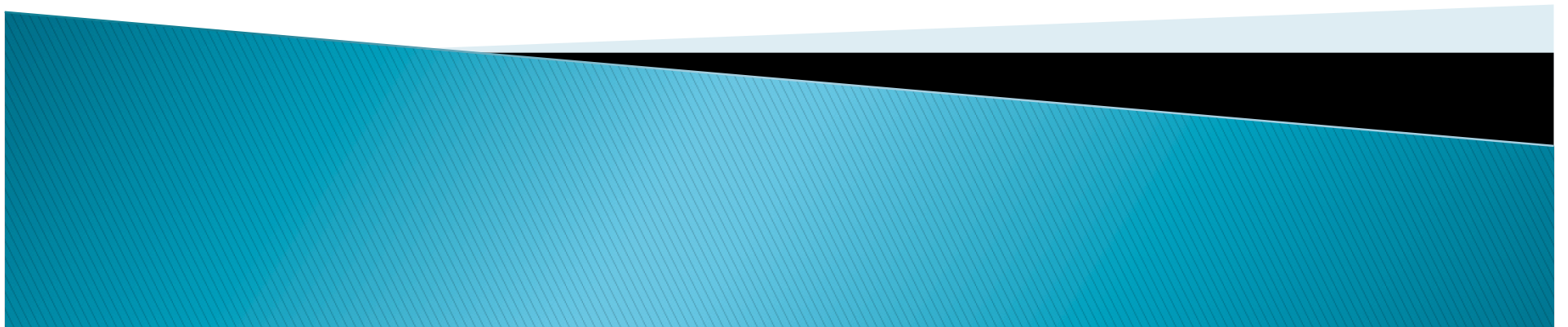


Wireless and Sensor Network Systems

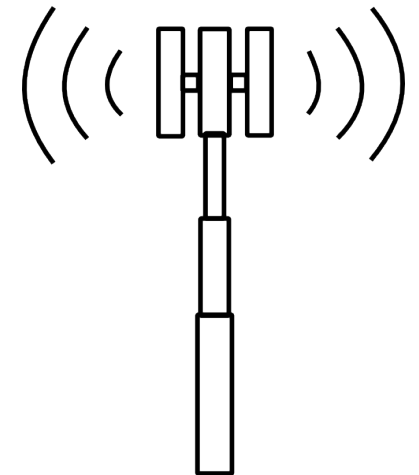
Dr. Cindy Hood

9/24/13

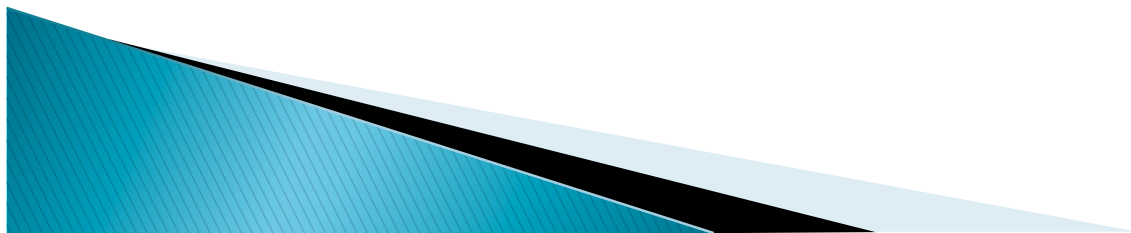
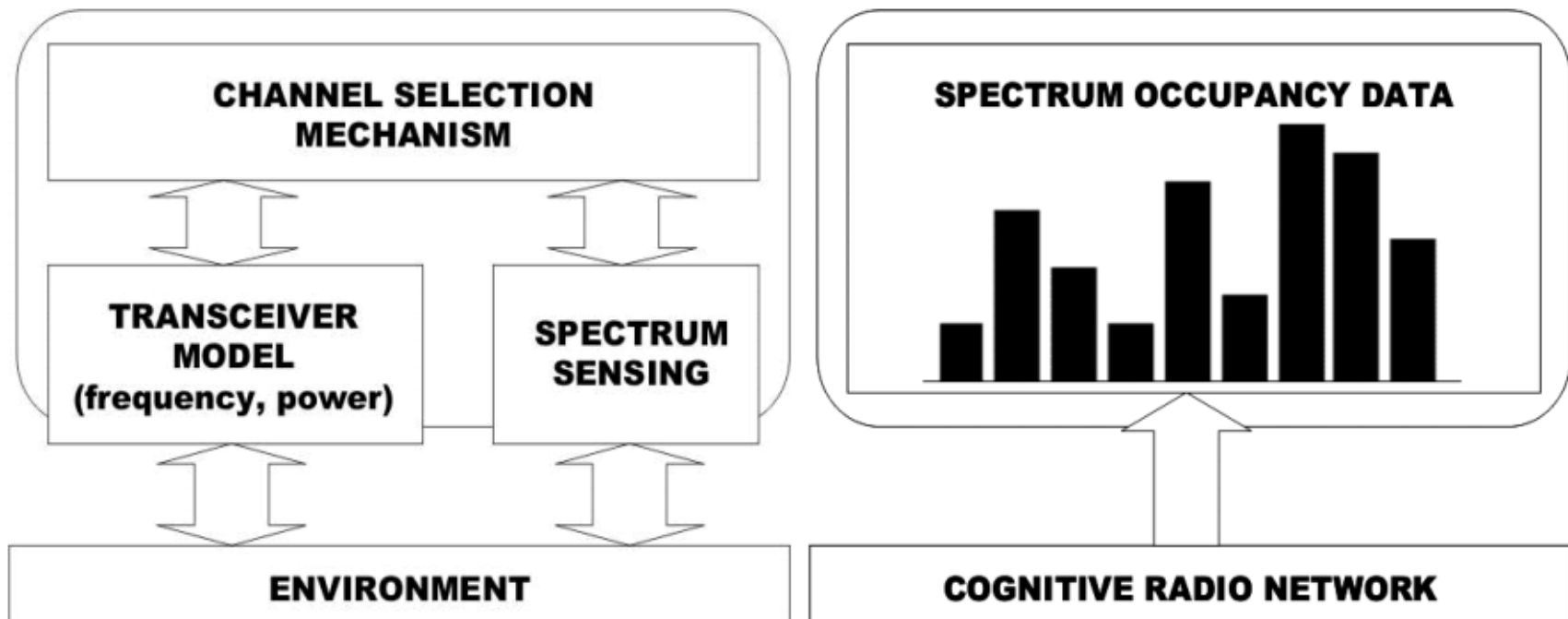


Wireless Networks

- ▶ Is it possible to share spectrum?
 - Air-ground radar
 - Commercial users
 - 4200 – 4400 MHz
- ▶ Modeling and Simulation to understand
 - Interference
 - Reqmts for coexistence

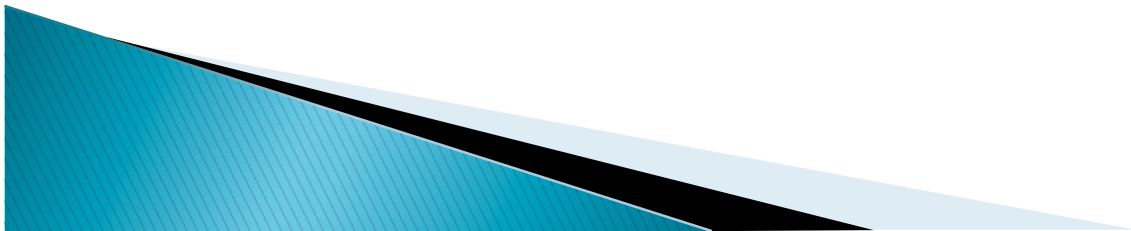


Agent Based Modeling

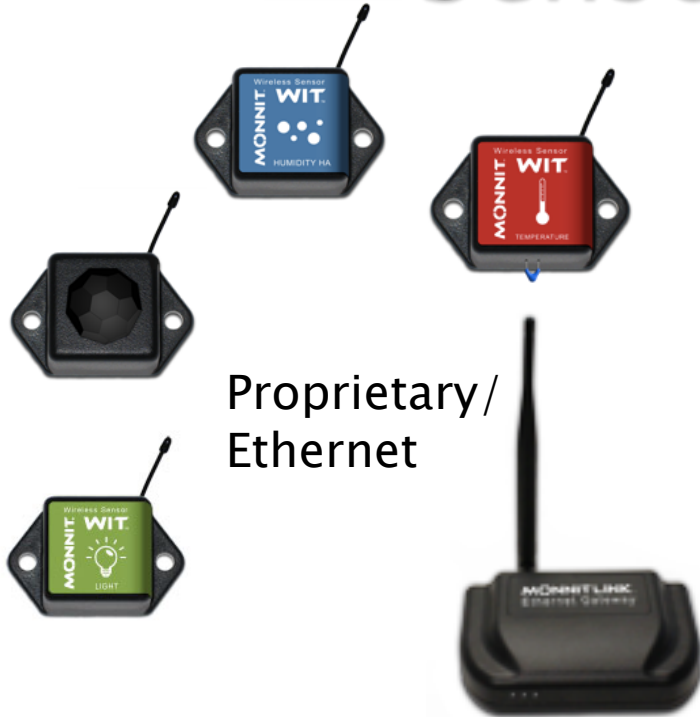


Spring 2014 Class

- ▶ CS 595 Cognitive Radio Networks



Sensor Networks



Proprietary/
Ethernet



Zigbee/USB



3G/4G/LTE/Wifi



Sensor Networks at the Zoo

- ▶ Sensing

- Animals
- Environment
- People

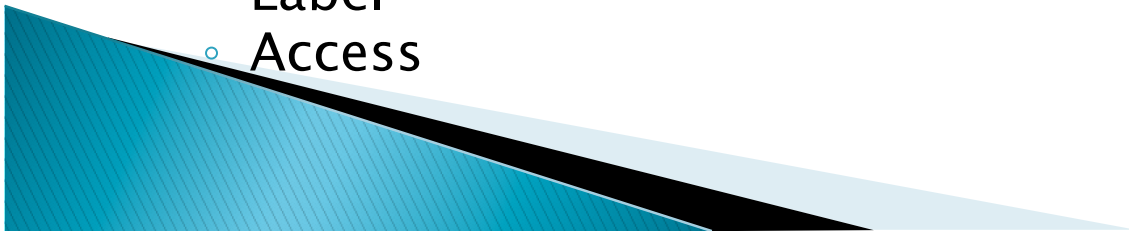
- ▶ Why sense?

- Animal well-being
- Research
 - Animal behavior
 - Guest behavior
 - Interactions – Animals/Environment/People



Some Issues

- ▶ How to manage different types of sensors/sensor networks
 - Configure
 - Secure
 - Communicate
 - Adapt
- ▶ How to manage experiments
 - Define
 - Coordinate
 - Execute
- ▶ How to manage data collected
 - Format
 - Label
 - Access



Sound Interesting?

- ▶ Please contact me for more info
 - hood@iit.edu
 - Tower 10F6-2

