

Doctor of Philosophy program in Computer Engineering



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Aiming to advance the computer industry through research and innovation, our Ph.D. program in Computer Engineering is designed for those who would like to advance their expertise through research-based learning (RBL). Currently, we have three focus research units:

1. The **A**dvanced **S**ystems and **S**oftware **E**ngineering **R**esearch **T**eam (ASSERT)
2. The computer **V**ision and human interaction technologies **L**aboratories (Vision Lab)
3. The **eX**cellence of **E**MBEDDED and **U**BIQUITOUS **S**ystem research unit (XEUS)

Collaborations with other disciplines (such as other engineering disciplines, medicine, medical science, radiation oncology, forensic, agriculture, etc.) and research units are common in our program. Students are expected to work with faculty members who are recognized as leaders in their fields.

Objectives

Graduates from the program are expected to:

1. Possess advance knowledge and expertise in computer engineering; particularly in at least one of these three focused areas:
 - a. Embedded system
 - b. Human and computer interaction
 - c. Software engineering
2. Be capable of conducting in-depth researches
3. Be a lifelong learner
4. Conduct themselves professionally and ethically

Admission

1. Program Type 1.1 (Dissertation Only)

Application requirements are.

- The applicant must have a **master's degree or higher in computer related fields**.
- **Three recommendations** describing professional computer competence, potential for completing the PhD program and making a significant contribution to computer engineering field. Two of these recommendations should be from individuals with doctoral degree, preferably in computer related field.
- The applicant must satisfy the conditions stipulated by the Naresuan University Regulations of Graduate Studies in B.E. 2559 (2016) on “Qualifications of admission, or Notification of Naresuan University.”
- The applicant must satisfy at least one of the following conditions
 - The GPA at the master’s degree level at least 3.00 from the scale of 4
 - A minimum of 3-year experiences in Computer related work
 - An approval from the committee in charge of the curriculum.



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Admission

2. Program Type 1.2 (Dissertation only)

Application requirements are.

- The applicant must have a **bachelor's degree or higher in computer related fields**.
- **Three recommendations** describing professional computer competence, potential for completing the PhD program and making a significant contribution to computer engineering field. Two of these recommendations should be from individuals with doctoral degree, preferably in computer related field.
- The applicant must satisfy the conditions stipulated by the Naresuan University Regulations of Graduate Studies in B.E. 2559 (2016) on "Qualifications of admission, or Notification of Naresuan University."
- The applicant must satisfy at least one of the following conditions
 - The GPA at the bachelor's degree level at least 3.20 from the scale of 4
 - A minimum of 7-year experiences in Computer related work
 - An approval from the committee in charge of the curriculum.

3. Program Type 2.1 (with course work)

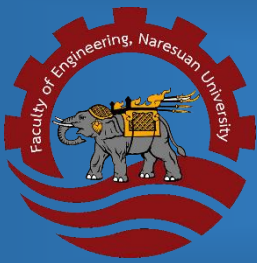
Application requirements are.

- The applicant must have a **master's degree or higher in computer related fields**.
- **Three recommendations** describing professional computer competence, potential for completing the PhD program and making a significant contribution to computer engineering field. Two of these recommendations should be from individuals with doctoral degree, preferably in computer related field.
- The applicant must satisfy the conditions stipulated by the Naresuan University Regulations of Graduate Studies in B.E. 2559 (2016) on "Qualifications of admission, or Notification of Naresuan University."

4. Program Type 2.2 (with course work)

Application requirements are.

- The applicant must have a **bachelor's degree or higher in computer related fields**.
- **Three recommendations** describing professional computer competence, potential for completing the PhD program and making a significant contribution to computer engineering field. Two of these recommendations should be from individuals with doctoral degree, preferably in computer related field.
- The applicant must satisfy the conditions stipulated by the Naresuan University Regulations of Graduate Studies in B.E. 2559 (2016) on "Qualifications of admission, or Notification of Naresuan University."
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Credit Requirements

Requirements	Option 1.1	Option 1.2	Option 2.1	Option 2.2
1.Coursework			12	24
1.1 Core Courses			3	12
1.2 Electives			9	12
2. Dissertation	48	72	36	48
3. Required Non-credit Courses	6	6	6	9
Total	48	72	48	72

Medium of Instruction

Thai and English

Research Focus

- Augmented reality
- Computer aided medical diagnostic
- Computer aided treatment planning
- Computer and information security
- Computer control
- Computer vision
- Embedded system
- Image processing
- Large scale system
- Machine learning
- Mechatronics
- Medical informatics
- Multimedia
- Service science management and engineering
- Smart device and system
- Software Architecture
- Software engineering
- Speech processing
- System engineering

Requirement for Graduation

In accordance with the Graduate School Rules and Regulations.