considered valuable merits but are not required.

The successful candidate must have

- Excellent grades
- Fluent in English, both written and spoken
- Good matlab skills
- Good communications skills
- You are a self-motivated and positive person.

Contact person

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