CAREER PROSPECTS

The NUS Electrical Engineering programme prepares graduates to be versatile, thinking individuals who are well-versed in fundamentals and capable of presenting a good balance of engineering skills and knowledge applicable across many industries.

Career prospects for our electrical engineering graduates are wide and varied:

- **Aerospace & Aviation:** Rolls-Royce, SIA Engineering
- **Automotive:** Bosch, Continental, McLaren Applied Technologies
- **Chemicals:** ExxonMobil, Shell
- **Consumer Business:** Procter & Gamble
- **Control & Automation:** Hexagon, Seagate Automation, Siemens, Yokogawa
- **Electronics & Semiconductors:** Global Foundries, MediaTek, Micron, ST Electronics
- **Energy, Oil & Gas:** ConocoPhilips, Schlumberger, Singapore Power
- **Finance & Investment:** DBS, GIG, Goldman Sachs
- **Infocommunications:** M1, Singtel, Starhub, Vodafone
- **Logistics & Supply Chain Management:** OHL, FedEx, PSA
- **Marine & Offshore:** Keppel Offshore & Marine, Sembcorp Marine
- **Media & Digital Entertainment:** Mediacorp, Sony Singapore
- **Medical Technology & Healthcare:** iHIS, Medtronics, Philips Healthcare
- **Precision Engineering:** Advantech, Akribis, Makino

ADMISSIONS REQUIREMENTS

Qualifications	Requirements
Singapore-Cambridge 'A' Levels	H2 Mathematics or H2 Further Mathematics*
International Baccalaureate Diploma	HL Mathematics*

* Students with insufficient Physics background may need to read Physics bridging modules after enrolling in NUS.

Applicants presenting accredited diplomas from a polytechnic in Singapore may also apply. For polytechnic and NUS High School graduates, as well as other qualifications, scan the QR code for more details.

NUS Electrical & Computer Engineering
4 Engineering Drive 3
Block E4 #05-42
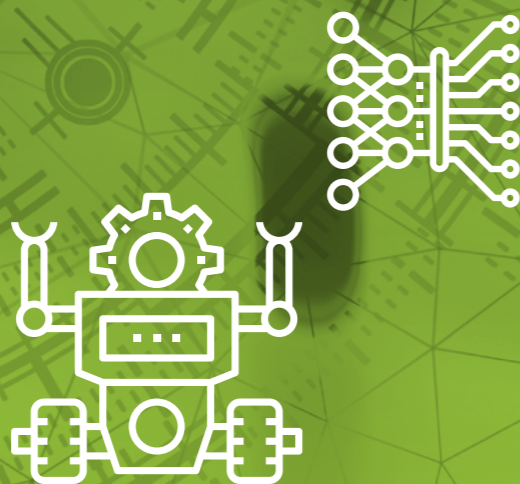Singapore 117583
Tel: +65 6516 2109
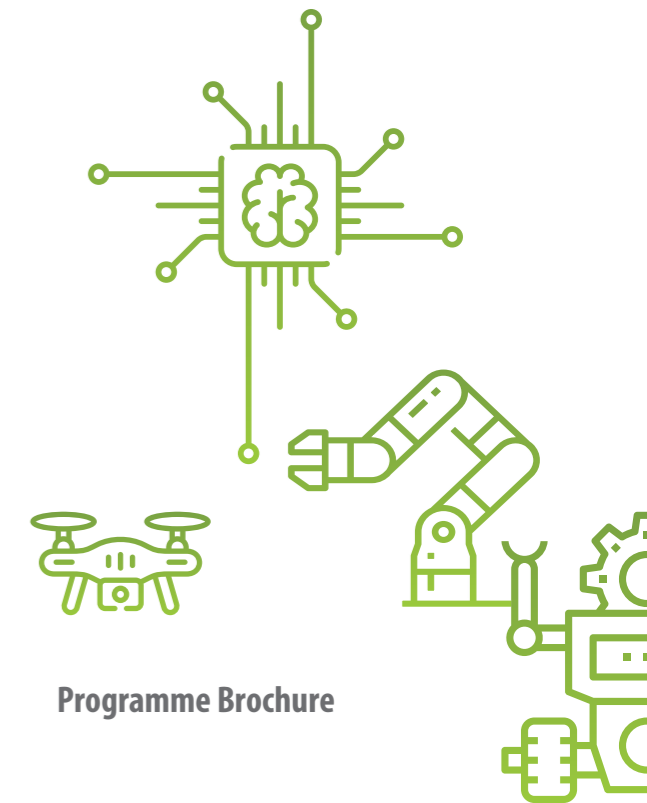Email: askECE@nus.edu.sg

www.cde.nus.edu.sg/ece

Follow us on
NUS.ECE.SG   **ECE NUS**

NUS National University of Singapore | College of Design and Engineering

ELECTRICAL ENGINEERING

Programme Brochure

NURTURING HOLISTIC ENGINEERS, IMPACTING LIVES

Electrical Engineering is about innovation and creation of services and technology to address multifarious key engineering issues that society face today. It is grounded in the principles of the sciences and mathematics. Electrical engineering is inarguably the driving force behind most modern inventions, providing the intelligent technology platforms needed to address complex global challenges such as ageing population, healthcare, mobility and energy sustainability. Electrical engineering is thus a discipline that has plenty to offer in terms of discovery, innovation and creativity.

NUS Electrical Engineering is designed to develop versatile engineers for immediate employment and to prepare them to meet the challenges of modern society. The programme has strong emphasis on scientific and engineering fundamentals and a high degree of flexibility, which can provide a diversity of educational experiences. It provides a mix of education and research opportunities, which are unique in their diversity and richness, allowing the students to plan their individual educational experience in accordance to their career aspirations.

INDUSTRY TRACKS

5G and Next Gen Networks
You will learn about systems, technologies and innovative applications pertaining to future communication networks, 5G and beyond. A new era of unprecedented career opportunities is fast approaching.

Advanced Electronics
An exposure to fundamentals in device physics and materials, process integration, IC design and prototyping prepares our students to take on challenges associated with advanced electronics, a pervasive technology that influences our everyday life.

Artificial Intelligence and Data Engineering
Learn about Artificial Intelligence (AI) techniques enabling machines to learn and act autonomously, leading to ground-breaking products and services. Develop skills in cloud-based data engineering to convert big data into actionable insights.

Industry 4.0
Learn about machines augmented with sensors which communicate with each other, servers, the cloud and people to enhance autonomy, visualization and decision making. Design systems to boost industrial productivity.

Renewable Energy and Electric Vehicles for Sustainability
Learn about renewable energy and components, systems and grid technologies related to power and energy conversion, and propulsion and actuation for electrified and autonomous vehicles on land, sea and air.

Internet of Things (IoT)
IoT provides the backbone for implementing Smart Nation developments in Singapore and worldwide, pervading the environment, cities, and factories of the future. By acquiring skills in computing hardware and software, data analytics, networking and communications, and cybersecurity, you will be well-positioned to contribute to these transformations, which has tremendous growth in job opportunities.

SPECIALISATIONS

Minor in Data Engineering
Data engineers build tools, infrastructure, frameworks and services which allow them to tease insights from the myriad of data streams being generated. The main aim of the Minor is to train graduates with the ability to handle and manage the large volume of data generated by industry and glean actionable insights from that data.

Robotics
Artificial Intelligence has taken robots to unprecedented heights to augment humans in handling highly complex activities. Robots are now seeing rapid deployment in industrial automation, transportation, medicine, and elderly care, as well as in entertainment and service sectors. Students who undertake this specialisation will have the opportunities to work on real-world robotics applications in areas such as manufacturing, transportation, and healthcare.