

COLLEGE OF
ENGINEERING

Department of Electrical & Computer Engineering
Michigan State University
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Lansing, MI 48824-1226

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ELECTRICAL & COMPUTER ENGINEERING

The electrical and computer engineering profession is dynamic and ever changing. Before today's graduates celebrate ten years in the profession, advances in nanoscale technologies, computation, ubiquitous communications, biological and biomedical engineering, energy technology, and materials processing — and technical fields that have not yet been conceived — will require leadership and innovation from ECE specialists. An ECE degree also offers an excellent background for advanced training in medicine, law, business, and other analytical disciplines.



With an eye to the future and the challenges and excitement it holds, we strive at MSU to continually improve program quality — in classroom instruction, laboratory research, industrial internship experiences, international exchange programs, and project teaming.

Our students acquire a solid foundation in electrical and computer engineering theory. They gain experience in critical thinking and explore new and innovative ways to address advanced engineering problems. The undergraduate capstone class engages students in cross-functional teaming and open-ended problem solving. As a result, our students learn how to work with people from other science or engineering fields and are prepared for true-to-life work environments.

Visit our website, or possibilities available to students, including easy access to class researchers and the evolution of the profession.

UNDERGRAD

Undergraduates receive excellent training, including easy access to state-of-the-art facilities.

- All faculty members are available to advise undergraduate students.
- The capstone course is supervised by a major engineering faculty member.
- Each year, students have the opportunity to spend a semester in Korea through the University of California Study Abroad program.
- The department's flexible options has resulted in pre-approved independent student mentors.
- Each year, approximately 100 students are enrolled and more are waiting to be accepted.
- The average student fee for 2010 was \$62,000.



RESEARCH

Our department is home to one of the fastest-growing research programs in the country. Sponsored research expenditures for 2009-10 totaled \$10.6 million. While our faculty are continually investigating new areas of research, our focus remains on the following:

Computer Engineering

- Computer Architecture
- Computer Networks
- VLSI/Microelectronics

Electrosiences

- Electromagnetics
- Electronic Materials and Devices
- Nondestructive Evaluation

Systems

- Biomedical Engineering
- Control and Robotics
- Power
- Signal Processing and Communications



FACULTY AND RESEARCH

ECE comprises 40 research specialists and 50

- Several faculty members are research mon
- Most of our senior researchers are national profes
- Eleven of our faculty have received CAREER Awards
- Professor Perumalla is a National Academic



RESEARCH CENTERS

- Bio/Computational Evolution in Action Consortium (BEACON)
- The Fraunhofer USA Center for Coatings and Laser Applications
- Collaborations with MSU's Institute for Cyber-Enabled Research (iCER)

FOR MORE

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