

University of California, Los Angeles (UCLA)
Center for Embedded Networked Sensing (CENS)
A National Science Foundation Science and Technology Center

**The CENS Undergraduate Research Experience:
A Research Experience, A Network for Life**

The **Center for Embedded Networked Sensing (CENS)**, a 2002 National Science Foundation (NSF) Science and Technology Center (STC), is pleased to announce the availability of Undergraduate Student Internship Awards. The Center is headquartered at UCLA in Boelter Hall with both research and field activities at UCLA and our partner institutions: USC, UC Riverside, James Reserve, Caltech, Jet Propulsion Laboratory, and Cal State. CENS will provide funding or academic credit to promising students to spend the summer or academic year working in the research area of Embedded Networked Sensing (ENS).



Seismic Structure

Each intern will have the opportunity to **participate in forefront research** in the area of Embedded Networked Sensing (ENS) systems. ENS systems will form a critical infrastructure resource for society. They will monitor and collect information on such diverse subjects as plankton colonies, endangered species, soil & air contaminants, medical patients, buildings, bridges, and other man-made structures. Across this wide range of applications, Embedded Networked Sensing systems **promise to reveal previously unobservable phenomena.**

CENS is developing Embedded Networked Sensing Systems and applying this revolutionary technology to critical scientific and social applications. Like the Internet, these large-scale, distributed, systems, composed of smart sensors and actuators embedded in the physical world, will eventually infuse the entire world, but at a physical level instead of virtual.

Undergraduate research opportunities include:

- Adaptive self configuring wireless systems
- Co-ordinated actuation
- Collaborative signal processing
- Micro/Nano sensor technology
- Ethical, legal, and social implications



Biocomplexity

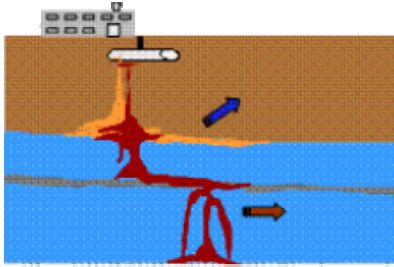
Some of the applications of this research include:

- Contaminant Transport Monitoring
- Marine Microorganisms
- Habitat Sensing Array
- Seismic Monitoring



Microorganisms

- As a CENS Undergraduate Intern, you will have the opportunity to:**
- Participate in forefront research in the area of Embedded Networked Sensing.
 - Contribute to research that makes a difference in both scientific and social applications.
 - Interact with a community of undergraduate interns, graduate students, and faculty members at National Science Foundation Science and Technology Centers nationally.
 - Gain competitive advantage through CENS and CARE professional development and academic seminars.
 - Have fun at CENS and CARE sponsored social activities.



Contaminant Transport



Biological and Chemical Sensing

Interested? Apply Now!

If you are an undergraduate majoring in computer, electrical, mechanical, chemical, civil, or environmental engineering; computer science; or the physical sciences and are interested in exploring undergraduate research opportunities at CENS, please email Sara Terheggen, Ph.D., the CENS Education Director (sarat@cens.ucla.edu).

Application process for Summer 2003 is now closed.

To obtain further information on CENS and its technology and research applications, please visit our web-site at <http://www.cens.ucla.edu>.

Contact Information:

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UCLA – USC – UC Riverside – James Reserve – Caltech – JPL – Cal State