STUDENT'S
HANDBOOK

Electrical Engineering Studies

STUDENT'S HANDBOOK

ELECTRICAL ENGINEERING STUDIES
COLLEGE OF ENGINEERING
UiTM JOHOR BRANCH PASIR GUDANG CAMPUS

2020

Authors:

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WELCOMING MESSAGE FROM HEAD, CENTRE OF STUDIES

Firstly, I would like to welcome all students to the Electrical Engineering Studies (PKE), College of Engineering, UiTM Johor Branch Pasir Gudang Campus.

This handbook is written to provide guidance to all PKE students regarding study plans, academic rules, and student's ethics that must be adhered to, for at least six semesters with us.

I hope that everyone will have fun and enjoy this whole new experience to gain the best knowledge studying at PKE, UiTM Johor Branch Pasir Gudang Campus.

If you have any inquiries, do not hesitate to ask me, academic advisor or any other PKE lecturers. We are more than happy to assist you.

Lastly, I wish you best of luck in your studies.

Thank you.

Warmest regards,

Dr. Nur Amalina binti Muhamad
Head, Centre of Studies
Electrical Engineering Studies (PKE)
College of Engineering
UiTM Johor Branch Pasir Gudang Campus

VISION & MISSION

VISION

To establish UiTM as a Global Renowned University of Science, Technology, Humanities and Entrepreneurship.

MISSION

To lead development of agile, professional Bumiputeras through state-of-the-art curricula and impactful research.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

UNIVERSITI TEKNOLOGI MARA | Kolej Pengajian Kejuruteraan

To establish UiTM as a Globally Renowned University of Science, Technology, Humanities and Entrepreneurship

To lead the development of agile, professional Bumiputeras through state-of-the-art curricula and impactful research.

VISION & MISSION

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs) CEEE111 / EE111

[PEO1] Assistant Electronic Engineers who apply knowledge and display practical skills in Electronic Engineering sectors.

[PEO2] Assistant Electronic Engineers who demonstrate values, attitudes, professionalism and apply scientific methodologies with solving skills in-line with industry requirement.

[PEO3] Assistant Electronic Engineers who demonstrate social skills, responsible, manage information and lifelong learning skills for successful career advancement.

[PEO4] Assistant Electronic Engineers who adopt the roles as a leader and a team member, communicate effectively with management and entrepreneur skills in an organization.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs) CEEE112 / EE112

[PEO1] Assistant Power Engineers who apply knowledge and display practical skills in Power Engineering sectors.

[PEO2] Assistant Power Engineers who demonstrate values, attitudes, professionalism and apply scientific methodologies with solving skills in-line with industry requirement.

[PEO3] Assistant Power Engineers who demonstrate social skills, responsible, manage information and lifelong learning skills for successful career advancement.

[PEO4] Assistant Power Engineers who adopt the roles as a leader and a team member, communicate effectively with management and entrepreneur skills in an organization.

PROGRAM OUTCOMES (POs)

UNIVERSITI TEKNOLOGI MARA

Kolej
Pengajian
Kejuruteraan

PROGRAM OUTCOMES (PO)

PO1
Knowledge
Apply knowledge of applied mathematics, applied science, engineering fundamentals, and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices.

PO2
Problem Analysis
Identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to their field of activity (DK1 to DK4).

PO3
Design /
Development of
Solutions
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, cultural, societal, and environmental considerations (DK5).

PO4
Investigation
Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements.

PO5
Modern Tool
Usage
Apply appropriate techniques, resources, and modern engineering and IT tools to well-defined engineering problems, with an awareness of thel imitations (DK6).

PO6
Engineering &
Society
Demonstrate knowledge of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technician practice and solutions to well-defined engineering problems (DK7).

PO7
Environment &
Sustainability
Understand and evaluate the sustainability and impact of engineering technician work in the solution of well-defined engineering problems in societal and environmental contexts (DK7).

PO8
Ethics
Understand and commit to professional ethics and responsibilities and norms of technician practice (DK7).

PO9
Individual &
Teamwork
Function effectively as an individual, and as a member in diverse technical teams.

PO10
Communications
Communicate effectively 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.

PO11
Project
Management &
Finance
Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member or leader in a technical team and to manage projects in multidisciplinary enviroments.

PO12
Life-long Learning
Recognise the need for and have the ability to engage in independent updating in the context of specialised technical knowledge

🟧 Cognitive   🟦 Psychomotor   🟩 Affective

UiTMCJ TOP MANAGEMENT

Assoc. Prof. Dr. Saunah binti Zainon
Rector
UiTM Johor Branch

Assoc. Prof. Dr. Akmal Aini binti Othman
Deputy Rector
Academic Affairs

Dr. Faridah Najuna binti Misman
Deputy Rector
Research, Industrial Linkages & Alumni

Dr. Basaruddin Shah bin Basri
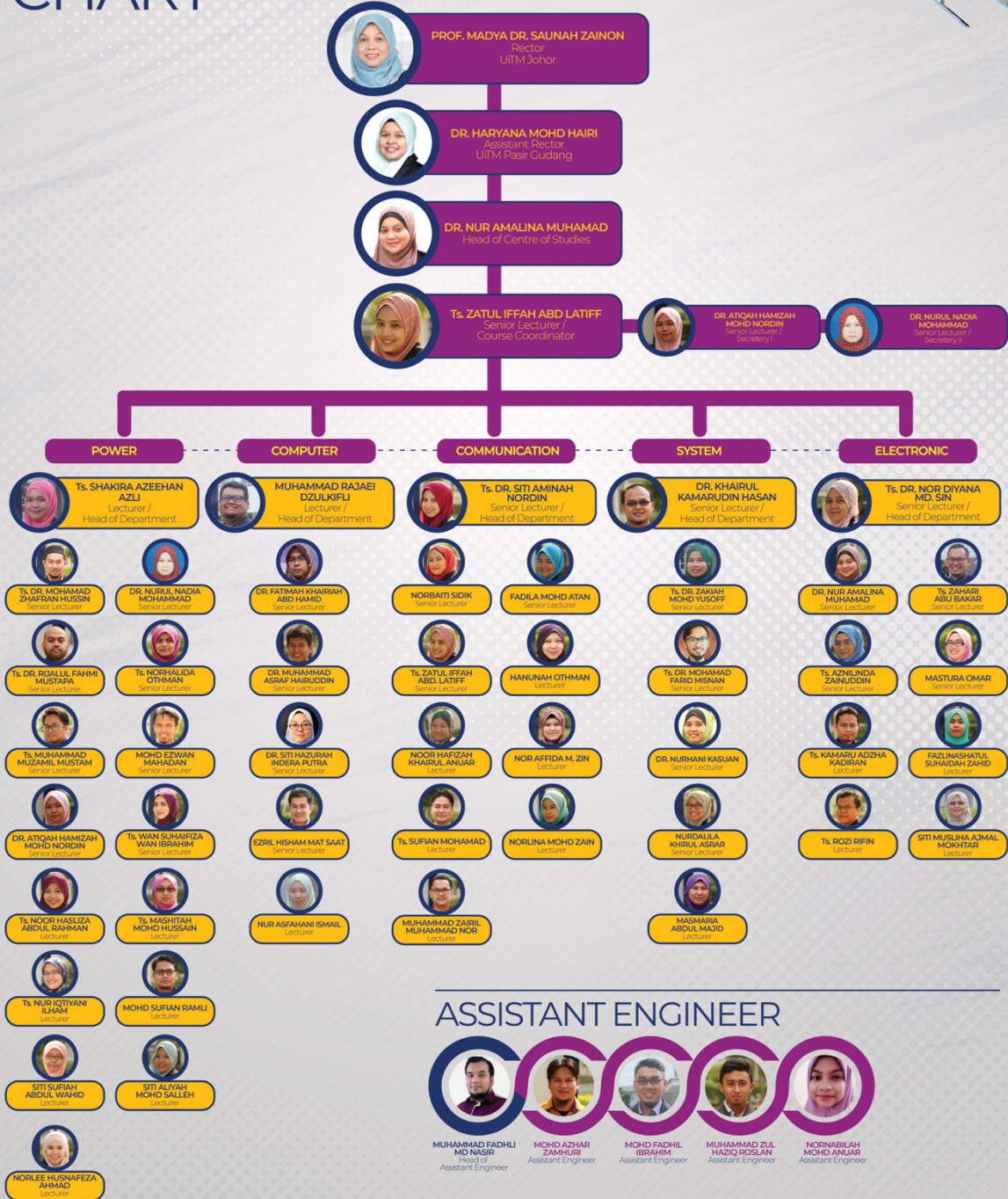Deputy Rector
Student Affairs

Dr. Haryana binti Mohd Hairi
Assistant Rector
UiTM Cawangan Johor, Kampus Pasir Gudang
(UiTMCJKPG)

PKE UiTMCJKPG ORGANIZATIONAL CHART

UNIVERSITI TEKNOLOGI MARA — Kolej Pengajian Kejuruteraan

ORGANIZATION CHART

PROF. MADYA DR. SAUNAH ZAINON
Rector
UiTM Johor

DR. HARYANA MOHD HAIRI
Assistant Rector
UiTM Pasir Gudang

DR. NUR AMALINA MUHAMAD
Head of Centre of Studies

Ts. ZATUL IFFAH ABD LATIFF
Senior Lecturer /
Course Coordinator

DR. ATIQAH HAMIZAH MOHD NORDIN
Senior Lecturer /
Secretary I

DR. NURUL NADIA MOHAMMAD
Senior Lecturer /
Secretary II

POWER

Ts. SHAKIRA AZEEHAN AZLI
Lecturer /
Head of Department

- **Ts. DR. MOHAMAD ZHAFRAN HUSSIN** — Senior Lecturer
- **DR. NURUL NADIA MOHAMMAD** — Senior Lecturer
- **Ts. DR. RIJALUL FAHMI MUSTAPA** — Senior Lecturer
- **Ts. NORHALIDA OTHMAN** — Senior Lecturer
- **Ts. MUHAMMAD MUZAMIL MUSTAM** — Senior Lecturer
- **MOHD EZWAN MAHADAN** — Senior Lecturer
- **DR. ATIQAH HAMIZAH MOHD NORDIN** — Senior Lecturer
- **Ts. WAN SUHAIFIZA WAN IBRAHIM** — Senior Lecturer
- **Ts. NOOR HASLIZA ABDUL RAHMAN** — Lecturer
- **Ts. MASHITAH MOHD HUSSAIN** — Lecturer
- **Ts. NUR IQTIYANI ILHAM** — Lecturer
- **MOHD SUFIAN RAMLI** — Lecturer
- **SITI SUFIAH ABDUL WAHID** — Lecturer
- **SITI ALIYAH MOHD SALLEH** — Lecturer
- **NORLEE HUSNAFEZA AHMAD** — Lecturer

COMPUTER

MUHAMMAD RAJAEI DZULKIFLI
Lecturer /
Head of Department

- **DR. FATIMAH KHAIRIAH ABD HAMID** — Senior Lecturer
- **DR. MUHAMMAD ASRAF HAIRUDDIN** — Senior Lecturer
- **DR. SITI HAZURAH INDERA PUTRA** — Senior Lecturer
- **EZRIL HISHAM MAT SAAT** — Senior Lecturer
- **NUR ASFAHANI ISMAIL** — Lecturer

COMMUNICATION

Ts. DR. SITI AMINAH NORDIN
Senior Lecturer /
Head of Department

- **NORBAITI SIDIK** — Senior Lecturer
- **FADILA MOHD ATAN** — Senior Lecturer
- **Ts. ZATUL IFFAH ABD. LATIFF** — Senior Lecturer
- **HANUNAH OTHMAN** — Lecturer
- **NOOR HAFIZAH KHAIRUL ANUAR** — Lecturer
- **NOR AFFIDA M. ZIN** — Lecturer
- **Ts. SUFIAN MOHAMAD** — Lecturer
- **NORLINA MOHD ZAIN** — Lecturer
- **MUHAMMAD ZAIRIL MUHAMMAD NOR** — Lecturer

SYSTEM

DR. KHAIRUL KAMARUDIN HASAN
Senior Lecturer /
Head of Department

- **Ts. DR. ZAKIAH MOHD YUSOFF** — Senior Lecturer
- **Ts. DR. MOHAMAD FARID MISNAN** — Senior Lecturer
- **DR. NURHANI KASUAN** — Senior Lecturer
- **NURDALILA KHIRUL ASRAR** — Senior Lecturer
- **MASMARIA ABDUL MAJID** — Lecturer

ELECTRONIC

Ts. DR. NOR DIYANA MD. SIN
Senior Lecturer /
Head of Department

- **DR. NUR AMALINA MUHAMAD** — Senior Lecturer
- **Ts. ZAHARI ABU BAKAR** — Senior Lecturer
- **Ts. AZNILINDA ZAINUDDIN** — Senior Lecturer
- **MASTURA OMAR** — Senior Lecturer
- **Ts. KAMARU ADZHA KADIRAN** — Lecturer
- **FAZLINASHATUL SUHAIDAH ZAHID** — Lecturer
- **Ts. ROZI RIFIN** — Lecturer
- **SITI MUSLIHA AJMAL MOKHTAR** — Lecturer

ASSISTANT ENGINEER

- **MUHAMMAD FADHLI MD NASIR** — Head of Assistant Engineer
- **MOHD AZHAR ZAMHURI** — Assistant Engineer
- **MOHD FADHIL IBRAHIM** — Assistant Engineer
- **MUHAMMAD ZUL HAZIQ ROSLAN** — Assistant Engineer
- **NORNABILAH MOHD ANUAR** — Assistant Engineer

STUDY PLAN (CEEE111)

SEM	NO	COURSE	COURSE CODE	PRE- / CO REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
SEM 1	1	PRINSIP-PRINSIP ASAS ISLAM	CTU101	NONE	2	2	0	0	2
	2	KESATRIA NEGARA I	HBU111	NONE	1	0	0	2	2
	3	INTEGRATED LANGUAGE SKILLS I	ELC121	NONE	3	4	0	0	4
	4	CALCULUS 1	MAT183	NONE	3	3	1	0	4
	5	FUNDAMENTAL OF PHYSICS	PHY145	NONE	3	2	1	2	5
	6	COMPUTER PROGRAMMING	ECE128	NONE	3	1	0	3	4
	7	ELECTRO-TECHNOLOGY	EEE111	NONE	2	0	0	4	4
		TOTAL			17	12	2	11	25
SEM 2	1	PENGHAYATAN ETIKA DAN PERADABAN 1	CTU152	NONE	2	2	0	0	2
	2	KESATRIA NEGARA II	HBU121	NONE	1	0	0	2	2
	3	INTEGRATED LANGUAGE SKILLS II	ELC151	ELC121	3	4	0	0	4
	4	CALCULUS 2 FOR ENGINEERS	MAT235	MAT183	3	3	1	0	4
	5	ELECTRIC CIRCUIT 1	EEE121	NONE	3	3	0	1	4
	6	ELECTRICAL MEASUREMENT	ESE122	NONE	3	3	0	1	4
	7	SAFETY, HEALTH AND ETHICS	EEE150	NONE	2	1	0	1	2
		TOTAL			17	16	1	5	22
SEM 3	1	SAINS DAN TEKNOLOGI ISLAM	CTU211	NONE	2	2	0	0	2
	2	KESATRIA NEGARA III	HBU131	NONE	1	0	0	2	2
	3	INTEGRATED LANGUAGE SKILLS III	ELC231	ELC151	3	4	0	0	4
	4	ELECTRICAL ENGINEERING LABORATORY	EEE250	EEE111	2	0	0	4	4
	5	ELECTRONICS 1	ELE232	EEE121	3	3	0	1	4
	6	ELECTRIC CIRCUIT 2	EEE231	EEE121	3	3	0	1	4
	7	BASIC COMMUNICATION ENGINEERING	ECM241	NONE	3	3	0	1	4
		TOTAL			17	15	0	9	24
SEM 4	1	FUNDAMENTALS OF ENTREPRENEURSHIP	ENT300	NONE	3	3	0	0	3
	2	LINEAR SYSTEM	ESE241	MAT235	3	3	1	0	4
	3	ELECTRONICS 2	ELE242	ELE232	3	3	1	0	4
	4	DIGITAL SYSTEMS	ECE351	NONE	3	3	0	1	4
	5	FINAL YEAR PROJECT 1	EEE358	NONE	1	0	0	2	2
	6	CORE COURSE 1			3	2	0	2	4
		TOTAL			16	14	2	5	21
SEM 5	1	CONTROL SYSTEM	ESE359	ESE241	3	3	0	1	4
	2	MICROPROCESSOR SYSTEMS	ECE354	NONE	3	1	0	3	4
	3	FINAL YEAR PROJECT 2	EEE368	EEE358	3	0	0	6	6
	4	BASIC POWER ENGINEERING	EPO244	NONE	3	2	1	1	4
	5	ELECTIVE (CHOOSE 1)*			3	2	0	2	4
		TOTAL			15	8	1	13	22
SEM 6	1	INDUSTRIAL TRAINING	EEE350	NONE	8	0	0	0	0
		TOTAL			8	0	0	0	0
		GRAND TOTAL			90	65	6	43	114
	*Elective selection is subject to the number of students and lecturer expertise								

ELECTRONICS PACKAGE (EE111)			COURSE CODE	PRE- / CO REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
KURSUS TERAS									
SEM 4	6	ELECTRONICS DESIGN	ELE355	ELE242	3	2	0	2	4
ELECTIVES (CHOOSE 1)			COURSE CODE	PRE- /CO REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
SEM 5	5	ELECTRONICS 3	ELE351	ELE242	3	2	0	2	4
	5	DIGITAL LOGIC DESIGN WITH HDL	ELE354	ECE351	3	2	0	2	4
	5	INTRODUCTION TO MICROELECTRONICS	ELE245	ELE232	3	2	0	2	4
COMMUNICATION PACKAGE (EE111)			COURSE CODE	PRE- / CO REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
KURSUS TERAS									
SEM 4	6	COMMUNICATION SYSTEMS	ECM242	ECM241	3	2	0	2	4
ELECTIVES (CHOOSE 1)			COURSE CODE	PRE- REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
SEM 5	5	DIGITAL COMMUNICATION SYSTEM	ECM351	ECM241	3	2	0	2	4
	5	MICROWAVE ENGINEERING	ECM354	NONE	3	2	0	2	4
	5	FIBER OPTIC COMMUNICATION SYSTEM	ECM356	NONE	3	2	0	2	4
COMPUTER PACKAGE (EE111)			COURSE CODE	PRE- / CO REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
KURSUS TERAS									
SEM 4	6	INTRODUCTION TO NETWORKING	ECE242	NONE	3	2	0	2	4
ELECTIVES (CHOOSE 1)			COURSE CODE	PRE- / CO REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
SEM 5	5	NETWORKING ROUTING FUNDAMENTALS	ECE356	ECE242	3	2	0	2	4
	5	DIGITAL SYSTEMS 2	ECE355	ECE351	3	2	0	2	4
	5	PC HARDWARE AND SOFTWARE	ECE353	NONE	3	2	0	2	4
SYSTEM PACKAGE (EE111)			COURSE CODE	PRE- REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
KURSUS TERAS									
SEM 4	6	INDUSTRIAL INSTRUMENTATION	ESE246	ESE122	3	2	0	2	4
ELECTIVES (CHOOSE 1)			COURSE CODE	PRE- REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
SEM 5	5	PROCESS CONTROL	ESE366	ESE359	3	2	0	2	4
	5	PLC IN PROCESS INDUSTRY	ESE364	NONE	3	2	0	2	4
	5	INDUSTRIAL AUTOMATION	ESE358	ESE122	3	2	0	2	4

STUDY PLAN
(CEEE112)

SEM	NO	COURSE	COURSE CODE	PRE- / CO REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
SEM 1	1	PRINSIP-PRINSIP ASAS ISLAM	CTU101	NONE	2	2	0	0	2
	2	KESATRIA NEGARA I	HBU111	NONE	1	0	0	2	2
	3	INTEGRATED LANGUAGE SKILLS I	ELC121	NONE	3	4	0	0	4
	4	CALCULUS 1	MAT183	NONE	3	3	1	0	4
	5	FUNDAMENTAL OF PHYSICS	PHY145	NONE	3	2	1	2	5
	6	COMPUTER PROGRAMMING	ECE128	NONE	3	1	0	3	4
	7	ELECTRO-TECHNOLOGY	EEE111	NONE	2	0	0	4	4
				TOTAL	17	12	2	11	25
SEM 2	1	PENGHAYATAN ETIKA DAN PERADABAN 1	CTU152	NONE	2	2	0	0	2
	2	KESATRIA NEGARA II	HBU121	NONE	1	0	0	2	2
	3	INTEGRATED LANGUAGE SKILLS II	ELC151	ELC121	3	4	0	0	4
	4	CALCULUS 2 FOR ENGINEERS	MAT235	MAT183	3	3	1	0	4
	5	ELECTRIC CIRCUIT 1	EEE121	NONE	3	3	0	1	4
	6	ELECTRICAL MEASUREMENT	ESE122	NONE	3	3	0	1	4
	7	SAFETY, HEALTH AND ETHICS	EEE150	NONE	2	1	0	1	2
				TOTAL	17	16	1	5	22
SEM 3	1	SAINS DAN TEKNOLOGI ISLAM	CTU211	NONE	2	2	0	0	2
	2	KESATRIA NEGARA III	HBU131	HBU121	1	0	0	2	2
	3	INTEGRATED LANGUAGE SKILLS III	ELC231	ELC151	3	4	0	0	4
	4	ELECTRICAL ENGINEERING LABORATORY	EEE250	EEE111	2	0	0	4	4
	5	ANALOGUE ELECTRONICS	EPO231	EEE121	3	3	0	1	4
	6	ELECTRIC CIRCUIT 2	EEE231	EEE121	3	3	0	1	4
	7	BASIC COMMUNICATION ENGINEERING	ECM241	NONE	3	3	0	1	4
				TOTAL	17	15	0	9	24
SEM 4	1	FUNDAMENTALS OF ENTREPRENEURSHIP	ENT300	NONE	3	3	0	0	3
	2	LINEAR SYSTEM	ESE241	MAT235	3	3	1	0	4
	3	ELECTRICAL MACHINES	EPO243	EEE121	3	2	1	1	4
	4	DIGITAL SYSTEMS	ECE351	NONE	3	3	0	1	4
	5	FINAL YEAR PROJECT 1	EEE358	NONE	1	0	0	2	2
	6	POWER SYSTEM	EPO246	EEE121	3	2	1	1	4
				TOTAL	16	13	3	5	21
SEM 5	1	CONTROL SYSTEM	ESE359	ESE241	3	3	0	1	4
	2	MICROPROCESSOR SYETEMS	ECE354	NONE	3	1	0	3	4
	3	FINAL YEAR PROJECT 2	EEE368	EEE358	3	0	0	6	6
	4	POWER ELECTRONICS	EPO359	NONE	3	2	0	2	4
	5	ELECTIVE (CHOOSE 1)*			3	2	0	2	4
				TOTAL	15	8	0	14	22
SEM 6	1	INDUSTRIAL TRAINING	EEE350	NONE	8	0	0	0	0
				TOTAL	8	0	0	0	0
				GRAND TOTAL	90	64	6	44	114

ELECTIVES (CHOOSE 1)			COURSE CODE	PRE- / CO REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
SEM 5	5	MACHINES AND DRIVES	EPO366	NONE	3	2	0	2	4
	5	PROGRAMMABLE LOGIC CONTROLLER	EPO354	NONE	3	2	0	2	4
	5	ENERGY EFFICIENCY AND RENEWABLE ENERGY	EPO358	NONE	3	2	0	2	4

*Elective selection is subject to the number of students and lecturer expertise

COURSE INFORMATION

Course Code	:	**EEE111**
Course Name (English)	:	Electro-Technology
Course Name (Malay)	:	Elektro-Teknologi
Course Level	:	4 - Diploma
SLT	:	80 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course covers the topics on occupational safety and health legislation in general and focuses specifically on electric safety. Engineering Maintenance, Inventory Control and Resource Management. Laws and Engineering Ethics Current Engineering Issues.
Course Learning Outcome(s)	:	1. Display good practical skills in conducting experiments and project using equipment/trainer board/suitable software and hardware tools during laboratory sessions. 2. Report clearly about the conducted experiments through verbal and written communication. 3. Work effectively as a team member during laboratory sessions.

Course Code	:	**ECE128**
Course Name (English)	:	Computer Programming
Course Name (Malay)	:	Pengaturcaraan Komputer
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course provides an introduction to C programming and its application in solving simple engineering problems.
Course Learning Outcome(s)	:	1. Build engineering-based applications using a computer programming language. 2. Construct computer language programs using a standard programming tool. 3. Demonstrate verbal communication skills in a computer programming project

Course Code	:	**CTU101**
Course Name (English)	:	Fundamentals of Islam
Course Name (Malay)	:	Prinsip-Prinsip Asas Islam
Course Level	:	4 - Diploma
SLT	:	80 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Social Science, Business and Law
Synopsis	:	*Kursus ini menjelaskan kepada pelajar mengenai tasawwur Islam dan menghubungkaitkan akidah dengan amalan seharian. Kursus ini juga membincangkan aplikasi syariah, ibadah dan akhlak dalam kehidupan serta mengenalpasti isu dan cabaran semasa. Kemahiran membaca, menghafaz dan menganalisis al-Quran turut diterapkan.*
Course Learning Outcome(s)	:	*1. Menghurai dan membuat penyampaian mengenai pendekatan amalan seharian berdasarkan prinsip-prinsip Islam.* *2. Membuat pentaksiran secara bertulis melalui perbincangan impak dan signifikan perlaksanaan akhlak mahmudah berdasarkan prinsip-prinsip Islam.*

Course Code	:	**PHY145**
Course Name (English)	:	Fundamental of Physics
Course Name (Malay)	:	Fizik Asas
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Science, Mathematics and Computing
Synopsis	:	Physics for Engineering will interactively engage students cognitively and scientifically in areas of mechanics, heat, electricity, and magnetism. Students will define concepts, state, and explain laws and theories perform investigations via laboratory sessions and in writing, discuss the results and relationships with peers and facilitators. Lecture sessions employ a mixture of lectures and active learning (self and peer discussions). The outcomes shall be assessed through a variety of tools which include written examination and classroom engagement.
Course Learning Outcome(s)	:	1. Apply the concepts, laws, and theories in solving mechanics, heat, electricity, and magnetism problems. 2. Performs (plan, conduct and analyse) scientific investigations in area of mechanics, heat, electricity, and magnetism. 3. Collaborate with team members in performing scientific investigations.

Course Code	:	**ELC121**
Course Name (English)	:	Integrated Language Skills I
Course Name (Malay)	:	Intergrasi Kemahiran Bahasa Inggeris I
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Education
Synopsis	:	This course is designed to build the listening, speaking and reading skills to help students perform effectively and competently in the social and academic contexts. This is done through the integration of language skills with an emphasis on listening. It aims to raise students' proficiency to the intermediate level. This course focuses on enhancing the students' abilities to use the language by exploiting a variety of materials in varied situations. Appropriate consideration is given to the development of higher-level grammatical construction, vocabulary expansion and extensive reading activities which are intended to increase students' lexical density.
Course Learning Outcome(s)		1. Demonstrate the ability to listen attentively and express ideas confidently based on various settings at intermediate level. 2. Demonstrate the ability to listen and respond in writing by applying variety of listening skills based on various listening discourse at Intermediate level. 3. Demonstrate the ability to read and write at Intermediate level based on selected reading materials.

Course Code	:	**MAT183**
Course Name (English)	:	Calculus I
Course Name (Malay)	:	Kalkulus I
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Science, Mathematics and Computing
Synopsis	:	This is the first course in the calculus series. It starts with topics on functions and graphs, limits and continuity, techniques of differentiation and integration and its applications.
Course Learning Outcome(s)	:	1. Apply the properties of function, limit and continuity, techniques of differentiation and integration. 2. Analyse appropriate graph of polynomial or rational function in solving related mathematical problems using calculus. 3. Demonstrate autonomous learning skills in calculus.

Course Code	:	**HBU111**
Course Name (English)	:	National Kesatria I
Course Name (Malay)	:	Kesatria Negara I
Course Level	:	4 - Diploma
SLT	:	40 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	17 Weeks
National Education Code	:	Services
Synopsis	:	*Kursus ini memperkenalkan kepada pelajar mengenai tingkahlaku, sahsiah, kepimpinan dan adab berkomunikasi melalui pelajaran komponen disiplin iaitu kawad kaki pasukan beruniform. Pelajar seterusnya diberi input kenegeraan dan kerohanian bagi menerapkan sifat patriotisme dan pembentukan akhlak. Aspek kecergasan fizikal diberi melalui latihan jasmani.*
Course Learning Outcome(s)	:	*1. Mempamerkan nilai dan sikap positif dalam semua aktiviti badan beruniform Kesatria Negara 1.* *2. Menunjukkan hubungan yang baik melalui kerja berpasukan bagi setiap aktiviti Unit Badan Beruniform Kesatria Negara 1.*

Course Code	:	**EEE121**
Course Name (English)	:	Electric Circuit 1
Course Name (Malay)	:	Litar Elektrik 1
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course covers the basic circuit theory. It deals with electrical quantities relationship in electrical circuits, basic circuit concepts, methods of circuit analysis and circuit theorems for resistive and magnetic circuits in direct current (DC). Capacitor and inductor voltage-current relationship, power and energy, series parallel connections and analysis in direct current (DC) and alternating current (AC) are also introduced.
Course Learning Outcome(s)	:	1. Apply the basic concepts, laws and methods of analysis and theorems in solving resistive circuit, magnetic circuit and reactive circuit problems in direct current and alternating current. 2. Construct basic electrical circuits using simulation software and/or electronic components. 3. Discuss resistive circuit, magnetic circuit and reactive circuit in direct current and alternating current through written communication.

Course Code	:	**ESE122**
Course Name (English)	:	Electrical Measurement
Course Name (Malay)	:	Pengukuran Elektrik
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This subject covers standards units, errors, and accuracies in measurement. The principles of operation and application of DC and AC meters, ohmmeter and oscilloscope are also covered. The types, operations and applications of bridges and transducers will also be discussed.
Course Learning Outcome(s)	:	1. Construct the circuitry used in basic measuring instruments and transducers based on their working principles. 2. Reproduce basic measuring circuit for passive type transducer using appropriate software. 3. Discuss errors and circuitry used in electrical measurement for common measuring applications through written communication.

Course Code	:	**EEE150**
Course Name (English)	:	Safety, Health and Ethics
Course Name (Malay)	:	Keselamatan, Kesihatan dan Etika
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Science, Mathematics and Computing
Synopsis	:	The course covers the topics on occupational safety and health legislation in general and focuses specifically on electric safety. Engineering Maintenance, Inventory Control and Resource Management. Laws and Engineering Ethics Current Engineering Issues.
Course Learning Outcome(s)	:	1. Perform inspection & measurement of laboratory electrical equipment for health & safety condition. 2. Present professional engineering responsibility in addressing societal, health, safety and cultural issues. 3. Demonstrate engineering law and ethical issues in professional practices.

Course Code	:	**CTU152**
Course Name (English)	:	Values and Civilization 1
Course Name (Malay)	:	Penghayatan Etika dan Peradaban I
Course Level	:	4 - Diploma
SLT	:	80 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Social Science, Business and Law
Synopsis	:	*Kursus ini menjelaskan etika dan welchantauung Islam dalam peradaban, kesannya dan perbezaan antara peradaban Islam dan peradaban Barat. Ia juga membahaskan faham sekular dalam peradaban moden dan solusi masyarakat Malaysia semasa.*
Course Learning Outcome(s)	:	*1. Mengenalpasti etika dan welchantauung Islam serta implikasinya dalam peradaban.* *2. Menjelaskan perbezaan di antara welchantauung peradaban Islam dan peradaban Barat.* *3. Membincangkan faham sekular dalam peradaban moden dan solusi masyarakat Malaysia semasa.*

Course Code	:	**ELC151**
Course Name (English)	:	Integrated Language Skills II
Course Name (Malay)	:	Kemahiran Bahasa Bersepadu II
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Education
Synopsis	:	This course is designed to help students become confident and independent readers. Specifically, students will be exposed to intensive reading skills which include skimming and scanning, recognizing structures and mechanics used in texts, summarizing, and evaluating texts. By exposing them to a variety of reading materials and short stories, extensive reading strategies are introduced to create enjoyable reading experiences outside the classroom and to enrich and strengthen their knowledge of words. In addition, speaking and listening skills are integrated into the course to help students perform effectively and competently in the social and academic interaction. This course aims to raise their proficiency to high intermediate level by exploiting a variety of materials in varied situations.

Course Learning Outcome(s)	:	1. Demonstrate the ability to read and write coherently based on various reading materials at higher intermediate level.
		2. Demonstrate the ability to verbally express and justify opinions while interacting during social communication at higher intermediate level.
		3. Demonstrate the ability to listen and respond to various discourse at higher intermediate level.

Course Code	:	**MAT235**
Course Name (English)	:	Calculus II for Engineers
Course Name (Malay)	:	Kalkulus II Untuk Jurutera
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Science, Mathematics and Computing
Synopsis	:	This course consists of four chapters: methods of integration, L'Hospital's rule and improper integral, functions of two and three variables and ordinary differential equations. In the first chapter, integration methods discussed are integration by parts, trigonometric integrals, trigonometric substitutions, and integration of rational functions. Chapter two discussed about the limit of indeterminate form and improper integral. In the third chapter, students will be introduced to partial derivatives and its applications in engineering and sciences. Topics on methods of solving first and second order differential equations with its applications will be discussed in the last chapter.
Course Learning Outcome(s)	:	1. Identify various techniques of integration and partial differentiation.
		2. Solve the problems related to multivariate function.
		3. Determine the solution of Ordinary Differential Equation and its application.

Course Code	:	**HBU121**
Course Name (English)	:	National Kesatria II
Course Name (Malay)	:	Kesatria Negara II
Course Level	:	4 - Diploma
SLT	:	40 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	17 Weeks
National Education Code	:	Services
Synopsis	:	*Kursus ini merangkumi empat komponen, iaitu disiplin seni mempertahankan diri (Tempur Tanpa Senjata) patriotisme, kerohanian dan rekreasi. Kursus ini juga memperkenalkan pelajar kepada asas ikhtiar hidup.*
Course Learning Outcome(s)	:	1. *Mempamer semangat kerjasama dengan mengambil kira peranan yang bersilih ganti diantara ketua dan ahli kumpulan serta mengambil kira pandangan pihak lain melalui aktiviti Kesatria Negara 2.*
		2. *Menunjukkan pengetahuan asas kepimpinan serta kepimpinan berkesan sehingga tercapainya objektif yang disasarkan di dalam aktiviti Kesatria Negara 2.*

Course Code	:	**ELE232**
Course Name (English)	:	Electronics 1
Course Name (Malay)	:	Elektronik 1
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course introduces to the theories of semiconductor materials followed by the constructions, operating concepts, and characteristics of electronic devices such as diode, Bipolar Junction Transistor (BJT) and Field Effect Transistor (FET). The behavior of these devices under DC and AC conditions are studied for amplification purposes. Upon completion of this course, students are expected to be able to analyze simple electronic circuits, have a basic understanding of solid-state concept and developing their ability to predict the behavior of common electronic devices and circuits.
Course Learning Outcome(s)	:	1. Explain the basic solid-state concepts of electronic devices. 2. Analyze the parameters of single stage transistor amplifiers in DC and AC domains and diodes in different applications. 3. Discuss the characteristics, configuration, and operation of electronic devices through written communication.

Course Code	:	**EPO231**
Course Name (English)	:	Analogue Electronics
Course Name (Malay)	:	Elektronik Analog
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course introduces the theories of solid state and some basic electronic devices such as diodes, Bipolar Junction Transistor (BJT), Field Effect Transistor (FET), Operational Amplifier (Op-Amp) and the principles of amplifier as a two-port. The behaviour of these devices under DC and AC conditions are studied for amplification purposes. Upon completion of this course, students are expected to be able to analyze simple electronic circuits, have a basic understanding of solid-state concept and developing their ability to predict the behaviour of common electronic devices and circuits.
Course Learning Outcome(s)	:	1. Explain the basic solid-state concepts and operations of electronic devices. 2. Analyze the characteristics and parameters of active device circuits in DC and AC domain. 3. Discuss the characteristics, configuration, and operation of electronic devices through written communication.

Course Code	:	**EEE231**
Course Name (English)	:	Electric Circuit 2
Course Name (Malay)	:	Litar Elektrik 2
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course covers seven parts mainly, DC transient analysis, sinusoidal steady state analysis, application of circuit laws, methods, and theorems of circuit analysis (AC analysis), AC power analysis, magnetically coupled circuits, two port networks and resonant circuits. It introduces their basics and applications.
Course Learning Outcome(s)	:	1. Explain the basic solid-state concepts of electronic devices. 2. Analyze the parameters of single stage transistor amplifiers in DC and AC domains and diodes in different applications. 3. Discuss the characteristics, configuration, and operation of electronic devices through written communication.

Course Code	:	**ECM241**
Course Name (English)	:	Basic Communication Engineering
Course Name (Malay)	:	Asas Kejuruteraan Komunikasi
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course introduces the basic concept of communication systems. It describes the basic implementations of communication system.
Course Learning Outcome(s)	:	1. Apply the basic knowledge of communication practices and transmission processes using relevant sketches and practical methods. 2. Construct the proper waveform and spectrum of analogue and digital transmission techniques based on the applied modulation or multiplexing. 3. Explain in written form the basic elements, methods, and practical applications of communication system with appropriate diagrams.

Course Code	:	**EEE250**
Course Name (English)	:	Electrical Engineering Laboratory
Course Name (Malay)	:	Makmal Kejuruteraan Elektrik
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The laboratory course provides students with practical hands on experience which relate to theoretical concepts presented in class. This course consists of Electronics Modules, System Modules, Electrical Power Modules and Communication Modules.
Course Learning Outcome(s)	:	1. Display good practical skills in conducting the experiments/project using modern engineering tools during laboratory sessions. 2. Discuss the impact on society and the environment in finding the solution of well-defined engineering problems. 3. Work effectively as an individual and a team member while conducting the experiments in a group. 4. Demonstrate verbal and written communication skills in reporting the conducted experiments and project.

Course Code	:	**CTU211**
Course Name (English)	:	Science and Technology in Islam
Course Name (Malay)	:	Sains dan Teknologi dalam Islam
Course Level	:	4 - Diploma
SLT	:	80 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Social Science, Business and Law
Synopsis	:	*Kursus ini menjelaskan konsep sains dan teknologi dalam Islam serta sejarah perkembangannya. Juga membincangkan kemukjizatan al-Quran, al-Sunnah serta aplikasi kaedah fiqh dan maqasid syariah bagi menangani isu etika dalam sains dan teknologi.*
Course Learning Outcome(s)	:	1. *Menghuraikan konsep, asas falsafah serta kegemilangan sains dan teknologi Islam.* 2. *Mempamerkan nilai akhlak dalam kepelbagaian lanskap budaya berasaskan huraian ayat al-Quran dan al-Sunnah yang berkaitan dengan sains dan teknologi.* 3. *Membuat pentaksiran secara bertulis dan aktiviti atas talian hasil perbincangan mengenai aplikasi kaedah fiqh dan maqasid syariah dalam menangani isu etika sains dan teknologi.*

Course Code	:	**ELC231**
Course Name (English)	:	Integrated Language Skills III
Course Name (Malay)	:	Kemahiran Bahasa Bersepadu III
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Education
Synopsis	:	This course is designed to equip students with the necessary writing skills to help them improve their written English. This is conducted by integrating reading, speaking skills with the emphasis is on writing skills. This course also aims to equip students with the necessary skills to discuss arguments and issues effectively. It focuses on enhancing the students' abilities to use the language by exploiting a variety of materials in varied situations. Appropriate consideration is given to the development of higher-level grammatical construction and vocabulary expansion which are intended to help increase students' lexical density.
Course Learning Outcome(s)	:	1. Demonstrate the ability to speak confidently based on non-academic issues in a social setting. 2. Demonstrate the ability to respond to questions by applying a variety of reading strategies based on authentic and non-authentic discourses. 3. Demonstrate the ability to write an expository essay and evaluative commentary in academic/non-academic context individually and in pair.

Course Code	:	**HBU131**
Course Name (English)	:	National Kesatria III
Course Name (Malay)	:	Kesatria Negara III
Course Level	:	4 - Diploma
SLT	:	40 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	17 Weeks
National Education Code	:	Services
Synopsis	:	*Kursus ini adalah lanjutan kepada pelajaran kemahiran TTS,sukan air,rekreasi,ikhtiar hidup dan tambahan kepada tahap kecergasan mental dan fizikal. Selain itu, pelajar juga diterapkan dengan kemahiran berkomunikasi, berfikir secara kreatif dan semangat kerja berpasukan.*
Course Learning Outcome(s)	:	1. *Mempamerkan sikap menghormati, kesedaran kendiri dan tanggungjawab sosial melalui aktiviti khidmat komuniti Kesatria Negara 3.* 2. *Mempamerkan sikap kesukarelaan terhadap komuniti melalui aktiviti Khidmat komuniti Kesatria Negara 3.*

Course Code	:	**ENT300**
Course Name (English)	:	Fundamentals of Entrepreneurship
Course Name (Malay)	:	Asas Keusahawanan
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	17 Weeks
National Education Code	:	Social Science, Business and Law

Synopsis : This course provides an overview of the requirements for launching an entrepreneurial career and starting up an entrepreneurial venture. After an appreciation of the concept of entrepreneurship, students will be exposed to the critical role of opportunity recognition and evaluation. The course also shed light on the entrepreneur as the main success factor in the new venture formation and development. The central focus of the course is to prepare the students with the essence of entrepreneurship and business planning skills that is essential for the success of new ventures. The subject delivery combines both theoretical and practical aspects of entrepreneurship. Theoretical aspect is looking at the important elements in understanding entrepreneurship, while practical aspect is engaging the student to develop and propose a viable Business Plan.

Course Learning Outcome(s) :
1. Explain the fundamentals of entrepreneurship using verbal and non-verbal communication.
2. Demonstrate the entrepreneurial mind in identifying business opportunities.
3. Demonstrate entrepreneurial skills in preparing a business plan.

Course Code	:	**ESE241**
Course Name (English)	:	Linear System
Course Name (Malay)	:	Sistem Linear
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction

Synopsis : This subject deals with basic concepts of linear system. The emphasis will be on continuous-time signals and systems, Fourier series, differential equations, and Laplace transform. The application of differential equations and Laplace transform on electrical circuit are also covered.

Course Learning Outcome(s) :
1. Produce Fourier Series representation of periodic signal and system responses of electrical circuit using differential equations and Laplace transform.
2. Reproduce Fourier Series representation of periodic signal and system responses using appropriate software.
3. Demonstrate written communication skills in discussing the system responses based on properties of Fourier Series and Laplace transform.

Course Code	:	**ELE242**
Course Name (English)	:	Electronics 2
Course Name (Malay)	:	Elektronik 2
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course is to provide an understanding on the operation and analysis in various type of multistage amplifier connection such as cascade, cascode, Bi-FET, Darlington Pair and differential amplifier. The low and high frequency analysis are studied for frequency response of single stage amplifier. Students also will be introduced to the fundamental concepts and characteristics of ideal operational amplifier applications.
Course Learning Outcome(s)	:	1. Explain the fundamental concepts, operations, and ideal characteristics of amplifier circuits. 2. Assess the single-stage amplifier, multistage amplifiers, differential amplifiers and operational amplifier in DC and AC domains 3. Discuss the configurations and applications of amplifier circuits through written communication.

Course Code	:	**ECE351**
Course Name (English)	:	Digital Systems 1
Course Name (Malay)	:	Sistem Digit 1
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course is to introduce students to number systems, basic gates, combinational logic circuit, MSI devices, sequential circuits, Digital to Analog Conversion (DAC), Analog to Digital Conversion (ADC) and Memory devices. It includes techniques necessary for the design of simple digital circuits and the analysis of sequential circuits.
Course Learning Outcome(s)	:	1. Explain the terminologies of Digital to Analog Conversion (DAC), Analog to Digital Conversion (ADC) and Memory Systems. 2. Assemble simple combinational logic circuitries using 74 series Integrated Circuit (ICs) and MSI devices. 3. Design combinational logic circuits and sequential circuits using logic gates, Medium Scale Integrated (MSI) devices and Flip-Flops.

Course Code	:	**EEE358**
Course Name (English)	:	Final Year Project 1
Course Name (Malay)	:	Projek Tahun Akhir 1
Course Level	:	4 - Diploma
SLT	:	40 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course involves project identification, targeted application areas, initial design and verification of the proposed project using suitable engineering tools or techniques. Upon completion of this course, students are expected to design and verify the project performance and its feasibility.
Course Learning Outcome(s)	:	1. Construct engineering-based solutions to solve problems in real-world environment. 2. Organize suitable methodology to verify the design during project development. 3. Study relevant background information and literature on the proposed project.

Course Code	:	**ELE355**
Course Name (English)	:	Electronics Design
Course Name (Malay)	:	Rekabentuk Elektronik
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course provides a clear understanding and practices on the concept of designing amplifier applications using transistors and Op-Amp for PCB based design project. At the end of this course students are expected to be able to design amplifier and produce prototype based on electronics system design.
Course Learning Outcome(s)	:	1. Construct basic amplifier circuits using single/multistage and operational amplifier (Op-Amp). 2. Design specific electronic system using transistors and Op-Amp amplifiers. 3. Demonstrate in verbal form the appropriate Printed Circuit Board (PCB) fabrication of the electronic circuits with the usage of Electronic Design Automation (EDA) software tools.

Course Code	:	**ECM242**
Course Name (English)	:	Communication Systems
Course Name (Malay)	:	Sistem Komunikasi
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	Basic Communication Engineering (ECM241)
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course deals with the electronics of communication system components. The details of analogue modulation techniques are coupled with transmission techniques.
Course Learning Outcome(s)	:	1. Measure the parameters of basic elements in communication systems model. 2. Analyse the block diagram of each basic element and noise presence in a communication system. 3. Assess matched transmission line using Smith Chart as a tool for matching purposes. 4. Discuss the noise in cascaded system, practical antenna, and its applications through written communication.

Course Code	:	**ECE242**
Course Name (English)	:	Introduction to Networking
Course Name (Malay)	:	Pengenalan kepada Rangkaian
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course is to introduce students to the network and communication includes ethernet, network layer, transport layer and IP addressing. It provides a clear understanding on the network, communication, and its applications.
Course Learning Outcome(s)	:	1. Construct the physical network devices and logical addressing using network simulation tools for Local Area Network (LAN). 2. Describe the functions of OSI Reference Model and TCP/IP Model in computer networks. 3. Present in oral form the proposal of logical network topology for a typical networking system.

Course Code	:	**ESE246**
Course Name (English)	:	Industrial Instrumentation
Course Name (Malay)	:	Peralatan Industri
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course deal with process control system, principles operation of measuring element, and actuators used in industry. Application of signal conditioning and virtual instrumentation such as data acquisition system are also covered in this course.
Course Learning Outcome(s)	:	1. Construct Graphical User Interface (GUI) and Data Acquisition System (DAQ) using virtual instrumentation software. 2. Explain the principle of measuring elements, signal conditioning circuit and actuator in process control system. 3. Demonstrate written communication skills in discussing the principles operation of instruments involved in process industry.

Course Code	:	**EPO243**
Course Name (English)	:	Electrical Machines
Course Name (Malay)	:	Mesin Elektrik
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course covers a principle of three phase system, a single-phase transformer, induction motor, synchronous machines, DC machines and special machines. It also covers analysis on the machines.
Course Learning Outcome(s)	:	1. Interpret adequate knowledge on three phase system, single phase transformer and electrical machines operations. 2. Determine the characteristics and performance of three phase system, single phase transformer and electrical machines. 3. Discuss the current applications of induction motor, synchronous machines, DC machines and special machines using written communication.

Course Code	:	**EPO246**
Course Name (English)	:	Power System
Course Name (Malay)	:	Sistem Kuasa
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	Introduction to power system components, per unit system, faults, transmission lines, protection system and basic distribution system.
Course Learning Outcome(s)	:	1. Measure the parameters of a circuit model for balanced and unbalanced fault to analyse fault current using modern engineering tools. 2. Explain the principles and operations in electrical power system consist of generation, transmission and distribution and their protection system. 3. Demonstrate verbal communication skills in the differentiation of function for protection devices and types of distribution network in power system.

Course Code	:	**ESE359**
Course Name (English)	:	Control System
Course Name (Malay)	:	Sistem Kawalan
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	Linear System (ESE241)
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This subject will discuss about the concepts in control system which covers open and closed loop systems, mathematical modelling of its transfer function and system stability in time domain and frequency domain analysis up to second order systems.
Course Learning Outcome(s)	:	1. Describe the function of basic components of open loop and closed loop control systems to obtain the desired performance. 2. Formulate the transfer function of control systems to analyze transient response performance and system's stability. 3. Demonstrate autonomous learning related to the stability of control systems in time and frequency domains.

Course Code	:	**ECE354**
Course Name (English)	:	Microprocessor System
Course Name (Malay)	:	Sistem Mikromemproses
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This subject will discuss about the concepts in control system which covers open and closed loop systems, mathematical modelling of its transfer function and system stability in time domain and frequency domain analysis up to second order systems.
Course Learning Outcome(s)	:	1. Construct a microcontroller-based application program using assembly programming language. 2. Develop an assembly language program for single chip microcomputer based on the understanding of its architecture and function. 3. Demonstrate verbal communication skill in microcontroller-based application project with the usage of microcontroller trainer board.

Course Code	:	**EEE368**
Course Name (English)	:	Final Year Project 2
Course Name (Malay)	:	Projek Tahun Akhir 2
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	Final Year Project 1 (EEE358)
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course involves literature review, planning, design, circuit analysis, troubleshooting and Printed Circuit Board (PCB) fabrication and/or software application development of an electrical and electronic system. Upon completion of this course, students are expected to implement the design in continuation of project 1 and thus, develop and troubleshoot the hardware and its prototype.
Course Learning Outcome(s)	:	1. Construct the prototype of engineering-based project to solve problems in real-world environment. 2. Demonstrate oral and written communication skills in project. 3. Preparation of background information and relevant literature on the proposed project using information technology. 4. Display good managerial and entrepreneurship skills to develop product for exhibition or competition platform.

Course Code	:	**EPO244**
Course Name (English)	:	Basic Power Engineering
Course Name (Malay)	:	Asas Kejuruteraan Kuasa
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course introduces the principle of electrical machines that involves basic concepts, balanced three-phase systems, transformers, induction motor, synchronous machine, and dc machines. This course also covers the principle of power system that involves basic concepts, fault studies, and transmission and distribution.
Course Learning Outcome(s)	:	1. Describe the basic concepts of power systems and electrical machines. 2. Determine the parameters of three-phase system, single-phase transformer, electrical machines, and power system. 3. Demonstrate written communication skills related to the study the operation of single-phase transformer, electrical machines, and power system circuits.

Course Code	:	**ELE351**
Course Name (English)	:	Electronics 3
Course Name (Malay)	:	Elektronik 3
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course introduces to the theories and applications of linear electronic system consisted of negative feedback amplifier, oscillator, power amplifier and voltage regulator. The behavior of these devices under direct current (DC) and alternating current (AC) conditions are studied for amplification purposes. Upon completion of this course, students are expected to be able to analyse electronic circuits, have a basic understanding of the operation of linear electronic system and its applications, and its implementation using these electronic devices in practice and theories.
Course Learning Outcome(s)	:	1. Construct the feedback amplifier and power amplifer circuits using simulation and experimental setup. 2. Analyse the feedback amplifier, oscillator, power amplifier and voltage regulator using direct current (DC) and alternating current (AC) analysis techniques. 3. Design the oscillator circuits using the resistor-inductor-capacitor (RLC) network. 4. Demonstrate information retrieval and management skill on the current technology of voltage regulator.

Course Code	:	**ECM351**
Course Name (English)	:	Digital Communication Systems
Course Name (Malay)	:	Sistem Komunikasi Digit
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	Basic Communication Engineering (ECM241)
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course deals with basic concepts of digital transmission, modulation, and multiplexing in communication system. The emphasis will be on Pulse Code Modulation (PCM), information theory and coding.
Course Learning Outcome(s)	:	1. Construct the elements of digital modulation technique to measure the properties in digital communication system. 2. Analyse the properties of information theory, modulation, and transmission techniques in digital communication system. 3. Design basic error detection and error correction system using coding scheme. 4. Demonstrate information retrieval and management skill on the study of the elements of information theory and modulation scheme in digital communication system.

Course Code	:	**ECE356**
Course Name (English)	:	Network Routing Fundamentals
Course Name (Malay)	:	Asas Laluan Rangkaian
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course covers the function of switch and router, configuration of network devices and application of routing in computer network. It also includes design of computer network system using dynamic routing.
Course Learning Outcome(s)	:	1. Construct Wide Area Network (WAN) and implement dynamic routing protocol using network simulation tool. 2. Describe the function and operation of router for computer network. 3. Demonstrate information retrieval and management skill to differentiate the current technology and legacy techniques on routing protocol for WAN communication.

Course Code	:	**ESE366**
Course Name (English)	:	Process Control
Course Name (Malay)	:	Kawalan Proses
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course introduces students to the plant process control schemes and strategies. The topic covers the process and instrumentation diagram, process system dynamics and control strategy involve in industrial process control system. Case studies on industrial process are also covered.
Course Learning Outcome(s)	:	1. Measure system's performance regulated by various control strategies using appropriate software and hardware. 2. Develop process dynamic, process control strategies and discrete process in process industry to improve system's performance. 3. Demonstrate information retrieval and management skill on the significance of process dynamic, process control schemes and process control strategies in process industry.

Course Code	:	**EPO359**
Course Name (English)	:	Power Electronics
Course Name (Malay)	:	Elektronik Kuasa
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course introduces the basic of power electronics in the scope of the construction, classifications, characteristic and the principle operation of power conversion systems including rectifiers, inverters, choppers, and AC voltage controller circuits using lectures and laboratory approach. This course also provides students with an understanding on power electronic applications circuit.
Course Learning Outcome(s)	:	1. Construct the single phase uncontrolled and controlled rectifiers using modern engineering tools. 2. Determine the AC and DC outputs generated from power converter circuits 3. Demonstrate information retrieval and management skill in the identification of the types for the electrical power circuit based on different types of semiconductor devices.

Course Code	:	**EPO366**
Course Name (English)	:	Machines and Drives
Course Name (Malay)	:	Mesin dan Pemacu
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course emphasizes the application aspects of electrical machines. Aspects included are elements of speed control, starting and braking of DC and AC machines, matching and sizing of motor/drive with load and an introduction to electronic drives.
Course Learning Outcome(s)	:	1. Demonstrate the starting method, braking and speed control of DC and Induction Motor in machines and drives. 2. Explain the characteristics and performance of AC and DC Machines in electrical machines and drives. 3. Demonstrate information retrieval and management skill in the differentiation between the starting methods and dynamic performance of speed control for drive system in various applications.

Course Code	:	**ELE354**
Course Name (English)	:	Digital Logic Design With HDL
Course Name (Malay)	:	Rekabentuk Digital Logik dengan HDL
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course introduces to Hardware Description Language (HDLs) in modelling combinational and sequential circuits. This course is also accompanied by lab sessions to acquaint students with hands-on experience in modelling digital circuits using Electronic Design Automation (EDA) tools. Upon completion of this course, students should be able to gain an experience in Digital Integrated Circuit (IC) design environment.
Course Learning Outcome(s)	:	1. Construct digital logic circuits and/or simple digital systems using Electronic Design Automation (EDA) software tools. 2. Design combinational circuits and synchronous sequential circuits using Hardware Description Language (HDL) and Programmable Logic Devices (PLDs) to solve engineering problems. 3. Demonstrate information retrieval and management skill in the study of the current technology on FPGA development.

Course Code	:	**ELE245**
Course Name (English)	:	Introduction to Microelectronics
Course Name (Malay)	:	Pengenalan Mikroelektronik
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The subject provides the basic concepts of semiconductor physics, IC layout, design rules and IC design of manufacturability and testability approach.
Course Learning Outcome(s)	:	1. Construct a simple CMOS integrated circuit using electronic design automation software. 2. Explain the characteristics of semiconductor physics and MOSFET fabrication process of CMOS Integrated Circuit (IC) design. 3. Design an IC layout based on simple CMOS logic circuits. 4. Demonstrate information retrieval and management skill related to CMOS technology.

Course Code	:	**ECM354**
Course Name (English)	:	Microwave Engineering
Course Name (Malay)	:	Kejuruteraan Gelombang Mikro
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course introduces the basic concepts of electromagnetic (EM) waves, its behavior in waveguides, the basic components and devices used in microwave technology. Its applications in solid state, amplifier and oscillator operation will be studied. The methods of microwave devices measurement and its application in radio, terrestrial, radar and satellite systems will also be discussed.
Course Learning Outcome(s)	:	1. Assemble basic microwave equipment to observe the microwave characteristics in microwave communication systems. 2. Explain the fundamental concept of electromagnetic (EM) theory in measurement, waveguide devices and microwave applications. 3. Demonstrate information retrieval and management skill on the study of microwave basic components and devices used in microwave technology.

Course Code	:	**ECM356**
Course Name (English)	:	Fiber Optic Communication System
Course Name (Malay)	:	Sistem Komunikasi Fiber Optik
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course introduces the basic concepts of optical fiber, optical waveguides, optical cables, optical sources, couplers, and photodetectors. It describes the power link budget, multiplexing, networking and fiber loops. Optical test equipment and different measurement in optical fiber link will be discussed.
Course Learning Outcome(s)	:	1. Assemble the optical equipment to observe the signal characteristics in fiber optic link. 2. Apply the properties of fiber optic in communication system. 3. Evaluate simple communication network using suitable optical parameters in fiber optic link. 4. Demonstrate information retrieval and management skill on the study of the optical fiber digital line system in optical fiber network technology.

Course Code	:	**ECE355**
Course Name (English)	:	Digital Systems 2
Course Name (Malay)	:	Sistem Digit 2
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course applies the principles and practice of digital fundamentals to design simple digital system used in modern computers. It focuses on the analysis and design using combinational logic gates, Medium Scale Integrated (MSI) devices, flip-flops, Digital to Analog Converter (DAC) ICs, Analog to Digital Converter (ADC) ICs and data storage devices. This course includes the analysis of various types of MSI and interfacing devices. Furthermore, it provides a foundation course in memory organization and Programmable Logic Devices (PLDs) that are used for subsequent study in computer organization, architecture, and VLSI design.
Course Learning Outcome(s)	:	1. Construct digital system circuits using Electronic Design Automation (EDA) tools. 2. Design the applications of digital system using combinational logic devices, sequential logic devices, Programmable Logic Devices (PLDs), memory structure and interfacing circuits. 3. Demonstrate information retrieval and management skill on the current technology on digital system application.

Course Code	:	**ECE353**
Course Name (English)	:	PC Hardware and Software
Course Name (Malay)	:	Perkakasan dan Perisian PC
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course will provide an in-depth exposure to Personal Computer (PC) hardware, software, and operating systems with a lab-oriented approach. Students learn to identify, install, and configure various computer hardware components as well as basic computer and configuration concepts. This course also provides students with an understanding of basic hardware component features of a personal computer, the communication between hardware and software, installation, maintenance, and support of various hardware components.
Course Learning Outcome(s)	:	1. Assemble a secured and functional multimedia-based personal computer using off the shelf components. 2. Determine common hardware and software problems in a personal computer system. 3. Demonstrate information retrieval and management skill on the current technology of peripherals used in a personal computer.

Course Code	:	**ESE364**
Course Name (English)	:	PLC in Process Industry
Course Name (Malay)	:	PLC dalam Proses Industri
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This subject deals with basic concepts of Programmable Logic Controller (PLC). The emphasis will be on hardware and software module, interfacing, and implementation of PLC in process control.
Course Learning Outcome(s)	:	1. Construct specified control system using Programmable Logic Controller (PLC) Ladder Diagram software. 2. Construct basic PLC system based on its standard I/O modules. 3. Demonstrate information retrieval and management skill on the latest function of PLC development.

Course Code	:	**ESE358**
Course Name (English)	:	Industrial Automation
Course Name (Malay)	:	Automasi Industri
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	The course deals with fundamental concepts in automation and building blocks of automation. The industrial logic control system and sequence control using electronic logic components, sensors and actuators in simple industrial applications is introduced. Basic computer numerical control, industrial robotics and maintenance concept and safety procedures will also be applied.
Course Learning Outcome(s)	:	1. Construct basic pneumatics and electro-pneumatics circuits to automate production for industrial automation system using software and hardware. 2. Design components of computer numerical controls (CNC), industrial robotics and industrial logic using transducers to solve problems in manufacturing. 3. Demonstrate information retrieval and management skill of industrial automation process, maintenance, and safety knowledge in manufacturing.

Course Code	:	**EPO354**
Course Name (English)	:	Programmable Logic Controller
Course Name (Malay)	:	Pengawal Logik Boleh Program
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course covers design, development, and testing of PLC for Industrial Automation System.
Course Learning Outcome(s)	:	1. Construct specific control system using PLC Ladder Diagram software. 2. Interpret between Conventional Ladder Diagram technique and PLC Ladder Diagram method. 3. Demonstrate autonomous learning skills to differentiate between Conventional Ladder Diagram and PLC Ladder Diagram method.

Course Code	:	**EPO358**
Course Name (English)	:	Energy Efficiency and Renewable Energy
Course Name (Malay)	:	Kecekapan Tenaga dan Tenaga Diperbaharui
Course Level	:	4 - Diploma
SLT	:	120 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	14 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course covers introduction of energy efficiency and renewable energy, energy audit, energy efficient equipment and alternative sources of energy/renewable energy.
Course Learning Outcome(s)	:	1. Measure the parameters of renewable energy system model to evaluate system performances. 2. Describe the characteristics and related issues on renewable energy used in industrial and commercial environment. 3. Evaluate the energy audit and energy efficiency of equipment in industrial and commercial environment. 4. Demonstrate information retrieval and management skill in the study of the recent technology on renewable energy resources.

Course Code	:	**EEE350**
Course Name (English)	:	Industrial Training
Course Name (Malay)	:	Latihan Industri
Course Level	:	4 - Diploma
SLT	:	320 Hours
Pre-Requisite Course(s)	:	None
Teaching Period Duration	:	16 Weeks
National Education Code	:	Engineering, Manufacturing and Construction
Synopsis	:	This course requires students to undergo their industrial training with learn from the observation, corporate with the organization and work colleagues, form good interaction between all parties including work colleagues, management and visiting lecturers involved, be prepared to contribute in any way deemed necessary, abide and adhered to any terms and regulations set upon by the organization. This course is intended to enable student to experience at least 8 weeks working environment in industries. Student will submit a formal report and logbook that will be based on work done during the practical training.
Course Learning Outcome(s)	:	1. Display good skills using various standard software tools and/or equipment in electrical/electronic industries. 2. Demonstrate verbal communication skills in real engineering practices based on scope of work at the organization of internship. 3. Demonstrate a responsibility by taking initiative to be engaged with superiors and co-workers in group projects/assignments/tasks. 4. Demonstrate a system of moral rules or principles of behaviour in a workplace or a working environment during internship programme.

LIST OF LECTURERS

ELECTRONIC (*ELEKTRONIK*)

Ts. Dr. Nor Diyana binti Md Sin
Senior Lecturer
Room No : 28 (Level 5)
Ext : 8221

Dr. Nur Amalina binti Muhamad
Senior Lecturer
Room No : Management & Administrative Office (Level 3)
Ext : 8186

Ts. Aznilinda binti Zainuddin
Senior Lecturer
Room No : 6 (Level 4)
Ext : 8194

Ts. Zahari bin Abu Bakar
Senior Lecturer
Room No : 60 (Level 6)
Ext : 8253

Ts. Kamaru Adzha bin Kadiran
Lecturer
Room No : 71 (Level 6)
Ext : 8264

Ts. Rozi bin Rifin
Lecturer
Room No : 68 (Level 6)
Ext : 8163

Mastura binti Omar
Senior Lecturer
Room No : 11 (Level 4)
Ext : 8199

Siti Musliha Ajmal binti Mokhtar
Lecturer
Room No : 72 (Level 6)
Ext : 8265

Fazlinashatul Suhaidah binti Zahid
Lecturer
Room No : 37 (Level 5)
Ext : 8230

POWER (*KUASA*)

Ts. Dr. Mohamad Zhafran bin Hussin
Senior Lecturer
Room No : 30 (Level 5)
Ext : 8223

Dr. Nurul Nadia binti Mohammad
Senior Lecturer
Room No : 1 (Level 4)
Ext : 8189

Ts. Dr. Rijalul Fahmi bin Mustapa
Senior Lecturer
Room No : 5 (Level 4)
Ext : 8193

Ts. Muhammad Muzamil bin Mustam
Senior Lecturer
Room No : (Level 4)
Ext : 8192

Ts. Norhalida binti Othman
Senior Lecturer
Room No : 16 (Level 4)
Ext : 8205

Mohd Ezwan bin Mahadan
Senior Lecturer
Room No : 3 (Level 4)
Ext : 8191

Ts. Noor Hasliza binti Abdul Rahman
Lecturer
Room No : 52 (Level 6)
Ext : 8245

Ts. Nur Iqtiyani binti Ilham
Lecturer
Room No : 56 (Level 6)
Ext : 4249

Ts. Shakira Azeehan binti Azli
Lecturer
Room No : 40 (Level 5)
Ext : 8233

POWER (*KUASA*)

Ts. Mashitah binti Mohd Hussain
Lecturer
Room No : 59 (Level 6)
Ext : 8252

Mohd Sufian bin Ramli
Lecturer
Room No : 33 (Level 5)
Ext : 8226

Norlee Husnafeza binti Ahmad
Lecturer
Room No : 8 (Level 4)
Ext : 8196

Siti Aliyah binti Mohd Saleh
Lecturer
Room No : 21 (Level 5)
Ext : 8214

Dr. Atiqah Hamizah binti Mohd Nordin
Senior Lecturer
Room No : 7 (Level 4)
Ext : 8195

Siti Sufiah binti Abd Wahid
Lecturer
Room No : 35 (Level 5)
Ext : 8228

Ts. Wan Suhaifiza binti W Ibrahim
Senior Lecturer
Room No : 36 (Level 5)
Ext : 8229

SYSTEM (*SISTEM*)

Ts. Dr. Zakiah binti Mohd Yusoff
Senior Lecturer
Room No : 38 (Level 5)
Ext : 8231

Ts. Dr. Mohamad Farid bin Misnan
Senior Lecturer
Room No : 58 (Level 6)
Ext : 8251

Dr. Muhammad Asraf bin Hairuddin
Senior Lecturer
Room No : 32 (Level 5)
Ext : 8225

Dr. Nurhani binti Kasuan
Senior Lecturer
Room No : 2 (Level 4)
Ext : 8190

Nur Dalila binti Khirul Ashar
Senior Lecturer
Room No : 26 (Level 5)
Ext : 8219

Masmaria binti Abdul Majid
Lecturer
Room No : 27 (Level 5)
Ext : 8220

Dr. Khairul Kamarudin bin Hasan
Senior Lecturer
Room No : 29 (Level 5)
Ext : 8222

COMMUNICATION (*KOMUNIKASI*)

Norbaiti binti Sidik
Senior Lecturer
Room No : 61 (Level 6)
Ext : 8254

Ts. Dr. Siti Aminah binti Nordin
Senior Lecturer
Room No : 34 (Level 5)
Ext : 8227

Ts. Zatul Iffah binti Abd Latiff
Senior Lecturer
Room No : 14 (Level 4)
Ext : 8203

Ts. Sufian bin Mohamad
Lecturer
Room No : 13 (Level 4)
Ext : 8202

Hanunah binti Othman
Lecturer
Room No : 64 (Level 6)
Ext : 8257

Norlina binti Mohd Zain
Lecturer
Room No : 23 (Level 5)
Ext : 8216

Fadila binti Mohd Atan
Senior Lecturer
Room No : 10 (Level 4)
Ext : 8198

Nor Affida binti M.Zin
Lecturer
Room No : 9 (Level 4)
Ext : 8197

Noor Hafizah binti Khairul Anuar
Lecturer
Room No : 45 (Level 5)
Ext : 8238

Muhammad Zairil bin Muhammad Nor
Lecturer
Room No : 17 (Level 5)

COMPUTER (*KOMPUTER*)

Dr. Fatimah Khairiah binti Abd Hamid
Senior Lecturer
Room No : 11 (Level 4)
Ext : 8204

Ezril Hisham bin Mat Saat
Senior Lecturer
Room No : 54 (Level 6)
Ext : 8247

Dr. Siti Hazurah binti Indera Putera
Senior Lecturer
Room No : 55 (Level 6)
Ext : 8248

Muhammad Rajaei bin Dzulkifli
Lecturer
Room No : 18 (Level 5)
Ext : 8211

Nur Asfahani binti Ismail
Lecturer
Room No : 12 (Level 4)
Ext : 8210

LIST OF ASSISTANT ENGINEERS

ASSISTANT ENGINEERS

Muhammad Fadhli bin Md Nasir
Assistant Engineer
Room No : Process Laboratory
(Level 1)
Ext : 8163

Mohd Fadhil bin Ibrahim
Assistant Engineer
Room No : Printed Circuit Bord
(PCB) Workshop (Level 1)
Ext : 8159

Mohd Azhar bin Zamhuri
Assistant Engineer
Room No : Machine Laboratory
(Level 1)
Ext : 8158

Muhammad Zul Haziq bin Roslan
Assistant Engineer
Room No : Microprocessor
Laboratory (Level 3)
Ext : 8177

Nornabilah binti Mohd Anuar
Assistant Engineer
Room No : Electronic
Laboratory 2 (Level 2)
Ext : 8174

INFRASTRUCTURE (LABORATORY)

Printed Circuit Bord (PCB) Workshop
PIC : Mohd Fadhil bin Ibrahim

Machine Laboratory
PIC : Mohd Azhar bin Zamhuri

Power System Laboratory
PIC : Mohd Azhar bin Zamhuri

Digital Electronic Laboratory 1
PIC : Mohd Azhar bin Zamhuri

Instrumentation Laboratory
PIC : Muhammad Fadhli bin Md Nasir

Process Laboratory
PIC : Muhammad Fadhli bin Md Nasir

LEVEL 2
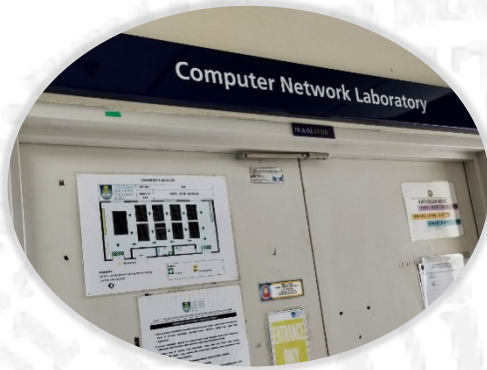
Computer Network Laboratory
PIC : Muhammad Zul Haziq bin Roslan

Electronic Laboratory 2
PIC : Nornabilah binti Mohd Anuar

Laboratory for Power
PIC : Muhammad Fadhli bin Md Nasir

Digital Electronic Laboratory 2
PIC : Mohd Fadhil bin Ibrahim
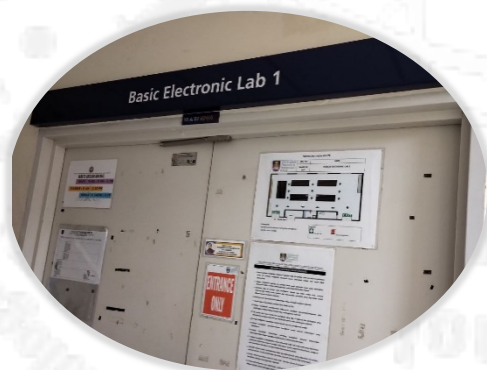
Basic Electronic Lab 1
PIC : Mohd Fadhil bin Ibrahim

Microelectronic and Digital Design
PIC : Muhammad Zul Haziq bin Roslan

LEVEL 3

Wireless Laboratory
PIC : Nornabilah binti Mohd Anuar

Telecommunication Laboratory
PIC : Nornabilah binti Mohd Anuar

Microprocessor Laboratory
PIC : Muhammad Zul Haziq bin Roslan

Microwave Laboratory
PIC : Nornabilah binti Mohd Anuar

Laboratory for Computer
PIC : Muhammad Zul Haziq bin Roslan
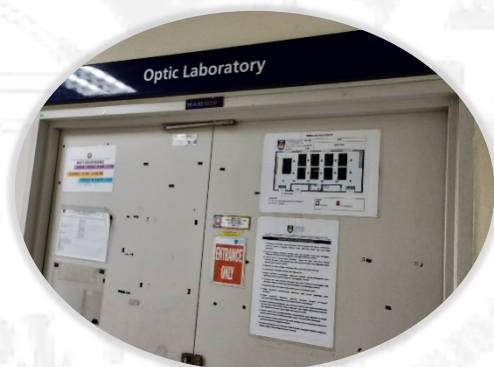
Optic Laboratory
PIC : Nornabilah binti Mohd Anuar

LEVEL 4

Computer Laboratory for Computer Engineering
PIC : Muhammad Zul Haziq bin Roslan

Computer and Control System Laboratory
PIC : Muhammad Zul Haziq bin Roslan
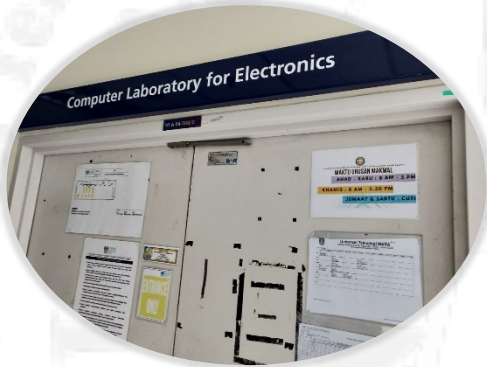
Computer Laboratory for Electronics
PIC : Muhammad Zul Haziq bin Roslan
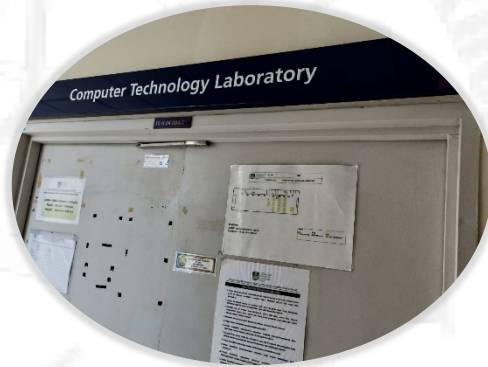
Computer Technology Laboratory
PIC : Muhammad Zul Haziq bin Roslan

EQUIPMENT (LABORATORY)
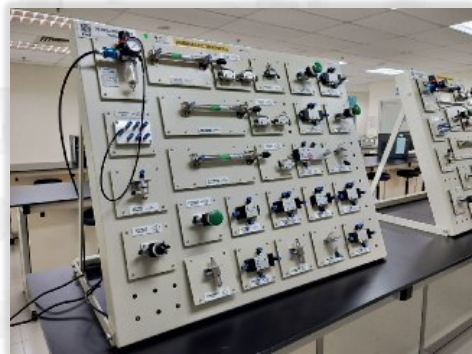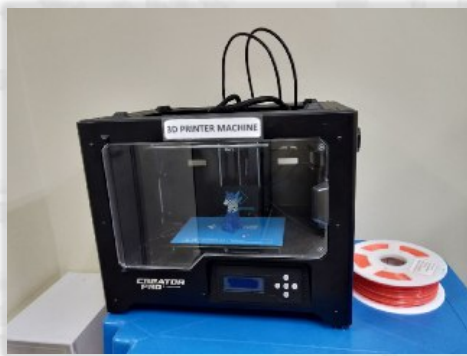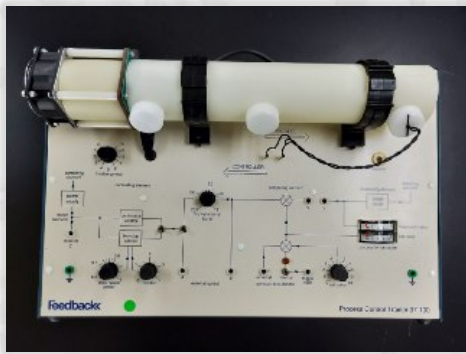
FEES

ACADEMIC FEE

TYPE OF STUDY	STUDY MODE	STUDY PERIOD (SEMESTER)	FEE RATE (RM)			TOTAL FEES (SEMESTER 1)	TOTAL FEES (SEMESTER 2 AND ABOVE)
			REGISTRATION FEE (SEMESTER 1 ONLY)	TUITION FEE	SERVICE CHARGE FEES**		
DIPLOMA	FULL TIME	6 SEMESTERS	208.00	200.00	340.00	748.00	540.00
	EXTENDED FULL TIME	EXCEED THE STUDY PERIOD / APPEAL TO CONTINUE STUDY*	-	500.00	415.00	-	915.00
DEGREE	FULL TIME	6 – 8 SEMESTERS	208.00	200.00	390.00	798.00	590.00
	EXTENDED FULL TIME	EXCEED THE STUDY PERIOD / APPEAL TO CONTINUE STUDY*	-	70.00 / Credit Hour	390.00	-	Depending on the total credit hour + service charge fee

*Subject to academic approval
**SERVICE CHARGE FEES FOR NON-MUSLIM STUDENTS - DEDUCTED RM10.00 (REFERENCE: JKP 212/2018 (AGENDA D5044) - Coordination of Islamic Centre Service Charge Fees for all Muslim students in per semester of study)

COLLEGE FEE

Results of the 167th LPU Meeting dated 15 January 2019 (Item: G3788) have approved residential college fees for Pre-Diploma, Diploma, Certified Accounting Technicians (CAT) - AC150, and Bachelor of Science (Honors) Architecture (AP243) who are staying in the college on campus as follows:

TYPE OF ROOM	FEE
2 person per room	RM420.00 per semester (Rate : RM4.00 per day)
3 person per room	RM315.00 per semester (Rate : RM3.00 per day)
4 person per room	RM210.00 per semester (Rate : RM2.00 per day)

However, the meeting also agreed to grant exemption from the charge of residential college fees to the following students:

1) Students from poor families with a monthly income below RM2500.00 per month with many dependents.
2) *Majlis Perwakilan Pelajar (MPP).*
3) *Jawatankuasa Perwakilan Kolej (JPK)* and JPK members (17 members for each college).
4) Uniformed Unit *(PALAPES – Darat, Laut, Udara, Polis (SUKSIS), Komander Kesatria, Bomba, PBSM, Pertahanan Awam, Brass Band).*
5) Sports students who represent the country and are recognized by the Ministry of Youth and Sports.
6) Students from Clubs / Associations who excel, represent the country, and win international competitions.

ACADEMIC TERMS

GRADING SYSTEM

MARKS	POINTS	GRADE	STATUS
90 – 100	4.00	A+	PASS
80 – 89	4.00	A	PASS
75 – 79	3.67	A-	PASS
70 – 74	3.33	B+	PASS
65 – 69	3.00	B	PASS
60 – 64	2.67	B-	PASS
55 – 59	2.33	C+	PASS
50 – 54	2.00	C	PASS
47 – 49	1.67	C-	FAIL
44 – 46	1.33	D+	FAIL
40 – 43	1.00	D	FAIL
30 – 39	0.67	E	FAIL
0 – 29	0.00	F	FAIL

FINAL GPA/CGPA STATUS

STATUS	DESCRIPTION
ANC	*Tamat dengan Anugerah Naib Canselor*
TS	*Tamat dengan Anugerah Dekan*
TM	*Tamat*
LNT	*Lulus Naik Taraf*
AD	*Anugerah Dekan*
LU	*Lulus*
P	*Perhatian (Tidak Memuaskan)*
	P1 : Perhatian Pertama di mana pelajar memperolehi CGPA di antara 1.80 sehingga 1.99 pada sesuatu semester.
	P2 : Perhatian Kedua di mana pelajar memperolehi CGPA kurang daripada 2.00 selepas mendapat P1 pada semester terakhir sebelumnya.

FINAL GPA/CGPA STATUS

STATUS	DESCRIPTION
D	*Gagal dan Diberhentikan*
	D1 : HPNG kurang daripada 1.80.
	D2 : HPNG kurang daripada 1.80 selepas status P1.
	D3 : HPNG kurang daripada 2.00 selepas status P2.
	D4 : Gagal dalam sesuatu kursus bagi kali ketiga.
	D5 : HPNG kurang daripada 2.00 pada penghujung tempoh pengajian dan masih mempunyai kursus yang belum disempurnakan.
	D6 : Lulus semua kursus yang dikehendaki oleh sesuatu program dan memenuhi semua keperluan program tetapi memperolehi HPNG kurang daripada 2.00.
	D7 : Tidak menduduki peperiksaan bagi semua kursus terdaftar pada semester tersebut tanpa kelulusan Universiti.
SML	*Diberikan kepada pelajar sepenuh masa yang mencapai prestasi tidak memuaskan apabila mereka melebihi tempoh pengajian yang ditetapkan di dalam Pelan Pengajian.*

** Pelajar yang gagal dan diberhentikan atau diberikan status Gugur Taraf pada satu (1) semester sebelumnya boleh membuat rayuan kepada JAF/JAN dalam tempoh empat belas (14) hari selepas tarikh keputusan peperiksaan diumumkan secara rasmi.

** Syarat-syarat rayuan:
a) Rayuan dibenarkan sekali sahaja sepanjang tempoh pengajian.
b) Pelajar yang gagal dan diberhentikan D1 dan D2 tidak layak membuat rayuan.
c) Rayuan hanya boleh dibuat oleh pelajar yang gagal dan diberhentikan D3, D4, D5, D6, D7 dalam peperiksaan yang baharu satu (1) semester berlalu atau diberikan status GT pada satu (1) semester yang lalu.

FINAL GRADE RESULT STATUS

STATUS	DESCRIPTION
LU	*Lulus*
F1	*Gagal kursus kali pertama*
F2	*Gagal kursus kali kedua*
F3	*Gagal kursus kali ketiga*
PK	*Pemindahan kredit*
PC	*Pengecualian kredit*
TG	*Tangguh pengajian*
TL	*Tidak lengkap*
UD	*Audit*
FD	*Tindakan disiplin*
XX	*Tidak hadir peperiksaan dengan kebenaran*
YY	*Tidak hadir peperiksaan tanpa kebenaran*
ZZ	*Tidak dibenarkan menduduki peperiksaan akhir bagi kursus yang mempunyai peperiksaan akhir; atau tidak diberikan markah penilaian bagi kursus yang tiada peperiksaan akhir*

** Bayaran pemprosesan sebanyak RM100.00 dikenakan untuk setiap kursus yang diberikan keputusan YY atau ZZ.

STUDENT DRESS CODE

UNIVERSITI TEKNOLOGI MARA

Cawangan Johor
Kampus Pasir Gudang

MAJLIS PERWAKILAN PELAJAR SESI 2019/2020

LANGKAH AWAL
MAHASISWA UiTM CAWANGAN JOHOR KAMPUS PASIR GUDANG KE ARAH

PROFESIONALISME

AHAD	SMART CASUAL / KORPORAT
ISNIN	FORMAL
SELASA	SMART CASUAL
RABU	SMART CASUAL
KHAMIS	BAJU KURUNG

Sentiasa mempamerkan kad pelajar ketika berada di dalam kampus.

Baju berkolar.

Berseluar jeans atau slack yang kemas, tidak ketat, koyak atau lesuh.

Berambut pendek dan kemas.

Dilarang mewarnakan rambut dan mengikuti fesyen rambut yang keterlaluan.

Dilarang memakai baju yang mempunyai tulisan atau gambar yang negatif.

Dilarang berselipar, bercapal, memakai topi atau snow cap ketika urusan rasmi (kuliah, urusan pejabat, dll.)

Pemakaian baju kemeja dan seluar slack adalah amat digalakkan.

Pelajar digalakkan untuk mengikut contoh pemakaian seperti dibawah.

PEMBENTANGAN   JAKET FAKULTI   PAKAIAN SUKAN

KORPORAT   SMART CASUAL   FORMAL

@MPPUiTMPG   @MPPUiTMPG   MPPUiTMPG@GMAIL.COM

"PENCETUS KEPIMPINAN HOLISTIK, PENERAJU MAHASISWA DINAMIK"

WHAT TO DO?

Have you registered?
DO YOUR PART!

Entrance Survey

Fill up SuFO for all subjects registered

(https://i-learn.uitm.edu.my)

Exit Survey

Week 1-Week 2

Week 9-Week 14

Week 13-Week 14

Fill up Entrance Survey for all subjects registered.

(https://ufuture.uitm.edu.my)

Students' Feedback Online (SuFO)
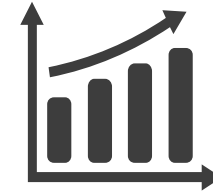
Fill up Exit Survey for all subjects registered.

(https://ufuture.uitm.edu.my)

CONTACT US

74
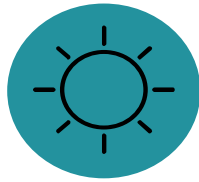
Hal Ehwal Akademik (HEA)	Hal Ehwal Pelajar (HEP)	Bendahari	Unit Pengurusan Kolej	Unit Kesihatan	Unit Kerjaya & Kaunseling
07-3818001	07-3818035 / 80	07-3818093	07-3818722	07-3818710	07-381 8704

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https://www.instagram.com/pkeuitmpg/	ESTECH CLUB
https://twitter.com/pkeuitmpg	MAKERS CLUB
https://www.facebook.com/pkeuitmpg	TECHNOPHYTE CLUB
https://linktr.ee/fkeuitmpg	IEM STUDENT CHAPTER

ESTECH was established in 2014 and a club for Electrical Engineering (EE) students from various EE programs in UiTM Cawangan Johor Kampus Pasir Gudang. The objective of this club is to train the members and non-members on electrical skills such as designing projects and other soft skills such as leadership and management skills.

MAKERS CLUB is a club that focusing on the improvement of the technical skills (electronics, programming and innovation), entrepreneurship skills as well as soft skills among students in UiTM Cawangan Johor Kampus Pasir Gudang. This club strives to organize events that will fulfil club's objectives and bring out the best activities for engineering and business students.

TECHNOPHYTE is a robotic club in UiTM Cawangan Johor Kampus Pasir Gudang. The main objective of this club is to introduce the world of robotics to all its members. The knowledge and experience gained from this club will be used by students while completing their final year project in the final semester.

IEM Student Chapter UiTM Cawangan Johor Kampus Pasir Gudang was established to encourage all Engineering students to learn and understand the path of engineers to be Professional Engineer. The goal of this society is to continuously and increasingly promote the professional development of the student members, while at the same time enhancing their relationship with fellow engineers and serving as a forum for them to embark on a career in engineering.