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 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 Networks
• Communications and Information
• Control, Robotics, and Automation
• Graphics and Vision
• Computer Hardware Systems
• Microelectronics
• Photonics, Optics, Optoelectronics
• Energy and Power Systems

ABOUT ELECTRICAL, COMPUTER, AND SYSTEMS ENGINEERING

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

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

Ranked 31st (EE) 35th (CSE) in 2018 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, Internship, Co-op, Study Abroad

Graduate Student Support
• Almost all doctoral students received financial assistance

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)
• 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@ecse.rpi.edu • (518) 276-6316

FACULTY
• 28 Tenured/Tenure-Tracked
• 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