

# JKE STUDENT'S STUDY GUIDE



ELECTRICAL ENGINEERING DEPARTMENT  
POLYTECHNICSULTAN SALAHUDDIN ABDUL AZIZ SHAH

VERSION 2

*Effective: Session1 : 2024/2025 (06062024)*

Passionate | Synergize | Agile



## About

Politeknik Sultan Salahuddin Abdul Aziz Shah (PSA) previously known as Politeknik Shah Alam is the eighth polytechnic in the country. It was established in 1997. Known as "Politeknik Super Active" amongst peers, PSA is the first polytechnic to be awarded the MS ISO 9002:1994 certification from SIRIM in 1999, barely two years after its inception. On 25 February 2010, PSA was honoured and given recognition as a Premier Polytechnic. There are six academic departments, namely; Mechanical Engineering, Civil Engineering, Electrical Engineering, Commerce, Mathematics, Science & Computer Department and General Studies Department. In all the departments, lessons are conducted by qualified academicians and trained professionals. Currently PSA offers 2 Degree Programmes, 12 Diploma Programmes and 1 Certificate Programme.

## Vision

"To be the Leading-Edge TVET Institution"

## Mission

1. To provide wide access to quality and recognized TVET programmes.
2. To develop holistic, entrepreneurial and balanced graduates.
3. To capitalize on smart partnership with stakeholders.
4. To empower communities through lifelong learning.

## Motto

"PSA: The Preferred Polytechnic"

## Tagline

Great Future @ PSA  
Passionate. Synergize. Agile

# Why PSA

## High Quality Education of International Standards

Closely monitored by the Ministry of Higher Education Malaysia and protected through quality control authorities and appropriate legislation such as Education Act 1996 and Malaysian Qualification Agency (MQA)

## Premiere Polytechnic Status

PSA is a premiere polytechnic which upholds the mission of being the preferred learning institution in the region.

## Affordable Course Fees

Tuition fees are subsidized by the government

## Wide Range of Study Options

Many choices of technical courses and programmes at diploma level to suit any individuals' preference.

## Home-Grown Degree Programmes

Degree programmes which offer a cost- effective route for quality education and qualifications.

## Qualified Staff

Competent staff with relevant qualifications especially in the technical fields speaks volume of the teaching capabilities.

## Wide Usage of the English Language

English as a medium of instruction in classrooms to gear the students up for job requirements and be industry-ready.

## Balanced Theories and Practical Hands-On Learning Process

Theories and practical aspects of learning are taught side by side so that students learn and pick up the skills swiftly to become better learners. As such, learning is always fun filled and lively.

### **Better Employment Opportunities**

The technical skills acquired at PSA will tremendously boost the students' employment opportunities in the industrial sector as more companies are looking for qualified skilled workers.

### **Racial and Religious Diversity**

Student population from states all over the country and of different races and religions promote social interaction that would enrich the students' life experience.

### **Basic Facilities**

Hypermarkets, Shah Alam Stadium, Melawati Stadium and FAMA Sunday market are within walking distance. For moviegoers and bowling enthusiasts, a nearby eco-mall provides an ideal location for fun and thrills students can look forward to.

### **Advanced Highway Connection**

Easily accessible to important highways- Guthrie Corridor Highway (GCE), New Kelang Valley Expressway (NKVE) and Federal Highway.

### **Strategic Location**

Located at the center of Shah Alam industrial hub, one of the most important and biggest industrial communities in the nation that offers sound industrial training and job opportunities.

### **Peaceful and Serene Township**

Shah Alam, popularly known as Bandar Anggerik offers the best of living conditions with its conducive, well-planned township and beautiful landscape for better living.

### **Reliable Public Transport Services**

The campus is located in close vicinity to the KTM commuter train station, bus station, Selangor Free bus service as well as taxi for students' convenience and comfort.

### **Ideal Suburban Lifestyle**

The suburbs provide ideal living conditions where students can find affordable apartments and linked houses for rent. There are also a vast array of shops, shopping malls, eateries, ATM machines, clinics, and petrol stations.

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# DIPLOMA PROGRAMMES **ELECTRICAL ENGINEERING** [REDACTED] DEPARTMENT

- ▶ DIPLOMA IN ELECTRONIC ENGINEERING (MEDICAL)
- ▶ DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)
- ▶ DIPLOMA IN ELECTRONIC ENGINEERING (CONTROL)

## Educational Goal

To produce holistic and competent TVET graduates capable of contributing to the national development.

## Programme Aims

This programme believes that all individuals have the potential to be resourceful and adaptable technicians to support the nation's aspiration in providing engineering talent.

## Programme Educational Objectives (PEO)

The engineering programme should produce balanced TVET graduates who are:

PEO1 : Practising technician in electrical and electronic engineering-related field.

PEO2 : Contributing to society with professional ethics and responsibilities.

PEO3 : Engaging in enterprising activities that apply engineering knowledge and technical skills.

PEO4 : Engaging in continuous professional development in response to technological and social challenges.



# Programme Learning Outcomes (PLO)

Upon completion of the programme, students should be able to:

- PLO1** : Apply knowledge of applied mathematics, applied science, computing and engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices.
- PLO2** : Identify and analyse well defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to their field of activity (DK1 to DK4).
- PLO3** : Design solutions for well-defined technical problems and assist with the design of systems, components, or processes to meet specified needs with appropriate consideration for public health and safety as well as, cultural, societal, and environmental considerations as required (DK5).
- PLO4** : Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements (DK8).
- PLO5** : Apply appropriate techniques, resources, and modern engineering computing and IT tools to well defined engineering problems, with an awareness of the limitations (DK2 and DK6).
- PLO6** : Consider sustainable development impacts\* to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving well-defined engineering problems (DK1, DK5, and DK7).
- PLO7** : Understand and commit to professional ethics and responsibilities and norms of technician practice and including compliance with national and international laws. Demonstrate an understanding of the need for diversity and inclusion (DK9).
- PLO8** : Function effectively as an individual, and as a member in diverse and inclusive teams in multi-disciplinary, face to face, remote and distributed settings (DK9).
- PLO9** : Communicate effectively and inclusively on well-defined engineering activities with the engineering community and with society at large, by being able to comprehend the work of others, document their own work, and give and receive clear instructions.

**PLO10** : Demonstrate awareness of engineering management principles as a member or leader in a technical team and to manage projects in multidisciplinary environments.

**PLO11** : Recognize the need for and have the ability for i) independent and lifelong learning and ii) critical thinking in the face of specialised technical knowledge(DK8).

*\*Represented by the 17 UN Sustainable Development Goals (UN-SDG).*

### **Notes :**

- DK 1 : A descriptive, formula-based understanding of the natural sciences applicable in a sub- discipline and awareness of directly relevant social sciences.
- DK 2 : Procedural mathematics, numerical analysis, statistics applicable in a sub-discipline.
- DK 3 : A coherent procedural formulation of engineering fundamentals required in an accepted sub- discipline.
- DK 4 : Engineering specialist knowledge that provides the body of knowledge for an accepted sub- discipline.
- DK 5 : Knowledge that supports engineering design and operations based on the techniques and procedures of a practice area.
- DK 6 : Codified practical engineering knowledge in recognised practice area.
- DK 7 : Knowledge of issues and approaches in engineering technician practice such as public safety and sustainable development\*.
- DK 8 : Engagement with the current technological literature of the practice area.
- DK 9 : Ethics, inclusive behaviour, and conduct. Knowledge of professional ethics, responsibilities, and norm of engineering practice. Awareness of the need for diversity by reason of ethnicity, gender, age, physical ability etc. with mutual understanding and respect, and of inclusive attitudes.

*\*Represented by the 17 UN Sustainable Development Goals (UN-SDG)*

*DK : Knowledge Profile*

*Dublin Knowledge refers to the Knowledge Profile as listed in the Manual of Engineering Technician Education Programme Accreditation Standard for diploma programmes.*

# Diploma in Electronic Engineering (Medical).

## Synopsis

Electrical Engineering (Medical) Diploma programme is designed to cover a broad discipline in the field of electronic engineering with specialization in medical electronics. The programme covers basic mathematics, electrical and electronic engineering, computers and programming, communication systems, semiconductor devices, wiring and installation and computer aided design. Areas of specialization are anatomy and physiology, medical practice, practical systems, medical signal measurement, medical instrumentation and medical imaging.

Medical care has advanced significantly to meet the changing medical needs today. With rapid changes in electronic diagnostic technology, more engineers and technicians in the field of medical and engineering are needed. Graduates are expected to work in the field of medical technology and electronic engineering. The Ministry of Education's Diploma in Electrical Engineering (Medical) Programme has equipped graduates with specialized technical skills in the field.



## Career Prospects

This program offers knowledge and skills in medical electronics engineering that can be widely applied in various careers.

Graduates from this program are equipped to enter the job market in positions such as:

- ❖ Biomedical Engineering Technician
- ❖ Biomedical Equipment Technician
- ❖ Electronics Technician
- ❖ Technical Assistant
- ❖ Assistant Engineer
- ❖ Sales Consultant
- ❖ Training Staff

## Entry Requirements

### SPM Graduates.

- ❖ Malaysian citizens.
- ❖ Must have SPM or an equivalent qualification.
- ❖ Must have passed Malay Language.
- ❖ Must have passed History (for SPM 2013 and onwards).
- ❖ Must have passed English.
- ❖ Must have at least THREE (3) credits in the following subjects:

Mathematics

ONE (1) Science/Technical/Vocational subject

ONE (1) additional subject of choice

Candidates should not have any visual impairments (blindness, color blindness), hearing impairments, physical disabilities, or learning difficulties that might hinder practical work.

### Graduates other than SPM

#### APEL Graduates

- ❖ Malaysian citizens.
- ❖ Must hold an APEL (Accreditation of Prior Experiential Learning)
- ❖ Certificate from MQA for admission to a diploma program (Level 4).
- ❖ Must have relevant work experience in the field.

## Graduates other than SPM

- ❖ Malaysian citizens.
- ❖ You must have a Certificate recognized by MQA or the Malaysian Skills Certificate (SKM) Level 3 in a relevant field;  
OR
- ❖ Have an APEL (Accreditation of Prior Experiential Learning) Certificate from MQA for admission to a diploma program (Level 4) and possess relevant work experience in the field.
- ❖ Candidates should not have any visual impairments (blindness, color blindness), hearing impairments, physical disabilities, or learning difficulties that might hinder practical work.

- ❖ Polytechnic Certificate Level 3, KKM

Certificate in Electrical & Electronics Engineering  
Certificate in Electrical Engineering (Control)  
Certificate in Electrical Engineering (Computer)  
Certificate in Electrical Engineering (Power)  
Certificate in Electrical Engineering (Communication)  
Certificate in Electrical Engineering (Medical)  
Certificate in Electrical Engineering (Petroleum)  
Certificate in Electronics Engineering (Control)  
Certificate in Electronics Engineering (Petroleum)

- ❖ Community College Certificate Level 3, KKM

Certificate in Electrical Technology  
Certificate in Mobile Device Technology  
Certificate in Telecommunications Technology

# PROGRAMME STRUCTURE

## Diploma in Electronic Engineering (Medical)

CLASSIFICATION	COURSE CODE	COURSE NAME	CONTACT HOURS				CREDIT VALUES	PREREQUISITE
			L	P	T	O		
SEMESTER 1 (Version 06062024_1_Effective Session 1_2024/2025)								
COMPULSORY	DUE10062	TECHNICAL ENGLISH 1	1	0	2	0	2	
	MPU24031	SUKAN 1						
	MPU24041	KELAB/PERSATUAN 1	0	2	0	0	1	
	MPU240X1	UNIT BERUNIFORM 1						
COMMON CORE	DUW10042	OCCUPATIONAL SAFETY AND HEALTH FOR ENGINEERING	2	0	0	0	2	
	DBM10163	ENGINEERING MATHEMATICS 1	2	0	2	0	3	
	DBS10042	ENGINEERING SCIENCE	2	1	0	0	2	
DISCIPLINE CORE	DEE10133	MEASUREMENT DEVICES	2	2	0	0	3	
	DET10103	ELECTRICAL CIRCUITS 1	2	2	0	0	3	
	TOTAL		22				16	
SEMESTER 2 (Version 06062024_1_Effective Session 1_2024/2025)								
COMPULSORY	MPU21072	PENGHAYATAN ETIKA DAN PERADABAN	1	0	2	0	2	
	MPU24051	SUKAN 2						MPU24031
	MPU24061	KELAB/PERSATUAN 2	0	2	0	0	1	MPU24041
	MPU240X1	UNIT BERUNIFORM 2						MPU240X1
COMMON CORE	DBM20173	ENGINEERING MATHEMATICS 2	2	0	2	0	3	DBM10163
DISCIPLINE CORE	DET10112	ELECTRICAL WIRING	1	3	0	0	2	
	DEE20143	SEMICONDUCTOR DEVICES	2	2	0	0	3	
	DEE20153	DIGITAL ELECTRONICS	2	2	0	0	3	
	DET20123	ELECTRICAL CIRCUITS 2	2	2	0	0	3	DET10103
TOTAL		25				17		
SEMESTER 3 (Version 06062024_1_Effective Session 1_2024/2025)								
COMPULSORY	DUE30072	TECHNICAL ENGLISH 2	1	0	2	0	2	
COMMON CORE	DBM30193	ELECTRICAL ENGINEERING MATHEMATICS	2	0	2	0	3	
DISCIPLINE CORE	DEC20162	PROGRAMMING FUNDAMENTALS	1	2	0	0	2	
	DEE30163	ELECTRONIC CIRCUITS	2	2	0	0	3	
	DEE30181	COMPUTER AIDED ELECTRICAL DRAWING	0	2	0	0	1	
	DEP30093	COMMUNICATION SYSTEM FUNDAMENTALS	2	2	0	0	3	
	DEU30073	ANATOMY AND PHYSIOLOGY IN ENGINEERING	3	0	0	0	3	
TOTAL		23				17		
SEMESTER 4 (Version 06062024_1_Effective Session 1_2024/2025)								
COMPULSORY	DUE50082	TECHNICAL ENGLISH 3	1	0	2	0	2	
	MPU22071	KURSUS INTEGRITI ANTIRASUAH	0	0	2	0	1	
COMMON CORE	DEE40252	TECHNOPRENEUR IN THE ENGINEERING WORLD	1	2	0	0	2	
DISCIPLINE CORE	DEC30182	EMBEDDED SYSTEM APPLICATIONS	1	2	0	0	2	DEC20162
	DEE30191	ELECTRONIC COMPUTER AIDED DESIGN	0	2	0	0	1	
	DEE30172	ELECTRONIC EQUIPMENT DIAGNOSTIC	1	3	0	0	2	DEE20143
SPECIALIZATION	DEE40202	PROJECT 1	0	3	0	0	2	
	DEU40083	BIOMEDICAL SIGNAL MEASUREMENT	2	2	0	0	3	
TOTAL		24				15		
SEMESTER 5 (Version 06062024_1_Effective Session 1_2024/2025)								
COMPULSORY	MPU23182	SAINS TEKNOLOGI & KEJURUTERAAN ISLAM	1	0	2	0	2	
	MPU23172	NILAI MASYARAKAT MALAYSIA						NON-MUSLIM
SPECIALIZATION	DEE50233	PROJECT 2	0	4	0	0	3	
	DEU50063	MEDICAL SYSTEM PRACTICE	1	4	0	0	3	
	DEU50093	MEDICAL IMAGING	2	2	0	0	3	
	DEU50103	BIOMEDICAL INSTRUMENTATION	2	2	0	0	3	DEE40082
ELECTIVES	DX0000X2	ELECTIVE 1					2	
TOTAL		20				16		
SEMESTER 6 (Version 06062024_1_Effective Session 1_2024/2025)								
INDUSTRIAL TRAINING	DUT600910	ENGINEERING INDUSTRIAL TRAINING	0	0	0	0	10	
TOTAL		0				91		

# Diploma in Electronic Engineering (Communication)

## Synopsis

Diploma in Electronic Engineering (Communication) programme covers a wide area of the electronic engineering discipline in the field of communication technology. The programme design includes courses on a wide range of basic electrical and electronic engineering, mathematics, basic electricity and electronics, basic computing and basic system programming, communications, semiconductor devices, electrical wiring and computer aided design to produce graduates who are competent and versatile. Specialization courses offered in this programme are telephony, fiber optic communications, data communications, wireless communications and microwave device. Apart from the technical knowledge and skills, this programme also stresses on holistic development of students in an integrated manner through courses such as Islamic Studies and Moral, co-curricular activities, soft skills and entrepreneurship components.

## Career Prospects

Graduates have a wide range of opportunities in the communications sector with companies such as Telekom Malaysia Berhad, Celcom, Maxis, Sapura, Axiata, Webe, SIRIM, consulting firms, and more. Additionally, graduates can contribute to broadcasting systems at radio and television stations, educational institutions, and consulting firms.

This program provides knowledge and skills in Communication Engineering that are widely applicable to various careers. The expertise gained from this program allows graduates to enter the job market in roles such as:

- ❖ Radio Frequency Engineering Assistant
- ❖ Technical Executive
- ❖ Marketing Executive
- ❖ Technical Supervisor
- ❖ Technical Planning Assistant
- ❖ Network Engineering Assistant
- ❖ Network Administration Assistant
- ❖ Drive Test Engineer Assistant
- ❖ Drive Test Analysis Engineer Assistant
- ❖ Electrical/Electronics Technician



## Entry Requirements

### SPM Graduates.

- ❖ Malaysian citizens.
- ❖ Must have SPM or an equivalent qualification.
- ❖ Must have passed Malay Language.
- ❖ Must have passed History (for SPM 2013 and onwards).
- ❖ Must have passed English.
- ❖ Must have at least THREE (3) credits in the following subjects:

Mathematics

ONE (1) Science/Technical/Vocational subject

ONE (1) additional subject of choice

Candidates should not have any visual impairments (blindness, color blindness), hearing impairments, physical disabilities, or learning difficulties that might hinder practical work.

### Graduates other than SPM

#### Pre-Diploma Graduates from Polytechnic

Must have completed a Pre-Diploma in Science.

#### APEL Graduates

- ❖ Malaysian citizens.
- ❖ Must hold an APEL (Accreditation of Prior Experiential Learning)
- ❖ Certificate from MQA for admission to a diploma program (Level 4).
- ❖ Must have relevant work experience in the field.

## **Graduates other than SPM**

- ❖ Malaysian citizens.
- ❖ Must have a Certificate recognized by MQA or the Malaysian Skills Certificate (SKM) Level 3 in a relevant field;  
OR
- ❖ Hold an APEL (Accreditation of Prior Experiential Learning) Certificate from MQA for admission to a diploma program (Level 4) and have relevant work experience in the field.
- ❖ Candidates should not have any visual impairments (such as blindness or color blindness), hearing impairments, physical disabilities, or learning difficulties that would hinder practical work.

## **Polytechnic Certificate Level 3, KKM**

- ❖ Certificate in Electrical & Electronics Engineering
- ❖ Certificate in Electrical Engineering (Control)
- ❖ Certificate in Electrical Engineering (Computer)
- ❖ Certificate in Electrical Engineering (Power)
- ❖ Certificate in Electrical Engineering (Communication)
- ❖ Certificate in Electrical Engineering (Medical)
- ❖ Certificate in Electrical Engineering (Petroleum)
- ❖ Certificate in Electronics Engineering (Control)
- ❖ Certificate in Electronics Engineering (Petroleum)

### **Community College Certificate Level 3, KKM**

- ❖ Certificate in Electrical Technology
- ❖ Certificate in Electrical Technology Installation and Services
- ❖ Certificate in Mobile Device Technology
- ❖ Certificate in Telecommunications Technology

### **MARA Skills Institute Certificate Level 3, KKM**

- ❖ Certificate in Electronics Engineering Technology (Industry)
- ❖ Certificate in Electronics Engineering Technology (Instrumentation)
- ❖ Certificate in Electronics Engineering Technology (Telecommunications)  
Malaysian Skills

### **Certificate (Level 3), KKM**

- ❖ Fiber Optic Technician - Telecommunications (D-400-3)
- ❖ Senior Technician (3G Switching) (EE-032-3)
- ❖ Senior Technician Wireless Radio Frequency (EE-040-3)
- ❖ Senior Technician Circuit Switching (EE-038-3)
- ❖ Senior Technician Radio Access Network (EE-033-3)
- ❖ Senior Technician Radio Frequency Network (EE-036-3)
- ❖ Senior Technician Optical Transmission Network (EE-035-3)
- ❖ Radar Technician (Maintenance) (D-020-3)
- ❖ Radar Maintenance Technician (EE-200-3)
- ❖ Structured Cabling Technician (D-500-3)
- ❖ Telecommunications Technician Switching Operations (D-214-3)
- ❖ Telecommunications Technician Switching Operations (D-217-3)
- ❖ Telecommunications Technician Maintenance (D-211-3) Wireless
- ❖ Telecommunications Technician (D-200-3) Telecommunications Technician
- ❖ Installation (D-210-3) Lighting Technician (EE-220-3) Broadcast Transmission
- ❖ Operations & Maintenance (EE-140-3:2012) Packet Switch Core Network
- ❖ Implementation & Development (NID) (EE-037-3:2012)

**PROGRAMME STRUCTURE**  
**Diploma in Electronic Engineering (Communication)**

CLASSIFICATION	COURSE CODE	COURSE NAME	CONTACT HOURS				CREDIT VALUES	PREREQUISITE
			L	P	T	O		
SEMESTER 1								
COMPULSORY	DUE10062	TECHNICAL ENGLISH 1	1	0	2	0	2	
	MPU24031	SUKAN 1	0	2	0	0	1	
	MPU24041	KELAB/PERSATUAN 1						
	MPU24XX1	UNIT BERUNIFORM 1						
COMMON CORE	DUV10042	OCCUPATIONAL SAFETY AND HEALTH FOR	2	0	0	0	2	
	DBM10163	ENGINEERING MATHEMATICS 1	2	0	2	0	3	
	DBS10042	ENGINEERING SCIENCE	2	1	0	0	2	
DISCIPLINE CORE	DEE10133	MEASUREMENT DEVICES	2	2	0	0	3	
	DET10103	ELECTRICAL CIRCUITS 1	2	2	0	0	3	
TOTAL			11	7	4	0	16	
SEMESTER 2								
COMPULSORY	MPU21072	PENGHAYATAN ETIKA DAN PERADABAN	1	0	2	0	2	
	MPU24051	SUKAN 2	0	2	0	0	1	MPU24031
	MPU24061	KELAB/PERSATUAN 2						MPU24041
	MPU24XX1	UNIT BERUNIFORM 2						MPU24XX1
COMMON CORE	DBM20173	ENGINEERING MATHEMATICS 2	2	0	2	0	3	DBM10163
DISCIPLINE CORE	DEE20143	SEMICONDUCTORS DEVICES	2	2	0	0	3	
	DEE20153	DIGITAL ELECTRONICS	2	2	0	0	3	
	DET10112	ELECTRICAL WIRING	1	3	0	0	2	
	DET20123	ELECTRICAL CIRCUITS 2	2	2	0	0	3	DET10103
TOTAL			10	11	4	0	17	
SEMESTER 3								
COMPULSORY	DUE30072	TECHNICAL ENGLISH 2	1	0	2	0	2	
	MPU22071	KURSUS INTEGRITI DAN ANTIRASUAH	0	0	2	0	1	
COMMON CORE	DBM30193	ELECTRICAL ENGINEERING MATHEMATICS	2	0	2	0	3	
DISCIPLINE CORE	DEC20162	PROGRAMMING FUNDAMENTALS	1	2	0	0	2	
	DEE30163	ELECTRONIC CIRCUITS	2	2	0	0	3	
	DEE30172	ELECTRONIC EQUIPMENT DIAGNOSTIC	1	3	0	0	2	DEE20143
	DEE30191	ELECTRONIC COMPUTER AIDED DESIGN	0	2	0	0	1	
	DEP30093	COMMUNICATION SYSTEM FUNDAMENTALS	2	2	0	0	3	
TOTAL			9	11	6	0	17	
SEMESTER 4								
COMPULSORY	DUE50082	TECHNICAL ENGLISH 3	1	0	2	0	2	
COMMON CORE	DEE40252	TECHNOPRENEUR IN THE ENGINEERING	1	2	0	0	2	
DISCIPLINE CORE	DEC30252	INTERNET OF THINGS DEVICES	1	2	0	0	2	
	DEE30181	COMPUTER AIDED ELECTRICAL DRAWING	0	2	0	0	1	
SPECIALISATION	DEE40202	PROJECT 1	0	3	0	0	2	
	DEP40103	DATA COMMUNICATION AND NETWORKING	2	2	0	0	3	
	DEP40123	FIBRE OPTIC COMMUNICATION SYSTEM	2	2	0	0	3	
TOTAL			7	13	2	0	15	
SEMESTER 5								
COMPULSARY	MPU23182	SAINS TEKNOLOGI DAN KEJURUTERAAN	1	0	2	0	2	
	MPU23172	NILAI MASYARAKAT MALAYSIA**						
DISCIPLINE CORE	DEC40213	COMPUTER VISION PROGRAMMING	1	4	0	0	3	DEC20162
SPECIALISATION	DEE50233	PROJECT 2	0	4	0	0	3	DEE40202
	DEP50113	MICROWAVE ENGINEERING	2	2	0	0	3	
	DEP50133	CELLULAR COMMUNICATION	2	2	0	0	3	
ELECTIVES	DXXXXXX2	ELECTIVE 1					2	
TOTAL			6	12	2	0	16	
SEMESTER 6								
INDUSTRIAL TRAINING	OUT600910	ENGINEERING INDUSTRIAL TRAINING	0	0	0	0	10	
TOTAL			0	0	0	0	10	
TOTAL CREDIT VALUE							91	

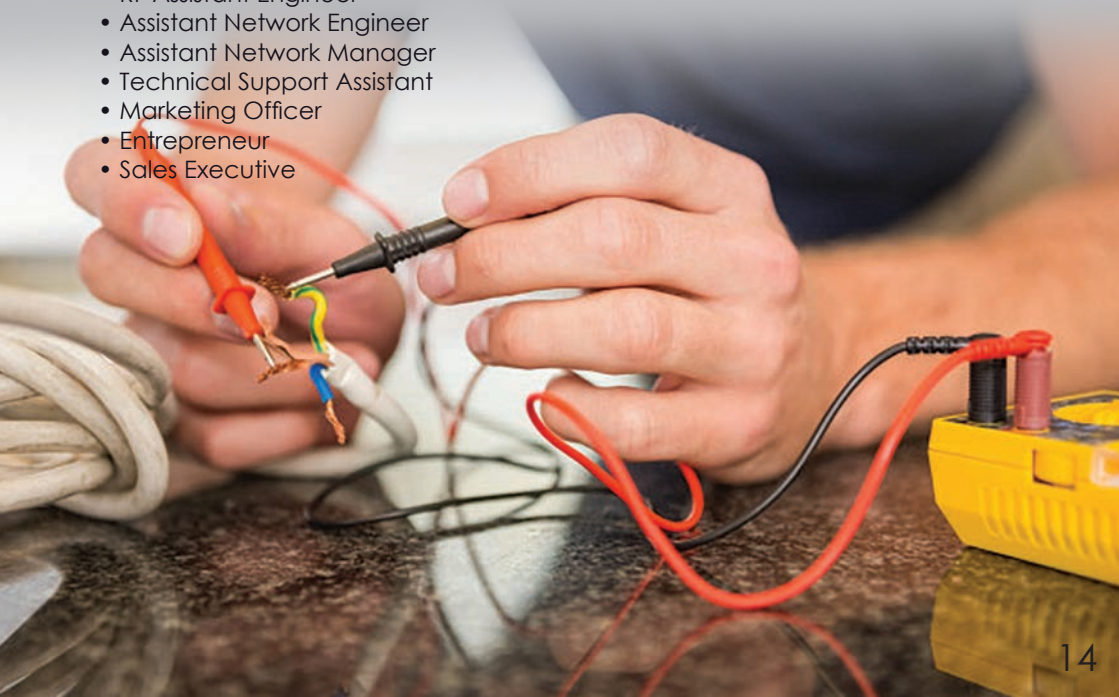
# Diploma in Electronic Engineering (Control)

## Synopsis

This programme provides students with the knowledge and skills in the field of electronic engineering specializing in electronics control systems. Students will attend lectures, complete assignments; undertake projects, practical work and training in the industry. Apart from a basic course in Electrical and Electronics, students will study Industrial Electronics, Control Systems, Microcomputer Systems, CAD Electrical Auto & Moto Control Systems and Industrial Safety. This programme also offers specialized courses in Electronics (Control) such as Industrial Electronics, Control Systems, Instrumentation, Control Motor and Micro Computer Systems. Elective courses are also offered to students.

## Career Prospects

- Assistant Engineer
- Medical Equipment Paraprofessionals
- Technical Executive
- Process Automation and Control Programmers
- Service & Repair Personnel
- Engineering Supervisor
- RF Assistant Engineer
- Assistant Network Engineer
- Assistant Network Manager
- Technical Support Assistant
- Marketing Officer
- Entrepreneur
- Sales Executive



## Entry Requirements

### SPM Graduates.

- ❖ Malaysian citizens.
- ❖ Must have SPM or an equivalent qualification.
- ❖ Must have passed Malay Language.
- ❖ Must have passed History (for SPM 2013 and onwards).
- ❖ Must have passed English.
- ❖ Must have at least THREE (3) credits in the following subjects:

Mathematics

ONE (1) Science/Technical/Vocational subject

ONE (1) additional subject of choice

Candidates should not have any visual impairments (blindness, color blindness), hearing impairments, physical disabilities, or learning difficulties that might hinder practical work.

### Graduates other than SPM

#### APEL Graduates

Malaysian citizens.

Must hold an APEL (Accreditation of Prior Experiential Learning) Certificate from MQA for admission to a diploma program (Level 4).

Must have relevant work experience in the field.

## Graduates other than SPM

- ❖ Malaysian citizens.
- ❖ You must have a Certificate recognized by MQA or the Malaysian Skills Certificate (SKM) Level 3 in a relevant field;  
OR
- ❖ Have an APEL (Accreditation of Prior Experiential Learning) Certificate from MQA for admission to a diploma program (Level 4) and possess relevant work experience in the field.
- ❖ Candidates should not have any visual impairments (blindness, color blindness), hearing impairments, physical disabilities, or learning difficulties that might hinder practical work.

- ❖ Polytechnic Certificate Level 3, KKM

Certificate in Electrical & Electronics Engineering  
Certificate in Electrical Engineering (Control)  
Certificate in Electrical Engineering (Computer)  
Certificate in Electrical Engineering (Power)  
Certificate in Electrical Engineering (Communication)  
Certificate in Electrical Engineering (Medical)  
Certificate in Electrical Engineering (Petroleum)  
Certificate in Electronics Engineering (Control)  
Certificate in Electronics Engineering (Petroleum)

- ❖ Community College Certificate Level 3, KKM

Certificate in Electrical Technology  
Certificate in Mobile Device Technology  
Certificate in Telecommunications Technology



# PROGRAMME STRUCTURE

## Diploma in Electronic Engineering (Control)

CLASSIFICATION	COURSE CODE	COURSE NAME	CONTACT HOURS				CREDIT VALUE	PREREQUISITE	
			L	P	T	O			
SEMESTER 1									
COMPULSORY	MPU21072	PENGHAYATAN ETIKA DAN PERADABAN	1	0	2	0	2		
	DUE10062	TECHNICAL ENGLISH 1	1	0	2	0	2		
	MPU24031	SUKAN 1							
	MPU24041	KELABIPERSATUAN 1	0	2	0	0	1		
	MPU24XX1	UNIT BERUNIFORM 1							
COMMON CORE	DUE10042	OCCUPATIONAL SAFETY AND HEALTH FOR ENGINEERING	2	0	0	0	2		
	DBM10163	ENGINEERING MATHEMATICS 1	2	0	2	0	3		
	DBS10042	ENGINEERING SCIENCE	2	1	0	0	2		
DISCIPLINE CORE	DET10103	ELECTRICAL CIRCUITS 1	2	2	0	0	3		
	DET10112	ELECTRICAL WIRING	1	3	0	0	2		
TOTAL			11	8	6	0	17		
SEMESTER 2									
COMPULSORY	MPU24051	SUKAN 2						MPU24031	
	MPU24061	KELABIPERSATUAN 2	0	2	0	0	1	MPU24041	
	MPU24XX1	UNIT BERUNIFORM 2						MPU24XX1	
COMMON CORE	DBM20173	ENGINEERING MATHEMATICS 2	2	0	2	0	3		
	DEC20162	PROGRAMMING FUNDAMENTALS	1	2	0	0	2		
DISCIPLINE CORE	DEE20143	SEMICONDUCTOR DEVICES	2	2	0	0	3		
	DEE20153	DIGITAL ELECTRONICS	2	2	0	0	3		
	DEE30181	COMPUTER AIDED ELECTRICAL DRAWING	0	2	0	0	1		
	DET20123	ELECTRICAL CIRCUITS 2	2	2	0	0	3	DET10103	
TOTAL			9	12	2	0	16		
SEMESTER 3									
COMPULSORY	DUE30072	TECHNICAL ENGLISH 2	1	0	2	0	2		
	MPU23182	SAINS TEKNOLOGI DAN KEJURUTERAAN ISLAM*							
	MPU23172	NILAI MASYARAKAT MALAYSIA**	1	0	2	0	2		
COMMON CORE	DBM30193	ELECTRICAL ENGINEERING MATHEMATICS	2	0	2	0	3		
	DEE30163	ELECTRONIC CIRCUITS	2	2	0	0	3		
DISCIPLINE CORE	DEE30191	ELECTRONIC COMPUTER AIDED DESIGN	0	2	0	0	1		
	DEJ30073	CONTROL SYSTEMS 1	2	2	0	0	3		
SPECIALIZATION	DEJ30083	INSTRUMENTATION	2	2	0	0	3		
	TOTAL			10	8	6	0	17	
SEMESTER 4									
COMPULSORY	DUE50082	TECHNICAL ENGLISH 3	1	0	2	0	2		
COMMON CORE	DEF40252	TECHNOPRENEUR IN THE ENGINEERING WORLD	1	2	0	0	2		
DISCIPLINE CORE	DEC30182	EMBEDDED SYSTEM APPLICATIONS	1	2	0	0	2	DEC20162	
	DEF40202	PROJECT 1	0	3	0	0	2		
SPECIALIZATION	DEJ40093	PROGRAMMABLE LOGIC CONTROLLER (PLC) AND AUTOMATION	2	2	0	0	3		
	DEJ40103	CONTROL SYSTEMS 2	2	2	0	0	3	DEJ30073	
ELECTIVES	0XXXXXX2	ELECTIVE 1					2		
TOTAL			7	11	2	0	16		
SEMESTER 5									
COMPULSORY	MPU22071	KURSUS INTEGRITI DAN ANTIRASUAH	0	0	2	0	1		
SPECIALIZATION	DEF50233	PROJECT 2	0	4	0	0	3	DEF40202	
	DEC30173	COMPUTER NETWORKING FUNDAMENTALS	2	2	0	0	3		
DISCIPLINE CORE	DEJ50113	PROCESS MEASUREMENT	2	2	0	0	3		
	DEJ50122	AUTOMATION EQUIPMENT MAINTENANCE	1	3	0	0	2	DEJ40093	
	DET30133	ELECTRICAL MACHINE	2	2	0	0	3		
TOTAL			7	13	2	0	15		
SEMESTER 6									
INDUSTRIAL TRAINING	DUT600910	ENGINEERING INDUSTRIAL TRAINING	0	0	0	0	10		
TOTAL								91	

## LODGE: ANGGERIK INN

The lodge : Anggerik Inn offers facilities including Queen rooms, Twin rooms, Single rooms Deluxe , Standard rooms, and a rest area.



## LIBRARY

The Sultan Salahuddin Abdul Aziz Shah Polytechnic Library (PSA) opened to users in January 1998 and was officially inaugurated on October 12, 1998. The library serves all students and staff of PSA. The building has a floor area of 2,624 square meters and can accommodate 400 users at a time.

## HOSTEL

PSA has provided three hostel blocks known as Kamsis AMAN, Kamsis DAMAI, and Kamsis SENTOSA. The hostels have a total of 626 rooms, which can accommodate 1,252 residents. The fee charged is around RM60.00 per semester.



# INFRASTRUCTURES

## SPORTS CENTRE

Sports Centre provides facilities and infrastructure that gives access to students from 5.00 to 7.00 p.m. Mondays to Fridays. Among facilities provided are: football and rugby fields, tennis courts, sepak takraw, volleyball, badminton, and more.



## CLINIC

The PSA Health Clinic is located in the parking area near the Student Affairs Department building. The clinic is managed by a Medical Assistant.

Services provides:

An initial treatment for both emergency and non-emergency cases.

Operatig Hours:

Office Hours: 8:00 AM to 5:00 PM



## HOSTEL

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Warden's Office Hours: 9:30 PM

to 11:30 PM Emergency Cases:

Available 24/7



# INFRASTRUCTURES

## ISLAMIC CENTRE

Activities:

- Friday prayers
- Eid al-Adha prayers
- Taraweeh prayers & sermons
- Major iftar (breaking fast) events
- Quran recitation & completion
- Ramadan talks
- Donations to the poor
- Funeral charity donations
- Donations for religious outreach & CSR programs
- Weekly Islamic study classes



## KOPERASI PSA (KOPSA BERHAD)

KOPSA established as a consumer cooperative to provide benefits to its members by offering facilities such as a mini market, photocopy center, and more..





