

## International Master Program in EECS on Communications, Control, and Signal Processing

### Program Overview

The EECS international master program is designed specifically for preparing international students for opportunities of working in the global ICT industry. Currently, M.S. degree program is offered. The program is conducted by a faculty body consisting of members with outstanding records in teaching and research. All courses offered in this program are taught in English. Financial support includes tuition waivers, fellowships, and research assistantships are available. The program focuses on Communications, Control, and Signal Processing, emphasizing both theory and practice. The M.S. degree program provides flexible and pragmatic training to the students interested in a career in product development, manufacturing, field applications, technical management, and further study.

### Unique Features

Information and communication technology (ICT) is one of the most crucial enablers driving the world economy. Taiwan has played a strategic role in the global ICT industry as the main supplier of computing equipments, cell phones, networking equipments, and so on. To people looking for a career in the global ICT industry, Taiwan offers a unique opportunity. Many of the Taiwanese corporations have established their strategic positions in the global ICT industry. Familiar brands such as Acer, ASUS, HTC, MediaTek, and so on are among the major players in the global market. The main driving force behind the high growth of these companies is their capabilities to innovate and produce, both of which heavily depend on the quality of their workforce.

Further, with fierce global competition, major ICT companies are aggressive in expanding their manufacturing and research and development capacities in new regions including Southeast Asia, East Europe, and Latin America. In so doing, it is crucial to employ people in these regions at all levels from production line workers, product engineers, managers, and R&D engineers.

The NTUT EECS international program puts you into the immediately relevant spot in the global ICT industry. With strong and close connections to major Taiwanese ICT companies, including alumni serving as top executive officers and with cutting-edge research and development projects in Communications, Control, and Signal Processing awarded to the EECS faculty members, the EECS international program connects you with these ICT companies in the most direct way. Not only will you have opportunities to work on projects sponsored by these companies during your postgraduate study, upon graduation, you will be in an advantageous position to join these companies in Taiwan and their branches in your home country or elsewhere in the world.

The College of Electrical Engineering and Computer Science (EECS) is home to four departments, 110 faculty members and more than 2,700 students. A wide range of programs leading to B.S., M.S. and Ph.D. degrees are offered by EECS College. The four academic departments are Departments of Electrical Engineering, Electronic Engineering, Computer Science and Information Engineering, and Electro-Optical Engineering. Currently there are more than 170 Ph.D. and 700 M.S. graduate students enrolled in this college.

## Faculty

The EECS international master program boasts a faculty body of distinguished records. Not only did all faculty members receive Ph.D. degrees from world-renowned universities, their outstanding teaching, research, and professional records have distinguished them as Fellows of IEEE and IET, and as recipients of major grants from the ICT industry as well as government funding agencies. Under their guidance, students of the EECS international program will not only receive a solid training in cutting edge ICT technologies but also cultivate a world view that is important in the global ICT market.

## Master's Degree Requirements

1. Thirty two (32) credit hours of graduate level courses must be completed.
  - (1) Required courses (8 credit hours): Master's Thesis (6 credit hours) and Graduate Seminars (2 credit hours).

- (2) Twenty four (24) credit hours in the EECS-approved technical course list must be earned.
2. Upon approval by the thesis advisor, a maximum of six (6) credit hours of courses taken from other NTUT's graduate programs may be credited toward the MS degree.
3. Successful defense of M.S. thesis.

## Curriculum

A carefully designed curriculum in Communications, Control, and Signal Processing is offered on a regular basis. Courses listed below, which are taught in English, constitute the backbone of the curriculum. The curriculum will be further enriched by additional courses selected from other graduate programs both in EECS and from other colleges of NTUT.

## Courses by Tracks

### Signal Processing Track

<b>Fundamental Courses</b>	Random Signals & Systems
	Digital Signal Processing
	Computer Communication Networks
<b>Core Courses</b>	Video Signal Processing
	Audio Signal Processing
	Digital Image Processing
	Speech Recognition
	Multimedia Communication
<b>Elective Courses</b>	Software Engineering
	Embedded Systems
	Communication Software Design

### Communication Track

<b>Fundamental Courses</b>	Random Signals & Systems
	Digital Communications
	Computer Communication Networks
<b>Core Courses</b>	Error Correcting Codes
	Detection & Estimation

	Mobile Communications
	Wireless Local Area Networks
	New Generation Wireless Transmission Technology
Elective Courses	Software Engineering
	Embedded Systems
	Communication Software Design

### Control Track

Fundamental Courses	Radom Signals & Systems
	Modern Control Theory
	Digital Signal Processing
Core Courses	Adaptive Control
	Fuzzy Control
	Nonlinear Control
	Neural Networks
	Detection & Estimation
Elective Courses	Embedded Systems
	Advanced Robotic Manipulation
	Special Topics

### Qualifications and Applications

1. Applicants must have a bachelor's degree or its equivalent in Electrical Engineering, Computer Science, or other related fields from an accredited institution by August 2010.
2. Only application documents are required. No exam or interview is needed.
  - (1) Score of GRE (Graduate Record Examination) General Test
  - (2) Score of TOFEL (Test of English as a Foreign Language) is required for applicants whose native language is not English.
  - (3) Other supporting documents such as the score of GRE Subject Test, research reports, and awards may be submitted as well.
3. For details, please refer to the website at <http://www.cc.ntut.edu.tw/~wwwoaa/english/index-en.html>

## Contact Us

NTUT International Student Office - General Information

<http://www.cc.ntut.edu.tw/~wwwoaa/english/index-en.html>

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College of Electrical Engineering and Computer Science

<http://www.cc.ntut.edu.tw/~wwwsecs/english/>

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