Department of Electrical and Computer Engineering
(https://engineering.iit.edu/ece/about) offers the *Master of Computer Engineering in Internet of Things*. The program curriculum is taught by the world renowned and distinguished faculty members in the ECE Department. Internet of Things (IoT) has revolutionized how embedded devices interact and communicate with each other in many automated environments. By the year 2020, it's projected that at least 30 billion devices will be connected to the internet.

Illinois Tech's *Master of Computer Engineering in Internet of Things* program will prepare students to excel in solving complex-system design challenges and learn about rapidly evolving IoT technologies. Graduate students will make significant contributions to the profession and become capable of developing and implementing new IoT standards and designing interoperable physical and virtual systems.

This program will equip you with the skills needed to master several key topics in the field of computer networking, embedded systems, system architectural design issues, communication and information systems, smart grids, and cybersecurity.

Our Chicago location provides students access to a range of opportunities to conduct research and explore professional and cultural pursuits.

Degrees Offered

Master of Computer Engineering in Internet of Things (M.A.S.)

Research Focus and Strengths

The ECE Department has two research centers and 13 research laboratories. These research laboratories support work in Internet of Things, cyber-physical systems, embedded computing, cyber security, cloud computing, data mining, automation and robotics, machine vision and image processing, artificial intelligence and deep learning, computer-aided design, VLSI (very large-scale integration), SoC (system-on-chip) design, communications, computer networking, wireless networks, network security, medical imaging, signal processing, ultrasonic imaging and communications, microwave electronics, power systems, smart micro grids, power electronics, and electrification.

The Galvin Center for Electricity Innovation boasts Illinois Tech's microgrid technology, cyber-secured power distribution system, and sustainable energy. The Medical Imaging Research Center builds devices, software tools, and research algorithms for medical imaging application.

Degree Program Curricula

The Master of Computer Engineering in Internet of Things requires a minimum of 30 credit hours.
This degree requires a minimum of 10 courses:

- Five core courses.
- Elective courses may be selected with advisor approval.
- No thesis required.

Core Courses

- ECE 441 Microcomputers and Embedded Computing Systems
- ECE 442 Internet of Things and Cyber Physical Systems
- ECE 518 Computer Cyber Security
- ECE 545 Advanced Computer Networks
- ECE 587 Hardware/Software Codesign

Elective Courses

- **Network Engineering Courses (select 1 or 2 courses):**
ECE 504, ECE 517, ECE 519, ECE 520, ECE 541, ECE 542, ECE 543, ECE 544, ECE 545, ECE 546, ECE 547.
- **Computer Engineering Courses (select 1 or 2 courses):**
ECE 449, ECE 528, ECE 585, ECE 597, CS 480, CS 584.
- **Signal and Image Processing Courses (select 1 or 2 courses):**
ECE 437, ECE 481, ECE 508, ECE 511, ECE 535, ECE 553, ECE 563, ECE 565, ECE 566, ECE 567, ECE 569.
- **Power Engineering Courses:**
ECE 505, ECE 512, ECE 537, ECE 548, ECE 549, ECE 550, ECE 581, ECE 582.

For additional information contact Ms. Joanette Catino: catino@iit.edu

Admission Requirements

Admission to the graduate program normally requires a Bachelor of Science degree in electrical, or computer engineering from an institution accredited by the Accreditation Board of Engineering and Technology (ABET). Students with a Bachelor of Science degree in engineering or science may apply for this program. Deficiency courses will be required for students who have not taken prerequisite or equivalent courses of the following: ECE 242 (Digital Computers and Computing), ECE 308 (Signal and Systems), and MATH 374 (Probability and Statistics). A student may demonstrate proficiency by successfully completing the courses or by demonstrating satisfactory performance in one or more special examination administered by the department.

- Cumulative undergraduate GPA 3.0/4.0
- International students may require GRE and TOEFL.
  Please see the following link for more information:
  https://admissions.iit.edu/graduate/apply/gre-requirements

Contact

If you have questions regarding admission to Illinois Tech, contact Graduate Admissions at grad.admission@iit.edu.
Learn more about application fee waivers, and how to schedule a campus tour and meet with faculty, at https://admissions.iit.edu/graduate/visit.

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