

### Doctor of Philosophy Program in Electrical and Computer Engineering (International Program)

#### Ph.D. (Electrical and Computer Engineering)

##### Philosophy of the program:

Doctor of Philosophy Program in Electrical and Computer Engineering (International Program) at the Faculty of Engineering, King Mongkut's University of Technology Thonburi is a doctoral program intended to produce international standard academics and educational personnel together with electrical engineers, computer engineers, electronics and telecommunication engineers, and instrumentation and control system engineers at the doctoral degree level who are proficient in conducting research, designing and developing new technologies together with applying new technologies to solve engineering problems. They are also expected to work with professional ethics and strive for new knowledge, enabling them to keep abreast with new technologies related to their fields. In addition to these traits, the graduates should be equipped with teaching skills so that they can transfer knowledge and technologies and provide academic services appropriate for sustainable development for the benefits of the country.

##### Professions after graduation:

1. Lecturers and Academics
2. Researchers in educational institutes and industrial sectors
3. Consultants in government and private institutes

##### Curriculum

Plan 1.1 for student with Master degree	48 Credits
Plan 2.1 for student with Master degree	48 Credits
Plan 2.2 for student with Bachelor degree	75 Credits

##### Curriculum Components

Plan 1.1 for student with Master degree			
<input type="checkbox"/> Dissertation	48		Credits
Plan 2.1 for student with Master degree			
<input type="checkbox"/> Major Course	3		Credits
<input type="checkbox"/> Elective Course	9		Credits
<input type="checkbox"/> Dissertation	36		Credits
Plan 2.2 for student with Bachelor degree			
<input type="checkbox"/> Major Course	6		Credits
<input type="checkbox"/> Elective Course	21		Credits
<input type="checkbox"/> Dissertation	48		Credits

### COURSE STRUCTURE

#### Plan 1.1 for student with Master degree

##### First Year

##### First Semester

Credits

CPE 691 Research Methodology	2 (2-0-6) (S/U)
CPE 791 Dissertation	<u>6 (0-12-24)</u>
<b>Total</b>	<b><u>6 (2-12-30)</u></b>

<b>Second Semester</b>	<b>Credits</b>
CPE 711 Electrical and Computer Engineering Seminar	1 (0-2-3) (S/U)
CPE 791 Dissertation	<u>9 (0-18-36)</u>
<b>Total</b>	<b><u>9 (0-20-39)</u></b>

<b>Second Year</b>	
<b>First Semester</b>	<b>Credits</b>
CPE 791 Dissertation	<u>9 (0-18-36)</u>
<b>Total</b>	<b><u>9 (0-18-36)</u></b>

<b>Second Semester</b>	<b>Credits</b>
CPE 791 Dissertation	<u>9 (0-18-36)</u>
<b>Total</b>	<b><u>9 (0-18-36)</u></b>

<b>Third Year</b>	
<b>First Semester</b>	<b>Credits</b>
CPE 791 Dissertation	<u>9 (0-18-36)</u>
<b>Total</b>	<b><u>9 (0-18-36)</u></b>
<b>Second Semester</b>	<b>Credits</b>
CPE 791 Dissertation	<u>6 (0-12-24)</u>
<b>Total</b>	<b><u>6 (0-12-24)</u></b>

### Plan 2.1 for student with Master degree

<b>First Year</b>	
<b>First Semester</b>	<b>Credits</b>
CPE 691 Research Methodology	2 (2-0-6)
CPE 710 Special Project Study	3 (3-0-9)
XXX xxx Elective Course 1	<u>3 (3-0-9)</u>
<b>Total</b>	<b><u>8 (8-0-24)</u></b>
<b>Second Semester</b>	<b>Credits</b>
CPE 711 Electrical and Computer Engineering Seminar	1 (0-2-3)
CPE 790 Dissertation	3 (0-6-12)
XXX xxx Elective Course 2	<u>3 (3-0-9)</u>
<b>Total</b>	<b><u>7 (3-8-24)</u></b>

### Second Year

#### First Semester

CPE 790 Dissertation

#### Credits

9 (0-18-36)

**Total**

**9 (0-18-36)**

#### Second Semester

CPE 790 Dissertation

#### Credits

9 (0-18-36)

**Total**

**9 (0-18-36)**

### Third Year

#### First Semester

CPE 790 Dissertation

#### Credits

9 (0-18-36)

**Total**

**9 (0-18-36)**

#### Second Semester

CPE 790 Dissertation

#### Credits

6 (0-12-24)

**Total**

**6 (0-12-24)**

### Plan 2.2 for student with Bachelor degree

### First Year

#### First Semester

CPE xxx Elective Course 1

#### Credits

3 (3-0-9)

CPE xxx Elective Course 2

3 (3-0-9)

CPE xxx Elective Course 3

3 (3-0-9)

**Total**

**9 (9-0-27)**

#### Second Semester

CPE xxx Elective Course 4

#### Credits

3 (3-0-9)

CPE xxx Elective Course 5

3 (3-0-9)

XXX xxx Elective Course 6

3 (3-0-9)

**Total**

**9 (9-0-27)**

### Second Year

#### First Semester

CPE 691 Research Methodology

#### Credits

2 (2-0-6)

CPE 710 Special Project Study

3 (3-0-9)

XXX xxx Elective Course 7

3 (3-0-9)

**Total**

**8 (8-0-24)**

#### Second Semester

CPE 711 Electrical and Computer  
Engineering Seminar

#### Credits

1 (0-2-3)

CPE 791 Dissertation	<u>6 (0-12-24)</u>
<b>Total</b>	<b><u>7 (0-14-27)</u></b>

### Third Year

#### First Semester

#### Credits

CPE 791 Dissertation	<u>12 (0-24-48)</u>
<b>Total</b>	<b><u>12 (0-24-48)</u></b>

#### Second Semester

#### Credits

CPE 791 Dissertation	<u>12 (0-24-48)</u>
<b>Total</b>	<b><u>12 (0-24-48)</u></b>

### Forth Year

#### First Semester

#### Credits

CPE 791 Dissertation	<u>12 (0-24-48)</u>
<b>Total</b>	<b><u>12 (0-24-48)</u></b>

#### Second Semester

#### Credits

CPE 791 Dissertation	<u>6 (0-12-24)</u>
<b>Total</b>	<b><u>6 (0-12-24)</u></b>