



Dr. Ricky Castles  
 Assistant Professor, Electrical Engineering  
 Wireless sensor networks, physiological data monitoring, biomedical sensing,  
 microcontrollers, engineering education, hands-on learning, STEM Outreach to  
 K-12

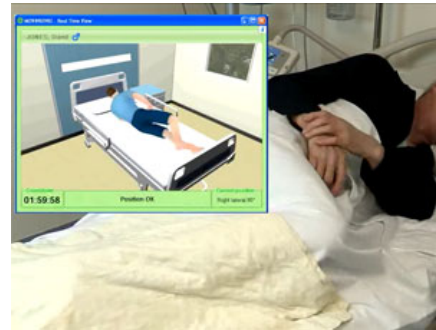
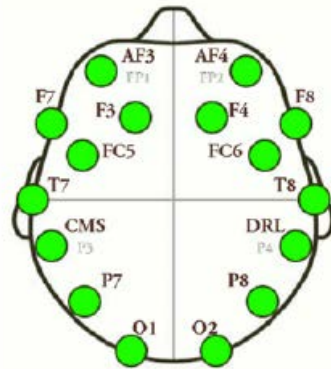
Wireless EEG Data Collection



Hands-On Learning



Collaborative Nursing  
 Research to Improve Health  
 Outcomes



## Microcontroller-Based Systems

- Collection of data
- Mobile Robots
- Display drivers
- Wireless/Wired data transmission

## Engineering Education

- Concept maps / inventories
- Development of adaptive tutorial systems
- Analysis of early alert systems (Starfish)
- K-12 STEM Outreach

Building Partnerships with Teachers, K-12 Schools, and Industry

