

Vinod Namboodiri

210 Jabara Hall

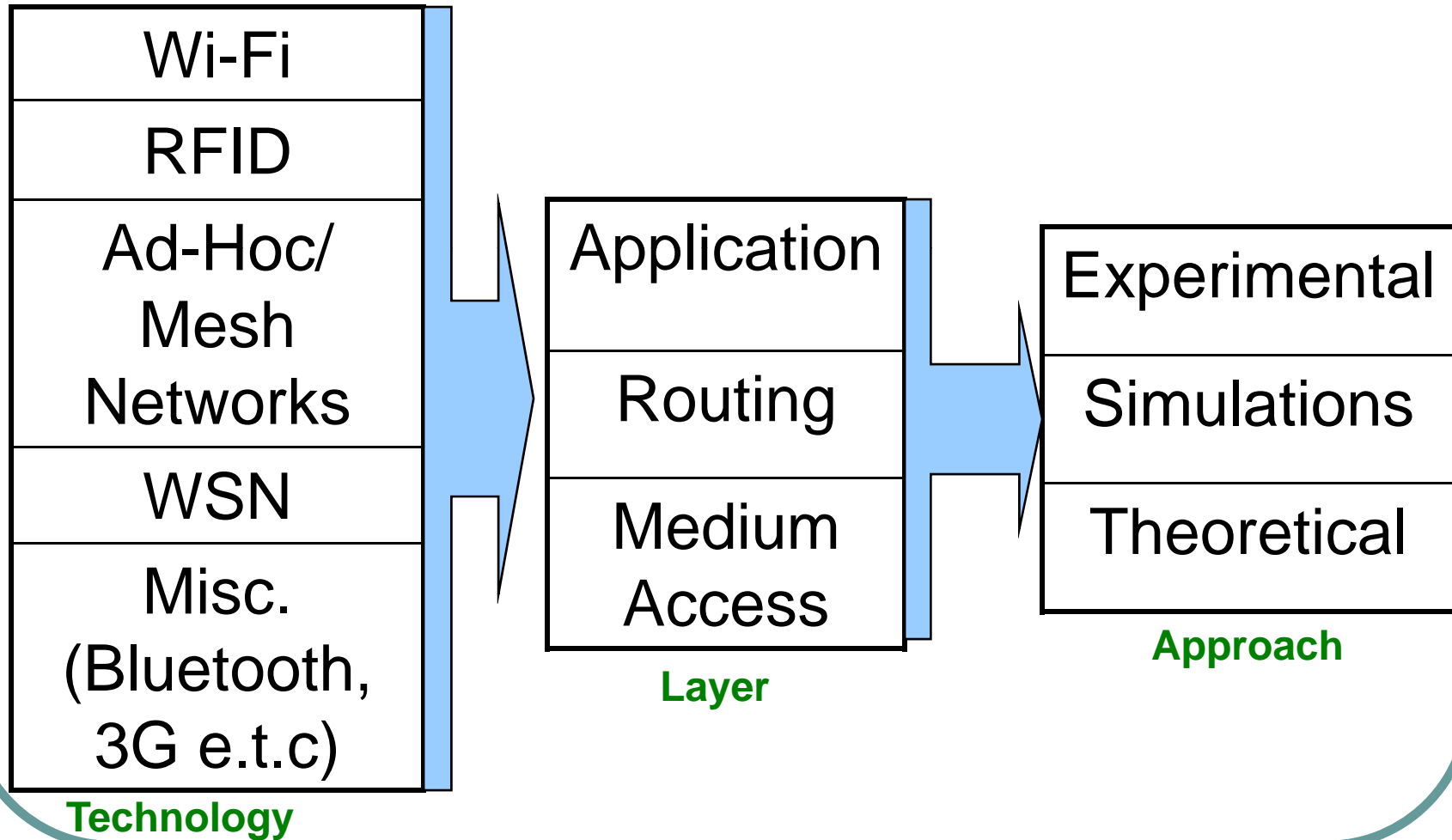
Vinod.Namboodiri@wichita.edu

Research Area – **Wireless Networking**

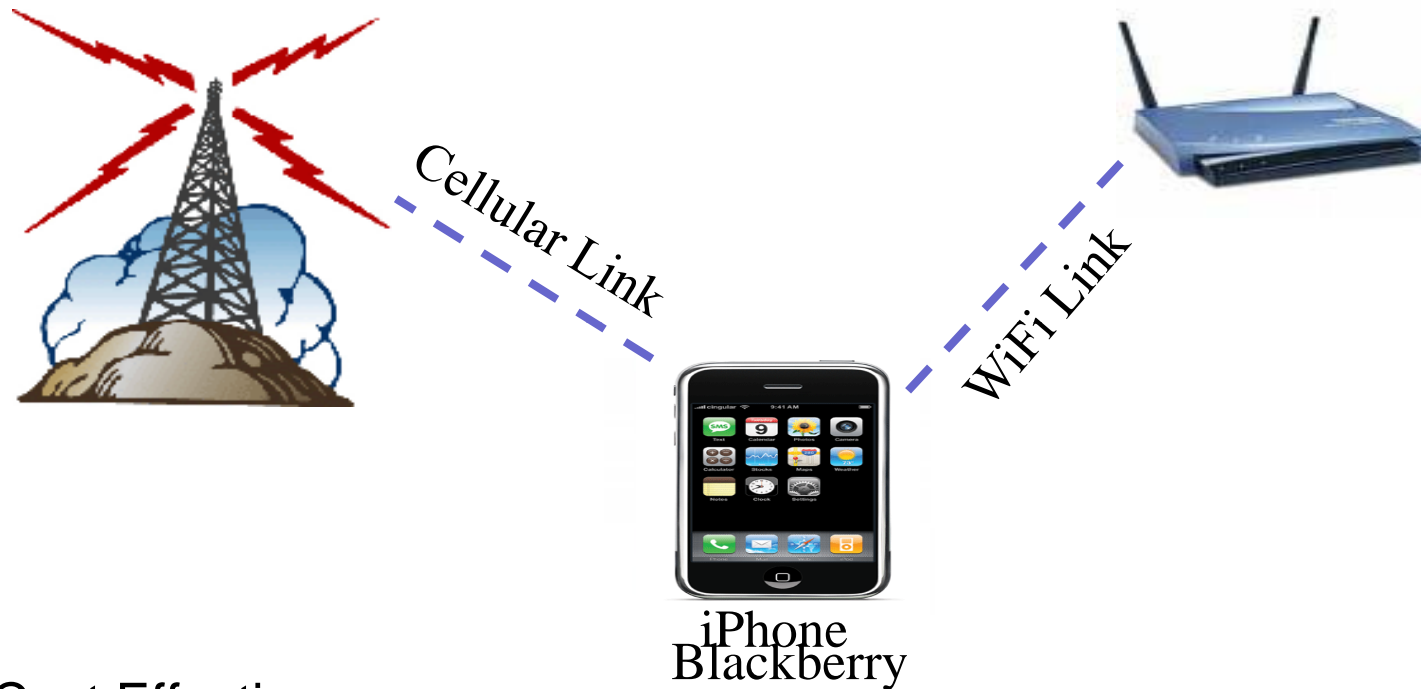
Wireless Networking - Challenges

- **Device Capabilities**
 - Communication
 - Energy
 - Storage
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- **Mobility**
- **Cost**

Goal - Protocols and Algorithms

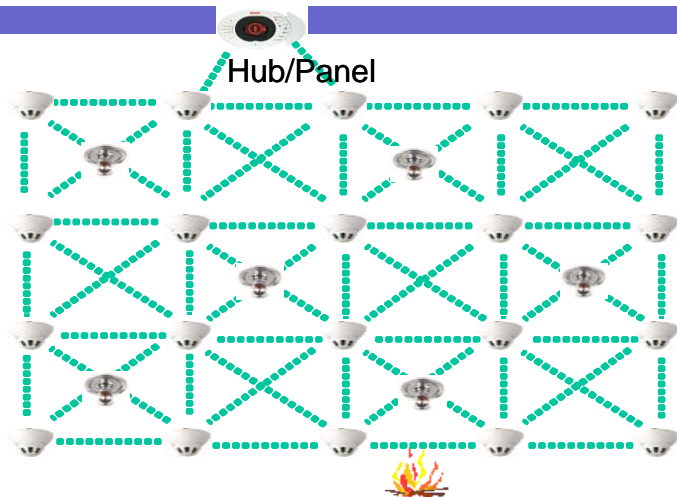


Energy-Efficient Wi-Fi Communication

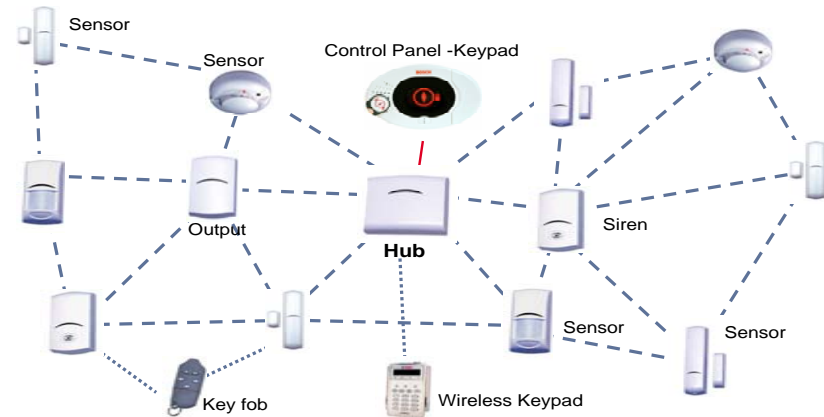


- Cost Effective
- Works where cellular coverage not good
- Wi-Fi Energy Consumption an Issue
- **Design algorithm to allow phone to sleep periodically during calls**

Low-Latency MAC Protocol for WSNs



Fire Alarm Systems



Intrusion Detection Systems

- Low-latency rare event detection
- Design MAC protocol to ensure at least one sensor able to report event with high probability

Routing for Vehicular Ad-Hoc Networks

- Multiple Wi-Fi equipped cars
- Connect to Internet through a gateway car equipped with Wi-Fi & 3G



Design a routing protocol that makes best use of dynamic connectivity on offer

Opportunities

- Contact me during the middle to end of Fall 2008
- For more information about my research
 - Google “Vinod Namboodiri”