



## FACULTY OF COMPUTER SCIENCE

The Faculty of Computer Science, Universitas Indonesia is one of the foremost institutions in Indonesia which offers degree programs in Information Technology/Computer Science. Dating back to its roots in 1972 as a center for computer science, the Faculty of Computer Science has played a key role in developing IT in Indonesia and continuously delivers high quality education, research and services to meet the needs of its stakeholders.

The curriculum of the Computer Science Program is designed to create a balance between theory and practice by focusing on its relevance to meet public needs. Graduates will have excellent skills and the flexibility to enter the professional world or to improve their education to a more advanced level.

The faculty enjoys close links with industries and institutions, both local and overseas. Cooperation includes joint research program, lecturer exchange and academic collaboration including joint degree program with the University of Queensland and Royal Melbourne Institute of Technology. Some Research and Development activities are also undertaken under the collaboration agreement with multinational companies.

The Faculty of Computer Science is committed to excel in the area of computer and information technology by producing graduates who are able to compete in the global work market, develop knowledge in the field of computer and information technology, participate in enhancing the nation's competitiveness through academic services and increase entrepreneurial spirits in its academic activities.

Currently, the faculty of Computer Science is considered by many to be the leading higher education institute in its field, with well-established and acclaimed degrees offered at undergraduate and graduate levels comprising of the following programs :

- Regular Undergraduate Program (B.Sc. in Computer Science and B.Sc. in Information Systems)
- International Undergraduate Program (B.Inf. Tech in Information Technology and Electrical Engineering)
- Extension Program (B.Sc. in Information Systems)
- Master in Computer Science program (M.Sc. in Computer Science)
- Master in Information Technology program (M.Sc. in information Technology)
- Doctorate in Computer Science program (Ph.D in Computer Science)

## RESEARCH INTERESTS

Research activities are enforced in computer science and information technology including innovation and capacity to enhance the quality of human life and industries.

## RESEARCH CENTERS

- Digital Libraries and Distance Learning
- Formal Methods in Software Engineering
- Computer Networks, Architecture & High Performance Computing
- Pattern Recognition, Image Processing & Content-Based Image Retrieval System
- Information Retrieval
- Enterprise Computing
- IT Governance
- E-Government

## FACULTY CONTACT

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## BACHELOR'S DEGREE

### COMPUTER SCIENCE

Degree : Sarjana Ilmu Komputer (Bachelor of Computer Science)  
Campus Location : Depok Campus  
Lecture Schedule : Morning/Daytime  
Length of Study : 8 Semesters  
Language : Indonesian  
Accreditation : A

Acknowledging that Information Technology triggers innovation in most aspects of human life, the Computer Science program prepares its students to become graduates who are able to meet the challenges in the era of globalization. In terms of industrial needs, the program is designed to meet the demand for young professionals in Information Technology. Academically, the students are also prepared to be able to pursue further advanced degrees.

For better knowledge in Computer Science, the program offers applied skills which are divided into three major concentrations:

- Scientific Computation consisting of image processing, machine learning, linear and non-linear numerical computation.
- Software Technology consisting of cryptography and information security, interaction system, formal method and compiler technique.
- Computer Architecture and Embedded Systems consisting of micro electronics, digital system design, embedded systems and real-time systems.

The study program offers two fields of concentration: Computer Science and Information Technology. Computer Science focuses on programming skills, software design, system application and software maintenance. Information Systems emphasizes developing intelligent solution and application of technology for business areas. The discipline puts business skills and the advancement of technology in a proportional context.

The lectures are delivered in ways which allow students to develop their soft skills, such as communication skills, team work, scientific paper presentation, creative and innovative thinking and professional ethics. These skills are integrated in a curriculum that is implemented in group work, presentation, class discussion, laboratory work and internship.

## CAREER OUTLOOK

Employment tracking indicates that 90% of graduates are employed within 3 months (in average) after graduation. Most of the graduates work in multinational companies, whereas some start entrepreneurship in information technological industries.

### GENERAL ASSESSMENTS

Mid Semester Test, Final Semester Test, Paper Assignments, Practical Exam, Project Assignments and Undergraduate Thesis.

### SPECIFIC ENTRY REQUIREMENTS

International applicants are expected to meet language requirements set by the university and to have an understanding of Indonesian Language in order to be admitted to the program since courses are delivered in the Indonesian language.

### COMPUTER SCIENCE (INTERNATIONAL CLASS)

Degree : Sarjana Ilmu Komputer & Bachelor of Information Technology (Joint degree)  
Partner University : The University of Queensland, RMIT  
Campus Location : Depok Campus, Universitas Indonesia & Queensland, the University of Queensland Melbourne, Royal Melbourne Institute of Technology (RMIT)  
Lecture Schedule : Morning/Daytime  
Length of Study : 8 Semesters (1-5 Universitas Indonesia 6-8 The University of Queensland/RMIT)  
Language : English

In 2002, the Faculty of Computer Science established collaboration with the School of Information Technology and Electrical Engineering at The University of Queensland (ITEE UQ) to offer an undergraduate International Class Program in Information Technology (IT) and Computer Science (CS).

This program prepares its students to become graduates who are able to meet the challenges in the era of globalization, to compete in regional and international job markets and be able to pursue further advanced degrees. To achieve these objectives, the program is conducted by highly qualified and experienced lecturers in the fields of Computer Science and Information Technology from both institutions.

Students of international class enjoy quality education from two reputable universities in Indonesia and Australia. Graduates of this program will obtain joint degrees: Sarjana Ilmu

Ilmu Komputer (S.Kom) from Universitas Indonesia and Bachelor of Information Technology (BlInfTech) from the University of Queensland. In order to obtain the two degrees, students are to transfer to the University of Queensland at the 6th semester of the study. Outstanding students will have the further opportunity to enter the Honours degree program at ITEE the University of Queensland.

### CAREER OUTLOOK

The employment tracking shows that 90% of graduates are employed within 3 months (in average) after the graduation. Most of the graduates work in multinational companies and some start entrepreneurship in information technological industries.

#### GENERAL ASSESSMENTS

- UI Credit Assessment
- UQ IT Course Structure

#### SPECIFIC ENTRY REQUIREMENTS

- Passing the Interview Test
- Passing English language requirement

## MASTER'S DEGREE

### COMPUTER SCIENCE

Degree : Magister Ilmu Komputer (Master of Computer Science)  
 Campus Location : Depok Campus  
 Lecture Schedule : Morning/Daytime  
 Length of Study : 4 Semesters (40 credits)  
 Language : Indonesian  
 Accreditation : A

The Master of Computer Science Program provides a two year of intensive training in computer science and research skill. This program offers the opportunity to study a wide variety of topics in depth with dedicated experts. It prepares students for a rewarding career in computing and is also suitable for students interested in a research career in the industrial or academic sector.

### CAREER OUTLOOK

The graduates contribute in a wide range of information technology fields, entrepreneurship, IT development at small, medium and large enterprises in private and government sector.

### INFORMATION TECHNOLOGY

Degree : Magister Teknologi Informasi (Master of Information Technology)  
 Campus Location : Salemba Campus  
 Lecture Schedule : Daytime/Night  
 Length of Study : 4 Semesters (40 credits)  
 Language : Indonesian  
 Accreditation : A

The Master of Information Technology Program offers graduates who have already studied some computing study in their degree. The degree prepares students for a rewarding career in computing and in information technology in general. This program also offers dual mode programs affiliated with other local partner universities, such as Faculty of Science & Teknologi UIN Sultan Syarif Kasim (Riau), STMIK Mikroskil (Medan), STMIK Multi Data (Palembang), STMIK Darmajaya (Bandar Lampung), dan PT. Mitrais (Bali), Sekolah Tinggi Informatika & Komputer Indonesia (Malang), Universitas Sains dan Teknologi Jayapura (Jayapura), Universitas Dehasen (Bengkulu), Universitas Pembangunan Nasional (Surabaya).

### CAREER OUTLOOK

Academic training in information technology has been considered the important key of today's business. The graduates of this field pursue careers as professionals in the area of information technology as an entrepreneur, IT developer, a manager in private companies or government offices.

#### GENERAL ASSESSMENTS

Mid Semester Test, Final Semester Test, Project Proposal, Paper Assignment and Presentation and Master Thesis.

## DOCTORAL DEGREE

### COMPUTER SCIENCE

Degree : Doctor  
 Campus Location : Depok Campus  
 Lecture Schedule : Morning/Daytime/  
 Evening  
 Length of Study : 6-10 Semesters (50 credits)  
 Language : Indonesian  
 Accreditation : A

The Doctoral Program of Computer Science is a program of Post-Graduate level in the Faculty of Computer Science. This study program aims at nurturing experts in computer science field who have high integrity in applying the science either to solve problems or to develop applications according to their expertise. The students are also encouraged to create, develop and apply the computer science to enhance the nation competitiveness through research and service in the development of human resources. This course provides several specialisations: Architecture & Infrastructure, Computational Intelligence, Software Technology, Large Scale Information Processing and Enterprise Information Systems

### CAREER OUTLOOK

The graduates of this program can work as software developers, IT experts in industries or corporate, or government.

#### GENERAL ASSESSMENTS

Lecture, seminar and dissertation.

#### SPECIFIC ENTRY REQUIREMENTS

- Master in Computer Science/ Informatics, Information System, Computer Engineering or that is related to the proposed research topic with minimum GPA 3,00 (Scale 4,00). For candidate who does not have background undergraduate or master in related field must join one or two semester (determined by selection team on interview test).
- Have written statement from counselor candidate of a permanent lecturer of Faculty of Computer Science of UI that has a doctoral degree. To achieve an approval, the assigned lecturer may give independent task to evaluate the potential of the candidate such as making a scientific paper resume, or presenting a certain topic. The candidate must contact the counselor candidate long before the end of registration date.
- The list or detail information about the lecturer who can be a counselor can be seen at <http://www.cs.ui.ac.id>.
- Pass several tests such as Academic Potential Test and English test.