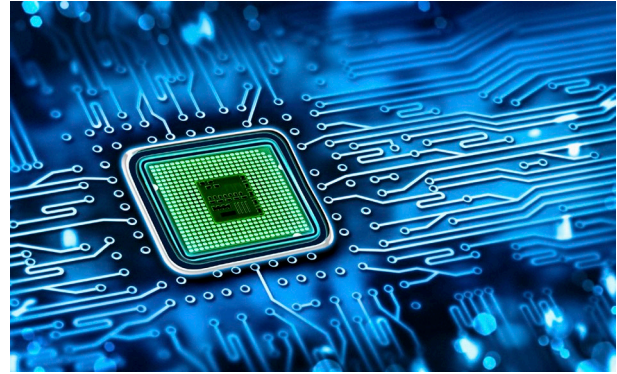


**NUS ECE empowers you for a career in
Advanced Electronics**

Electronic devices and integrated circuits pervade our everyday lives from smart gadgets, flexible screens, IoT sensors, artificial intelligence, data storage and clean energy, which are designed and manufactured in Singapore. Today, Singapore has one of the most diverse semiconductor industries in the Asia Pacific. Semiconductor technologies form the bedrock of Singapore’s electronics sector, contributing to about 31 % of the total manufacturing output and 17 % of the manufacturing workforce.



This track will introduce students to industry practices related to semiconductor fabrication, chip manufacturing, IC design and prototyping. This is especially relevant to students who aspire for a career in our nation’s semiconductor industry, which forms a vital node in global electronics network, and is underpinned by industry leaders. Students interested in embedded system and prototyping, could also explore start-up opportunities which are seeking talents specialized in firmware.

The **B.Eng. (Electrical Engineering)** programme provides a suite of modules, final year projects and industry internship opportunities to prepare our students to take on real world challenges.

Representatives Modules in Advanced Electronics & Integrated Circuits and Systems	
<u>Outer Core (compulsory)</u> EE3408C Integrated Analog Design EE3431C Microelectronic Materials and Devices <u>Electives (choose at least 3)</u> EE4211 Data Science for Internet of Things EE4218 Embedded Hardware System Design EE4407 Analog Electronics EE4409 Modern Microelectronic Devices & Sensors	EE4415 Integrated Digital Design EE4434 IC Technology, Design & Testing EE4435 Modern Transistors and Memory Devices EE4436 Fabrication Process Technology EE4437 Photonics – Principles and Applications EE4438 Solar Cells and Modules EE4505 Power Semiconductor Devices & ICs EE5440 Magnetic Data Storage for Big Data EE5507 Analog IC Design

Final Year Projects

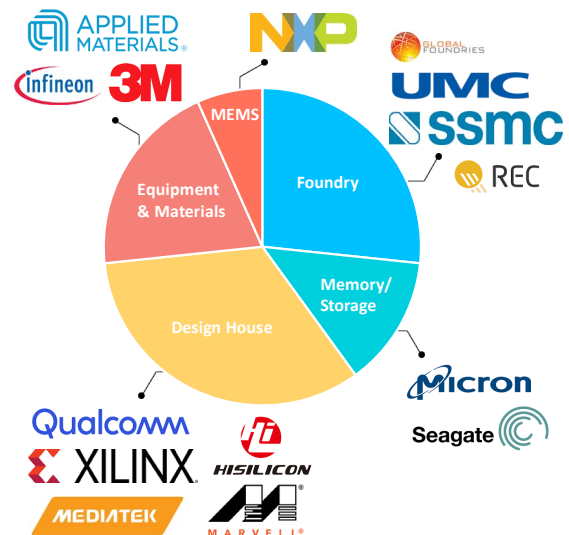
Students get the opportunity to work on their final year projects using the state-of-the-art fabrication facilities hosted by ECE/NUS on campus such as E6 NanoFab cleanroom.

Industry Internships

The ECE’s reputation and wide industry network provide an inroad to securing internships that allow students to immerse themselves with hands-on experience such as Micron, Applied Materials.

A Diverse Plethora of Career Prospects

A bachelor’s degree from ECE with specialisation in ‘Advanced Electronics’ track will open up a suite of career opportunities. Some industries our graduates can enter include semiconductor foundry, memory/storage, design houses, MEMS, equipment & materials. Key industry leaders which are anchored in Singapore include Infineon, Micron, GlobalFoundries, Seagate, REC, Applied Materials, Mediatek, HiSilicon, Xilinx, and Broadcom, among others.



Contact: <https://cde.nus.edu.sg/ece/>