Bachelor of Engineering (Hons) Electrical and Electronic Engineering
KP/JPS (KA5910) 6/10

Engineers are often responsible for designing and maintaining infrastructure such as the electrical power systems used by the general public, and in setting up their management structures, maintenance programme and processes. The aim of this 4-year programme is to provide an opportunity for students to obtain knowledge on the state-of-the-art technologies of electricity generation, transmission, distribution and state-of-the-art electronics within the context of developing technology and human resources.

The objective of this programme is to train prospective engineers to design better systems and structures, and hence increase operational safety and efficiency. However, it is not just concerned with the proper design and use of technology, but also the soft issues such as training, procedures and co-operation.

This programme is carefully planned to produce engineers who are knowledgeable and skillful in electrical and electronic engineering to meet the continuous demand for brains in the Research & Development sectors and workforce in various sectors including manufacturing, business, IT, communication and computer.

Career Prospects
Graduates from this professional engineering programme may seek employment in a wide range of manufacturing industries or firms. The nature of work is wide.

Technologies:
- Design
- Develop
- Test equipment
- Supervise the manufacture of electronic equipment
- Solve operating problems
- Estimate time and cost of engineering projects
- Scientific research and development activities
- Semiconductor and other electronic component manufacturing
- Application of control engineering techniques
- Systems engineering, operation, maintenance of power-plant control and instrumentation systems
- In any area of power-station design profession
- Serve as power and electric-machine engineers
- Team of multi-disciplinary engineers working together to devise a system and develop a product
- Power electronics and motor drives
- Power generation of the national infrastructure, construction of the electric transmission and distribution systems, substation equipment including circuit breaker disconnect switch, power system protection, low voltage distribution system
- Electric-vehicle in mass rapid transit intercity commuter train, urban LRT

Services:
- Sales and marketing of electrical and electronics products
- Write performance requirements
- Develop maintenance schedules
# Bachelor of Engineering (Hons) Electrical and Electronic Engineering

**KP/JPS (KA5910) 6/10**

## Year 1

### First Semester
- Mathematics for Engineering I
- Introduction to Electrical Engineering
- Basic Electronics
- English for Engineering
- Bahasa Kebangsaan (A)* for Malaysians
  or
- Bahasa Kebangsaan (B)** for non-Malaysians

### Second Semester
- Mathematics for Engineering II
- Circuit Theory
- Digital Electronics
- Pengajian Malaysia
- Engineering Computing

### Third Semester
- Engineering Physics and Materials
- Electrical Machines

## Year 2

### First Semester
- Circuits and Systems
- Analogue Electronics
- Energy Conversion
- Programming Techniques
- Pendidikan Moral
  or
- Pengajian Islam

### Second Semester
- Numerical Methods and Statistics
- Introductory Electromagnetics
- Solid State Electronics
- Process Control and Instrumentation
- Communication Principles

## Year 3

### First Semester
- Electromagnetic Fields and Waves
- Control Systems
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