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Websites

www.ece.nus.edu.sg
(For general information)

www.ece.nus.edu.sg/education/graduate/PhD.html
(For Ph.D/M.Eng programmes)

www.ece.nus.edu.sg/education/graduate/MSc.html
(For M.Sc program)



Department of Electrical & Computer Engineering
Faculty of Engineering

ECE Website

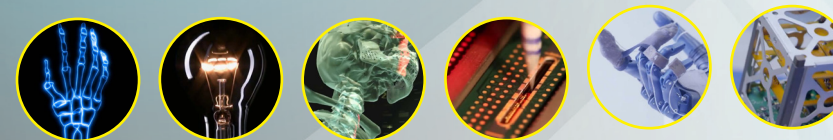


National University of Singapore



ELECTRICAL & COMPUTER ENGINEERING

Nurturing Engineer-Leaders



EMPowering YOUNG MINDS,
CREATING NEW LEADERS,
ENGINEERING THE FUTURE.

WHAT is Electrical & Computer Engineering (ECE) all about?

ECE is about innovation and creation of services and technology using principles related to electricity, magnetism and light. ECE is the driving force behind many modern inventions. Smartphones and the Internet are just two examples of ECE-related inventions that have evolved rapidly and revolutionised our world. ECE is a discipline that has plenty to offer in terms of discovery, innovations, and creativity. Join us for an exciting learning experience and promising career prospects!



Power & Energy Systems

- Power electronic converters, electrical drives & control
- Power semiconductor devices & microelectronics
- Micro-grid, smart-grid, & renewable energy operation & control
- High voltage testing & lightning protection
- Intelligent transportation systems
- Energy harvesting for portable electronic systems

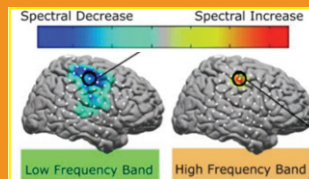


Ph.D student
Abhra Roy Chowdhury with his award



Integrated Circuits & Embedded Systems

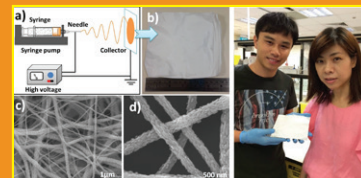
- Analog and mixed-signal integrated circuit design
- Radio frequency integrated circuit design
- Micro-Electro-Mechanical Systems (MEMS)
- Integrated circuits for biomedical applications
- Platform architectures and associated EDA tools
- Distributed systems



Prof Yang Hyunsoo (centre)
holding the chip, with his team,
Research Fellow
Dr Qiu Xuepeng (right) and
Dr Kulothungasagaran Narayanapillai (left).

Microelectronic Technologies & Devices

- Nanomaterials & nanostructures
- Silicon nanodevices
- Optoelectronics, photonics & plasmonics
- Nanomagnetism & spintronics
- Renewable energy
- Nano-sensors, MEMS



Prof Ho Ghim Wei with her fibrous
photocatalyst mat



Communications & Networks

- Wireless communications (free-space and underwater)
- Optical communications
- Information theory & networking

Left: Prof Ben Chen
& team "AeroLion" in
Harskamp, Delft



Control, Intelligent Systems & Robotics

- Intelligent control systems & intelligent mechatronics
- Computational intelligence, machine learning & optimization
- Robotics & autonomous systems



Prof Xu Jianxin with
Robotcarp



Microwave & RF

- Microwave/RF circuits & systems
- Antennas & propagation
- Electromagnetic scattering & imaging
- Computational electromagnetics



Signal Processing & New Media

- Computer vision & image Processing
- Medical imaging, neuro coding & psychophysics
- Human computer interaction & immersive environment
- Mixed reality & AI in games



Ph.D student Ray Fang Hongzhao
(front row, left) with SONDRA
team in France



Graduate Studies @ ECE, NUS

- Among the most exciting and challenging engineering disciplines
- Consistently ranked among the best in the QS World University Rankings by Subject for Engineering - Electrical & Electronic
- Innovative & exciting programmes including Joint PhD with top international schools, Industrial PhD with top multi-national companies, Concurrent and Double Degree programmes, and Thematic Programmes with A*STAR
- Diversified research areas
- Comprehensive, top-notch infrastructure and research facilities
- Dedicated faculty members with excellent credentials
- Vibrant, enriching, rewarding & challenging research experience
- Attractive financial support
- Promising career prospects