Hochschule Augsburg
University of Applied Sciences
Fakultät für Informatik
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Thesis (B.Sc./M.Sc.)

Simulation Framework for Concurrent Transmissions

Description

Smart phones and other mobile devices come with multiple interfaces suitable for different technologies such as GPRS, UMTS, LTE, WLAN or Bluetooth. However, typically only one technology/interface is used at a time. Only in the case that a connection is lost, the device switches to the next proper technology. Often more than one technology is available at a time. Thus, a device using two or more interfaces simultaneously could improve the quality of experience of the user.

Tasks

In this thesis you will develop a simulation framework to model the benefits of concurrent transmissions. Your focus will be on scheduling, network coding and feedback channel support. The framework will be modeled using the OPNET Modeler network simulation software.

Requirements

Basic knowledge of computer networks

Programming skills in C, C++ or Java are recommended

Keywords

Simulation, Emulation, Networks, Measurement

Depending on the type of the thesis (BA or MA) the complexity will be adjusted.

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