



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; Micro-
electronics; 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 Engineer-
ing, 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 Educa-
tion (CIPCE) cipce.rpi.edu

CONTACT US

John Wen, Department Head
info@ecse.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

