Ad Hoc Networks
Seminar

University of Freiburg
Computer Networks and Telematics
Prof. Christian Schindelhauer

1st Meeting

22nd April 2008

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Introduction

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- **Ad hoc Networks**
  - Mobile Ad hoc Networks
  - Wireless Sensor Networks

Registration

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- One seat is available
- Waiting list of this semester
- Advanced booking for WS 2008/2009

Organization
General

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- **Seminar conducted in English**
- **Paper Selection**
  - Select 3 to 5 papers from our literature
  - Sort them by priority in a list
  - Submit it by 25th April by email (ooi@inform@tik.uni-freiburg.de)
  - Topics will be assigned on 29th April
    - Own topic and two other topics
- **First Presentation**
  - 20th May and 27th May
- **3-day Block Seminar**
  - 29th July to 31st July

Organization
Presentation

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- **First Presentation**
  - At most 15-minute presentation
  - Only introduction of the selected paper
- **Final Presentation**
  - 30-minute presentation
    - Prepare slides and 1-page summary
    - Submit them one day prior to presentation
  - 10 to 15-minute Q&A
  - Q&A Session
    - Prepare abstract and questions for two more topics assigned
    - Abstract should be at most 300 words
    - Submit them one day prior to presentation

Organization
Grading

- **First Presentation 10%**
- **Final Presentation > 50%**
- **Others 40%**
  - Overall Participation
  - Quiz
  - Written documents (abstract/summary)

Literature
Introduction

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- **Rendezvous Design Algorithms for Wireless Sensor Networks with a Mobile Base Station**
  - A rendezvous-based data collection in which a set of nodes serve as the rendezvous points with a mobile base station
- **Movement Control Algorithms for Realization of Fault-Tolerant Ad Hoc Robot Networks**
  - Control robot movement to achieve fault-tolerant configuration through biconnectivity
- **Towards Mobility as a Network Control Primitive**
  - Using controlled node mobility to improve communication performance
- **A Message Ferrying Approach for Data Delivery in Sparse Mobile Ad Hoc Networks**
  - a mobility-assisted method that utilizes a set of special mobile nodes called *message ferries* for communication

Literature
Introduction

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- **Termite: A Swarm Intelligent Routing Algorithm for Mobile Wireless Ad-Hoc Networks**
  - A biologically inspired algorithm that address the routing in a MANET
- **Energy Optimization under Informed Mobility**
  - Reduce total communication energy consumption by combining node movement and transmission power adaptation
- **VADD: Vehicle-Assisted Data Delivery in Vehicular Ad Hoc Networks**
  - VADD protocol based on predictable vehicle mobility
- **Routing in Cyclic MobiSpace**
  - A routing protocol based on expected minimum delay as the delivery probability metric

To Do

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- **Submit the list of preferred topics**
- **Attend the next meeting on 29th April**

Thank you!

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Ad Hoc Networks

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1st Week
22.04.2008