

## **Peak-to-Average Power Ratio of typical radiocommunication signals and methods for its reduction.**

The subject of the Master's thesis is the comparison of main known methods for reduction of Peak-to-Average Power Ratio (PAPR) of typical radiocommunication signals, focusing on the OFDM scheme with QAM modulation, and experimental optimization of the OFDM signal with QAM modulation that is based on finding optimal sequences of the code elements.

The Master's thesis shall follow the general rules established by Tallinn Technical University and include, among others, the following parts:

1. Overview of main known methods for reduction of PAPR of typical radiocommunication signals focusing on OFDM signals with QAM modulation and comparison of their efficiency.
2. Results of the experiment for finding optimal sequences of the OFDM signal with 12 subcarriers and 16-QAM modulation. The basic optimization solution in the LabView environment will be provided by the supervisor, but the student's good new ideas for improvement of the method are very welcome. Also different software environments, e. g., Matlab may be used, if the student has good experience working with it.
3. Comparative analysis of optimization results and a summary of the work. Recommendations for further research.