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 inarguably the driving force behind most modern inventions. Computer technology and the world wide web are two ECE related inventions that have evolved rapidly and revolutionalised our world. ECE is thus a discipline that has plenty to offer in terms of discovery, innovations, and creativity. Be part of it to discover for yourself.

WHY study ECE at NUS?

- > ECE offers two undergraduate degree programmes; B.Eng (Electrical Engineering) and B.Eng (Computer Engineering). Both programmes are accredited by the Engineering Accreditation Board (EAB) and recognized internationally
- \succ Highly flexible and broad-based curriculum provides diversified education experiences.
- \succ Transform students into a well-rounded thinking graduate, steeped in fundamentals and able to interpret knowledge from diverse disciplines.
- > Ranked 6th in the 2014 edition of the QS World University Rankings for EE.
- \succ Provides a good balance of engineering skills and knowledge that are applicable to many industries.
- \succ ECE Student Life provides a holistic experience for students; promotes greater engagement between staff and students, better welfare and personal development.

Scholarship Opportunities (Bond-Free)

- ECE Scholarship
- NUS Global Merit Scholarship
- NUS Undergraduate Scholarship
- Kent Ridge Undergraduate Scholarship
- · LKY-STEP Award
- University Engineering Scholarship
- Others

Admission Criteria

- 1) 'A' Level: H2 Mathematics and H2 Physics or H2 Chemistry or
- 2) Acceptable diploma from a Polytechnic in Singapore or
- *3) International Baccalaureate (IB)* Diploma: HL Mathematics and either HL Physics or HL Chemistry or
- 4) Other equivalent qualifications

DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING FACULTY OF ENGINEERING

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Department of Electrical & Computer Engineering Faculty of Engineering

ECE Website



ELECTRICAL & COMPUTER ENGINEERING **Nurturing Engineer-Leaders**



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SPECIAL PROGRAMMES

Student Exchange Programme (SEP)

Students spend one semester abroad in prestigious universities such as University of California. Berkelev. ETH Zurich. Seoul National University and many others. Choose from more than 200 partner institutions worldwide and gain global exposure through this programme

NUS Overseas Colleges (NOC)

Students intern with start-up companies for up to a year and read entrepreneurship related modules at renowned partner universities. The aim is to cultivate and nurture them into enterprising, resourceful. independent self-starters, who can blossom into successful entrepreneurs. The colleges are located in US. China. Sweden. Israel and Singapore.

Global Engineering Programme (GEP)

Students with exceptional potential will be provided an accelerated pathway and enhanced educational experience that incorporates a strong global learning aspect.

GEP students are expected to complete their BEng programme in 3 years (2 or 2.5 for Poly students) and proceed to a postgraduate programme either locally or overseas in the 4th year.

Double Degree Programme (DDP)

- DDP with French Grandes Ecoles: student graduates with B.Eng.degree (NUS), Diplome d'Ingenieur (France) and M.Eng (NUS)
- DDP in Engineering & Business Administration
- DDP in Engineering & Economics

Enhancement Programmes

- Vacation Internship Programme
- Technopreneurship and Incubation
- · Undergraduate Research Opportunities
- Programme Innovation Programme

Electronics & Semiconductors

> Aerospace & Aviation

> > Automotive



MICROELECTRONICS

- **Device Technology**
- IC Manufacturing
- Photonics
- Information Storage Materials & Devices
- **Renewable Energy Materials** & Devices



CONTROL AND AUTOMATION Advanced Control

Mechatronics & Automation **Distributed Autonomous** Systems Process Control



Precision Engineering

BIOELECTRONIC **SYSTEMS**

EE SPECIALIZATION

Biomedical Systems Computational Sensory Systems



COMMUNICATION ENGINEERING Wireless Communications **Optical Communication**

Infocomm

Media & Digital Entertainment

Core Science. Engineering, Technology

Design Centric Programme (DCP)

Design-Centric Programme (DCP) aims to produce engineering graduates with a global perspective yet sensitive to local cultural subtleties, and who have the ability to identify and solve complex problems of societal importance. Students from the different engineering disciplines will work together on a project and continue on these projects all the way to their final year.

Minor Programmes

These are coherent programmes where students gain skills and knowledge beyond their major disciplines by selecting minors such as Business, Bioengineering, Technopreneurship, and others.



Medical **Technology** & Healthcare

Chemicals

Logistics & Supply **Chain Management**

Marine & Offshore

Energy, Oil & Gas

SP

Finance & Investment

Consumer Business

MICROWAVE & RF COMMUNICATION Microwave & RF Systems

- · Microwave & RF CAD



ELECTRICAL ENERGY SYSTEMS AND COMPONENTS

- · Power Systems Analysis & Control
- Power Electronics, Electric Drives & Semiconductor Devices
- Sustainable Energy Systems & Components





· VLSI Design

· Embedded Systems



COMPUTER ENGINEERING & INFORMATION PROCESSING Networking & Distributed Systems

Interactive & Digital Media

