



Netted Sensors Community 2005 Workshop

Communications and Networks

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Challenges & Issues

- **Wireless network characteristics**
 - Network topology is constantly changing
 - Links are unreliable and time-varying
 - Physical resources are extremely scarce
- **Wireless network design needs to compensate for the dynamic nature of the network by adapting to the changing environment**
 - Leads to dynamically changing network state
 - Strict layered architecture leads to a design for worst case conditions
 - Performance could suffer significantly with strict layering
- **Main solutions to address these technical challenges**
 - Maximize capacity at physical layer
 - **Maximize resource utilization efficiency employing an integrated network design approach**



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Session Agenda

1430-1435 Session Introduction - Ali Saidi (MITRE)

1435-1455 Prof. Anthony Ephremides (Univ. of Maryland)

“A Problem of Sensing in a Network Environment”

1455-1515 Dr. Jason Redi (BBN)

“Cross-Layer System Design for Sensor Networking”

1515-1535 Dr. Ananthram Swami (ARL)

“Networked Signal Processing”

1535-1600 Speaker Questions and Answers



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