

# Partnering Opportunities with Calit2

## CPCPC Research Showcase

March 9, 2011

**Dr. G. P. Li**

California Institute for Telecommunications and Information Technology

Integrated Nanosystems Research Facility

Dept. of Electrical Engineering and Computer Science

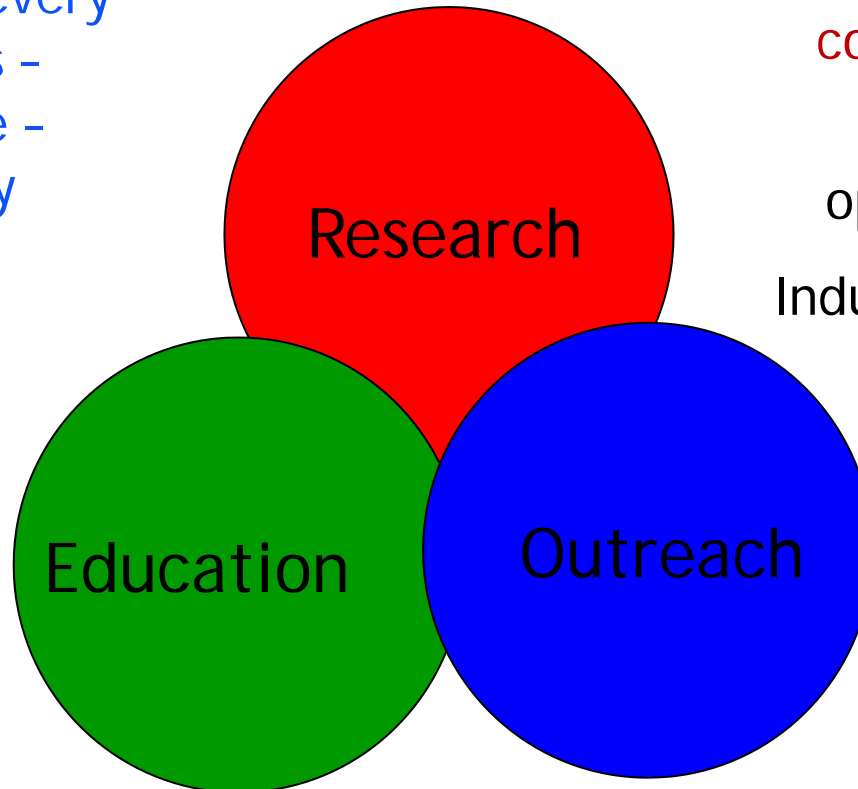
Dept. of Biomedical Engineering

Dept. of Chemical Engineering and Materials Science

Henry Samueli School of Engineering

# An Institute to Create Collaborations

Calit2 partners with every school on UCI campus - from arts to medicine - more than 300 faculty affiliates



Cross-disciplinary collaborations

Funding opportunities

Industrial support

Multi-disciplinary Design programs

Training programs (e.g., NSF IGERT)

Industry internships

Business incubator: TechPortal

Industrial partnerships

Technology transfer

Commercialization

Academia • Government • Industry

# Calit2 Application Thrusts

## The Digital Transformation of....

### Culture



### Energy



### Environment



### Healthcare



# Calit2 Foundation Enabling Technologies

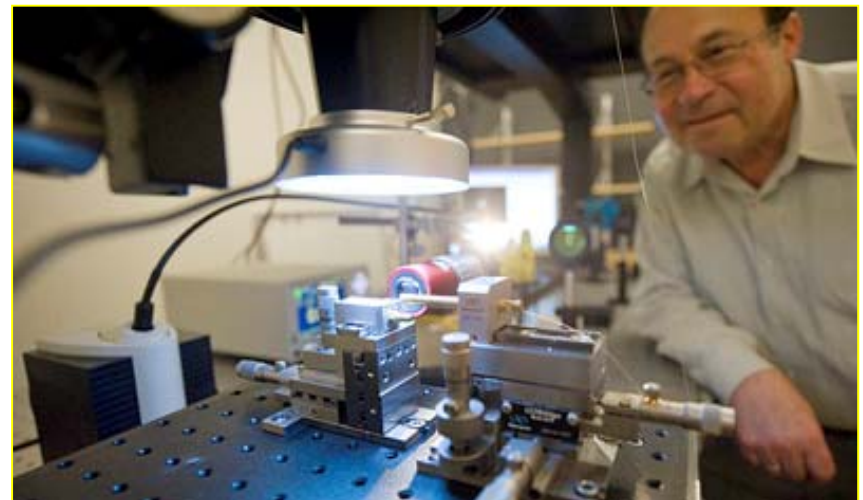
Wireless Systems



Cyberspace



Photonics



Nano MEMs



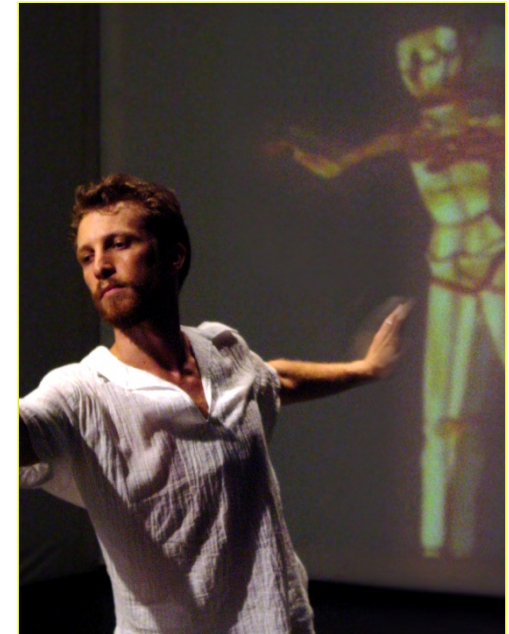


# CULTURE: e-Media Studio and Distributed Arts Collaboratory

**Embodied Interaction** – combines processed video, computer-generated animation, motion capture and real-time motion tracking



**ActiveSpace software development**



**IT for understanding orthopaedic anatomy and mechanics of the lower extremity in dancers**



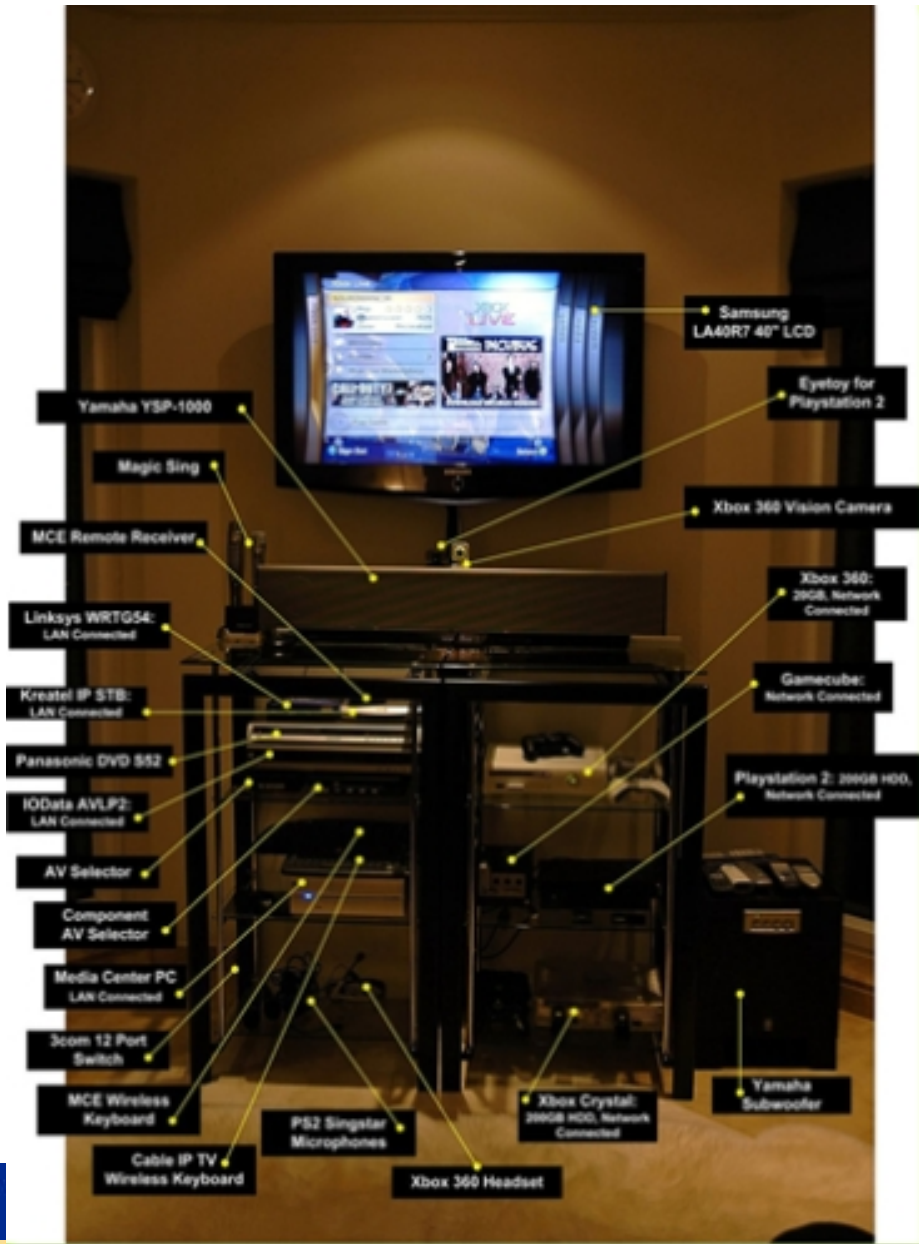
# ENERGY: Cal-Plug Center

## Engineering Research:

*Applied research, including the physical sciences*

### Work will include:

- developing test standards
- lab testing of appliances & equipment
- circuit design
- adding intelligence and remote control
- computer modeling and simulation
- mechanical engineering design
- construction of prototypes
- demonstration projects



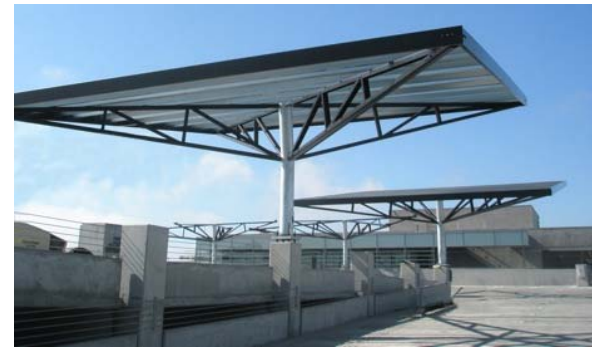
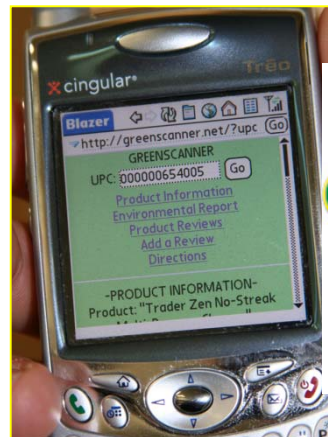
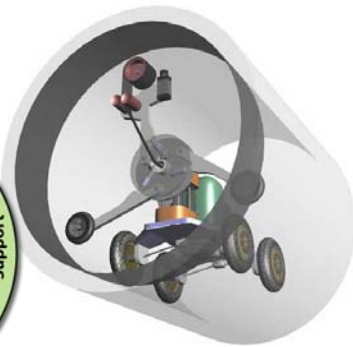


# ENVIRONMENT: Empowering the Green World



## Empowering the Green World

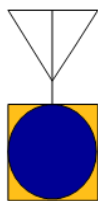
- Deployment of IT for smart environmental monitoring, ie water infrastructure
- Intelligent transportation
- Water resources and environmental health
- Atmospheric sciences (global warming)



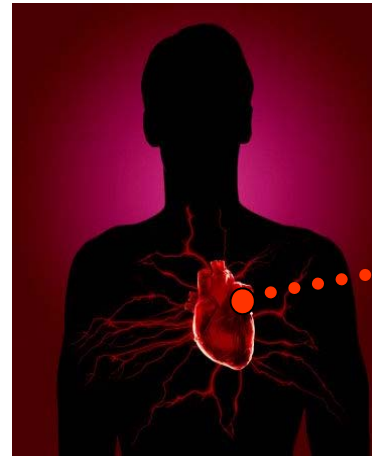
brilliant concept for commuters

# HEALTHCARE: e-Health Collaboratory

## TELIOS – Telepresence Interactive Operating System

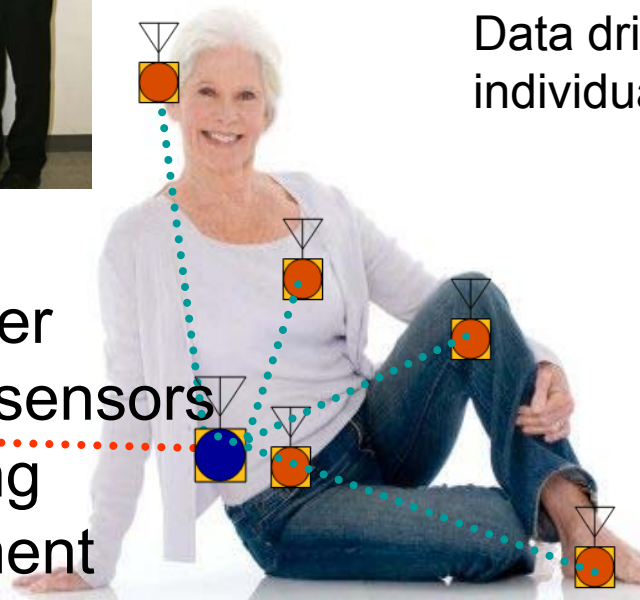


Low power  
wireless sensors  
monitoring  
environment



**Personalized Telemedicine**  
Data driven medical devices for  
individualized medicine

“How are you feeling  
today? Have you been  
taking your medicine?  
It looks like your  
implant needs to be  
checked.”





# HEALTHCARE: Wireless Sensor Lab

## Eco-Node Sensors

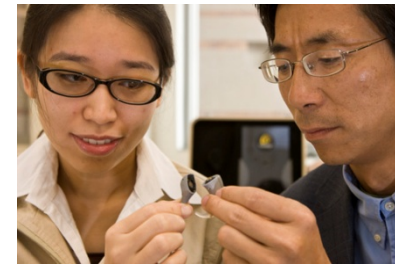
Pre-term infant motion monitoring

Wearable ECG, vital sign monitoring



## Bionic & Assistive Technologies

Cochlear Implants



X-Sense



MEMs for Balance



# Calit2@UCI Innovation Pipeline



Calit2 empowers technology innovation through its “Innovation Pipeline.”  
**Innovate. Integrate. Incubate. Ignite.**

**We welcome collaborative  
opportunities.**

**Thank You!**



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