

BACHELOR OF ENGINEERING (HONS) IN ELECTRICAL AND ELECTRONIC ENGINEERING

JPT/BPP (R/523/6/0144) 08/25



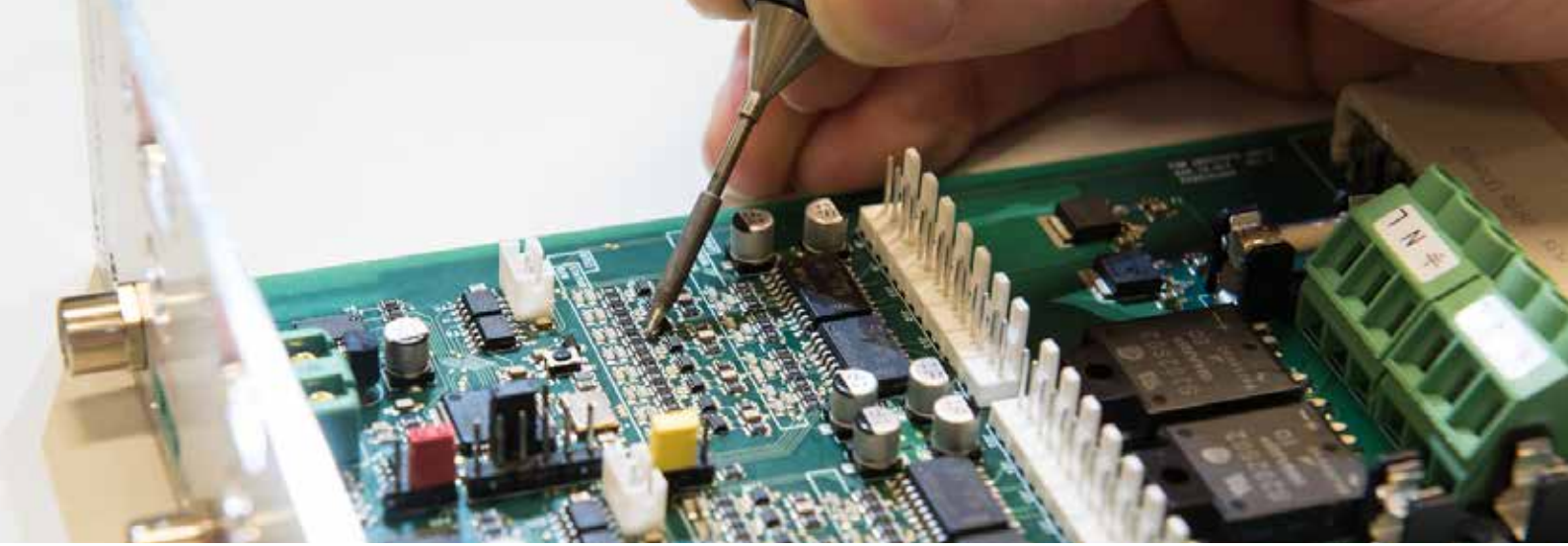
MAHSA
UNIVERSITY

FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY



"Engineering is the professional art of applying science to the optimum conversion of the resources of nature to the uses of humankind."

- ASCE



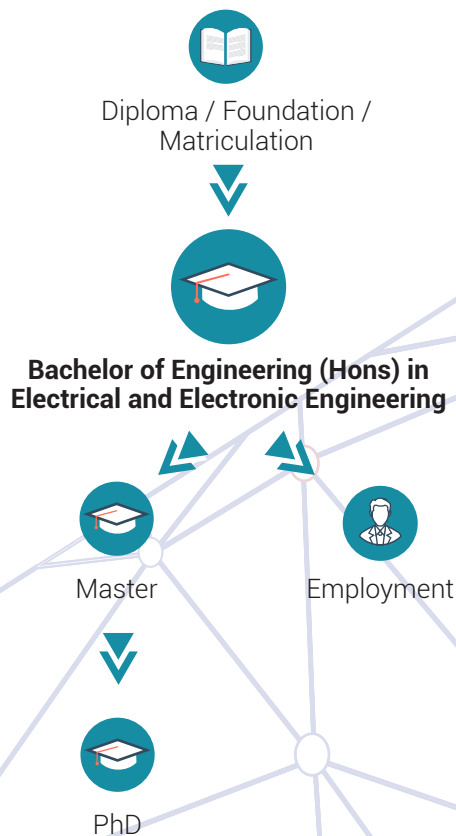
MAHSA's Bachelor of Engineering (Hons) in Electrical and Electronic Engineering is a four-year specialised undergraduate programme that will prepare students for a wide range of careers in Electrical and Electronic, one of the major platforms of the world's biggest industries.

Students will learn about electronic components and electrical systems, communications systems and networks, power electronics, physical electronics, electrical science, engineering mathematics, computer and digital logic, circuit theory, circuit analysis and design, integrated circuit design, embedded systems, electric drive and electric power systems, digital electronics, microwave design, and radio frequency.

Upon completion of the programme, students will have empowered themselves with the knowledge to succeed in an engineering career in any activity, including software development, project management, consultancy and programming, in any industry in the country or internationally.

PROGRESSION PATHWAY

MAHSA 360



During their time at MAHSA University, we want to provide all of our students with the opportunity to develop qualities, skills and understanding that go beyond the disciplinary expertise and prepare them for the next steps in their chosen careers.

MAHSA360 is the ecosystem that works to ensure every single student is nurtured and supported throughout the student journey.

PROGRAMME STRUCTURE

YEAR 01

Circuit Analysis
 Engineering Mathematics 1 & 2
 Electrical and Electronic Engineering Lab
 Electrical and Electronic Engineering Principles
 Electronic Devices and Circuits
 Electronic Devices and Circuits Lab
 Engineering Materials
 Engineering Software and Applications
 Engineering Workshop and Materials Lab
 Introduction To C Programming
 Instrumentation and Measurement

YEAR 02

Analogue Electronics
 Analogue Electronics Lab
 Computer Architecture
 Digital Electronics
 Digital Electronics Lab
 Distribution Of Electrical Power
 Electrical Machines & Power System
 Electrical Machines Lab
 Electromagnetic Field Theory
 Engineering Mathematics 3
 Generation, Transmission and Distribution of Electrical Power
 Numerical and Statistical Techniques
 Utilization Of Electrical Energy

YEAR 03

Control Engineering
 Communication Engineering Systems
 Creativity and Innovation
 Digital Signal and Image Processing
 Engineer in Society
 Industrial Training
 Introduction to Management
 Microprocessor and Microcontrollers
 Microprocessor and Microcontroller Lab
 Multimedia Applications
 Power Electronics and Drives
 Power Electronics and Drives Lab
 Power System Analysis

YEAR 04

Capstone Design Project
 Elective 1, 2, 3, 4, 5 and 6
 Engineering Project Management
 Thesis 1 & 2

GENERAL MODULES

Community Work 2
 Entrepreneurship
 Youth Development

Local Students

Hubungan Etnik
 Tamadun Islam dan Tamadun Asia

International Students

Bahasa Melayu Komunikasi 2
 Malaysian Studies

ELECTIVES

Electrical and Electronics

- AC Machines
- Analogue Integrated Circuits and Systems
- DC Machines
- Embedded Systems
- High Voltage Engineering
- Signal and Linear System
- Pattern Recognition and Neural Networks
- VLSI Design

Electronics and Communication

- Analogue Communication
- Antenna Propagation
- Data Communication and Networks
- Digital Communication
- Embedded Systems
- Satellite and Mobile Communication
- Microwave and RF Communication
- Optical Communication and Networks

Mechatronics

- Advance Robotics
- Fluids Mechanics
- Intermediate Robotics
- Mechanical Design
- Mechatronics System Design
- Statics and Dynamic
- Solid Mechanics
- Thermodynamics and Heat Transfer

Medical Electronics

- Artificial Organs and Medical Optics
- Assist Devices
- Bio-chemistry
- Diagnostic and Therapeutic Equipment 1 & 2
- Human Anatomy Physiology
- Medical Instrumentation
- Radiological Equipment

ENTRY REQUIREMENTS

Academic Qualification

Diploma / Matriculation / Foundation

STPM

A-Level

UEC

Other

Requirements

Related field pass with min. CGPA 2.0.

Pass with min. Grade C (GCPA 2.0) in three (3) subjects including Mathematics and one (1) Science subject.

Pass in three (3) subjects including Mathematics and one (1) Science subject.

Pass with Grade B in five (5) subjects including Mathematics and one (1) Science subject.

Recognised Malaysian qualifications or their equivalent.

MUET	IELTS	TOEFL
Band 4	6.0	550

English Proficiency

CAREER OPPORTUNITIES

Design Engineer
 Electrical Engineer
 Electronics Engineer
 Optical Engineer
 Power Engineer
 Power Plant Engineer
 Product Engineer
 QA/QC Engineer
 R&D Engineer
 Sales Engineer
 Support Engineer
 Transmission Engineer



Library



The Habitat



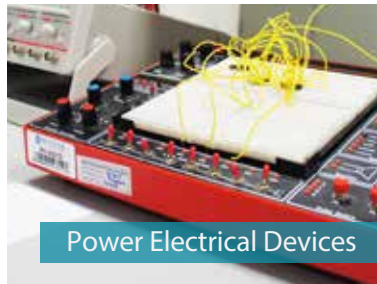
Student Success Centre



System Equipment



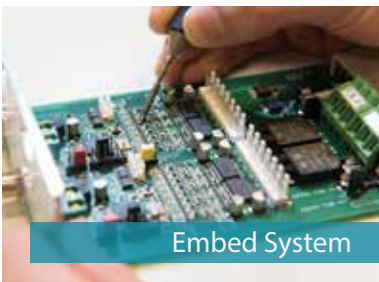
Analog and Digital



Power Electrical Devices



Football Field



Embed System



Residences

Contact us
1800 88 0300

marketing@mahsa.edu.my
www.mahsa.edu.my



MAHSA University



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MAHSA UNIVERSITY

BANDAR SAUJANA PUTRA CAMPUS

Jalan SP2, Bandar Saujana Putra, 42610 Jenjarom, Selangor, Malaysia

Hotline : +603-5102 2200

MAHSA UNIVERSITY RECRUITMENT CENTRE (MURC):

MURC Penang

441-1-19, Plaza Pulau Tikus, Jalan Burma,
10350 Georgetown, Pulau Pinang

MURC Klang

Tingkat 4 Plaza Blossom, No.56 & 57, Jalan Tengku Kelana,
41000 Klang, Selangor

MURC Melaka

No 3-1, Jalan Komersial Takh 3, Taman Takh
Ayer Keroh, 75450 Melaka

MURC Kuching

No.191, Lot 1508, Ground & 1st Floor, Wisma Tek
93350 Kuching, Sarawak

MURC Kota Bharu

259 Tingkat 2 Jalan Kebun Sultan, Seksyen 8
15300 Kota Bharu, Kelantan