BACHELOR OF ENGINEERING (HONS) IN ELECTRICAL AND ELECTRONIC ENGINEERING

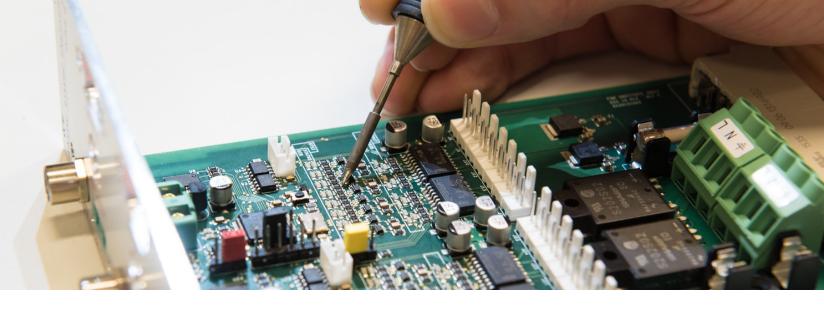


KPT/JPS(R/523/6/0144)(MQA/FA3660)08/25

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."



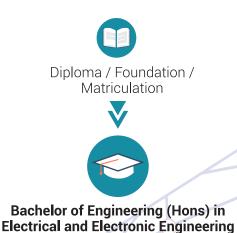
MAHSA's Bachelor of Engineering (Hons) in Electrical and Electronic Engineering is a four-year specialised undergraduate programme that will prepare students for a wide range of careers in Electrical and Electronic, one of the major platforms of the world's biggest industries.

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

MAHSA360



Employment



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.





PhD

ACCREDITATION







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 Intrumentation and Measurement

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



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



Community Work 2 Entrepreneurship Youth Development

Local Students

Hubungan Etnik Tamadun Islam dan Tamadun Asia

International Students

Bahasa Melayu Komunikasi 2 Malaysian Studies



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
- Embeded 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 Therapaetic Equipment 1 & 2
- Human Anatomy Physiology
- Medical Instrumentation
- Radiological Equipment

ENTRY REQUIREMENTS

Academic Qualification

Diploma / Matriculation / Foundation

STPM

A-Leve

UEC

Other

English Proficiency

Requirements

Related field pass with minimum CGPA 2.0

Pass with minimum Grade C and above in Mathematics and Physical Science

Pass in two subjects including Mathematics and any one Physical Science subject

Pass with Grade B in 5 subjects including Mathematics and any one Physical Science subject

Recognised Malaysian qualifications or their equivalent

| MUET | IELTS | TOEFL |
|--------|-------|-------|
| Band 2 | 5.0 | 500 |

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















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MAHSA University



mahsauniversity



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