Masterarbeiten Information Technology

Master-Thesis

Performance-Investigation of a IEC 61850 Client applications

IEC 61850 is an important standard for communication inside of power plants, based on client-server approaches. Server-Modules and applications are available. Aim of this project is to realize a complete demonstrator system and to measure and evaluate the performance. For this purpose a client application has to be developed on a PC (C, C++) based on a given Stack-Software. It has to be developed an example application with a User Interface and the adaptation to the software-stack. Performance-Measurement concepts have to be developed and realized

Master-Thesis

Evaluation of Omnet++ as Simulation system for Wireless networks

The network simulation Tool Omnet++ shall be evaluated for the simulation of wireless communication systems. Channel Models shall be integrated and a first simple communication protocol shall be tested to evaluate the possibilities and the performance figures in this application field.

Master-Thesis

Position Detection Solutions for contactless communications systems in linear topologies

The aim is to evaluate and implement concepts to realize a position detection system for contactless energy and data-transmission. The Thesis shall investigate solutions based on capacitive coupling mechanisms. Algorithms for the detection shall be developed and implemented

Master-Thesis

Investigation on Network-Sniffers based on Software-Defined-Radios

A Software-Defined-Radio (SDR) shall be used to realize a Network-Sniffer in the 2,4 GHz Range to measure multiple channels in a Frequency Hopping system at the same time. This Approach shall be investigated as a base for new sniffing concepts and the performance of such approaches has to be evaluated.