From the Department Chair:

On behalf of our students, staff, and faculty, it is my pleasure to invite you to discover the Electrical Engineering Department at San Jose State University. We have a long history and an outstanding record of contributions to the profession and the Silicon Valley community.

We are a large department, but we still maintain close interaction between faculty and students at all levels. We strive to be at the forefront of applied research by collaborating with Silicon Valley companies to bring up-to-date technologies into our curriculum. We provide courses that educate our students in core fundamentals, prepare our students for all fields in Electrical Engineering discipline, and engage our students with emerging technologies.

As the regions of the world increasingly influence each other, we enter profoundly into the sphere of global economy. To prepare our students for this wide spectrum of competition, we extend our reach to the innovations and technology developments happening worldwide. We are actively engaging in collaboration and cooperation in education and research with domestic and international organizations in both the public and private sectors, in order to further our presence and to feel the pulse of the global technology progress.

Thuy T. Le, Ph.D.
Professor and Department Chair
The University
San Jose State University, founded in 1857, is California’s oldest institution of public higher education. It is located within walking distance of downtown San Jose and the new San Jose City Hall. It is home of the newly completed Charles W. Davidson College of Engineering.

The Charles W. Davidson College of Engineering
Frequently referred to as “The Engine that Drives the Silicon Valley,” SJSU’s Charles W. Davidson College of Engineering has provided more engineers to its high-tech community than any other university in the USA. The college has 7,200 students, 2,400 graduates and 4,800 undergraduates. The seven departments offer eleven different degree programs at the BS and MS levels.

The EE Department
The EE Department has established a firm goal to provide a high quality Electrical Engineering education to its students at both the undergraduate and graduate levels. The Department offers classroom instruction by highly qualified EE faculty, hands-on experience in industry sponsored state of the art laboratories, and opportunities for industry internships. The Department has over 600 undergraduate and 550 graduate students.

The program supports students to acquire professional experience while taking classes. A number of students work as faculty assistants and teaching associates in the department. In conjunction with their classes, many students work as EE interns in Silicon Valley firms. Our graduates enjoy excellent career opportunities in a broad spectrum of theoretical and practical areas such as wireless communications, mixed signals, design of chips, and internet technologies.

EE Department’s Mission
The Department’s mission is to provide an empowering educational opportunity to students for their technical, professional and social development in a competitive and dynamic global society.

Undergraduate Program:
The Department’s educational philosophy emphasizes a hands-on practical education, based on sound understanding of Electrical Engineering fundamentals. Laboratory experience and projects are an integral part of the program. The program prepares the student to work as an engineer in industry or to pursue higher education.

Graduate Program:
The EE graduate program offers specialization in Digital & Embedded Systems Design, Communication & Signal Processing, Networking, VLSI, Analog & Mixed Signal ICs, Power Electronics & Control. Thesis, project, or courses-only options are available to complete the degree. Industry internships area strong component of the graduate program. Graduates of the program work in industry or continue with a doctoral program.

Career Paths:
Electrical engineers can work in the offices, labs, industrial plants of various industries. They work for private companies, transportation sectors, federal government agencies, and utility firms. Electrical engineers work with all kinds of electronic devices from the smallest devices as microchips to large systems as supercomputers. They design and develop new electrical devices, components, integrated circuits, computer systems, industrial machinery, medical and scientific instruments, communication systems, etc.

EE Faculty
Shahab Ardalan, Assist. Prof., Ph.D., University of Waterloo; Analog & Mixed Signal
Mohamed Badawy, Assistant Prof., Ph.D., University of Akron; Power Electronics & Control Systems
Tri Caohuu, Prof., Ph.D., Texas A & M University; Digital & Embedded Systems Design
Chang Choo, Prof., Ph.D., Rensselaer Polytechnic Inst.; Digital Systems, Image Processing
Sotoudeh Hamedi-Hagh, Prof., Ph.D., U. of Toronto; RFIC, Analog Electronics
Lili He, Prof. Ph.D. State University of New York; Physical Electronics
Ping Hsu, Prof., Ph.D., UC Berkeley; Control Systems
Youngsoo Kim, Assist. Prof., Ph.D., North Carolina State University; Embedded Systems
Thuy T. Le, Prof., Department Chair, Ph.D., UC Berkeley; Digital & Embedded Systems Design
Essam Marouf, Prof, Ph.D., Stanford University; Digital Signal Processing, Communications
Nader Mir, Prof., Ph.D., Washington University; Networking, Communications
Robert Morelos Zaragoza, Prof, Ph.D., U. of Hawaii; Communications
David W. Parent, Prof., Undergraduate Coordinator, Ph.D. U. of Connecticut; Microelectronics
Jonathan Ponniah, Assist. Prof., Ph.D. George Washington University; Networking
Jalel Rejeb, Prof., Assoc. Prof., Ph.D., Syracuse University; Networking
Birsen Sirkeci, Assoc. Prof., Graduate Coordinator, Ph.D., Cornell University; Communications & Signal Processing
Pedro Santacruz, Assist. Prof., Ph.D. Rice University; Networking
Juzi Zhao, Assist. Prof., Ph.D. University of Illinois at Urbana-Champaign; Networking

Department Laboratories
• Cadence IC Design Laboratory
• Center for Analog and Mixed Signal
• Cheadle RF Communications Laboratory
• Circuits Laboratory
• Cisco Networking Laboratory
• Digital Signal and Data Processing
• DSP/FPGA Laboratory
• Electronics Design I Laboratory
• Electronics Design II Laboratory
• Embedded Control Systems Laboratory
• Microprocessors Laboratory
• Multicore and Embedded Systems Laboratory
• Open Laboratory
• Center of Power Electronics Converters
• Radio Frequency Integrated Circuit
• Student Projects Laboratory
• Synopsys IC Design Laboratory
• Xilinx Design Laboratory