NSBM GREEN UNIVERSITY TOWN

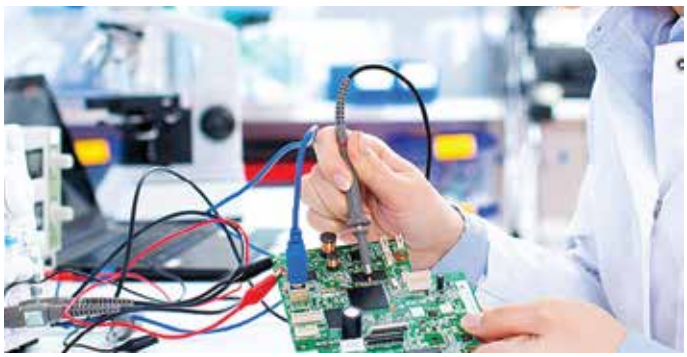
UNIVERSITY OF PLYMOUTH

B. ENG. (HONS) ELECTRONIC & COMPUTER ENGINEERING

OFFERED BY UNIVERSITY OF PLYMOUTH, UNITED KINGDOM

DURATION - 3 YEARS (FULL-TIME) + 6 MONTHS INTERNSHIP

The B.Eng. (Hons) in Electronic and Computer Engineering is an elite, multidisciplinary program designed to forge the next generation of engineers who can navigate the increasingly blurred lines between hardware and software. In an era dominated by the Internet of Things (IoT), autonomous vehicles, and ubiquitous Artificial Intelligence, this degree provides the comprehensive toolkit necessary to build the "smart" world of tomorrow.



KEY FEATURES

This program is a multidisciplinary powerhouse designed to bridge the gap between hardware engineering and software intelligence.

- **Integrated Hardware-Software Synergy:** Unlike traditional singular degrees, this curriculum blends Analogue/Digital Electronics with Software Engineering and Real-Time Systems, ensuring you can design the "brain" (software) and the "body" (hardware) of modern devices.
- **AI & Autonomous Systems Focus:** With dedicated modules in Artificial Intelligence, Machine Learning, and Autonomous Systems, the program prepares you for the "Industry 4.0" revolution.
- **Project-Centric Learning:** Over 30% of the total credit weighting is dedicated to hands-on design and build projects (PROJ100, PROJ200Z, PROJ300Z), moving from simple embedded systems to complex individual research.
- **Advanced Computing Power:** You gain expertise in Parallel Computing and Big Data Analytics, essential for handling the massive datasets generated by modern IoT and sensor networks.
- **Specialized Communication Systems:** The inclusion of High-Speed Communications ensures you understand the backbone of 5G, satellite links, and high-frequency data transfer.

BRIDGING TWO WORLDS

Modern technology no longer exists in a vacuum. A robotic arm requires high-precision Analogue and Digital Electronics to move, but it also requires Machine Learning and Real-Time Systems to understand its environment. This program is uniquely structured to ensure students are equally proficient in:

- *The Physical **(Electronics):** Designing circuits, power systems, and high-speed communication hardware.*
- *The Virtual **(Computer Engineering):** Developing complex software architectures, big data analytics, and parallel computing algorithms.*

A FUTURE-PROOF CURRICULUM

From the first year, students are immersed in Embedded System Design, moving quickly from fundamental principles to the cutting edge of Autonomous and AI Systems. By combining rigorous mathematical theory with a heavy emphasis on Project-Based Learning, the curriculum ensures that graduates are not just "theoretical" engineers, but "builders" capable of taking an idea from a whiteboard sketch to a functional, high-tech prototype.

YOUR GATEWAY TO GLOBAL INNOVATION

As a program aligned with the Washington Accord, this degree is a global passport. Whether you aspire to work on satellite communications in Europe, develop AI-driven medical devices in North America, or pioneer electric vehicle technology in Asia, this qualification signifies that you meet the highest international standards of engineering excellence.

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ENTRY QUALIFICATIONS

Three Passes in Physical Science, Biological Science or Technology streams in a single sitting, at one of the following examinations or equivalent foreign qualifications is the minimum entry requirement.

- *G.C.E. Advanced Level examination conducted by the Department of Examinations, Sri Lanka.*
- *G.C.E Advanced Level examination conducted by Pearson Edexcel, UK (London A/L).*
- *International Advanced Level examination conducted by Pearson Edexcel, UK.*
- *G.S.E Advanced Level examination conducted by Cambridge International Examination, UK*

OR

- *Completion of NSBM Foundation programme. (Should have a minimum credit pass for Mathematics and Science in G.C.E. Ordinary level exam)*

GLOBAL JOB OPPORTUNITIES

Graduates of this program are "hybrid engineers," making them highly sought after in a variety of high-growth global sectors:

Robotics & AI	Robotics Engineer, Machine Learning Engineer, Autonomous Systems Developer.
Consumer Electronics	Embedded Systems Developer, Firmware Engineer, Hardware Design Engineer.
Telecommunications	Network Architect, RF Engineer, High-Speed Communication Specialist.
Automotive (EV/AV)	Control Systems Engineer, Vehicle Software Architect, Power Electronics Engineer.
Data & Software	Big Data Architect, Full-stack Software Engineer, Real-Time Systems Programmer.
Energy & Power	Power Electronics Designer, Renewable Energy Systems Engineer.

PROGRAMME CONTENTS

YEAR 01

- Analogue Electronics
- Digital Electronics
- Engineering Mathematics
- Embedded System Design and Build
- Electrical Principles and Machines

YEAR 02

- Software Engineering
- Artificial Intelligence
- Real Time Systems Project
- Engineering Mathematics and Control
- Power Electronics and Generation

YEAR 03

- Machine Learning
- Big Data Analytics
- Individual Project
- Real-Time Embedded Programming for Autonomous and AI Systems
- Parallel Computing
- High Speed Communications

6 MONTHS INDUSTRIAL TRAINING – COMPULSORY

CONTACT US FOR REGISTRATIONS AND MORE INFORMATION

011-544 5000

AACSB Business Education Alliance Member

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