

Sungkyunkwan University

School of Mechanical Engineering

Sungkyunkwan University (SKKU)

2014



- Founded in 1398
- Highest Royal Educational Institute
- Sponsored by Samsung
- Historical & State-of-the-art



- 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



Sungkyunkwan University (SKKU)

- 1398 The foundation of the first national education institute in Korea : Sungkyunkwan
- 1895 Sungkunkwan is reformed as a modern three-year college
- 1946 The reopening of the Sungkyunkwan College
- 1996 The **Samsung Group** joins the University Foundation
- 1998 600th Anniversary

2013 QS ranking Asia 21st , World 168th

SKKU is among top 3 private universities in Korea

Student Enrollment

- Undergraduate : 19,365
- Graduate : 5,768

Full Time Faculty : 1,388

Campus

- Humanities and Social Sciences Campus in Seoul
- Natural Sciences Campus in Suwon



Introduction to SKKU ME

Research fund – Government: \$9 million/year, Industry: \$1 million/year

- SKKU ME is collaborating closely with Samsung Electronics Corporation and Hyundai Motor Corporation (more than half of total industry fund is from SEC and HMC).

HRD Center for Human-Friendly Convergence System

- the center of BK 21+ program, supported by Korean government in SKKU ME, was ranked #5 in selection competition

- to educate students Human-Friendly IT, ET, NT & BT (Information-, Environment, Nano- & Bio-Technology) convergence mechanical system design

Total number of professors and students in ME

Professors

35

**Undergraduate
Students**

1017

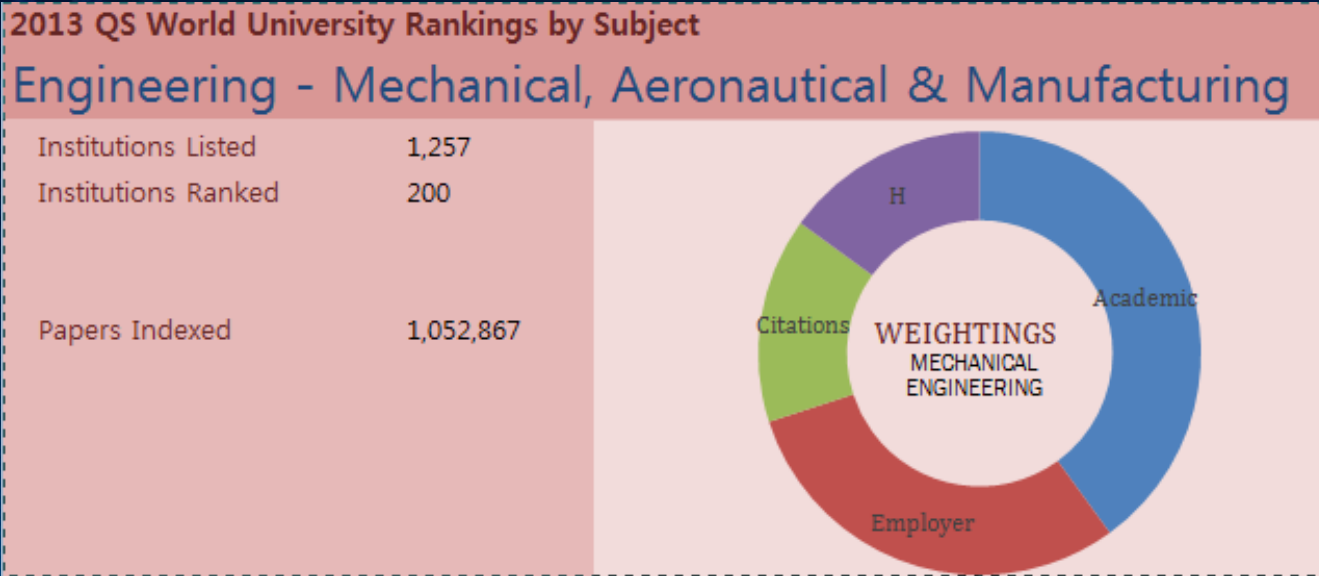
**Graduate
Students**

202

**International
Students**

26

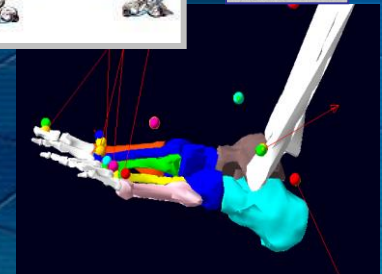
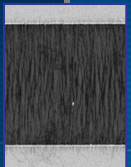
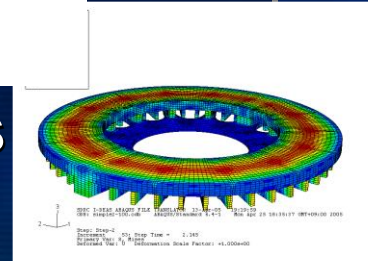
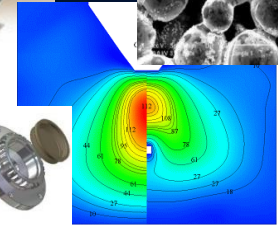
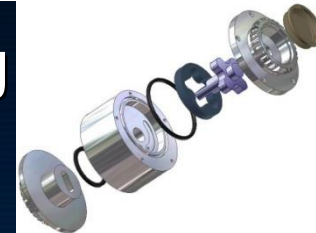
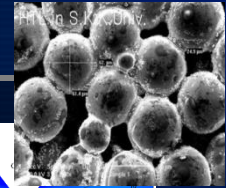
2013 QS ranking – Mechanical Engineering



| 2013 | 2012 | Institution |
|------|---------|-------------|
| 19 | 51-100 | KAIST |
| 29 | 33 | SNU |
| 70 | 51-100 | POSTEC |
| 80 | 151-200 | SKKU |
| 86 | 101-150 | YONSEI |
| 94 | 51-100 | KOREA |

SKKU ME Research

- Next Generation Vehicles
- Systems and Control Engineering
- Energy Conversion System
- Computer Simulations for Thermal-Fluids Phenomena and Their Control
- Combustion, Air Pollution and Laser Diagnostics
- Manufacturing Processes and System
- Mechatronics and robotics
- System/material Integrity and Reliability
- Micro/Nano/Bio Mechanical Engineering



Laboratories in SKKU ME

School of Mechanical Engineering

Fluid/Thermal Engineering

Fluid Mechanics Lab.
Gas Dynamics Lab.
Heat & Mass Control Lab.
Nanoparticle Tech. Lab.
Energy Engineering Lab.
2-D Nanomaterial Lab.

Heat Transfer Lab.
Internal Combustion Engine Lab.
New Energy System Lab.
Smart Future Air Conditioning System Lab.
Multi-Physics Nano-Fluidics Lab.

Solid/Material Engineering

Integrity Evaluation Lab.
Mechanical Material Lab.
Reliability Evaluation Lab.
Advanced Non-Destructive Evaluation lab.
Tribology Lab.

Computational Bio-eng. Lab.
Virtual Works Lab.
Biomedical Eng. Lab.
Creative System Eng. Lab.
Energy Conversion Lab.

Micro/Bio Transports Lab.
Green Energy Material & Process Lab.

Manufacturing/Control Engineering

Automotive Mechatronics Lab.
Dynamic System Design Lab.
Intelligent Robotics & Mechatronic System Lab.
Manufacturing Systems Lab.
Mechanical Eng. Control Lab.
Product Design & Production Systems Lab.

Robotics and Intelligent Systems Lab
Computer Aided Design Lab.
Computer aided Modeling and Simulation Lab.
Mechanical Vibration Lab.
Micro-Nano system Lab.

Professors in SKKU ME

| Major Area | Professors | Laboratory | Email |
|-----------------------------------|---------------------------------------|--|---------------------------|
| Fluid/Thermal Engineering | Young-Kyu Hwang | Fluid Mechanics Lab. | ykhwang@skku.edu |
| | Youn-Jea Kim | Gas Dynamics Lab. | yjkim@skku.edu |
| | Han-Seo Ko | Heat & Mass Control Lab. | hanseoko@yurim.skku.ac.kr |
| | Taesung Kim | Nanoparticle Technology Lab. | tkim@skku.edu |
| | Chulju Kim | Heat Transfer Lab. | cjkime@me.skku.ac.kr |
| | Jongtae Lee | Internal Combustion Engine Lab. | jtleee@skku.edu |
| | Oh-Chae Kwon | New Energy System Lab. | okwon@skku.edu |
| | Keumnam Cho | Smart Future Air Conditioning System Lab. | keumnamcho@skku.edu |
| | Changkook Ryu | Energy Engineering Lab. | cryu@me.skku.ac.kr |
| | Changgu Lee | 2-D Nanomaterial Lab. | peterlee@skku.edu |
| | Jaehoon Kim | Green Energy Material & Process Lab. | jaehoonkim@skku.edu |
| | Doyoung Byun | Multi-Physics Nano-Fluidics Lab. | dybyun@skku.edu |
| | Jinkee Lee | Micro/Bio Transports Lab. | lee.jinkee@skku.edu |
| Solid/Material Engineering | Chang-Sung Seok | Integrity Evaluation Lab. | seok@skku.edu |
| | Byeong-Soo Lim | Mechanical Material Lab. | bslim@skku.edu |
| | Dong-Ho Bae | Reliability Evaluation Lab. | bae@yurim.skku.ac.kr |
| | Sung-Jin Song | Advanced Non-Destructive Evaluation Lab. | sjsong@skku.edu |
| | Young-Ze Lee | Tribology Lab. | yzlee@skku.edu |
| | Myung-Won Suh | Virtual Works Lab. | suhmw7447@skku.edu |
| | Hyeonki Choi | Biomedical Engineering Lab. | hkchoi@skku.edu |
| | Jae-Boong Choi | Creative System Engineering Lab. | boong33@skku.edu |
| | Moon Ki Kim | Computational Bioengineering Lab. | mkkim@me.skku.ac.kr |
| | Wonyoung Lee | Energy Conversion Lab. | leewy@skku.edu |
| Manufacturing/Control Engineering | Sung-Ho Hwang | Automotive Mechatronics Lab. | hsh@me.skku.ac.kr |
| | Hyun-Soo Kim | Dynamic System Design Lab. | hskim@me.skku.ac.kr |
| | Hyouk-Ryeol Choi | Intelligent Robotics & Mechatronic System Lab. | hrchoi@me.skku.ac.kr |
| | Mujin Kang | Manufacturing Systems Lab. | mjkang@skku.edu |
| | Hunmo Kim | Mechanical Engineering Control Lab. | kimhm@me.skku.ac.kr |
| | Yong-Se Kim | Computer Aided Design Lab. | yskim@skku.edu |
| | Ja-Choon Koo | Computer Aided Modeling and Simulation Lab. | jckoo@me.skku.ac.kr |
| | Yeon-Sun Choi | Mechanical Vibration Lab. | yschoi@yurim.skku.ac.kr |
| | Seunghyun Baik | Micro/Nano System Lab. | sbaik@me.skku.ac.kr |
| | Sang Won Lee | Product Design and Production Systems Lab. | sangwonl@skku.edu |
| Hyoungpil Moon | Robotics and Intelligent Systems Lab. | hyungpil@me.skku.ac.kr | |

Benefits for international applicants

Graduate Students

- Tuition
- Living expense
- Health Insurance

Post Doc.

- Salary 25,000,000 Won/Year (About \$25,000/Year) + Incentive
- Health Insurance

Research Prof.

- Salary 30,000,000 Won/Year (About \$30,000/Year) + Incentive
- Health Insurance
- Minimum 2 years of experience (after obtaining PhD degree)

Questions to Professor Taesung Kim

→ tkim@skku.edu, [Tel:+82-31-290-7466](tel:+82-31-290-7466)

Office of Admission

→ <http://admission.skku.edu/>

Q & A



Thank you!