

# Introduction

2IN95

Johan Lukkien



# Who

- Johan Lukkien
- Richard Verhoeven
- Remi Bosman
  
- You



# What

- The domain of wireless sensor networks
  - Theory
  - Practice
- Learn doing research and writing papers
- Introduction into current research topics within SAN



# How

- Book: Protocols and Architectures for Wireless Sensor Networks
  - presented by you
  - based on given slidesets
- Research paper
  - written by pairs of you
  - based on literature review and/or particular research questions
- Practical
  - performed by pairs of you
  - enhancing or using some of the research software we developed
- Final oral exam



# Program

- First weeks: presentation of book chapters
- Work on the research paper
  - first proposal
  - second version
  - presentation of the research paper
- Work on practical
  - learning and using WSN programming system
  - implement one of the exercises
  - presentation
- Oral exam



Subject	Names	Date	
ch 1: Introduction	Johan Lukkien	3-sep	
ch 3: Network architecture	Sachin Bhardwaj, Shervin Hajjamini	17-Sep	
ch 4: Physical layer	Norbert Verhagen, Ashu Gebreweld	17-Sep	
ch5: MAC protocols	Bram Kersten, Chidi Okwudire	24-Sep	2 groups
ch6: Link layer	Maarten Manders, Daniel Geelen	1-Oct	
reserved - Johan		1-Oct	
ch8: Time synchronization	Andreea Voicu, Kevin Wong Yin Hang, Zhou Jiale	8-Oct	2 groups
ch9: Localization		15-Oct	
ch12: Data centric programming		15-Oct	
ch11: routing		22-oct	2 groups
ch11: routing		24-Oct	2 persons
ch13: transport layer and QoS		31-Oct	2 persons
Research papers		31-Oct	
Research papers		7-Nov	
OSAS software	Remi, Richard	21-Nov	
spare		28-Nov	
spare		5-Dec	
reporting on results		12-Dec	
reporting on results		19-Dec	
Deadlines: 12-5 for final papers, Jan 1 for oral exam			

# Presenting papers

- Address explicitly:
  - How does this relate to wireless sensor networks?
    - connection with book/literature
    - concepts used, placement in context, philosophy
  - What are scope & contents of the paper?
    - what is the domain?
    - what problems does it solve? research question?
    - related literature
  - What can we (listeners, readers) learn from it?
    - things to remember, contributions, concepts
- **NOTE:**
  - if you find these things difficult, ask, discuss *before* your presentation – and not only with me



# Pitfalls in the presentations

- Too much tied to presenting the system at hand
  - no selection of information (a ‘core dump’)
    - explain or skip !!! (especially, experimental data)
  - no structure
    - facts are less interesting than concepts, subjects, insights
    - note: you may search for and impose structure, even if the chapter does not put it.
  - wrong use of time
    - it is a requirement for presentations to fit into the allocated slot
- Unclear or non-existent problem-solution relationship
- Behave as if the world starts with you, or with the system/article you’re presenting
  - place it with respect to what you know
  - relate it to what you learned



# Advice

- Ask yourself what you want people to understand
  - give it a personal touch
  - give your own opinion, judgement
- Explain the *issues* through well-chosen examples
  - use a running example
    - so, don't just pick any example
  - explain assumptions & requirements
  - explain different perspectives: a programmer using the system, an end-user experiencing its use, the interaction of system components
    - all in response to the same example
- Mechanisms have a purpose
  - make sure this purpose is known
- Give listeners something solid to fall back to
  - system architecture, global picture



# Presentation hints

- Control and plan your time
  - time = # slides \* x minutes (where  $x=3$  most of the time)
  - select, pick your topics
    - few things good versus ‘everything’
    - limitations of what people can digest
  - usually, it’s ok to skip slides; avoid listing slides just because they exist
- Stay in touch with the audience
  - the purpose is not that YOU do something but that others *understand* something you already know
  - what do you want people to understand, to recollect?
  - solicit questions
  - don’t try to intimidate
    - ‘as I explained’ , ‘I just said’, ‘as you will all understand’
- Pictures, diagrams
  - make absolutely clear what the audience is seeing; spend time on this

