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Master Program on Electrical Engineering

Microelectronics/Electronics Option

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General Information

News

Electronics and Microelectronics advancement and the demand for its experts in Indonesia

Electronics and Microelectronics Technology enables the **design** and **implementation** of various electronics systems ranging from consumer products (cell phones, game consoles, home appliances, ...), control system (industrial, medical or military), computing system and even the telecommunication infrastructures. These applications demand increasingly higher performance but lower prices. The mastery of this technology is proven to have a big role in the development of countries that adopt it, namely Japan, Korea and Taiwan and nowadays also followed by China, Malaysia and Thailand. The focus of program is in the design and implementation of these application and technology.

The Electronic option in ITB focuses on building student abilities on:

- Design and Implementation of embedded system (especially real time system)
- Design of VLSI and System on Chip (SoC)/analog and digital IC
- Microelectronics processing, nanotechnology, and MEMS (Micro Electro-mechanical System)

The electronics option in Electrical Engineering Master Program get support from microelectronics center (MC) of ITB. This center is the biggest ASEAN research institute in the field of electronics/microelectronics. The MC has massive facilities, projects, and industrial relation. Most of the student in this option are involved in this center or from industries/business related to this center. Many of the graduates work also on this industry.

Why choose to follow ITB Microelectronics Master Program?

Electronics option of Master Program on Electrical Engineering at ITB School of Electrical Engineering and Informatics has been running since 1986. Some good reasons for choosing this program are as follows:

1. Internship program in overseas especially Japan and France are offered for several selected students. The possibility is quite high as every year more than 25% of our students follow this program.
2. There are big possibility to get scholarship, internship fund, and teaching/research assistant allowances
3. Opportunity to continue the study up to doctor degree directly. It is possible that the master and doctoral degree is completed in four years.
4. This option is supported by the microelectronics center of ITB. This center has a lot of facilities, research and industrial project, funding, and vast relation with industries. Many of the students and graduates involve on these projects and get financial support, experience, even job.
5. Offering comprehensive program including:
 - a. Embedded and real time system
 - b. Device and microelectronics process,
 - c. design of microelectronics (analog and digital)
6. Having research and teaching collaboration with



Kuliah semester II 2013/2014

Arif Sasongko posted on Jan 02, 2014

Untuk option ME, kuliah yang dibuka semester II 2013/2014 adalah sebagai berikut:

Wajib:

NO	Course Code	Course Name	Credits
1	EL5000	Advance Math	3
2	EL5090	Research method	3
3	EL6099	Thesis	6
4	EL5104	Nanoelectronics	3
5	EL5209	RF Integrated Circuit	3

Pilihan:

NO	KODE KULIAH	NAMA KULIAH	SKS
1	EL5106	Advance Intelligent Instrumentation	2
2	EL6107	Cryptography Implementation	3
3	EL6108	Embedded System Design Project	2
4	EL6109	System-on-Chip	3
5	EL6203	Advance Device/ME MS	2

international institutions such as International Research Center for Telecommunication and Radar (IRCTR) Delf Holland, Kunieda Laboratory of Tokyo Institute of Technology Japan, MESA + Twente Holland, TIMA Laboratory, France, etc.... These collaborations have opened the opportunity for the students to continue their study abroad.

- Collaborating with national and international industries, for example Atmel Semiconductor, LEN, Xilinx, ST Microelectronics, Fujitsu, Marvel, PINDAD ... which actively give input on the curriculum to comply with the industrial needs.

FACILITIES

Supported by ITB microelectronic PPAU facilities, including :

- Clean class rooms with CVD microelectronic processing device, ion implantation, sputtering etc
- Design suite for the design of integrated Synopsis and Altera Series
- Various tools, instruments, board. The center has just acquired multi million dollar tools on broadband telecommunication instruments
- Publication access and microelectronics sector journal

REQUIREMENTS, TEST & SCHOLARSHIP

The admission of applicants is conducted prior to the new academic year in May and July. This Program admits graduates from undergraduate (*sarjana*) Program of Electrical Engineering, Computer Engineering, and Physics Engineering through tests that cover *Test Potensi Akademik* (TPA), Mathematics, Physics, Electrical series, electromagnetic fields, Fundamentals of Electronics, Fundamentals of Computer, Control Fundamentals & Logic Series, English. Graduates from Physics, Mathematics, Chemistry and Informatics can be admitted through matriculation program.

A limited number of participants can obtain financial aid or living cost through the research activity or through the available scholarship in Electrical Engineering Department.

FURTHER INFORMATION

For information for the particular option (electronics option) can be addressed to Arif Sasongko at asasongko@itb.ac.id.

General information Master Program on Electrical Engineering:

Sekolah Teknik Elektro & informatika (STEI)-ITB

Gedung Labtek VIII, Lt.2

Jl. Ganesha 10, Bandung 40132

Tel: (022)2502260 Fax: (022) 2534222

E-mail: pasca@stei.itb.ac.id

URL: <http://www.stei.itb.ac.id>

Information for admission including admission, admission form, TOEFL Test, TPA Test as well as scholarship may be obtained from:

Sekolah Pascasarjana ITB

Mahasiswa semester 1 diharap mengambil kuliah EL5000, EL5104, EL5209

Mahasiswa semester 2 diharap mengambil kuliah EL5000, EL5104, EL5209, EL5090.

Sisanya silakan mengambil kuliah pilihan



Jadwal Kuliah

Arif Sasongko posted on Jan 22, 2014

Dear all,

Ini jadwal perkuliahan semester II 2013/2014

Daftar Mata Kuliah S2 Semester II tahun 2013/2014					
No	Nama	Mata Kuliah		SKS	Jadwal Kelas
1	Arif Sasongko	EL 6108	Embedded System Design Project	2	
2	Irman Idris	EL 6203	MEMS / Devais Lanjut	2	Selasa, 09.00-11.00 di R.Rapat Lab Devais PAU lantai 2
3	Muhammad Amin Sulthoni	EL 5104	Nanoelektronika	3	Kamis, 11 di PAU
4	Basuki Rahmatul Alam	EL 5209	Rangkaian Terintegrasi Frekuensi Radio	3	
5	Adang Suwandi Ahmad	EL 5106	Instrumen Cerdas / Lanjut	2	

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6	Trio Adiono	EL 6109	System On chip	3	Rabu, 10-12 di PAU
7	Sarwono Sutikno	EL 5218	Tata Kelola dan Assurance Keamanan Informasi	3	17-R. Multimedia 18-R. Multimedia
		EL 5217	Audit Keamanan Informasi	3	19-R. Multimedia 110-R. Multimedia
		EL 6107	Cryptography Implementation	3	14-R. Multimedia 53-R. Multimedia
		EL 5007	Manajemen Keamanan Informasi	3	111-R. Multimedia 54-R. Multimedia

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