Department of Electrical, Computer, and Systems Engineering at Rensselaer

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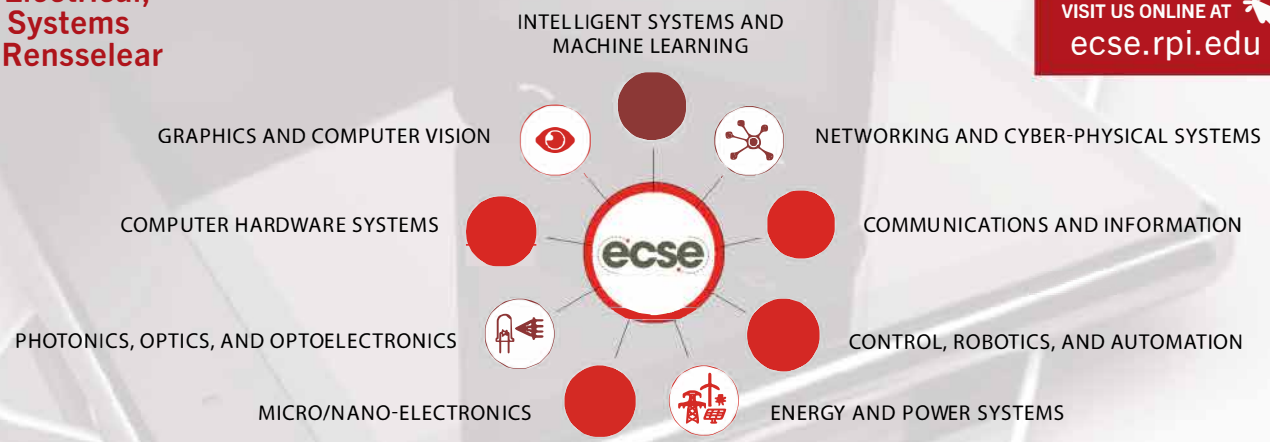


CORE SKILLSETS AND COURSES

- **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

FOCUS AREAS

- AI and Machine Learning
- Computer Vision and Image Processing
- Communications and Computer Networks
- Control Systems
- Robotics and Automation
- Computer Hardware Systems
- Electric Power and Energy
- Microelectronics and Photonics
- Mixed Signal Electronics

Rensselaer

ABOUT ELECTRICAL, COMPUTER, AND SYSTEMS ENGINEERING

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

Students

- 591 Undergraduates
- 16 Masters Students
- 95 Doctoral Students

Ranked 42th (EE), **42th** (CSE) in 2023 U.S. News & World Report Graduate Rankings

Ranked 24th in 2022 TFE Times Best Master's of Computer Engineering Programs

Ranked 25th in 2022 College Factual Best Electrical Engineering Programs

Ranked 26th (EE), **25th** (CSE) in 2023 U.S. News & World Report Undergraduate Rankings

Degrees Offered

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

Dual Major Opportunities

- Electrical and Computer Systems Engineering, Computer Science, Applied Physics, ITWS

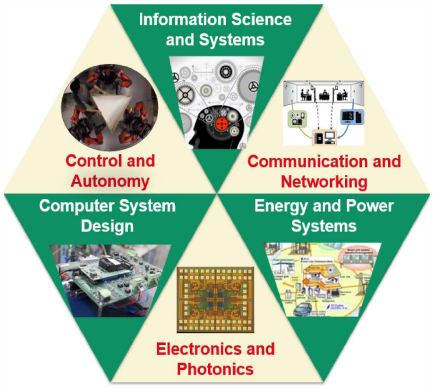
Undergraduate Opportunities

- Undergraduate Research Projects, Internships, Co-ops, Study Abroad

Graduate Student Support

- Almost all doctoral students receive financial assistance

RESEARCH AREAS



AFFILIATED RESEARCH CENTERS

- Center for Materials, Devices, and Integrated Systems (CMDIS) cmdis.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 Mobility with Vertical Lift (MOVE) move.rpi.edu
- Center for Initiatives in Pre-College Education (CIPCE) cipce.rpi.edu

CONTACT US

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FACULTY

- 27 Tenured/Tenure-Track
- 6 Lecturers and Professors of Practice
- 11 IEEE Fellows, 8 NSF CAREER Awards
- $10M annual research expenditures

STAFF

- 3 Technical Support Staff
- 4 Administrative Support Staff

04/20