

Master of Engineering Program in Electrical and Information Engineering

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This master-level degree-program emphasizes the foundations, essential practices, and core subjects in Electrical and Information Engineering aiming toward exploration and applications of the ICT technology, which has been evolved from electrical engineering, electronics, computing science, and foundation technologies such as materials. By using core courses to establish students' foundation, the program is designed to stem the students' interests from various layers of the technology stack, using research works as the essential practices for dealing with the chosen issues in depth, while exploring wider possibilities around the issues. Courses are taught in either Thai or English in a such way that supports international students. The program also aims to support learning while working, by scheduling most courses on Saturday and Sunday.

Who Should Enroll

The program is suitable for both newly-graduated and work-experienced bachelors who want to enhance their knowledge and skills by working in a research and development (R&D) section in the industries, academics, or public services. The requirement for prospective candidates is a bachelor degree in Engineering, or Science, or Education Technology in the fields related to the information and electrical engineering; This includes but are not limited to electrical engineering, electronic engineering, communication engineering, computer engineering/science, information technology/engineering, and physics.

The date of writing the program specifications : 4 August 2021

Program Benefits

Under this program, students build their knowledge and skills (K&S) around research projects that deal with issues concerning the electrical and information engineering in layers of technology infrastructure. Using research methodology as a core learning tool, students gain K&S in three aspects:

- (1) technical aspects in applying technologies to serve end-users requirements
- (2) foundation-level professional communication and project management
- (3) life-long learning skills based on the research methodology.

For students to combine these three pillars of K&S efficiently, the program provides a three-layered structure of coursework:

- Core courses for building foundation on technology infrastructure, research methodology, and project management
- Header selective courses for emphasizing on key topics or subfields
- Free elective courses for students to freely choose to either emphasize or broaden the K&S around their interested issues.

The program provides these courses and research issues around the state-of-the-art and impactful technologies including but not limited to

- Internet of Things (IoT) and intelligent services
- Embedded systems and intelligent control systems
- Data analysis/signal processing, Artificial Intelligent (AI) and deep learning
- 5G communications and beyond
- Optical/electronic devices
- Power electronics, Power management, and Power grid system





Program Requirements

Exit Requirements

To graduate, students complete the required coursework and research work that combines to at least 36 credits. There are 3 main paths to choose from: independent study and 2 options of thesis program as shown below.

Thesis Program Option 1 (All Research Work)

- Coursework 0 credits
- Research work (Thesis) 36 credits

(Publish work on a Journal in Web of Science or better)

Thesis Program Option 2

- Coursework 21 credits
 - Mandatory courses 9 credits
 - Elective courses 12 credits
- Research work (Thesis) 15 credits

(Publish work on a National Journal or better)

Independent Study Program

- Coursework 30 credits
 - Mandatory courses 9 credits
 - Elective courses 21 credits
- Research work (Research Study) 6 credits

(Publish work on a National Conference or better)

Typical students complete the degree within two academic years.

Entering Requirements

- A bachelor degree in engineering/science/technology with the major field related to electrical and information engineering including electrical/electronic/communication/control engineering, computer engineering/science, information technology/engineering, and physics
- One or more of the following additional items are needed for the Thesis Option 1
 - Publication of research work related to electrical and information engineering
 - A bachelor degree with honors
 - Teaching experiences in related subjects for at least 1 year

Qualification are subjected to the program's recruiting committee

Program Fees

Tuition fees are charged at a flat rate at 50,000 baht per semester. A typical course of study of two academic years entails the total fees of approximately 200,000 baht/student.

Students who need financial aid should contact the University Financial Aid Unit (<https://sfa.kmutt.ac.th/en/home/>)

Where Did the Graduates Go

Graduates from the program works in industry, government, and academic sections. A significant proportion of graduates is placed into work within six months of their degree completion. They are employed by leading electronics, telecommunication, and information-related firms in Thailand. Some graduates continue their higher education for doctoral degrees.

How to Apply

The deadlines and requirements for applications are available at <http://admission.kmutt.ac.th/>

For More Information

Please visit <http://ene.kmutt.ac.th/index.php/en/>