



Wireless Sensor Networks

0. Organization

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- Web page
 - <http://cone.informatik.uni-freiburg.de/lehre/aktuell/wsn-ss16>
- Forum
 - <http://archive.cone.informatik.uni-freiburg.de/forum3/viewforum.php?f=46>
 - for discussions, remarks, critics, funnies, etc.
- Lecture
 - Lecturers:
 - Christian Schindelhauer (mostly)
 - Johannes Wendeberg (localization)
 - Monday, 14:15-16:00, room 101-01-009/013
 - Wednesday, 08:15-09:00, room 101-01-009/013
- Exercises
 - Tutors:
 - Amir Bannoura
 - Joan Bordoy
 - wednesday, 09:15-20:00, room 101-01-009/013
 - starts 27.04.2016



- Basics
 - Wireless Communication
 - Computer Networks
 - WSN technologies
 - Case studies
- Physical Layer
- Medium Access
- Routing
- Data aggregation
- Sensor coverage
- Energy & Lifetime
- Resilience
- Localization
 - ToA, TDOA, RSSI, Cell-based, anchorless

- Oral exam
- 30 minutes
- Questions form
 - lectures
 - exercises
- closed book exam
- Exam registration online

- <http://cone.informatik.uni-freiburg.de/lehre/aktuell/wsn-ss16>
- Slides
- Exercises
- Recordings
- General information

- Ilyas, Mahgoub, Handbook of Sensor Networks: Compact and Wired Sensing Systems, CRC Press
- Agrawa, Zeng, Introduction to Wireless and Mobile Systems, Thomson, 2003
- Schiller, Mobile Communications, Addison-Wesley, 2000
- Karl, Willig, Protocols and Architectures for Wireless Sensor Networks, Wiley, 2005
- Zhao, Guibas, Wireless Sensor Networks – An Information Processing Approach, Morgan Kaufmann, 2004
- Wu, Handbook on Theoretical and Algorithmic Aspects of Sensor, Ad Hoc Wireless, and Peer-to-Peer Networks
- Boukerche Handbook of Algorithms for Wireless Networking and Mobile Computing, CRC 2005
- research papers from the field
- more to be announced