



Bachelor-, Master- und Doktorandenseminar
des Instituts für Informatik

Practical Energy Assessment of Wireless Sensor Network Communication Protocols based on Constructive Interference

Daniel Serbu, TU Clausthal

The Fourth Industrial Revolution is changing the way that people interact with their surroundings. This interaction is made over communication protocols that are deployed on microcontrollers. To be sustainable, the battery of a microcontrollers has to last many years and part of this is due to the efficiency of communication protocols. The existing approaches in low power wireless rarely provide information about how much energy is used by a communication protocol. In this research the energy requirements of a microcontroller in real time have been analysed, while running two different communication protocols that exploit wave interference. As result of this analysis the average power of each communication protocol was obtained and it concluded that one of the protocols uses in some cases 25% more energy than the other.

Montag, den 02.05.2016, 16 Uhr s.t. im
Besprechungsraum 106, IfI, Julius-Albert-Straße 4