



Master thesis – Advanced algorithm design for communication in 5G

Location: Kista, Stockholm

Preferred starting date: Jan. 2019

Extent: 1-2 student, 30hp.

About the company

Founded in 1988, Huawei Technologies is one of the fastest growing telecommunications and network solutions providers in the world. At Huawei Technologies, we look for people who share our vision: to enrich life with communication. We are a leading supplier of next generation telecom networks and currently serve 37 of the world's top 50 operators. Our people are committed to providing innovative products, services and solutions and understand it as their mission to create long-term value and growth potential for our clients.

The Huawei office in Sweden is the leading overseas R&D office in Huawei, and the Wireless Algorithm group at Huawei Sweden drives innovation for the Huawei Wireless RAN product. We work on both advanced receivers and on Radio Resource Management algorithms, for both LTE and 5G.

Thesis description

5G is posing high requirements on data rate and one alternative to achieve this is to increase the number of antennas on both transmitter and receiver, which is known as MIMO system.

The objective of the thesis is to study different types of algorithms for the 5G receiver/transmitter and evaluate the performance as well as complexity associated with the algorithms, and to propose cost efficient algorithms that could be used for 5G products.

Qualifications

- Master student in Electrical Engineering or equivalent.
- A solid theoretical background in areas such as information theory and signal processing.
- Basic knowledge about MIMO and OFDM.
- Experience in modeling and link level simulation.
- Good knowledge in Matlab simulation.

Contact person

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