

### Master of Engineering Program in Electrical and Information Engineering (International Program)

#### M.Eng. (Electrical and Information Engineering)

#### Philosophy:

This program focusses on producing graduates who are able to conduct research studies and develop electrical engineering and information technology. They can learn new technology by themselves and can analyze problems and appropriately apply new technology in electrical engineering and information technology. The graduates should also gain basic knowledge and in-depth knowledge in electrical engineering, control systems, electronics and telecommunication as well as information technology so as to suitably create, apply and transfer knowledge.

#### Objectives:

- To produce engineers and academics who are knowledgeable and skillful in research and development with international standard in electrical engineering, control systems, electronics and telecommunication as well as information technology.
- The graduates are able to communicate effectively with others particularly in English at international standards.
- They should be creative and can analyze and solve problems appropriately.

#### Qualifications of a prospective candidate:

The applicant must hold at least a bachelor's degree in electrical engineering, control systems, electronics and telecommunications, information technology or other related fields with work experience in engineering.

#### Professions after graduation:

1. Electrical, control systems and electronics and telecommunications engineers and information technologists
2. Researchers in electrical engineering, control systems electronics and telecommunication as well as information technology
3. Entrepreneurs in electrical engineering, control systems electronics and communication as well as information technology
4. Lecturers and academics in electrical engineering, control systems electronics and communication as well as information technology

#### Curriculum

Total Program Credits **36** Credits

#### Curriculum Components

##### Plan 1.2 Dissertation

Major Course	15	Credits
Elective Course	9	Credits
Dissertation	12	Credits

##### Plan 2 Independent Study

Major Course	15	Credits
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Elective Course	15	Credits
Independent Study	6	Credits

### COURSE STRUCTURE

#### Plan 1.2 Dissertation

##### First Year

##### First Semester

		Credits
EIE 600	Advanced Mathematics for Electrical and Information Engineering	3 (3-0-9)
EIE 602	Probability Theory and Stochastic Processes	3 (3-0-9)
EIE 603	Research Methodology	2 (2-0-6)
EIE 605	Seminar in Electrical and Information Engineering	1 (0-2-3)
LNG 601	Foundation English for International Programs	3 (2-2-9)
Total		<u>9 (8-2-27)</u>

##### First Year

##### Second Semester

		Credits
EIE 601	System Theory and Modeling	3 (3-0-9)
EIE 604	Design and Analysis of Algorithms	3 (3-0-9)
EIE/EEE/INC xxx	Electives I	3 (3-0-9)
Total		<u>9 (9-0-27)</u>

##### Second Year

##### First Semester

		Credits
EIE 606	Thesis	3 (0-6-12)
EIE/EEE/INC xxx	Electives II	3 (3-0-9)
EIE/EEE/INC xxx	Electives III	3 (3-0-9)
Total		<u>9 (6-6-30)</u>

##### Second Year

##### Second Semester

		Credits
EIE 606	Thesis	9 (0-18-36)
Total		<u>9 (0-18-36)</u>

#### Plan 2 Independent Study Credits : (Independent Study)

##### First Year

##### First Semester

		Credits
EIE 600	Advanced Mathematics for Electrical and Information Engineering	3 (3-0-9)
EIE 602	Probability Theory and Stochastic Processes	3 (3-0-9)
EIE 603	Research Methodology	2 (2-0-6)
EIE 605	Seminar in Electrical and Information Engineering	1 (0-2-3)
LNG 601	Foundation English for International Programs	3 (2-2-9)
Total		<u>9 (8-2-27)</u>

### First Year

#### Second Semester

EIE 601	System Theory and Modeling	3 (3-0-9)
EIE 604	Design and Analysis of Algorithms	3 (3-0-9)
EIE/EEE/INC xxx	Electives II	3 (3-0-9)
Total		<u>9 (9-0-27)</u>

### Second Year

#### First Semester

EIE 607	Research Study	2 (0-4-8)
EIE/EEE/INC xxx	Electives II	3 (3-0-9)
EIE/EEE/INC xxx	Electives III	3 (3-0-9)
EIE/EEE/INC xxx	Electives IV	3 (3-0-9)
Total		<u>11 (9-4-35)</u>

### Second Year

#### Second Semester

EIE 607	Research Study	4 (0-8-16)
EIE/EEE/INC xxx	Electives V	3 (3-0-9)
Total		<u>7 (3-8-25)</u>