



Pervasive Computing Group

Institute of Networked and Embedded Systems / Klagenfurt University

Lecture „Advanced Topics in Pervasive Computing“

Bernhard Rinner

Course Overview:

Due to the advances in electronics and (wireless) communication, the development of networks of low-cost, low-power, multi-functional sensors has received increasing attention. These sensor networks are a new type of networked, embedded computing systems and are expected to become a key technology for many pervasive computing applications.

This lecture covers the fundamental concepts of sensor networks, including architectures, various networking aspects, power-awareness and sensor fusion. The lecture is complemented by a lab course where students can get hands-on experience in developing sensor network applications.

Topics:

- Introduction
- Sensor Technology
- Architectures
- Networking
- Power- and Energy-Awareness
- Sensor Fusion
- Applications and Case Studies

Time and Place:

Thursdays, HS 6, 03:30–05pm



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Course target:

Knowledge of the fundamental concepts and applications of sensor networks

Literature:

- M. Ilyas, I. Mahgoub. Handbook of Sensor Networks: Compact Wireless and Wired Sensing Systems. CRC Press 2005
- F. Zhao, L. Guibas. Wireless Sensor Networks. Morgan Kaufmann 2004

Additional Info:

- course is held in English
- Attendance obligatory
- Written exam, no documents allowed