

# College of Information Technology and Engineering of INHA University



# Table Of Contents

**1** Introduction

---

**2** Departments

---

**3** Graduate school

---

**4** Research center, Academic Laboratory

---

**5** Industry–University Cooperation, Q&A

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## College

- Established College of Information Technology and Engineering in 2008
- 4 departments :
  - Electronic Engineering
  - Electrical Engineering
  - Computer and Information Engineering
  - Information and Communication Engineering

## Dean

- Dean of College of Information Technology and Engineering : Lee, Seung Gol



- **Education:**  
Ph.D. Korea Advanced Institute of Science & Technology, 1993
- **Laboratory**  
Optoelectronics Lab
- **Research Area**  
LED luminaire design, Optical metrology and inspection

## ■ The College of Information Technology and Engineering (CITE) aspires

- To cultivate the highest level of professionals that are recognized in a knowledge-based society through practice-centered education, and
- To actively participate in the globalized and rapidly changing Information Technology industry by nurturing creative and responsible engineers.

## ■ The mission of CITE

- To pursue educational superiority to play an important role of teaching, research and public service, and to produce leaders in the field of information technology.

<http://itengcollege-eng.inha.ac.kr/Default.aspx>

## ■ Full-time Faculty member

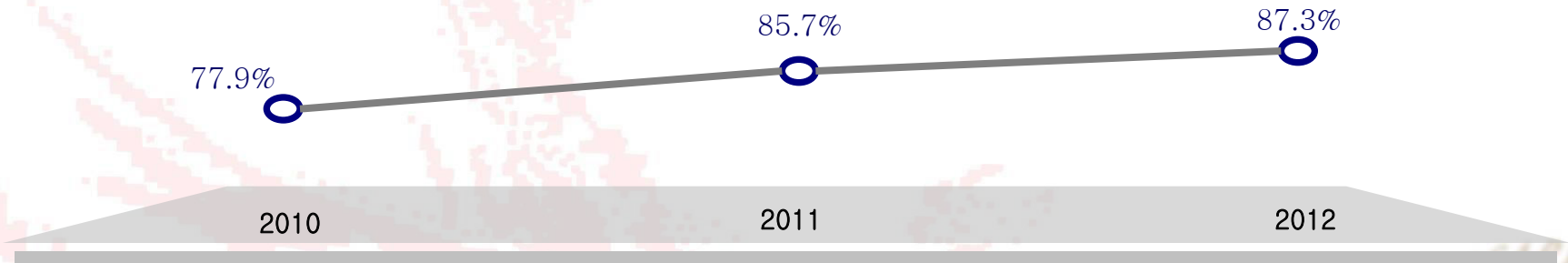
(As of October 1)

Classification	Electronic	Electrical	Computer & Information	Information & Communication	Total
Professor	10	10	11	14	45
Associate professor	6	2	7	3	18
Assistant professor	-	-	1	2	3
<b>Total</b>	16	12	19	19	66

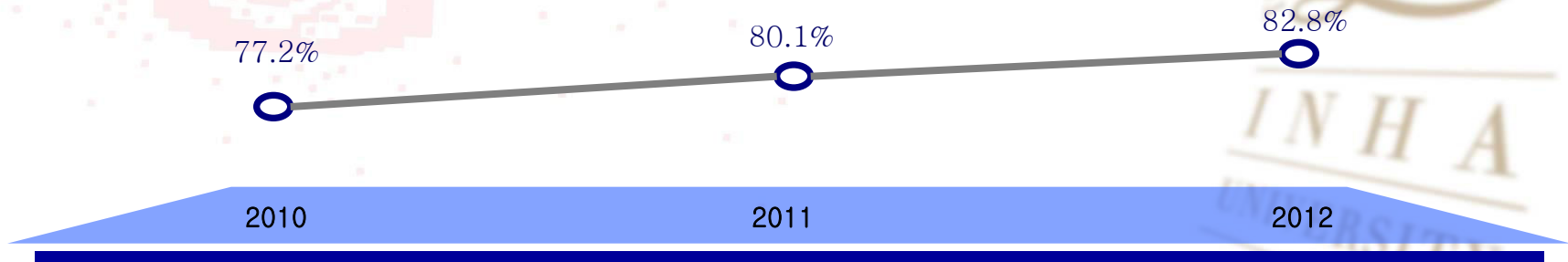
## ■ Student Enrollment(Undergraduate)

Category		Total
Electronic & Electrical engineering	Electronics	494
	Electrical	411
	Electronic & Electrical engineering(1 gr.)	216
Computer & Information		838
Information & Communication		693
<b>Total</b>		<b>2,652</b>

## ■ Employment Rate of College of IT and Engineering over the years



## ■ Employment Rate for Conglomerate



	International relationship(College of ITE)		
	2010	2011	2012
<b>Partner University</b>	161 <i>(accumulated)</i>	209 <i>(accumulated)</i>	231 <i>(accumulated)</i>
<b>Outgoing Exchange Student</b>	235(14)	254(19)	274(16)
<b>Incoming Exchange Student</b>	150(19)	151(17)	269(30)
<b>Summer school</b>	171	245	477

❖ **Summer school:**

Program which provide overseas college students with hands-on opportunities to learn the Korean language and experience the cultural and academic life in Korea

- Developing the most advanced field of IT
- New scholarship programs to support talented student in the field of IT
- Practical Education through the Industry-University Collaboration

1 Sunkyunkwan University	1 Hanyang University	1 Inha University
<b>2 Inha University</b>	<b>2 Inha University</b>	2 Korea University
3 Korea University	3 Korea University	3 Sunkyunkwan University
4 Hanyang University	4 University of Seoul	4 Ajou University
5 Pusan University	5 Kyunghee University	5 Sogang University
<b>Electronic &amp; Semiconductor</b>	<b>Telecommunication</b>	<b>Computer</b>

※ Released by Ministry of Education, Science and Technology and Korean Council for University Education in 2011



## 5th in Graduate Employment Rate / 8th in the number of company executives

### ■ Graduate Employment Rates

UNIV.	2010		2011	
	%	RANK	%	RANK
<b>Inha Univ.</b>	<b>58.7</b>	<b>4</b>	<b>64.6</b>	<b>5</b>
Sungkyunkwan Univ.	65.2	1	63.7	2
Korea Univ.	64.0	3	64.0	4
Yonsei Univ.	64.0	2	58.0	3
Hanyang Univ.	57.8	5	64.4	6

Employment Rate is up by almost 6% over a year ago!!!

※ Based on the graduate employment of four-year universities with more than 3,000 graduating students.

※ INHA University is...

- Maintaining Database Management System for Employment
- Operating Courses for Employment
- Holding Employment Fairs repeatedly
- Starting Special Lectures series on Employment

### ■ The number of Listed Company\* Executives

UNIV.	# of Company Executives
Seoul Nat'l Univ.	281
Korea Univ.	183
Hanyang Univ.	147
Yonsei Univ.	141
Sungkyunkwan Univ.	119
Kyungpook Nat'l Univ.	94
Pusan Nat'l Univ.	91
<b>Inha Univ.</b>	<b>72</b>
KAIST	71
Yeungnam Univ.	64
Sogang Univ.	59
Hankuk Univ. of Foreign Studies	53
Kyunghee Univ.	49
Chungang Univ.	40
Ajou Univ.	39

※ Released by Maeil Business Newspaper in 2011

※ Listed Company : Samsung, Hyundai Motor Company, SK and LG

# Departments(Bachelor's Degree)



## College of Information Technology And Engineering

### Electronic & Electrical Engineering

- Dept. of Electronic Engineering
- Dept. of Electrical Engineering

### Dept. of Computer & Information Engineering

### Dept. of Information & Communication Engineering

## Electronics Engineering

### Major Programs

- Operation of Specialized education programs
- ABEEK
- Double major and minor
- Industry-academia cooperation program involving Samsung, Hynix etc.

### STS(Selective Track System)

- Semiconductor & VLSI(14 subjects)  
*course) Electromagnetic ...*
- Signal Processing & Control(11 subjects)  
*course) Linear Algebra ...*
- Computer system(12 subjects)  
*course) Computer network*

⋮

### 3 Lab for undergraduate

Major Equipments    multimeter(20), oscilloscope(38),  
Function Generator(10), PC(30) etc..

	Requirements for Graduation		
	Required Credits	Major Courses	Elective Courses
Single Major	130	60	70
Plural Major	130	42	88

※ A certain level of English skill is required for graduation

## Electrical Engineering

### Major Programs

- Electrical Engineering Expertise Program Certified by ABEEK
- STS Courses
- Industry-academia cooperation program involving Samsung Electronics.
- KIAT/Hynix Semiconductor-sponsored
- Ministry of Education-sponsored

### STS(Selective Track System)

- Intelligent robots(21 subjects)  
*course) Signals and System ...*
- Next-Generation displays(16 subjects)  
*course) Introductory DSP Design ...*
- Next-Generation Semiconductors (21 subjects)  
*course) VLSI Design and Project ...*

	Requirements for Graduation		
	Required Credits	Major Courses	Elective Courses
Single Major	130	60	70
Plural Major	130	42	88

※ A certain level of English skill is required for graduation

5 Lab for undergraduate	
Major Equipments	Training Kit, Generator, electrical transformer, NI-Elvis, PC etc..

## Computer & information Engineering

### Major Programs

- ABEEK Computer Information Eng. Program
- Offering 'Samsung Information Communication Track' for customized education
- Diverse interdisciplinary major programs
- Participation at computer science-related international contents
- Undertaking international industry-university cooperation projects : Airbus, Korean Air & USC
- Projects toward a world major university(WCU)

### STS(Selective Track System)

- Software system(17 subjects)  
*course) System Programming ...*
- Internet & mobile computing(9 subjects)  
*course) File Processing ...*
- Multi-media system(15 subjects)  
*course) Windows Programming...*
- Embedded system(10 subjects)  
*course) System analysis ...*

	Requirements for Graduation		
	Required Credits	Major Courses	Elective Courses
Single Major	130	60	70
Plural Major	130	42	88

※ A certain level of English skill is required for graduation

3 Lab for undergraduate	
Major Equipments	Embedded System Design Set(20), Capstone Design Robot(40), PC(140) etc..

## Information & Communication Engineering

### Major Programs

- ABEEK Program( 12 major objectives)
- ① Basic Knowledge    ② Data analysis and experiments    ③ Design capabilities
- ④ Problem-solving    ⑤ Practical business tools
- ⑥ Teamwork    ⑦ Communicating capability
- ⑧ Lift-time education    ⑨ Social influences
- ⑩ Topic discussion    ⑪ Occupational ethics
- ⑫ Internationalization

### STS(Selective Track System)

- Multimedia and game software(9 subjects)  
*course) Computer Graphics Design ...*
- Embedded system and VLSI((11 subjects)  
*course) Design of a Microprocessor*
- Wired/Wireless communication(11 subjects)  
*course) Signals and System*
- ⋮

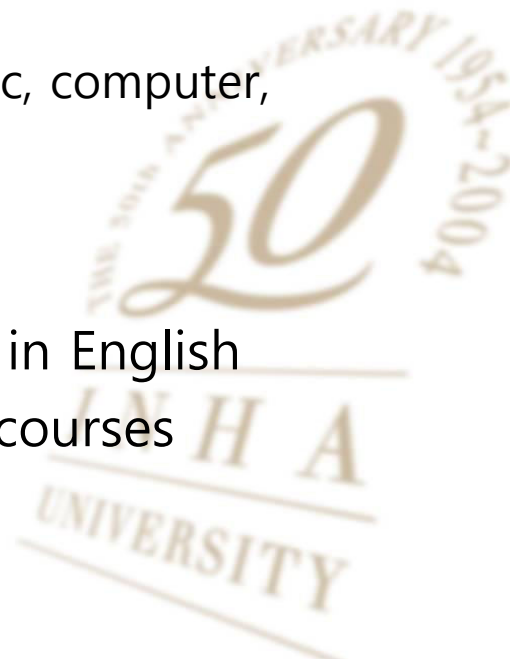
	Requirements for Graduation		
	Required Credits	Major Courses	Elective Courses
Single Major	130	67	63
Plural Major	130	45	85

※ A certain level of English skill is required for graduation

3 Lab for undergraduate	
Major Equipments	ROM Emulator(20), Robotic Invention System(24) oscilloscope(34) , Function Generator(27) etc..

## ■ English IT educational program (course)

- Will be newly introduced in 2014 for foreign students
- Inter-department program (undergraduate)
- A special mixed IT program ←
  - Core courses in the field of electrical, electronic, computer, information, and communication.
  - Internship at major Korean companies.
- Most of lectures in the program will be given in English
- Some lectures will be provided by e-learning courses



# Graduate school(Master's Degree)

## Student Enrollment(2013.10.1)

Category	Master	Doctor	Total
Electronic Eng. (Information & Comm. Eng.)	126	100	226
Electrical Eng.	27	23	50
Computer & Info. Eng.	53	44	97
<b>Total</b>	<b>206</b>	<b>167</b>	<b>373</b>

## Department

### Department

Electronic Engineering	Electrical Engineering
Computer & Information Engineering	Information & communication Engineering

### Inter-Department

Program in Robot Engineering	Program in IT & Media Convergence Studies
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## Scholarship(For foreign students)

Title	Contents of Scholarship	Note
<b>JungSeok International Scholarship</b>	Full or Half tuition waived (There may be change in the amount of Scholarship according to the result of evaluation)	Qualified students who have excellent grades for admission are allowed to receive
<b>Assistantship Scholarship</b>	KRW 500,000~1,450,000 won /a semester	Appointed by individual department
<b>Research Allowance</b>	Depend on the PJT	Participate in certain research PJT



## ■ Key Research Topics in the IT College

### 1. **Next Generation Multimedia**

Sensors, signal and image processing, computer graphics, network, QoS

### 2. **Entertainment/Edutainment Robot**

Control, computer graphics, sensors, signal processing, embedded system

### 3. **Programming and Simulation Environment for Intelligent Robot**

Robot PSE, DB, algorithm, LINUX, movement and manipulation

### 4. **Low Carbon Green Energy Generation**

Energy, solar cell, power management and distribution, renewable energy

### 5. **Intelligent LED Application**

Semiconductor, packaging, energy, marine and farming

### 6. **Micro/Nano Process**

MEMS, bio-electronics, semiconductor, information display, photonics, IC, optics

### 7. **RFID/USN on IT based Fusion**

Nnetwork, BcN, wireless communication, MEMS, logistics, IPv6

### 8. **Next Generation Avionic Telecommunication**

Wireless communication, network, signal processing, control

### 9. **Embedded Systems :**

Embedded system, computer vision, super computing, modeling

### 10. **Neural Interface System**

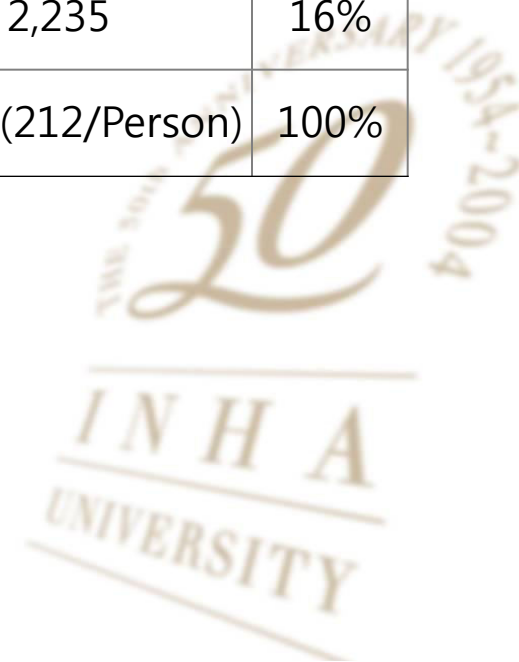
Biomedical engineering, signal processing, neurology device, semiconductor, cyber-kinetics



# Research Funds

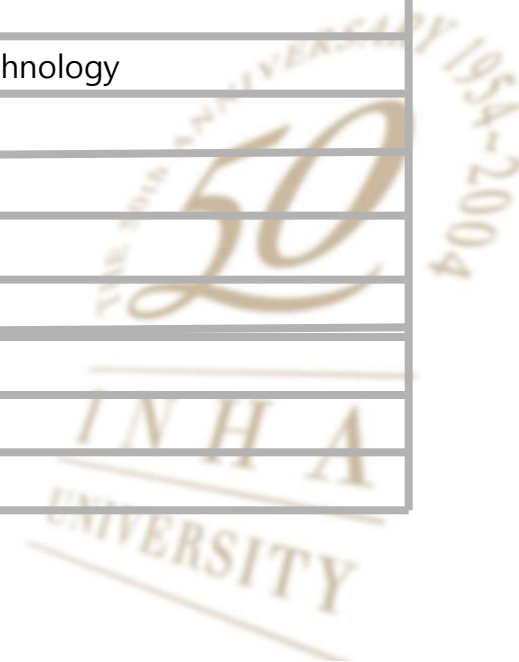
[Unit : US \$1,000]

Research Funds	2011			2012		
	PJT	Funds	%	PJT	Funds	%
Government	98	12,749	83%	114	12,161	84%
Non-Government	48	2,605	17%	45	2,235	16%
Total	146	15,354(229/Person)	100%		14,396(212/Person)	100%



# Research Centers

Government	Optics and Photonics Elite Research Academy
	Center for Photon Information Processing
	Intelligent GIS Research Center
	Computational Electronics Center
	Ultra Wide Band Wireless Communication Research Center
	Intelligent Ubiquitous Logistics Technology Team – BK21 program
	Super Intelligent Research Center
	Research Center for Next-Generation High Voltage of Power Technology
	Center for Supporting Start-up Companies
	RFID/USN National Research Lab
Industry	Ultra Precision Measurement Center for Optical Devices
University	IT New Technology Research Institute
	Research Institute of Semiconductor and Thin Film Technology
	Institute for Information and Electronics research
	Laboratories of Computer Science Application

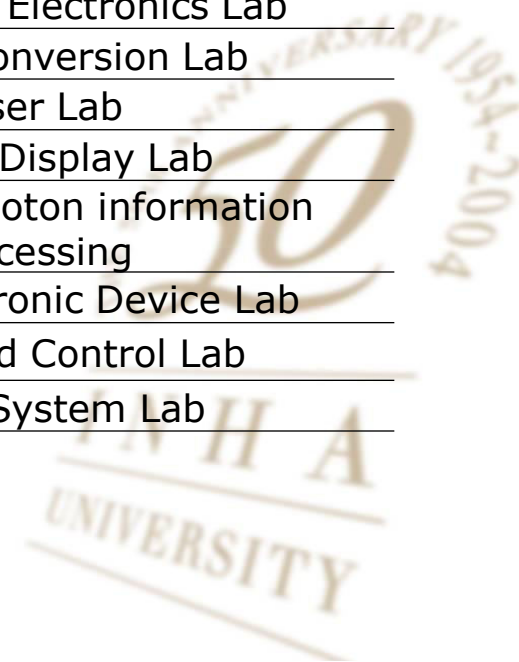


## ■ Electronics Engineering

Laboratory
Multimedia Lab
Computer Architecture Lab
Nano Electronics Lab
Microwave Avionics Lab
Analog Circuit Design Lab
Nano Physics Devices Lab
Information Display Lab
System Integrated Circuit Design Lab
Intelligent Embedded System & Software Lab
Mobile Telecommunication Research Lab
Wireless Mobile Communication Lab
Biological Information System Engineering Lab
Applied Electromagnetic Lab
Inha Micro/Nano Devices and Systems Lab
Control Engineering Research Group
Digital Media Systems Lab

## ■ Electrical Engineering

Laboratory
Intelligent Control Lab
Control and Information System Lab
Power Electronics Lab
High Voltage Electronics Lab
Intelligent Robot Control Lab
High Speed Electronics Lab
Energy Conversion Lab
Laser Lab
Plasma Display Lab
Center for Photon information processing
Hybrid electronic Device Lab
Embedded Control Lab
Power System Lab



# Acamemic Laboratory (2)

## Computer and Info. Engin.

Laboratory
Programming Environments Lab
Database Lab
Human Computer Interaction Lab
Computer Security Lab
Intelligent E-Commerce Systems Lab
Intelligence Technology Lab
Database and System Integration Lab
Biocomputing Lab
Web Database Lab
Media Lab
Software Engineering Lab
HCI Lab
Information Security Research Lab
Computer Network Lab
Theory of computation Lab
Intelligent Mobile Lab
Ubiquitous Computing Security Lab
Embedded Real Time System Lab
High Performance Computing System Lab
Image Informatics Lab

## Information and Comm. Engin.

Laboratory
SoC Design and System Application Lab
Optical Communications Network System Lab
Wireless Networks and Communication Systems
Intelligent Information Processing systems Lab
Nano Semiconductor Engineering Lab
Wireless Transmission Lab
Optoelectronics Lab
Computer Vision Lab
Imaging System Lab
Internet Security Lab
Knowledge Management System Lab
Embedded Computing Lab
Photonic Integrated Circuit and Quantum Device
Multimedia Network Lab
Digital VLSI and SoC Design Lab
Wireless Communication Research Lab
Image Media Lab
Ubiquitous Computing Lab
Communication System Lab

## Samsung Electronics

- (1) Samsung Talent Program
- (2) Samsung Software Track

LG Display  
(LGenius Program]

LG Electronics  
(LG customized education program ]

SK Hynix  
(Hynix customized education Program]

Provide Students with customized education

## International Cooperation

- Exchange of teachers and students
- Educational programs, materials
- Scientific Developments
- Organizing joint faculties



# End of Documents

