

The Chair of Theoretical Information Technology has an immediate opening for a

Bachelor/Master Thesis, Research Internship: Cooperative Jamming for Enhanced Physical Layer Security

Within the 6G-life project, transmission systems that go beyond Shannon's communication approach are to be developed, in order to achieve a more secure, efficient, and resilient communication in novel 6G systems. To achieve security using physical layer security, channel characteristics are used. By influencing these channel characteristics through cooperative jamming initiated by the legitimate receiver to confuse the eavesdropper, security could be enhanced.

Content of the project and areas of responsibility

- Research into the area of GNU-radio and cooperative jamming
- Implementation of a cooperative jamming strategy
- Integration into our hardware environment (NI USRP software-defined radios)
- Experimental verification of cooperative jamming strategies

Your qualifications

- Good knowledge in the following subjects: information theory, communications engineering, algorithms and data structures
- Hands-on programming skills in one of the following languages: MATLAB, Python and C/C++
- Familiarity with Linux systems, GNU-radio, and communication standards (LTE, 5G-NR) is a plus
- Goal-oriented, independent and structured work style

**To apply just send an e-mail to johannes.voichtleitner@tum.de with the subject "cooperative-jammer".
Make sure to add your latest transcript of records and a short description of yourself!**

Technical University of Munich

Chair of Theoretical Information Technology
Prof. Holger Boche
Theresienstrasse 90, 80333 Munich
Munich, April 2022

