CORE SKILLSETS AND COURSES

- **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 Computer Vision**
  - Computer graphics; Machine vision; Image processing

- **Circuits and Electronics**
  - Analog and digital circuits; Circuit analysis, simulation, and design; Microelectronics; Integrated circuits, VLSI

- **Energy and Power**
  - Electromagnetic fields and waves; Power grids; Renewable sources; Electric machines

- **Design and Teamwork**
  - Embedded control; Engineering design; Multidisciplinary capstone design

CONCENTRATION AREAS

- Intelligent Systems and Machine Learning
- Computer Networks
- Communications and Information
- Control, Robotics, and Automation
- Graphics and Vision
- Computer Hardware Systems
- Microelectronics
- Photonics, Optics, and Optoelectronics
- Energy and Power Systems

ABOUT ELECTRICAL, COMPUTER, AND SYSTEMS ENGINEERING

Founded in 1907, one of the first Electrical Engineering programs in the U.S.

**Students**
- 776 Undergraduates
- 49 Masters Students
- 98 Doctoral Students

**Ranked 38th (EE), 40th (CSE) in 2019 U.S. 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, Internships, Co-ops, Study Abroad

**Graduate Student Support**
- Almost all doctoral students receive financial assistance

RESEARCH AREAS

- AI and Machine Learning
- Communications and Networking
- Computer Hardware Systems
- Control, Robotics, and Automation
- Electronics and Photonics
- Image Science and Computer Vision
- Power Electronics and Power Systems

AFFILIATED RESEARCH CENTERS

- Center for Materials, Devices, and Integrated 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 Lighting Enabled Systems and Applications (LESA) lesa.rpi.edu
- NSF Engineering Research Center for Ultra-Wide-Area Resilient Electric Energy Transmission (CURENT)
- Cognitive and Immersive Systems Lab (CISL) cisl.rpi.edu
- Center for Initiatives in Pre-College Education (CIPCE) cipce.rpi.edu

CONTACT US

John Wen, Department Head
info@ece.rpi.edu • (518) 276-6316

FACULTY
- 28 Tenured/Tenure-Track
- 7 Lecturers and Professors of Practice
- 7 IEEE Fellows, 6 NSF CAREER Awards
- $12M annual research expenditures

STAFF
- 5 Technical Support Staff
- 6 Administrative Support Staff