ELECTRICAL AND COMPUTER ENGINEERING

UIC Open House Fall 2023

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Today's agenda

- UIC introductions
- ECE at UIC with Drs Tuninetti (department head), Revelo (senior design coordinator) and Kosmach (director of undergraduate studies)
- Q&A

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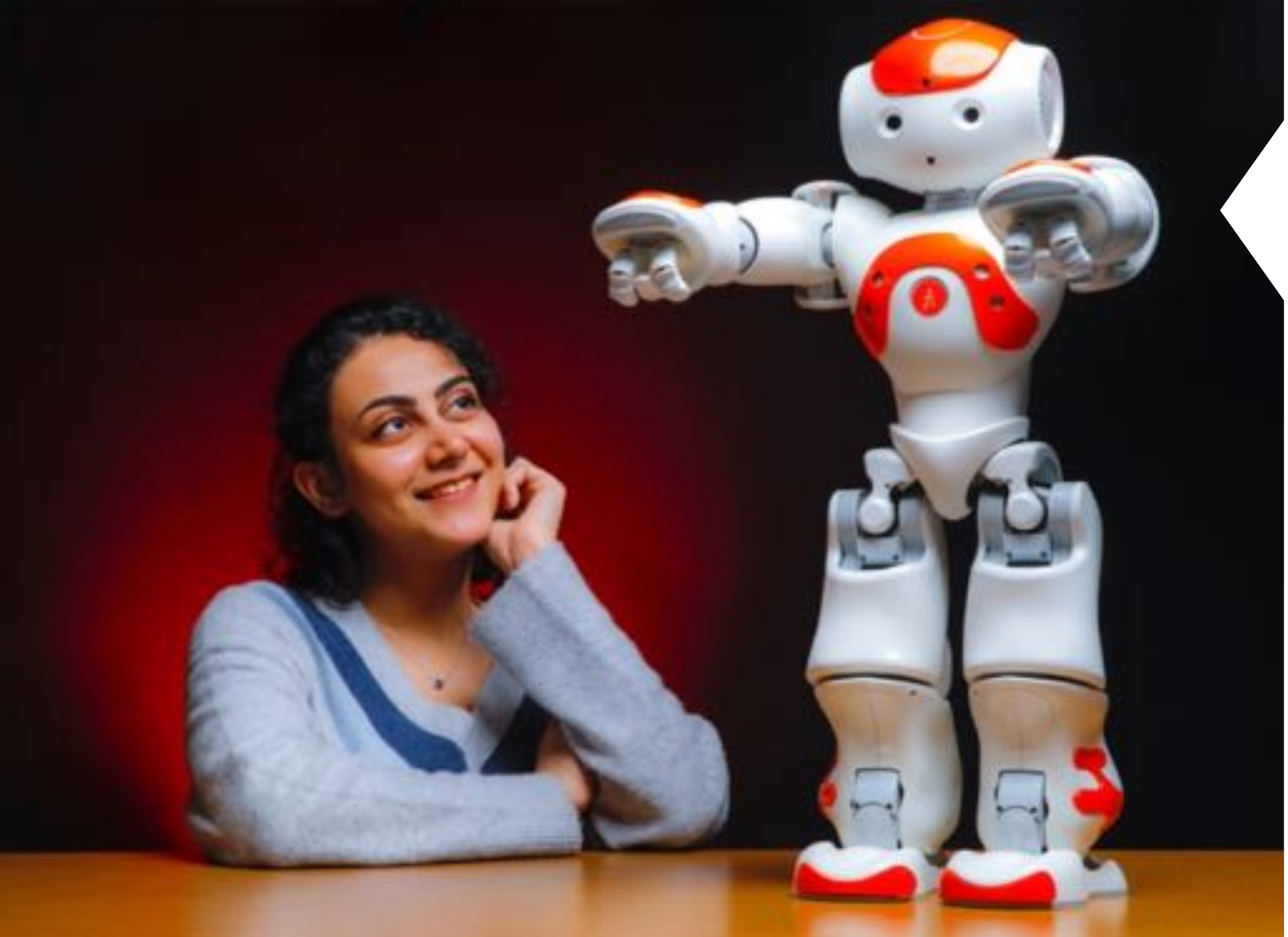

Electrical and Computer Engineering at UIC

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Academics

Majors

- Electrical Engineering (EE)
- Computer Engineering (CE)
- Engineering Physics (EP)

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Academics

Credit breakdown (all majors):

- General education and English = 21 credit hours
- Foundation of math and science = 32 credit hours
- Core ECE courses = 58 credit hours
- Technical electives =17 credit hours
- **Total = 128 credit hours**

Can be completed in 8 terms, with an average of 16 credit hours per term.

Many minors to choose from!

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Who is UIC ECE?

Students in Fall 2023

- 526 computer engineering majors
- 313 electrical engineering majors
- 16 engineering physics majors
- 200 graduate students (MS, PhD)

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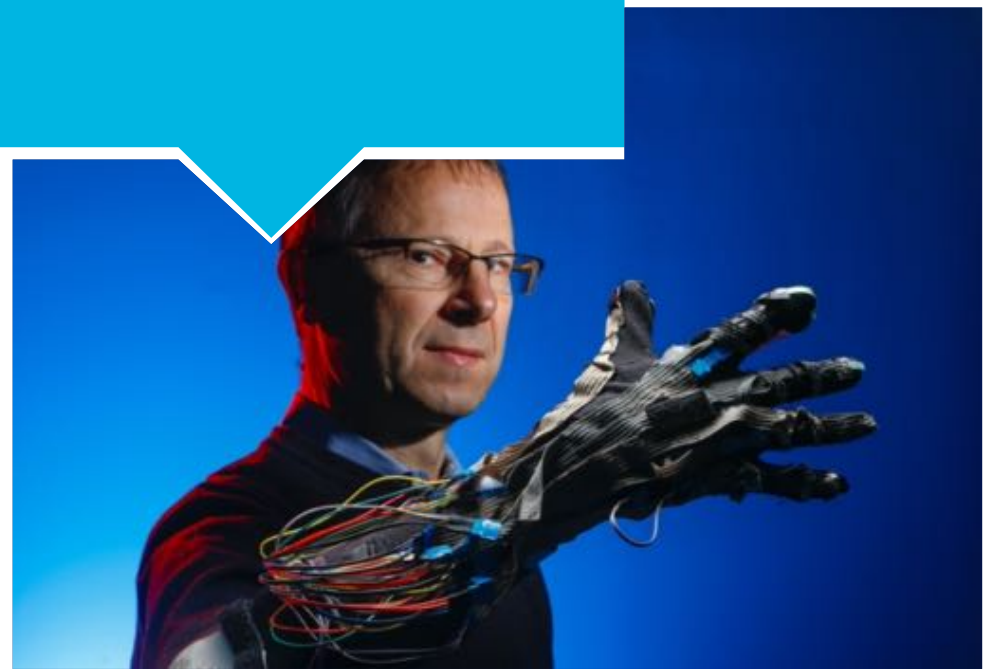
Who is UIC ECE?



Faculty

- 40 faculty members, including 34 tenured and tenure-track faculty and 6 additional teaching faculty
- Very seldom employ adjuncts

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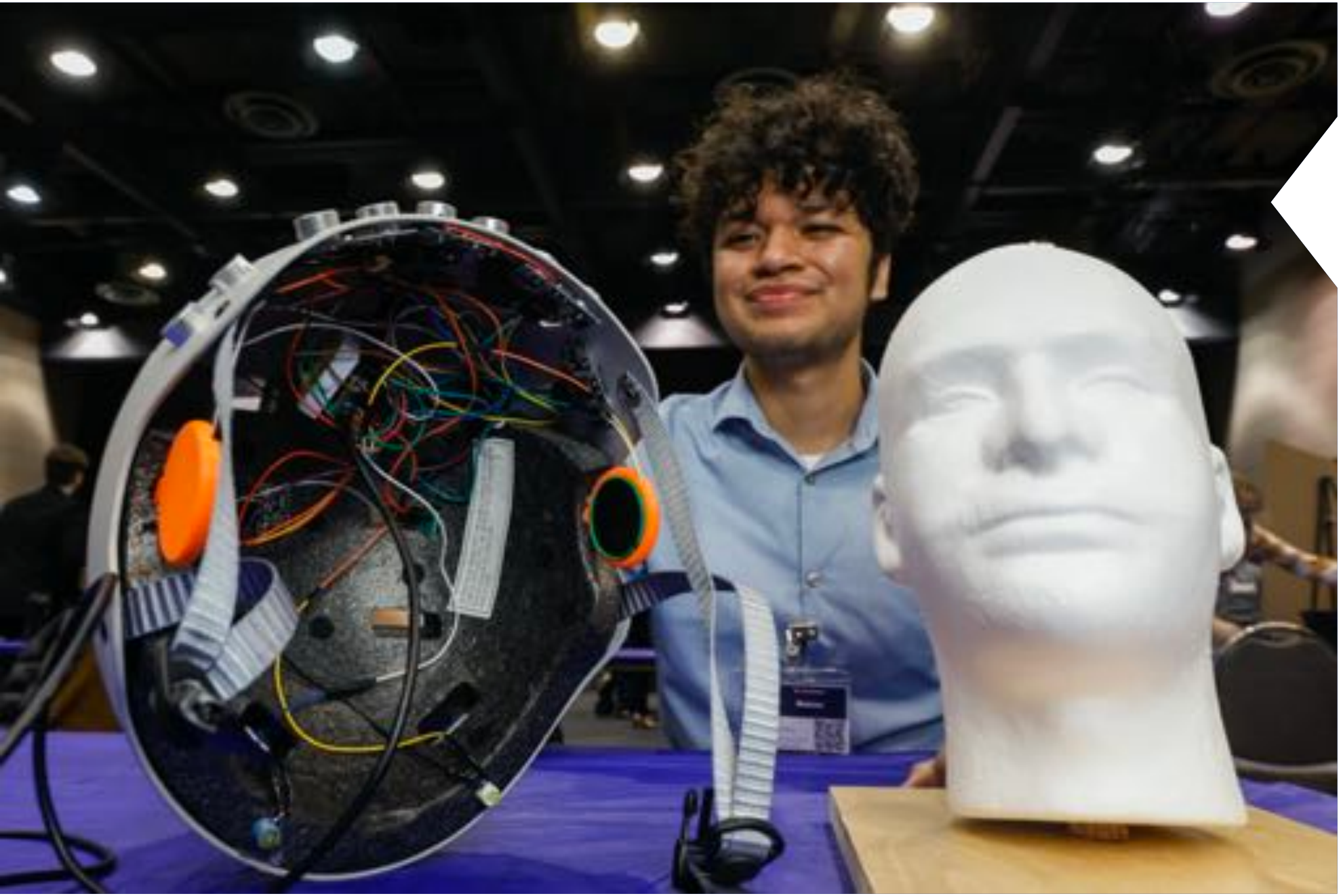

Real-world projects

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Inclusive excellence

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State of the art research facilities

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We are a one-of-a-kind place to learn

Diverse student population https://diversity.uic.edu/data/

- There is no majority student racial or ethnic group at UIC

Diverse faculty https://ece.uic.edu/faculty-and-staff/

- More than one-third women; all faculty have wide-ranging involvement with research and teaching

Guaranteed Paid Internship Program https://ecc.uic.edu/students/freshman-internship-program/

- Guaranteed compensated internships for students who meet program requirements (minimum GPA, participate in Freshman Engineering Success Program, etc.)

Chicago!

- Internships, networking, alumni community of more than 15.000 graduates

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Award-winning research faculty

Including:

- 2 (+ 2 emeritus) UIC Distinguished Professors
- 12 NSF (National Science Foundation) CAREER Award recipients
- 13 IEEE (Institute of Electrical and Electronics Engineer) Fellows
- Editors and associate editors of leading technical journals
- Fellows of other professional organizations including APS, AIMBE, AAAS, SPIE, URS

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GPIP

In our Guaranteed Paid Internship Program (GPIP), you may work on:

- Robotics* [*visit our labs today at 10:30am and 1:30pm]
- Nanoscale structures and fabrication*
- Machine learning and Deep learning
- Quantum information science
- Smartphone communication technologies and 6G wireless
- Renewable energy and smart grids
- Power electronics and switching technology
- Fault-tolerant computing
- Hardware verification and validation
- Video tracking and analysis, including environmental and health monitoring
- Internet of things

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Career Success

Did you know?

- More than 400 employers have hired UIC engineering and computer science graduates in the last few years
- We have a dedicated **career center** in the college of engineering
- More than 180 companies came to our fall career fair this past week
- Almost half (90+!!) of these companies are looking for CE majors, and more than one-third (60+!!) are seeking EE majors

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Starting salaries

According to UIC's Engineering Career Center, the most recent survey of graduates showed:

- **ECE majors**: report starting salaries of $60,000 to $75,000
- EE majors: reported highest salary range at $75,000 to $100,000
- CE majors: reported their highest salary range at $110,000

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ECE in your everyday life – we connect you to anyone anywhere

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ECE in your everyday life – we empower doctors with sophisticated diagnostics equipment

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ECE in your everyday life – we pave the way for green sustainable life on our planet

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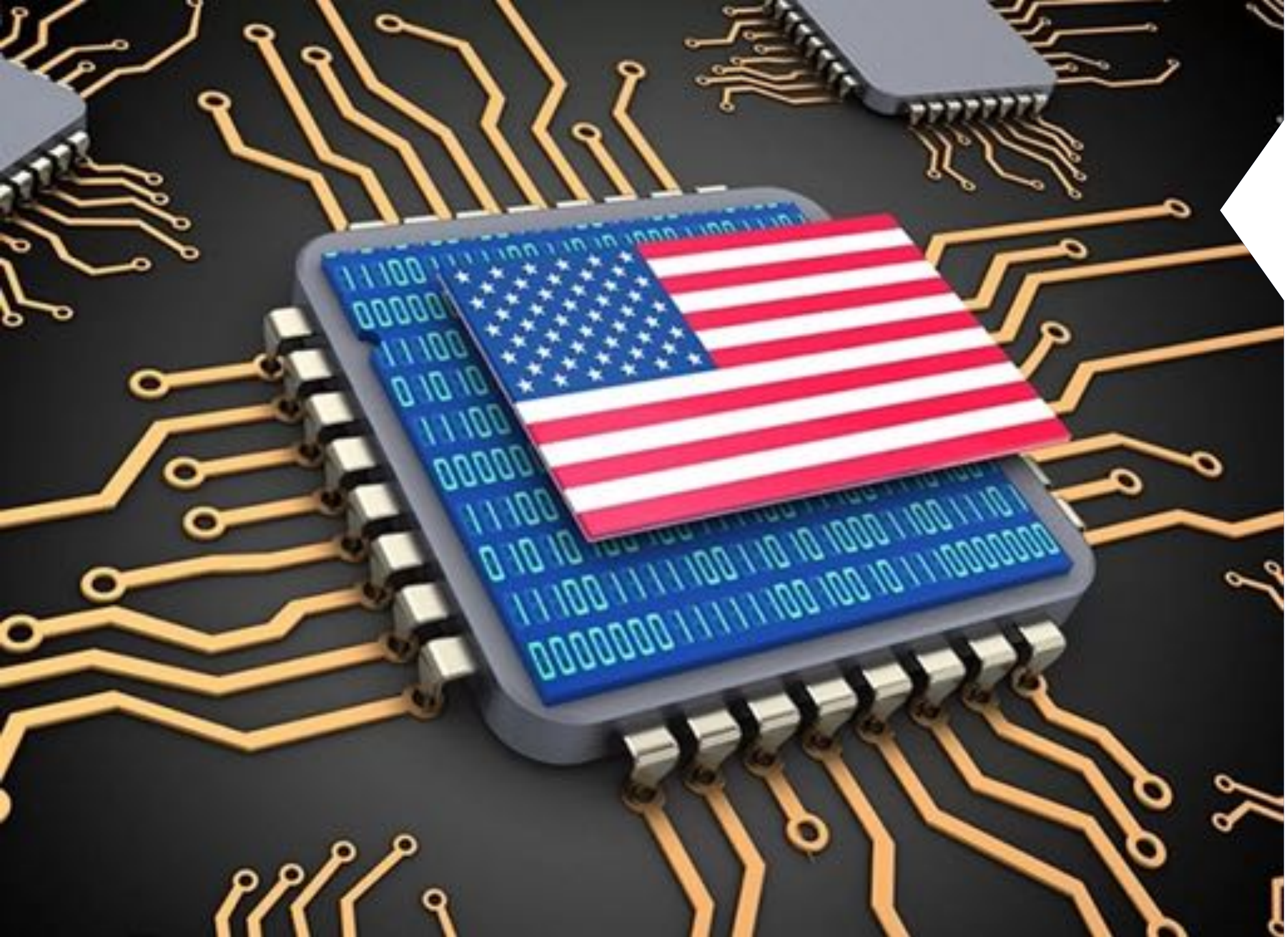

ECE in your everyday life – Biden recently signs $280 billion CHIPS Act.

$50 billion federal investment in domestic chip plants would create 185,000 temporary American jobs and add nearly $25 billion to the U.S. economy each year until 2026 as new fabs are built.

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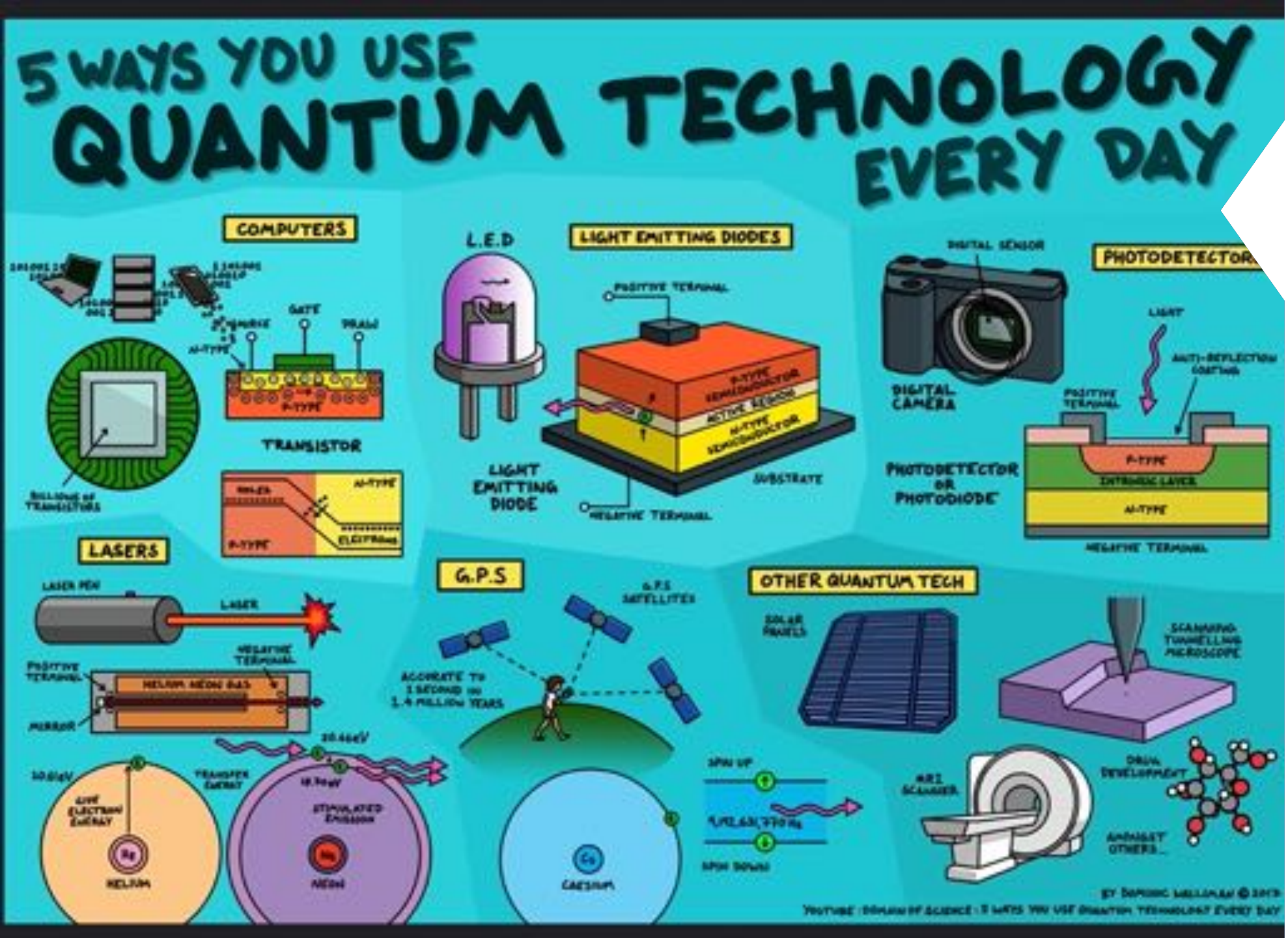

ECE in your everyday life – quantum technology

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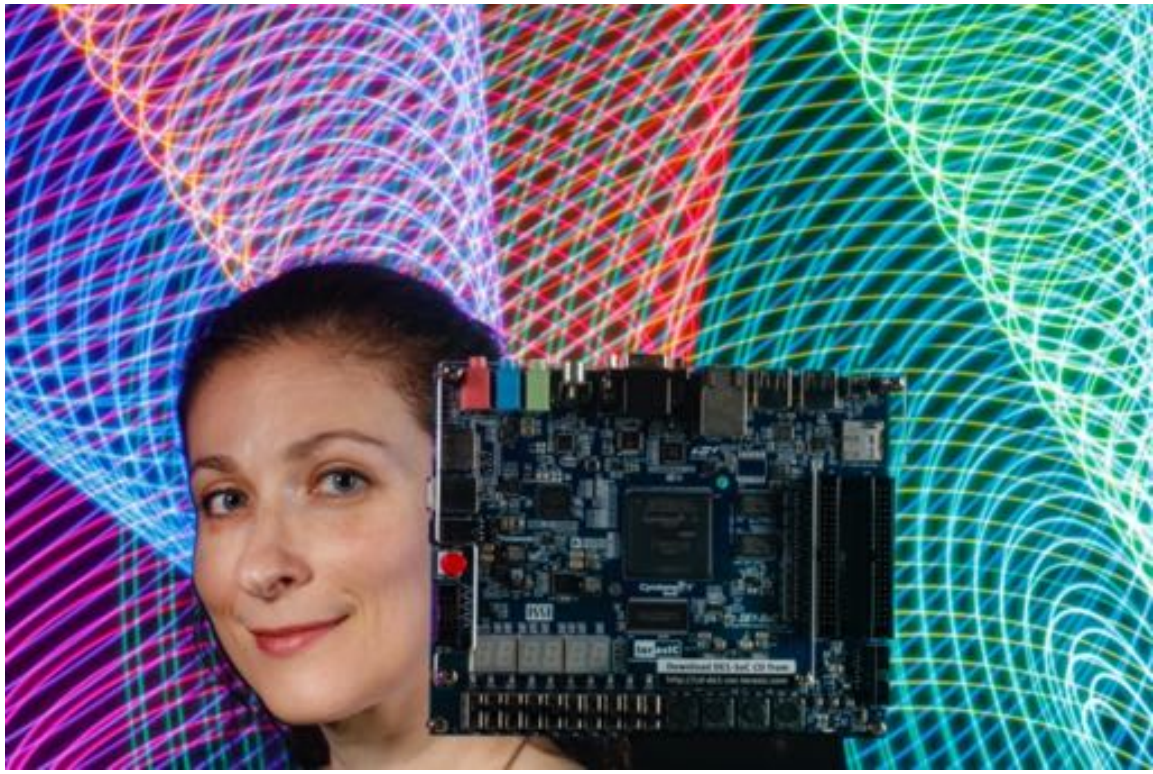
Computer Engineering

- 128 credit hours
- Degree requirements can be completed in 8 terms, with an average of 16 credit hours per term
- Choose from a range of minors including computer science



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Electrical Engineering

- 128 credit hours
- Degree requirements can be completed in 8 terms ,with an average of 16 credit hours per term
- Choose from a range of minors

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Engineering Physics

- 128 credit hours
- Degree requirements can be completed in 8 terms ,with an average of 16 credit hours per term
- Choose from a range of minors

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Undergraduate student resources

- Academic advising https://engineering.uic.edu/undergraduate/advising/
- Undergraduate student research https://engineering.uic.edu/coe-research/
- Diversity programming, including support to help students from underrepresented populations to succeed https://engineeringequity.uic.edu
- Engineering Career Center https://ecc.uic.edu
- Innovation Center (classes piloted by companies) https://innovationcenter.uic.edu
- MakerSpace https://makerspace.uic.edu
- Women in Engineering Programs https://wiep.uic.edu
- 32 student organizations https://engineering.uic.edu/undergraduate/student-groups/

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Student organizations

The college has 32 student organizations. Some are of particular interest to EE, CE, and EP majors: organizations https://engineering.uic.edu/undergraduate/student-groups/

- Institute of Electrical and Electronics Engineers (IEEE)
- Engineering World Health
- Eta Kappa Nu honor society
- American Institute of Aeronautics and Astronautics
- Society of Automotive Engineers (UIC Motorsports)
- Vehicle Electronics and Systems Engineering
- Engineers Without Borders

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Preparing for internships and jobs

Engineering EXPO for senior design projects Judged by faculty, industry, professionals, and UIC alumni

Research 1 institution opportunities Study and investigate alongside some of the best faculty researchers in the nation

Work experience here in Chicago Internships, co-op opportunities, part-time jobs

Prepare for graduate school Curriculum and advising to improve your chance of admission to top programs

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We hope that
you will join us!

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Electrical and computer engineering

Questions are welcome!

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