

# 韩国成均馆大学简介





# Introduction of Sungkyunkwan University



# SKKU

Truly, Global Leading University







SINCE 1398





成均館 성균관

SUNGKYUNKWAN

Highest Royal Educational Institute



- Confucian Hwang Lee (1501~1570)
- SKKU President in 1543





- Founded in 1398
- Highest Royal Educational Institute
- Samsung Group joined 1996
- Celebrated 200<sup>th</sup> Anniversary in 1998
- Historical & State-of-the-art



Undergraduate: 26,596  
Graduate: 8,312  
Full time faculty: 1396



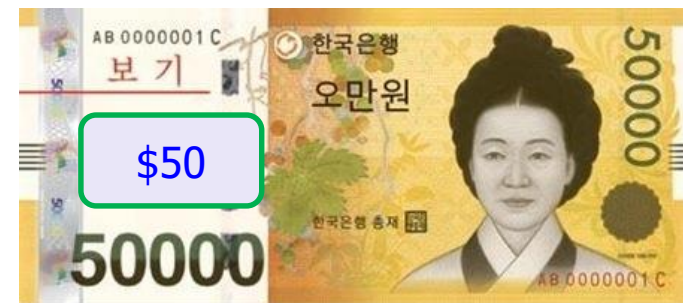
- Hwang Lee (1501~1570)
- Confucian
- SKKU President in 1543

- Lee Lee (1536~1584)
- Confucian
- H. Lee's Student
- Outstanding SKKU Alumnus

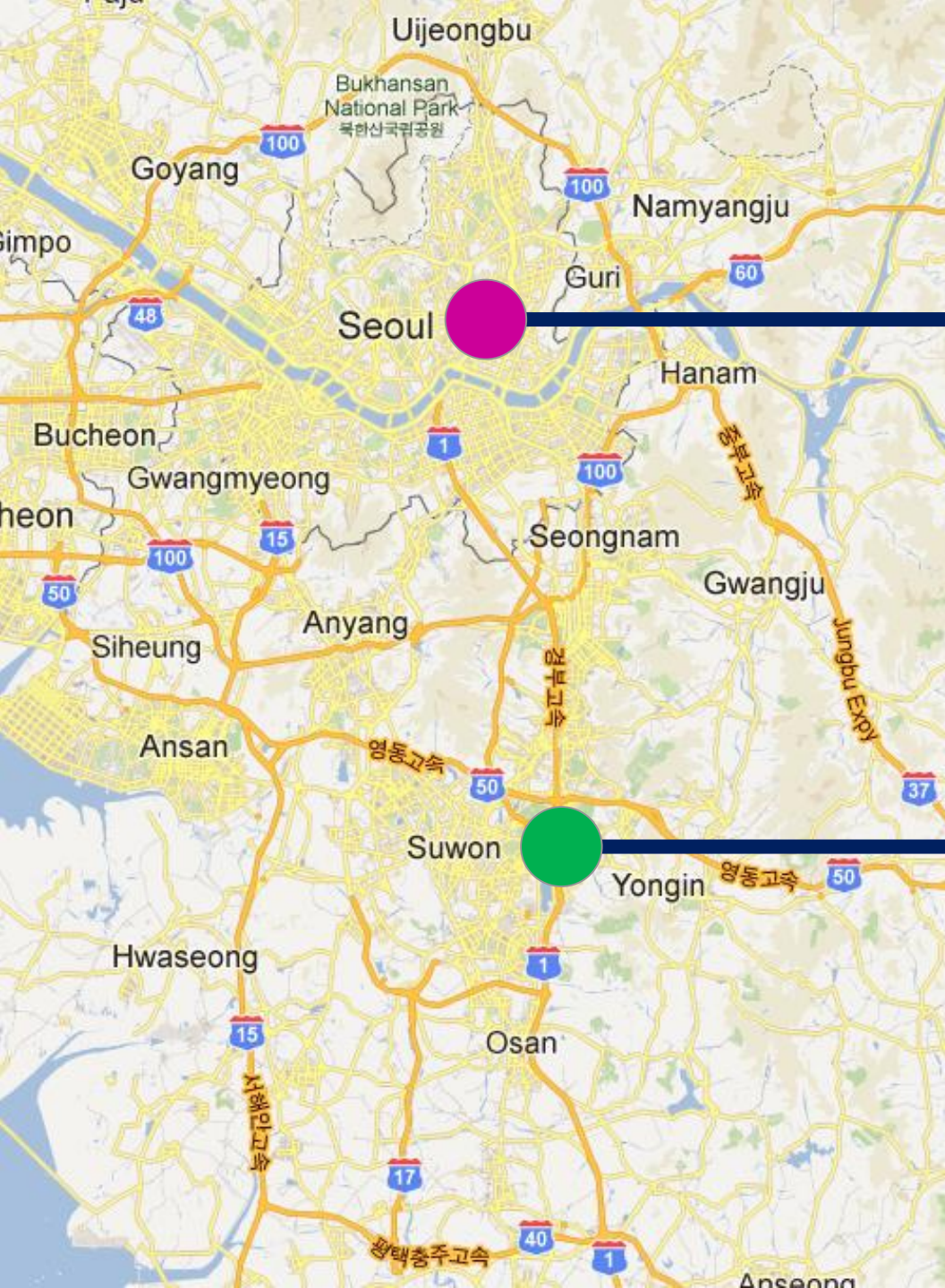


- King Sejong (1397~1450)
- Chairman, SKKU Board of Trustees
- Invented Korean Alphabet

- Mrs. Shin (1504~1551)
- Great Painter, Writer, Poet
- Lee Lee's Mother
- SKKU PTA







# Campuses

HUMANITIES & SOCIAL SCIENCES

Seoul

NATURAL SCIENCES

Suwon

Since 1948



HUMANITIES & SOCIAL SCIENCES

Seoul



## ACADEMIC PROGRAMS

- College of Confucian Studies & Eastern Philosophy
- College of Liberal Arts
- College of Law
- College of Social Sciences
- College of Economics
- School of Business
- College of Education
- School of Art



Natural Sciences Campus  
College of Engineering

**Suwon**



## **ACADEMIC PROGRAMS**

- College of Science (Physics, Chemistry, Biology & Math)
- College of Information & Communication Engineering
- **College of Engineering**
- College of Biotechnology and Bioengineering
- School of Pharmacy
- School of Medicine
- College of Sport Science









**Joong-Gi Song**  
**Dept. of Business Administration**







# College of Engineering

- Chemical Engineering
- Advanced Materials Sciences & Engineering
- Mechanical Engineering
- Civil & Architecture Engineering
- System Management Engineering
- Landscape Architecture
- Architecture





# Faculty

**FULL-TIME Professors 163**

**Chemical Engineering : 42**

**Advanced Materials Sciences & Engineering : 28**

**Mechanical Engineering : 39**

**Civil & Architecture Engineering : 21**

**System Management : 18**

**Landscape Architecture : 3**

**Architecture : 12**

**Adjunct Prof.: 93, Research Prof.: 6,  
Visiting Prof.: 66, Research Fellow: 93**



**4-year Universities in Korea: approx. 180**

**Major universities in Seoul : 15**



## Funding (USD)

2014 Total  
**270 million**

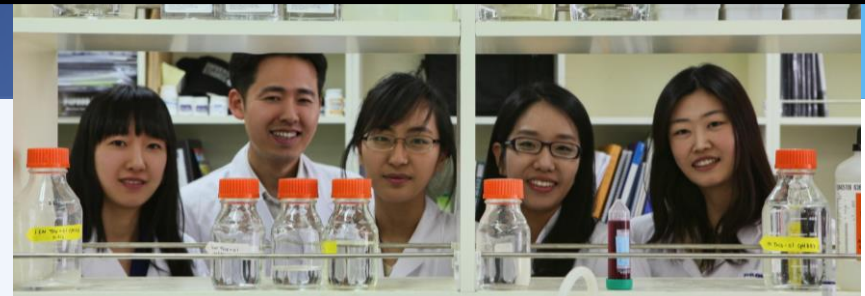
Private sector  
**54 million**

Per professor  
**193,573**

## Performance

2014 Int. Journal  
Publications  
**4,427**

2014 Patents  
**503**





# Industry-Academic Collaboration

## UNDERGRADUATE

- Samsung LCD Track
- Samsung SDI Track
- Samsung Talent Program
- Li ion Battery (SDI, LG Chemical)
- Display glass (LG Electronics)

## GRADUATE

- Samsung Display
- SAIT(Samsung Advanced Institute of Tech.)
- Samsung Electro-Mechanics
- Samsung SDI and Electronics
- Samsung Construction & Tech.



# SKKU Samsung C&T Collaboration - Introduction

- In early 2008, there was high demand in **Samsung C&T Group** for master's level engineers specialized in the fields of **high-rise building and long-span bridge**
- SKKU-Samsung C&T jointly launched an **industry oriented** master's level program "**Department of Mega Buildings and Bridges**"
- This program was reformed later as "**Department of Global Construction Engineering**"



## Purpose of Establishment

### GLOBALIZATION

- Globalized Engineers
- Global Construction Project



### ENGINEERING SKILL

- Engineering Design Capability
- Realization of Creative Design



### WORK PERFORMANCE

- **Industry Oriented**
- **High Understanding of New Construction Technology**



## Objectives of the Program

- To educate **product-specific** Master's level civil engineers
- To supply **competent, globalized next generation architectural and civil engineers** with field experience for immediate deployment to project site



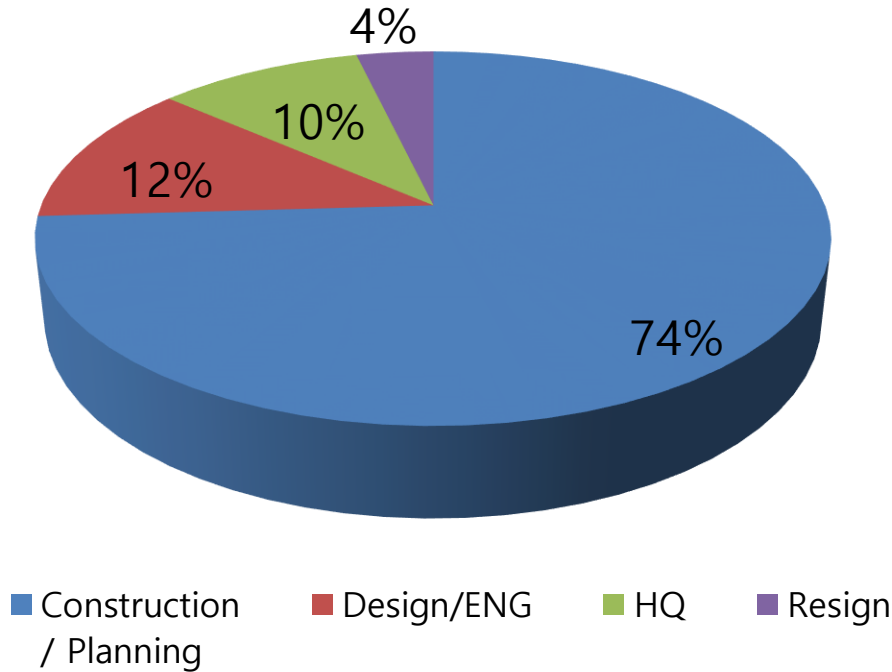


# SKKU Samsung C&T Collaboration - History

## Department History

2008. 10	Conclusion of Agreement of Department of Mega Buildings and Bridges between SKKU and Samsung C&T
2009. 03	Establishment of <b>Department of Mega Buildings and Bridges</b>
2009. 03	Enrollment of the First Freshmen (22 Students)
2010. 03	Enrollment of the Second Freshmen (18 Students)
2011. 03	Enrollment of the Third Freshmen (22 Students)
2012. 03	Enrollment of the Forth Freshmen (19 Students)
2012. 08	Renamed as <b>Department of Global Construction Engineering</b> (expanded to Mechanical as well as Electrical Engineering major)
2013. 03	Enrollment of the Fifth Freshmen (24 Students)
2014. 03	Enrollment of the Sixth Freshmen (20 Students)
2015. 03	Enrollment of the Seventh Freshmen (19 Students)

## Job Placement after Graduation





## Program Highlights

- Product specific courses
- Courses offered by adjunct professors from **Samsung C&T**
- Internship program at **construction site** as well as **Samsung C&T HQs**



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**SAMSUNG C&T**  
Engineering & Construction Group

# SKKU Samsung C&T Collaboration – Program Highlights

## Core Strategies for the Program

### 1:1 mentoring

- Mentors are appointed by inside experts based on major
- 1:1 mentoring program for each student throughout the school years
- Project-based design/construction background achievement



### Summer Internship

- Contract & Claim related training at Samsung C&T HQ
- Job training as resident engineer
- Communication skill in English & IT



### Design Project

- Students get Involved in on-going project design /construction projects
- VE perspective design review and competition
- Performance based evaluation of students for placement



### Field Trip

- Balancing between in-class study and practice
- Overseas construction site visits
- Communication skill development for Global construction engineer





# SKKU Samsung C&T Collaboration - Curriculum

## Outline

Architectural

Civil

Mechanical

Electrical

Basic  
Courses

To develop advanced skills in construction, design engineering skill and Project Management capability, Contract & Claim

Major  
Courses

Construction,  
Building structure,  
Technology research

Geotechnical, Bridge and  
Structural Engineering

Mechanical equip.  
Heat and fluid  
mechanics

Power system,  
Protection  
SMART Grid

Product  
Courses

Design and Construction of Civil/Arch. Engrg. Products  
(Case histories, Design-based Learning, Construction Experience)

Project-based  
Course

Project-Based Learning  
Contract-Design-Construction-Project Management

# SKKU Samsung C&T Collaboration - Curriculum

Civil	Architectural	Mechanical	Electrical
<ul style="list-style-type: none"> <li>Global Construction Project Management</li> <li>Contract and Claim Management for Overseas Construction Projects</li> </ul>			
<ul style="list-style-type: none"> <li>Advanced Civil Engineering</li> <li>Advanced Geotechnical Engineering</li> <li>Foundation Design and Construction</li> <li>Railway and Harbor Structures</li> <li>Civil Structural Design Engineering</li> <li>Design of steel structures</li> <li>Structural Dynamics and Earthquake-Resistant Design</li> <li>Design/Construction of cable bridges</li> <li>Numerical Methods for Geo-Structures</li> <li>Design of Road Bridges</li> <li>Design of Tunnel and Underground Structures</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable Building Design</li> </ul>		
	<ul style="list-style-type: none"> <li>Construction Planning for Building Project</li> <li>Advanced design of Reinforced Concrete Structures</li> <li>Construction Productivity Improvement and Management</li> <li>Advanced Construction Method and Technology</li> <li>Time and Cost Management for Construction Projects</li> </ul>	<ul style="list-style-type: none"> <li>M&amp;E System planning</li> <li>Designing Low-energy Structure</li> <li>Building Energy Management System</li> </ul>	
		<ul style="list-style-type: none"> <li>HVAC System Design</li> <li>Built Environment Control</li> </ul>	<ul style="list-style-type: none"> <li>Understanding for Industrial Electrical Facility</li> <li>Power system and protection</li> </ul>