

# DOCTOR OF PHILOSOPHY PROGRAM IN ELECTRICAL AND COMPUTER ENGINEERING (PH.D.)

The Ph.D. program is a joint Ph.D. program among 4 electrical engineering departments within the Faculty of Engineering: Computer Engineering Department, Electronics and Telecommunications Engineering Department, and Department of Control System and Instrumentation Engineering Department. One can choose a variety of topics to work on their Ph.D. thesis. The faculty of the program consists of expert lecturers and professors with years of research and teaching experience from the 4 departments. The aim of this collaboration is to produce top-notch researchers and quality faculty members who are specialists in their own fields. Moreover, all courses are taught in English, and maintaining the quality of the program at international standard is a top priority of the departments involved. Students in the program often spend one year conducting research at an overseas institution. This overseas tenure is an invaluable learning experience for the students as a result of close research collaboration with overseas professors. For example, currently many Ph.D. candidates of the program are placed at various laboratories across countries such as the US, Canada, UK, Germany, Australia, Japan, Taiwan, and Singapore.

Ph.D. Program in Electrical and Computer Engineering requires 4 year of studying for graduated students with Bachelor degree and 3 years for those with Master degree. In case that student chooses a joint program with foreign Universities, they have to follow the rule or regulation of the MOU agreement. The duration of study might be taken longer than the specified period.

## PROGRAM LEARNING OUTCOMES

The success of the program is evaluated from the expected learning outcomes. At the end of the program, graduates will be able to:

- Evaluate existing knowledge, technologies and research problems in electrical, electronic, telecommunication, control and/or computer engineering.
- Achieve new knowledge to improve or invent advanced algorithm or technique (innovation) to solve research problem or industrial problem in electrical, electronic, telecommunication, control and/or computer engineering area. Research ethics are strictly taken along the process.
- Communicate effectively through technical meetings, reports, proposals, and oral presentations. Ethical standards including research ethics and professional ethics are enforced.
- Publish the research output in high ranking journal in the research area with ISI impact factor.
- Develop life-long learning skill which is measured from the graduates' status 1-5 years after graduation.

## PROGRAM STRUCTURE

- Plan A Dissertation with no credit course work  
(for student with MS degree)
  - ▶ Required courses (2 S/U courses) 0 credits
  - ▶ Elective courses 0 credits
  - ▶ Dissertation 60 credits
  - ▶ TOTAL 60 credits
- Plan B1 Dissertation with credit course work  
(for student with MS degree)
  - ▶ Required Courses 3 credits
  - ▶ Elective Courses 9 credits
  - ▶ Dissertation 48 credits
  - ▶ TOTAL 60 credits
- Plan B2 Dissertation with credit course work  
(for student with BS degree)
  - ▶ Required Courses 6 credits
  - ▶ Elective Courses 18 credits
  - ▶ Dissertation 60 credits
  - ▶ TOTAL 84 credits

