Department Overview

Founded in 1961, the University of California, San Diego , has rapidly achieved a status of one of the top institutions in the nation for higher education and scientific research. It is a campus of spectacular natural beauty, nestled along the Pacific coastline on 1,200 acres of coastal woodland, and currently supports a community of 20,000 students.

The UCSD Department of Computer Science and Engineering (CSE) embodies the university's tradition of excellence as a world-class leader in computer science and engineering education and research. CSE is in a period of exciting growth and opportunity. Ranked in the top 20 nationwide, the department is dedicated to research, education and overall excellence. CSE Graduates capture leading academic appointments as well as fuel the Internet, wireless communications, biotech and computer industries. In 2002, Forbes named San Diego as the #1 place for business and careers, providing a broad range of opportunities for current students and future graduates.

Education

CSE has strong undergraduate and graduate programs. At the graduate level, we offer Masters and Ph.D. studies. Many of our students work closely with other world-class departments and research centers at UCSD , such as the California Institute of Telecommunications and Information Technology (Cal-[IT]2) , the San Diego Supercomputer Center (SDSC) , the Institute for Neural Computation , the Center for Wireless Communication , the Department of Electrical and Computer Engineering , the Interdisciplinary bioinformatics program , and the School of Management .

Research

The CSE Department has significant strengths in most major fields of:

- Algorithms and Complexity
- Artificial Intelligence
- Bioinformatics
- Computer-Aided Design
- Computer Vision
- Data and Knowledge Base Systems
- Embedded Systems
- Graphics
- Meaning and Computation
- Network Security and Cryptography
- Parallel and High-Performance Computation
- Processor Architecture and Compilation
- Software Engineering
- Systems and Networking

Faculty

The CSE Department continues to recruit stellar faculty members (AY 2004-05: Yoav Freund, Sorin Lerner, Beth Simon, Michael Taylor and Matthais Zwicker) and support great research facilities. CSE classes are taught by a large, diverse faculty committed to teaching and research. A large faculty enables the department to offer a wide range of classes in both traditional and cutting-edge topics in computer science. CSE courses are taught by distinguished faculty members who are leading, award-winning researchers in the course areas they teach. Faculty commitment to excellence in teaching has been recognized and honored with numerous engineering and university teaching awards. In addition to classes, students also have the opportunity to interact with faculty as course teaching assistants, tutors and readers, as graduate & undergraduate research assistants and through faculty mentoring.

For more information, see: Faculty and Research.

Facilities

The Computer Science and Engineering department provides extensive computing resources for research and education. This includes more than 300 high-performance UNIX/Linux and Windows-based workstations, a large number of laptop systems, and several hundred wireless personal digital assistants. In addition to general purpose file, e-mail, Web, and compute servers, the department maintains two network-attached terabyte disk arrays and four separate high-performance compute clusters. Through the San Diego Supercomputer Center (SDSC) , a unique national facility, students have direct access to a variety of vector, multithreaded, and parallel supercomputers as well as a state-of-the-art high-performance visualization laboratory. Department network communications includes a Gigabit Ethernet backbone, offering connectivity to both the commodity Internet and high-performance research networks such as Internet2. The department has wireless Internet connectivity via a campus-wide 802.11b network and an experimental broadband wireless system in concert with Qualcomm. The department supports specialized equipment for individual research efforts in vision, computer architecture, networking, security, mobile systems, and distributed computing.