CORE SKILLSETS AND COURSES IN ECSE:

- **Computer Systems**
  Computer components and operations; Computer architecture and networking; Computer operating systems
- **Data and Information**
  Probability and statistics; Signal processing; Analog and digital communication
- **Learning and Control**
  Time and frequency domains; Feedback control; Digital control; Machine Learning
- **Image Science and Vision**
  Computer graphics; Machine vision; Image processing
- **Circuits and Electronics**
  Analog and digital circuit; Circuit analysis, simulation, and design; Microelectronics; Integrated circuits, VLSI
- **Energy and Power**
  Electromagnetic fields and waves; Power grid; Renewable sources; Electric machines
- **Design and Teamwork**
  Embedded control; Engineering design; Multidisciplinary capstone design

CONCENTRATION AREAS

- Intelligent Systems and Machine Learning
- Computer Network
- Communications and Information
- Control, Robotics and Automation
- Graphics and Vision Computer Hardware System
- Microelectronics
- Photonics, optics, optoelectronics
- Energy and Power System

ABOUT ELECTRICAL, COMPUTER, AND SYSTEMS ENGINEERING

Founded in 1907, one of the first Electrical Engineering programs in US

STUDENTS

- 776 Undergraduates
- 30 Masters
- 76 Doctoral

RANKED 31th (EE) 35th (CSE) in 2018 US News & World Report Graduate Rankings

DEGREES OFFERED

- Electrical Engineering (B.S., M.S., M.Eng., Ph.D.)
- Computer Systems Engineering (B.S., M.S., M.Eng., Ph.D.)
- Minors in Electrical Engineering, Computer Systems Engineering

DUAL MAJOR OPPORTUNITIES

Computer Science, Mechanical Engineering, Biomedical Engineering, Applied Physics

UNDERGRADUATE OPPORTUNITIES

Undergraduate Research Projects, Internship, Co-op, Study Abroad

GRADUATE STUDENT SUPPORT

Almost all doctoral students received financial assistance

FACULTY

- 28 Tenured/Tenure-Track
- 8 Lecturers and Prof of Practice
- 7 IEEE Fellows, 5 NSF CAREER Awards
- 12M annual research expenditure

STAFF

- 6 Technical Support Staff
- 5 Administrative Support Staff

RESEARCH AREAS

- AI and Machine Learning
- Communication and Networking
- Computer Hardware Systems
- Control, Robotics, Automation
- Electronics and Photonics
- Computer Vision Systems
- Power Electronics & Systems

AFFILIATED RESEARCH CENTERS

- Center for Materials, Device, and Systems (CMDIS) | cmdis.rpi.edu
- Center for Automation Technologies and Systems (CATS) | cats.rpi.edu
- Center for Future Energy Systems (CFES) | cfes.rpi.edu
- NSF Engineering Research Center for Light Enabled Systems and Applications (LESA) | lesa.rpi.edu
- NSF Engineering Research Center for Ultra-Wide-Area Resilient Electric Energy Transmission (CURENT)
- Center for Initiatives in Pre-College Education (CIPCE) | cipce.rpi.edu

JOHN WEN
DEPARTMENT HEAD
WENJ@RPI.EDU

CONTACT US

(518) 276-6316
ECSE.RPI.EDU