

Project Overview

Current project goals

Better communication, not just better networks

Faster innovation and deployment

Especially at application layer

High reliability

Research areas

Communications architectures

Networks of devices

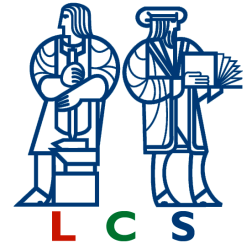
Medical networking as driving application

Instrumentation

Signal processing

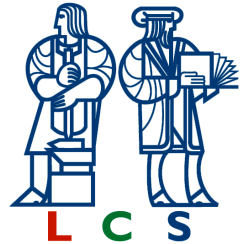
MIT2000-10: Software Technologies for Wireless Communication

Stephen Garland, John Guttag, and David Karger



Progress Through June 2001

- Understanding of driving application area
 - Established collaboration with potential users
- Design of overall communications architecture
 - Automated configuration
 - Novel partitioning of functionality
 - Patient-centric
- Implementation of initial prototype
 - Revealed flaws in initial design
- Design of universal device interface
 - Hardware under construction



Research Plan for the Next Six Months

Completion of universal device interface for medical sensors

Functioning patient-centric network of devices

- Two-three distinct types of devices

- Bluetooth for communication from sensor to gateway

- 802.11B for communication from gateway to LAN

- Fully functional device manager

One interesting application

- Integrated with network

- Probably seizure detector

- Uses EEG data

- Machine learning to customize filter to patient