Satellite-5G: Implementation of a 4G/5G Base Station

Bachelor/Master/Project

Task Description

• The open-source LTE software radio suite (https://www.srslte.com/) provides an 4G/5G implementation of cellular network components: this allows to build custom 4G/5G base stations as well as cell-phones using just some of-the-shelf software-defined radios (e.g. USRP from ettus.com) and PCs

• In this project, we want to implement our own 4G/5G base station, to which commercial cell-phones can connect and exchange data with; dependent on the type of project (Bachelor, Master, Project) we then further study the use for remote, satellite-based deployment of such base stations

Preliminary Knowledge

• LINUX, C/C++

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