

What is an engineer?

An **ENGINEER** is a professional person with a strong science and mathematics background. Working at the forefront of technology, engineers **conceive, design and create new devices and techniques**. An electrical or computer engineer is an **innovator and developer of circuits, computers, electronic devices, mechanisms or systems**.

Electrical and Computer Engineering Department educational objectives:

1. To graduate electrical and computer engineering students who are highly sought after by industry.
2. To provide students with an understanding of electrical engineering fundamentals with emphasis on problem solving and creative design.
3. To develop students' communication and teamwork skills and value for professional ethics in the modern work environment.



- Unparalleled opportunities for undergraduate research and design
- Modern engineering curriculum
- State-of-the-art laboratory facilities
- Emphasis on hands-on design
- Small class sizes, generally 12 to 32 students
- Individual faculty attention
- Faculty dedicated to teaching electrical and computer engineering
- Graduates employed successfully in variety of situations
- All ECE professors hold Ph.Ds.

ABET Accredited

The bachelor of science programs in electrical and computer engineering are accredited by ABET, 111 Market Place, Suite 1050; Baltimore, MD 21202-4012; Telephone: (410) 347-7700.

ABET accreditation is assurance that this program meets the quality standards established by the engineering profession. For further information, contact ABET.



Office of Admissions

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St. Cloud State University
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St. Cloud, MN 56301-4498
Phone: (320) 308-2244
Website: www.stcloudstate.edu/admissions



Office of Scholarships and Financial Aid

financialaid@stcloudstate.edu
<http://www.stcloudstate.edu/financialaid/>

Office of Residential Life

reslife@stcloudstate.edu
<http://www.stcloudstate.edu/reslife/>

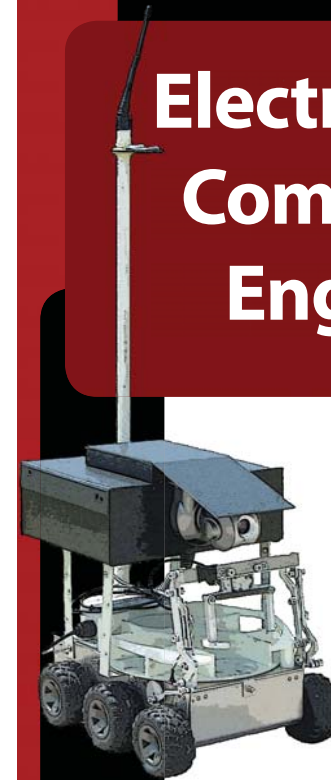


TTY: 1-800-627-3529

SCSU is an affirmative action/equal opportunity educator and employer. This material can be made available in an alternative format; Contact the Applied Research and Development Center at (320) 308-3909.

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Electrical and Computer Engineering



COLLEGE OF
SCIENCE AND
ENGINEERING



ST. CLOUD STATE UNIVERSITY.

Electrical and Computer Engineering (ECE) Curriculum



The electrical and computer engineering programs at St. Cloud State University blend a strong core of science, mathematics, computer science and engineering classes with an emphasis on practical, lab-oriented

design. The modern-day engineer must have extensive hands-on experience with equipment and computer-aided design, as well as a thorough understanding of societal issues gained in liberal arts courses that are required of all engineering students at St. Cloud State University.

Senior Design Projects

During their senior year, all ECE students participate in a group design project, which requires them to apply their analysis and design skills to solve a practical design problem. The following are recent award winning projects:

- **Vulcan Unattended Ground Vehicle (UGV)***
Undeclared in three consecutive General Dynamics UGV competitions, 2005-2007; 2007 UGV Awarded Best Poster at Student Research Colloquium

2007 IEEE Twin Cities Section student paper results:

- **1st - Wireless Restaurant System**
- **2nd - Unattended Ground Vehicle (UGV)**
- **3rd - Weather Monitoring System with Wireless Capability (W.M.S.)**

Senior design project descriptions are available at <http://www.stcloudstate.edu/ECE/students.asp>

* This brochure cover features the 2007 UGV above the 2005 UGV. Each year's UGV is a separate project undertaken by a new team of seniors.

Student Organizations

ECE offers a number of career-related organizations for student involvement:

- Institute of Electrical and Electronics Engineers (IEEE)
- Kappa Eta Kappa Iota Chapter Fraternity (KHK)
- Society of Women Engineers (SWE)

Department Scholarships

ECE gave \$4,500 in scholarships to current students for the 2006-2007 school year. Listed below are five departmental scholarships available annually:

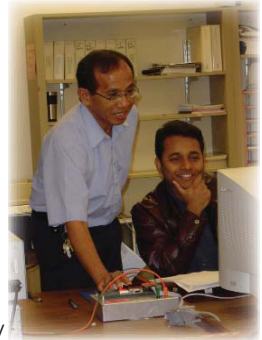
- Pierce Wikman Memorial Scholarship
- Electrical Engineering Department Scholarship
- Robert A. Higgins Scholarship
- Roy Johnson Non-Traditional Student Scholarship
- IEEE Student Scholarship



Laboratories and Computer Facilities

ECE maintains the following laboratories with state-of-the-art equipment:

- Circuits and Analog Electronics Lab
- Communication Lab
- Control Systems Lab
- Engineering Computer Lab
- Microprocessor and Digital Electronics Lab
- Senior Design Lab
- VLSI Design/Power Electronics/ Electromagnetics Computer Networking Lab



Students at St. Cloud State University have excellent opportunities to work with the latest analysis and design tools, similar to those found in advanced industrial firms.

Opportunities for ECE Graduates

Graduates design hardware and software and are employed in a variety of engineering positions. Among the major employers of our graduates are the following:

- Honeywell
- AT&T
- IBM
- Seagate
- 3M
- Motorola
- Intel
- Medtronic

Some graduates pursue advanced studies in such prestigious graduate schools as University of Southern California, University of California-Davis, University of Minnesota and St. Cloud State University.

The starting salary for SCSU electrical and computer engineering graduates in 2005 was \$47,000 to \$57,000 and rising.