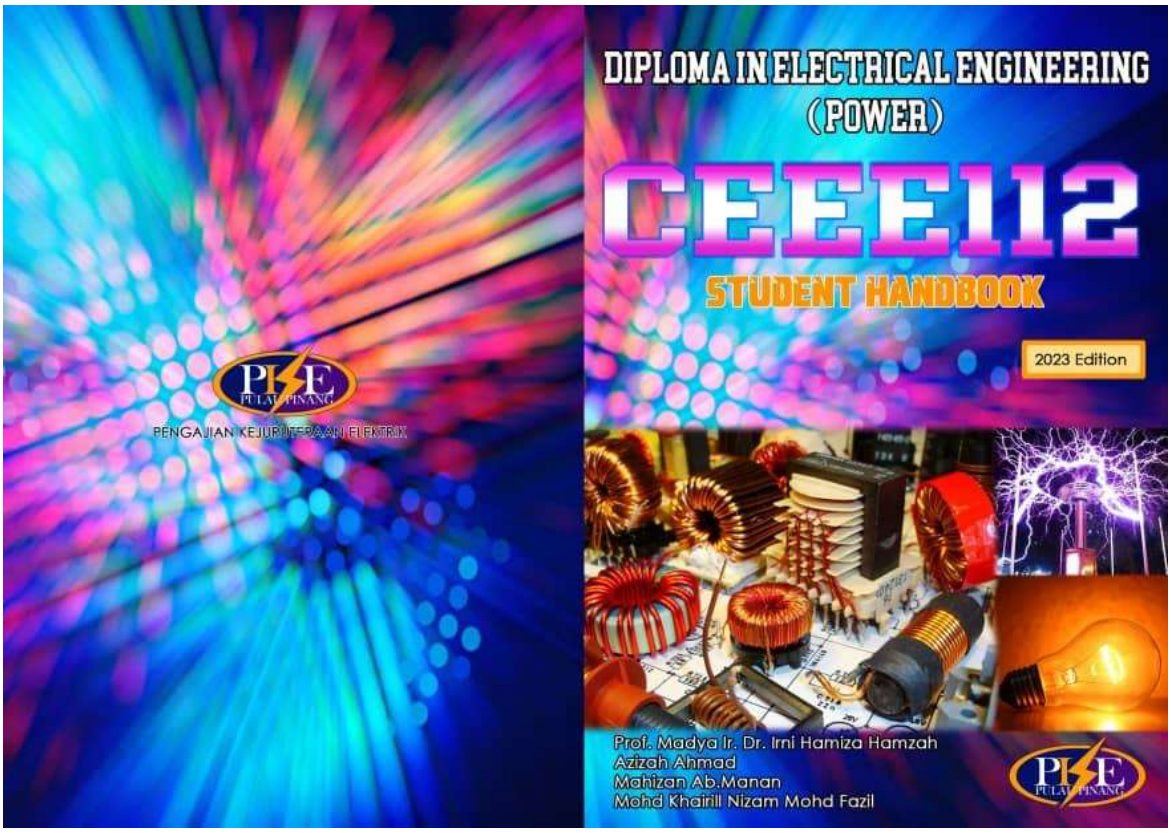
PENGAJIAN KEJURUTERAAN ELEKTRIK
DIPLOMA IN ELECTRICAL ENGINEERING
(POWER)
CEEE112
STUDENT HANDBOOK
2023 Edition
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Azizah Ahmad
Mahizan Ab.Manan
Mohd Khairil Nizam Mohd Fazil

STUDENT PROGRAMME HANDBOOK

BACKGROUND OF THE ELECTRICAL ENGINEERING STUDIES

Universiti Teknologi MARA (UiTM) is an institution of higher learning (IHL) in Malaysia that offers professional programmes which integrate science, industry and technology. During its early establishment in 1968, Faculty of Electrical Engineering was one of the departments in the School of Engineering. The department started off with offering an Advanced Diploma Programme and then followed by a Diploma Programme in Electrical Engineering in 1976.

In August 1996, the Department of Electrical Engineering was upgraded to the Faculty of Electrical Engineering (FKE) and the Advanced Diploma programme was renamed as the Bachelor of Engineering with Honours (Electrical). When the university obtained its university status in October 1996 (formerly known as Institut Teknologi MARA), the faculty started to offer the post graduate programmes namely Master of Science in Electrical Engineering and Doctor of Philosophy in Electrical Engineering.

VISION AND MISSION OF UiTM

Vision	:	To establish UiTM as a Globally Renowned University of Science, Technology, Humanities and Entrepreneurship.
Mission	:	To lead the development of agile, professional bumiputra's through state-of-the-art curricula and impactful research.

FUNCTIONS OF ELECTRICAL ENGINEERING STUDIES

The main functions of the faculty in upholding the government policy towards establishing Universiti Teknologi MARA as a premier university are as follows:

a) Teaching and Learning – to produce professional workforce in the area of electrical engineering.
b) Research and Consultancy – to foster a strong relationship with the industry in order to enhance the knowledge and expertise in the current technology through research and consultancy.
c) Publication – to transfer and contribute to the pool of knowledge through the publications.
d) Community Services – to serve the community, aligned with the social obligation of the university towards the nation.

DEPARTMENTS IN ELECTRICAL ENGINEERING STUDIES

There are five departments in the electrical engineering studies:

a) Electronics Engineering
b) Power Engineering
c) System Engineering
d) Communication Engineering
e) Computer Engineering

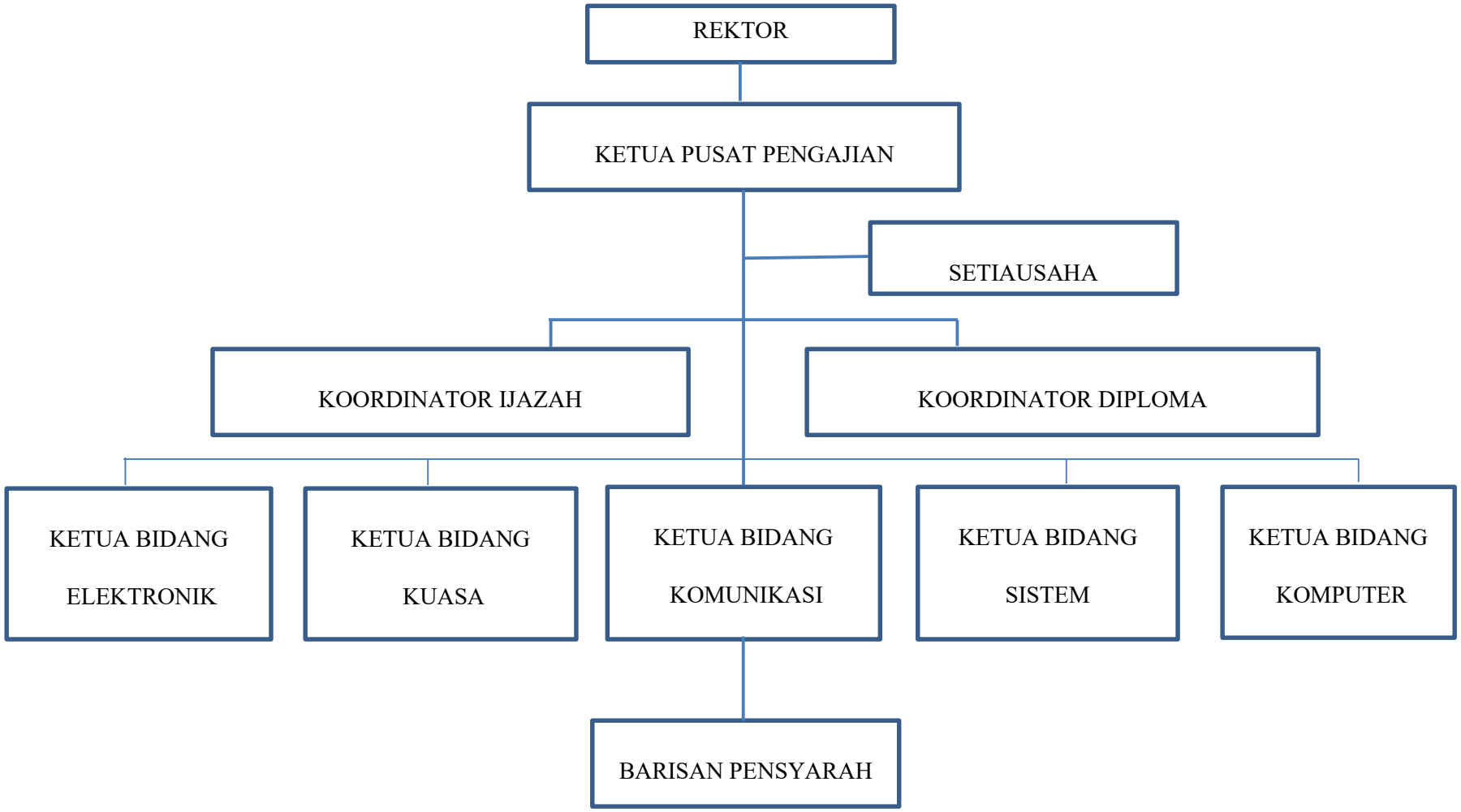
PROGRAMMES OFFERED

Currently the electrical engineering studies is offering the following programmes:

a) Doctor of Philosophy in Electrical Engineering (Phd) (Research) – CEEE950
b) Master of Electrical Engineering (Msc) (Research) – CEEE750
c) Master of Science in Electrical and Electronic Engineering with Management (Coursework) – CEEE770
d) Bachelor of Engineering (Hons.) Electrical and Electronic Engineering – CEEE200
e) Bachelor of Engineering (Hons.) Electronic (Electronic Industry) – CEEE211
f) Diploma in Electrical Engineering (Electronic) – CEEE111
g) Diploma in Electrical Engineering (Power) – CEEE112

ORGANIZATION STRUCTURE

ELECTRICAL ENGINEERING STUDIES OF ELECTRICAL ENGINEERING



ELECTRICAL ENGINEERING STUDIES

COLLEGE OF ENGINEERING

DIPLOMA IN ELECTRICAL ENGINEERING (POWER) – CEEE112

PROGRAM AIM
The Diploma in Electrical Engineering (Power) programme aims to nurture competitive, multi-skilled and dynamic Assistant Power Engineers who uphold UiTM vision by developing the potential of individuals from a holistic manner in electrical field to support National Policy on Science, Technology and Innovation.

PEO (3 to 5 years after graduation)	PO ETAC (upon graduation)
PEO1 Assistant Power Engineers who apply knowledge and display practical skills in Power Engineering sectors.	**PO1 Knowledge** Apply knowledge of applied mathematics, applied science, engineering fundamentals and an engineering specialization as specified in DK1 to DK4 respectively to wide practical procedures and practices.
	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 the limitations (DK6).
PEO2 Assistant Power Engineers who demonstrate values, attitudes, professionalism and apply scientific methodologies with solving skills in-line with industry requirement.	**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).
	PO8 Ethics Understand and commit to professional ethics and responsibilities and norms of technician practice (DK7).
PEO3 Assistant Power Engineers who demonstrate social skills, responsible, manage information and lifelong learning skills for successful career advancement.	**PO6 The Engineer and 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 and 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).
	PO12 Life Long Learning Recognize the need for and have the ability to engage in independent updating in the context of specialized technical knowledge.
PEO4 Assistant Power Engineers who adopt the roles as a leader and a team member, communicate effectively, management and entrepreneur skills in an organization.	**PO9 Individual and 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 and 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 environments.

Programme Learning Outcomes (PLO)	
PO1	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. *(Cognitive)*
PO2	Identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to their field of activity (DK1 to DK4). *(Cognitive)*
PO3	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). *(Cognitive)*
PO4	Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements. *(Psychomotor)*
PO5	Apply appropriate techniques, resources, and modern engineering and IT tools to well-defined engineering problems, with an awareness of the limitations (DK6). *(Psychomotor)*
PO6	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). *(Affective)*
PO7	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). *(Affective)*
PO8	Understand and commit to professional ethics and responsibilities and norms of technician practice (DK7). *(Affective)*
PO9	Function effectively as an individual, and as a member in diverse technical teams. *(Affective)*
PO10	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. *(Affective)*
PO11	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 environments. *(Affective)*
PO12	Recognise the need for and have the ability to engage in independent updating in the context of specialised technical knowledge. *(Affective)*

Diploma in Electrical Engineering (Power)

Programme Structure of CEEE112/EE112

SEM	NO	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 I	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	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 1	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	0	2	4
				TOTAL	**16**	**13**	**2**	**6**	**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	POWER ELECTRONICS	EPO359	EPO231	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	EEE351	NONE	8	0	0	0	0
				TOTAL	**8**	**0**	**0**	**0**	**0**
				GRAND TOTAL	***90***	***64***	***6***	***47***	***114***

List of Elective Courses Offered

		ELECTIVE	CODE	PRE/CO-REQUISITE	CREDIT UNIT	LEC	TUT	PRAC	CONTACT HOUR
SEM 5	5	MACHINES AND DRIVES	EPO366	EPO243	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

*** Embedded Lab (please refer SLT for the contact hours of practical)**

COURSE DESCRIPTION

SEMESTER 1

1. ECE128 Computer Programming

This course provides an introduction to C programming and its application in solving simple engineering problems.

2. EEE111 Electro-Technology

The course deals with basic understanding of instruments and measurements, electronic parts which include passive and active devices, generation of electricity and distribution system, consumer circuits, conductors and cables, wiring systems, wiring accessories, earthing and testing. The syllabus also includes the technique of making a Printed Circuit Board (PCB) which includes understanding of schematic diagram, component layout and PCB artwork, soldering, testing and troubleshooting a circuit.

SEMESTER 2

1. EEE121 Electric Circuit 1

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.

2. ESE122 Electrical Measurement

This subject covers standards and units, errors and accuracies in measurements. The principles of operation, calibration and application of DC and AC meters, and recording instrument are also covered. The types, operation and application of bridges, and classification and operations of transducers and sensors will also be discussed.

3. EEE150 Safety, Health and Ethics

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.

SEMESTER 3

1. EEE250 Electrical Engineering Laboratory

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.

2. EPO231 Analogue Electronics

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.

3. EEE231 Electric Circuit 2

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.

4. ECM241 Basic Communication Engineering

The course introduces the basic concept of communication systems. It describes the basic implementation of communication system.

SEMESTER 4

1. ESE241 Linear System

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.

2. EPO243 Electrical Machines

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.

3. ECE351 Digital Systems 1

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.

4. EEE358 Final Year Project 1

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.

5. EPO246 Power System

Introduction to power system components, per unit system, faults, transmission lines, protection system and basic distribution system.

SEMESTER 5

1. ESE359 Control System

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.

2. ECE354 Microprocessor Systems

The course covers the topics on general purpose microprocessor, its architecture and system organization. Then single chip microcomputer is taught and all aspects of the chip will be covered, from internal architecture, programming up to interfacing.

3. EEE368 Final Year Project 2

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.

4. EPO359 Power Electronics

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.

5. ELECTIVE *(CHOOSE 1)*

A. EPO366 Machine and Drives

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.

B. EPO364 Electrical Power Circuit Simulation

This course covers familiarization with simulation tools, design entry, simulation, evaluation and analysis of electrical power circuits.

C. EPO358 Energy Efficiency and Renewable Energy

This course covers introduction of energy efficiency and renewable energy, energy audit, energy efficient equipment and alternative sources of energy/renewable energy.

SEMESTER 6

1. EEE351 Industrial Training

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 16 weeks working environment in industries. Student will submit a formal report and logbook that will be based on work done during the practical training.

ACADEMIC REGULATION

Please refer to the booklet of *Peraturan Akademik Diploma dan Sarjana Muda UiTM: Pindaan 2015 (Bilangan 1*) published by Bahagian Hal Ehwal Akademik UiTM

1) Course registration
   I. Registration must be done online through Student Information Gateway (*i-Student Portal*) by following the procedures prescribed by the University.
   II. Total credit hours for student of Diploma and Degree must be **between 17-23 credit units** except for the semester of industrial training / final year students who will be graduating.
   III. Undergraduate students in their final semester with status of Pass are allowed to take maximum of 25 credit units with the approval of Faculty Dean/Campus Rector for graduation.
   IV. Diploma student with 'P' status is not allowed to register for more than twelve (12) credit units in specific semester
   V. Undergraduate student with 'P' status is not allowed to register for more than fifth teen (15) credit units in specific semester.

a. Add/Drop Course
   i. Add Course
      Students who have already registered for a course can apply to add course through online by following the procedures prescribed by the University.

   ii. Drop Course
      Student who has already registered for a course can apply to drop the respective course through online by following the procedures prescribed by the University.

b. Course Validation
   i. Students are required to validate the registered courses through online and print a copy of the registration within fourteen (14) days after the deadline of add/drop course. If students do not make the validation, the registration is automatically considered as valid and final.

c. Attendance
   i. Students are required to attend lectures and other learning activities such as workshops/tutorials/laboratories/studios/fields/practical training/practicum and clinics as stated in curriculum.
   ii. Students who do not achieve 80% attendances of total contact hours for each course without any written permission from faculty/academic centre/ state UiTM /branch UiTM are not allowed to sit for the final examination of the course.
   iii. For the course with no final examination, the course works will not be assessed.
   iv. The students in (ii) and (iii) will be given Grade F or Fail with ZZ status and **must pay the process fee of RM100.00.**

d. Examination

i. Students have to check *Penyata Kelayakan Menduduki Peperiksaan (Temporary)* displayed in the UiTM web site (*i-Student Portal*). Any amendments must have the consent from the Program Head/Academic Advisor within fourteen (14) days after the deadline of add/drop course.

ii. Students must validate *Penyata Kelayakan Menduduki Peperiksaan (Temporary)* through i-Student Portal. If students do not make the validation, the script is automatically considered as valid and final.

iii. The official print of *Penyata Kelayakan Menduduki Peperiksaan* must be printed by the students through UiTM Website (i-Student Portal) after the process of registration and validation the *Penyata Kelayakan Menduduki Peperiksaan (Temporary)* are done. Any amendments are NOT allowed.

iv. Student who fails to bring the *Penyata Kelayakan Menduduki Peperiksaan* for the courses which have final examination assessment will not be allowed to sit for the respective examination.

v. Application for exemption from sitting the final exam for certain course should be addressed to the Dean/Rector with the related documents before the date of final examination of the respective course.

vi. Application for exemption from sitting the ongoing examination should be addressed to the Dean/Rector within twenty four (24) hours after the respective examination ends, accompanied with Medical certificate from *Pusat Kesihatan UiTM/ Klinik Kerajaan/ Pusat Kesihatan Kerajaan/ Hospital Kerajaan/ Pegawai Perubatan dari panel perubatan majikan.*

vii. Application can be made in written or using formof *HEA/RP/TMP-01 [Kebenaran Tidak Menduduki Peperiksaan Akhir]*.

viii. If the application is approved, student will be given **XX** status for the respective course

v. If the application is disapproved, the student will be given **YY** status in which the course work marks of the respective course will not be considered. **Students must pay the process fee of RM100.00.**

GRADING/ASSESSMENT POLICY

Please refer to the booklet of *Peraturan Akademik Diploma dan Sarjana Muda UiTM: Pindaan 2015 (Bilangan 1*) published by Bahagian Hal Ehwal Akademik UiTM

1) Examination Results and course evaluation is given in term of grade and grade value Please refer to Table 1.

Table 5.1: UiTM Grading System.

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

2) The status for each course is given as follows:

LU : Pass
F1 : Fail a course on first attempt
F2 : Fail a course on second attempt
F3 : Fail a course on third attempt
PD : Credit Transfer
PC : Credit Exemption
TL : Incomplete
UD: Audit
FD : Disciplinary Action
XX: Absent from final examination with permission
YY: Absent from final examination without permission
ZZ : Barred from taking final examination for courses with final examination; or not given the assessment marks for courses without the final examination

Note: The grade value for YY and ZZ is 0.00 and process fees of RM100.00 will be given

3) Incomplete Status (TL)
   a) A TL status is for courses such as project exercise/practical training which is not completed within a specific term.
   b) A TL status cannot be more than one (1) consecutive semester. If the student does not complete the assigned exercise/practical training within the specific time frame given, he/she is entitled to an F Grade or Fail.
   c) Any student with a TL status is required to register as student by paying study fees and registering for the course.

4) Examination Results Status
   a) Based on the CGPA achievement, students will be given the examination results status as follows:

ANC	: Completed with Vice Chancellor's Award
TS	: Completed with Dean'sList Award
TM	: Completed
LNT	: Pass Upgrade
AD	: Dean's List Award
LU	: Pass
P	: Probation (Unsatisfactory)
D	: Fail and Terminated

   b) Status of Completed with Vice Chancellor's Award (ANC) , Completed with Dean's List Award (TS) and Dean's List Award (AD) are awarded to excellent students

   c) Status of passed (LU) and Completed (TM) are awarded to students with satisfactory performance.

   d) Status of probation (P) is awarded to students with unsatisfactory performance and it is divided into two categories:

      i. P1: First Probation – acquired CGPA of 1.80 to 1.99 in a semester.
      ii. P2: Second Probation – acquired CGPA of less than 2.00 after obtaining a P1 probation in the previous final semester.

e) Unsatisfactory performance for the Fail and Termination status (D):

D1:	CGPA less than 1.80
D2:	CGPA less than 1.80 after the P1 status
D3:	CGPA less than 2.00 after the P2 status
D4:	Fail in a certain course for the third time
D5:	CGPA of less than 2.00 at the end of maximum period of study period and have courses which are still not completed.
D6:	Passed the entire courses required by the programme and fulfilled all of the programme's requirements but acquired CGPA of less than 2.00.
D7:	Did not sit for the examination of all registered courses without approval of the University.

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5) Examination Result Slip
   i. The examination slip that has been endorsed by the Senate will be released through online student information portal (*i-Student Portal*) and printed by student for own record. The self-printed Examination Result Slip is certified as official print where no signature required.
   ii. The University reserves the right to retain the Examination Result Slip if students fail to observe the rules and regulations of the University.

6) Breach of conduct regarding Examination and Evaluation
   i. Students who are found guilty under Article 3 (j), 3 (k) and Article 5, Academic Institution Articles (Student Conduct) 1976, will be penalised based on decision of the University Disciplinary Board.
   ii. Students who are found guilty of an offence by the University Disciplinary Board will be given an F Grade or fail, or an FD status by the Senate.
   iii. Students who have been proven to commit plagiarism in their academic project/assignment will be given an F Grade or fail with an FD status by the Senate.

7) Re-administration of Examination

The University reserves the right to re-administer an examination as it deems fit the following situations:

   i. A leak in the final examination question.
   ii. A candidate is not able to sit for the final examination because of natural disaster.
   iii. The Vice Chancellor's direction.

INDUSTRIAL TRAINING

(Should refer to Industrial Training Handbook for more complete information)

As part of the Diploma in Electrical Engineering course requirement, all sixth semester students have to complete four months of compulsory practical attachment in either government or private sector organizations. The Engineering Technology Accreditation Council (ETAC) has stated that diploma students have to undergo at least sixteen weeks of industrial training as part of their course.

It provides an opportunity for the students to experience real working environment first hand whilst at the same time benefits them in terms of their personal and professional development. Furthermore feedbacks gathered from the participating organizations help the students as well as the faculty in improving the character and professional skills of the graduate.

The training will start immediately upon completion of the final examination in semester 5. In semester 5 the students should have passed their compulsory elective modules so that they are more prepared and have acquired necessary information/knowledge to do the training.

1) Objectives
   a) Acquaint with the structure of an organization and its management system.
   b) Acquaint with the various equipment used in working environment.
   c) Understanding of the organization work ethical in terms of interpersonal interaction, discipline, rules/regulations and methods of performing assigned tasks.
   d) Promote symbiotic environment that will encourage interaction.
   e) Improve self-confidence through acquired hard skill and soft skill.

2) Student Role
   a) Learn from the observation, experience gained and supervision.
   b) Corporate with the organization and work colleagues.
   c) Form good interaction between all parties including work colleagues, management and visiting lecturers involved.
   d) Be prepared to contribute in any way deemed necessary.
   e) Abide by and adhered to any terms and regulations set upon by the organization.

3) Contribution by the Participating Organization
   a) Prepare a suitable training programme for the students in accordance with the objectives outlined above.
   b) Provide a suitable training staff to supervise and assist in giving a proper guidance as well as assessing the progress of the trainees.
   c) Encourage the trainees to be involved in tasks that require responsibility.
   d) Guide the trainees as to the health and safety issues.

4) Placement Duration
   a) Minimum requirement set forth by the Engineering Technology Accreditation Council
      (ETAC) is sixteen (16) weeks.
   b) Once within the duration of the study preferably during the sixth semester.

FINAL YEAR PROJECT

The Final Year Project is a major component of the diploma course in Electrical Engineering. The main objective is to develop problem solving, analysis, synthesis and evaluation skills in the field of Electrical Engineering. While working on the project, the students would also be able to develop personal and social skills such as time management, self-confidence and interaction. The evaluation of the Final Year Project indirectly provides the students with training in technical and communication skills.

The Final Year Diploma Project is implemented in two semesters, that is, semester 4 (1 credit hour) and semester 5 (3 credit hour) of the study period. Students should prepare their work schedule and adhere to it so that the project would be completed within the two semesters.

FACILITIES

The faculty is equipped with sufficient resources, facilities with experienced laboratory assistances catering for the current needs in the curriculum of Electrical Engineering.

No	Lab No	Electronics Laboratories	Assistant Engineer
1	0.51	Printed Circuit Board (PCB) Workshop	En. Nadhar Omar
2	1.28	Surface Mount Technology (SMT) Workshop	En. Muhammad Zakwan Sa'ad
3	1.44	Soldering, Drilling and Testing (SDT) Workshop	En. Nor Nasir Md Amin
4	1.47	Basic Electronics Laboratory	En. Mohd Hafidz Mohd Noor
5	1.49	Intermediate Electronics Laboratory	En.Mohd Nadzir Mamat
6	1.50	Advanced Electronics Laboratory	En. Mohd Nadzir Mamat
7	1.56	Digital Electronics Laboratory	En. Mohd Hafidz Mohd Noor
8	2.12	Applied Electronics Laboratory	En. Syarafi Abdul Rajab
9	2.13	Electronics System Design Laboratory	En. Syarafi Abdul Rajab
10	2.10	IC Design Laboratory	En. Muhammad Zakwan Sa'ad
No	**Lab No**	**Power Laboratories**	**Assistant Engineer**
11	0.41	Electrical Machines Laboratory 1	En. Mohd Razman Desa
12	0.44	Electrical Machines Laboratory 2	En. Mohd Razman Desa
13	0.45	Power Electronics Laboratory	En. Mohd Hafeez Abu Hassan
14	0.46	Electrical Energy Utilization Laboratory	Pn. Zaliza Karia
15	0.47	Power System Laboratory	Pn. Zaliza Karia
16	0.48	High Voltage Engineering Laboratory	En. Mohamad Sarih Daud
17	0.52	Power Quality Analysis Laboratory	En. Mohamad Sarih Daud
18	0.53	Electrical Installation Laboratory	En. Mohamad Sarih Daud
No	**Lab No**	**System Laboratories**	**Assistant Engineer**
19	0.40	Pneumatic and Hydraulic Laboratory	En. Mohamad Shamsurinaim Ahmad
20	0.43	Robotics Workshop	En. Mohamad Shamsurinaim Ahmad
21	1.41	Microcontroller Laboratory	En. Mohammad Taufiq Marzukhi
22	1.46	Industrial Automation Laboratory	En. Mohammad Taufiq Marzukhi
23	2.49	Automatic Controls Laboratory	En. Mohammad Taufiq Marzukhi
24	2.59	Instrumentation and Measurement Laboratory	En. Mohd Adnan Omar
25	3.43	Robotics and Automation Laboratory	En. Mohd Adnan Omar
26	3.44	Biomedical Laboratory	En. Mohd Adnan Omar
No	**Lab No**	**Communication Laboratories**	**Assistant Engineer**
27	2.05	Microwave Laboratory	En. Mohamad Soufee Ismail
28	2.06	Mobile Radio Laboratory	En. Mohd Sobri Said
29	2.09	Optical Fiber Laboratory	En. Mohd Sobri Said
30	2.60	Digital Communication Laboratory	En. Mohamad Soufee Ismail
31	2.62	Telecommunication Laboratory	Pn Nursyazwani Mohamad Affandi
32	9.23	RF Shield Laboratory	Pn Nursyazwani Mohamad Affandi
No	**Lab No**	**Computer Laboratories**	**Assistant Engineer**
33	1.45	Embedded System Design Laboratory	En. Nor Hazllim Hussin

34	1.55	Microprocessor Laboratory	En. Nor Hazllim Hussin
35	2.14	Software Engineering Laboratory	Pn. Marieah Omar
36	2.15	Computing and Simulation Laboratory	En. Nor Hazllim Hussin
37	3. 40	CISCO Academy	Pn. Marieah Omar
No	**Lab No**	**Research Laboratories**	**Assistant Engineer**
38	3.42a	Electrical Engineering Postgraduate Research Laboratory	NIL
39	3.42b	Advance Control System and Computing Research Group	NIL
40	FKE Bertam	Advance Rehabilitation Engineering and Medical Imaging Research Group	NIL
41	FKE Bertam	Rehabilitation Engineering Clinic	NIL
42	FKE Bertam	Biomedical and Medical Imaging Laboratory	NIL

APPENDIX A: LIST OF LECTURERS

Department of Electronics Engineering

NO.	LECTURER NAME	POSITION	EXT.	ROOM NO.
1	PN. NAZIRAH MOHAMAT KASIM	SENIOR LECTURER DM52	2627	2.23 (BA)
2	PROF. MADYA IR. DR. IRNI HAMIZA HAMZAH	ASSOCIATE PROFESSOR DM54	2564	3.20 (BA)
3	PROF. MADYA IR. DR. ALHAN FARHANAH ABD RAHIM	ASSOCIATE PROFESSOR DM54	2565	3.2 (BA)
4	IR. DR. -ING EMILIA NOORSAL	SENIOR LECTURER DM52	2549	4.49(BA)
5	IR. TS. DR. HJ. MUSA MOHAMED ZAHIDI	SENIOR LECTURER DM52	3419	4.74
6	DR. HJH. ROSFARIZA RADZALI	SENIOR LECTURER DM52	2787	2.17 (BA)
7	DR. MOHAMMAD NIZAM IBRAHIM	SENIOR LECTURER DM52	2534	4.34(BA)
8	IR. DR. MOHD HANAPIAH ABDULLAH	SENIOR LECTURER DM52	2634	3.24 (BA)
9	DR. YUSNITA MOHD ALI	SENIOR LECTURER DM52	2631	2.16 (BA)
10	DR. NOR SHAHANIM MOHAMAD HADIS	SENIOR LECTURER DM52	2788	7.30
11	IR. TS. DR. SAMSUL BIN SETUMIN	SENIOR LECTURER DM52	2569	3.1(BA)
12	PN. LINDA MOHD KASIM	SENIOR LECTURER DM52	3364	4.38
13	PN. ASMALIA ZANAL	SENIOR LECTURER DM52	3356	4.28
14	TS. MOHD HUSSAINI ABBAS	SENIOR LECTURER DM52	CUTI BELAJAR	
15	PN. NORSABRINA SIHAB	SENIOR LECTURER DM52	3355	4.27
16	PN. AIDA ZULIA ZULHANIP	SENIOR LECTURER DM52	3358	4.30
17	PN. NOR FADZILAH MOKHTAR	SENIOR LECTURER DM52	3363	4.37
18	EN. MOHAIYEDIN IDRIS	SENIOR LECTURER DM52	3427	5.14
19	PN. HJH. SHAHILAH NORDIN	SENIOR LECTURER DM52	3384	4.67
20	TS. ANITH NURAINI ABD RASHID	SENIOR LECTURER DM52	CUTI BELAJAR	
21	PN. NUR SA'ADAH MUHAMAD SAUKI	SENIOR LECTURER DM52	CUTI BELAJAR	
22	PN. SITI ZUBAIDAH MD SAAD	LECTURER DM 45	CUTI BELAJAR	

Department of Power Engineering

NO.	LECTURER NAME	POSITION	EXT.	ROOM NO.
1	TS. DR. KAMARULAZHAR DAUD	SENIOR LECTURER DM52	2640	2.11 (BA)
2	PROF. MADYA IR. TS. DR. MOHD NAJIB MOHD HUSSAIN	ASSOCIATE PROFESSOR DM54	2576	3.9 (BA)
3	IR. TS. ABDUL MALEK SAIDINA OMAR	SENIOR LECTURER DM52	3411	4.104
4	DR. ANUAR MOHAMAD @ AHMAD	SENIOR LECTURER DM52	2831	7.28
5	DR. ROSHEILA DARUS	SENIOR LECTURER DM52	3369	4.43
6	DR. SAODAH OMAR	SENIOR LECTURER DM52	2823	7.13
7	DR. FARANADIA ABDUL HARIS	SENIOR LECTURER DM52		7.07
8	DR. AHMAD ASRI ABD SAMAT	SENIOR LECTURER DM52	3309/2824	0.44 (MAKMAL)/7.14
9	IR. AIMI IDZWAN TAJUDIN	SENIOR LECTURER DM52	3427/3309	5.14/0.44
10	TS. MOHD AFFANDI SHAFIE	SENIOR LECTURER DM52		
11	TS. MOHAMAD ADHA MOHAMAD IDIN	SENIOR LECTURER DM52	3401	4.92
12	PN. NURUL HUDA ISHAK	SENIOR LECTURER DM52	STUDY LEAVE	
13	PN. NOR ADNI MAT LEH	SENIOR LECTURER DM52	2632	2.9(BA)
14	CIK NOOR AZILA ISMAIL	SENIOR LECTURER DM52	3365	4.39
15	CIK NURLIDA ISMAIL	SENIOR LECTURER DM52	3359	4.83
16	PN. NUR ATHARAH KAMARZAMAN	SENIOR LECTURER DM52	2827	7.
17	PN. SITI SOLEHAH MD RAMLI	SENIOR LECTURER DM52	3368	4.42
18	EN. SAIFUL FIRDAUS ABD SHUKOR	LECTURER DM 46	2512	4.12 (BA)
19	PN. NUR FADHILAH JAMALUDIN	LECTURER DM45	STUDY LEAVE	
20	PN. SITI SALWA MAT ISA	LECTURER DM 45	STUDY LEAVE	
21	PN. SITI SARAH MAT ISA	LECTURER DM 45	3339	4.11
22	TS. SHAMSUL MUNIR MUHAMAD	LECTURER DM 45		7.1
23	PN. NUR DARINA AHMAD	LECTURER DM45	STUDY LEAVE	
24	PN. WAN SALHA SAIDON	LECTURER DM41	3358	4.30

Department of System Engineering

NO.	LECTURER NAME	POSITION	EXT.	ROOM NO.
1	DR. MOHAMAD FAIZAL ABD RAHMAN	SENIOR LECTURER DM52	3335	4.07
2	IR. TS. DR. KHAIRUL AZMAN AHMAD	SENIOR LECTURER DM52	3338	4.1
3	PROF. MADYA IR. DR. ZAKARIA HUSSAIN	ASSOCIATE PROFESSOR DM54	3336	4.08
4	PROF. MADYA IR.TS. DR. SITI NORAINI SULAIMAN	ASSOCIATE PROFESSOR DM54	2628	2.24 (BA)
5	PROF. MADYA IR. DR. NOR SALWA DAMANHURI	SENIOR LECTURER DM52	2551	4.51 (BA)
6	IR. DR. IZA SAZANITA ISA	SENIOR LECTURER DM52	POST DOCTORAL	
7	TS. DR. MOHD SUHAIMI SULAIMAN	SENIOR LECTURER DM52	3391	4.75
8	PROF. MADYA IR. DR. NOR AZLAN OTHMAN	ASSOCIATE PROFESSOR DM54	2830	7.27
9	DR. ROZAN BOUDVILLE	SENIOR LECTURER DM52	3352	4.05
10	DR. MUHAMMAD KHUSAIRI OSMAN	SENIOR LECTURER DM52	3337	4.09
11	DR. MOHAMAD FAIZAL ABD RAHMAN	SENIOR LECTURER DM52	3335	4.07
12	DR. BELINDA CHONG CHIEW MENG	SENIOR LECTURER DM52	2542	4.42 (BA)
13	DR. ZURAIDA MUHAMMAD	SENIOR LECTURER DM52	2487	2.14(BA)
14	DR. AFAF ROZAN MOHD RADZOL	SENIOR LECTURER DM52	POST DOCTORAL	
15	TS. DR. SAIFUL ZAIMY YAHAYA	SENIOR LECTURER DM52	2537	4.37 (BA)
16	TS. DR. ADI IZHAR CHE ANI	SENIOR LECTURER DM52	3342	4.87
17	PN. ROHAIZA BAHARUDIN	SENIOR LECTURER DM52	3348	4.88
18	EN. ZURAIDI SAAD	SENIOR LECTURER DM52	2531	4.31 (BA)
19	EN. RIZAL MAT JUSOH	SENIOR LECTURER DM52	3391	4.75
20	IR. MOHD FIRDAUS ABDULLAH	SENIOR LECTURER DM52	STUDY LEAVE	
21	CIK ANIS DIYANA ROSLI	SENIOR LECTURER DM52	3363	4.37
22	PN. SARAH ADDYANI SHAMSUDDIN	LECTURER DM 45	3360	4.34
23	CIK NOOR FADZILAH RAZALI	LECTURER DM 45	STUDY LEAVE	
24	PN.SITI SAFFURA SHARIPUDIN	ASISTANT LECTURER DM 32	3409/2921	4.102/1.53

Department of Communication Engineering

NO.	LECTURER NAME	POSITION	EXT.	ROOM NO.
1	DR. SAMIHAH ABDULLAH	SENIOR LECTURER DM52	2542	7.29
2	PROF. MADYA IR. DR. HJ. AHMAD RASHIDY RAZALI	ASSOCIATE PROFESSOR DM54	2777	BILIK REKTOR
3	IR. DR. HJH. ASLINA ABU BAKAR	SENIOR LECTURER DM52	2568	3.3 (BA)
4	DR. HJ. ALI OTHMAN	SENIOR LECTURER DM52	2579	3.22 (BA)
5	TS. DR. HJ. HASNAIN ABDULLAH @ IDRIS	SENIOR LECTURER DM52	3422	5.09
6	PN. HJH. NORHAYATI MOHAMAD NOOR	SENIOR LECTURER DM52	3374	4.51
7	PN. IDA RAHAYU MOHAMED NOORDIN	SENIOR LECTURER DM52	3348	4.88
8	PN. JULIANA MD.SHARIF	SENIOR LECTURER DM52	3356	4.28
9	PN. DAYANG SUHAIDA AWANG DAMIT	SENIOR LECTURER DM52	STUDY LEAVE	
10	PN. NORMASNI AD FAUZI	SENIOR LECTURER DM52	3369	4.43
11	PN. AIZA MAHYUNI MOZI	SENIOR LECTURER DM52	STUDY LEAVE	
12	PN. AZWATI AZMIN	SENIOR LECTURER DM52	2705	5.33
13	PN. ZAFIRAH FAIZA	SENIOR LECTURER DM52	2708	5.31
14	EN. ROSLAN SEMAN	LECTURER DM45	2533	4.33(BA)
15	EN. AMIRUDIN IBRAHIM	LECTURER DM45	STUDY LEAVE	
16	PN. NAJWA MOHD FAUDZI	LECTURER DM45	STUDY LEAVE	
17	EN.MOHD KHAIRILL NIZAM MOHD FAZIL	ASSISTANT LECTURER DM29	2921	1.53

Department of Computer Engineering

NO.	LECTURER NAME	POSITION	EXT.	ROOM NO.
1	DR. SHABINAR ABD HAMID	SENIOR LECTURER DM52	2487	2.14(BA)
2	PROF. MADYA IR.TS. DR. ZAINAL HISHAM CHE SOH	ASSOCIATE PROFESSOR DM54	2619/2532	1.19/4.32 (BA)
3	DR HJ FADZIL DATO' SHEIKH AHMAD	SENIOR LECTURER DM52	2567	3.4 (BA)
4	DR. AHMAD PUAD ISMAIL	SENIOR LECTURER DM52	2636	2.7 (BA)
5	TS. SITI AZURA RAMLAN	SENIOR LECTURER DM52	STUDY LEAVE	
6	TN. HJ. MOHD DAUD ALANG HASSAN	SENIOR LECTURER DM52	2654	3.10(BA)
7	PN. NUR ATHIQAH HARON	SENIOR LECTURER DM52	STUDY LEAVE	
8	DR. SITI JULIANA ABU BAKAR	SENIOR LECTURER DM52	2793	3.06(BA)
9	DR. INTAN RAHAYU IBRAHIM	SENIOR LECTURER DM52	2509	4.9 (BA)
10	PN. AINI HAFIZAH MOHD SAOD	SENIOR LECTURER DM52	STUDY LEAVE	
11	PN. AZIZAH AHMAD	SENIOR LECTURER DM52	2817	1.17(BA)
12	PN. FARIDAH ABDUL RAZAK	SENIOR LECTURER DM52	3340	4.12
13	IR. MUHAMMAD FARRIS KHYASUDEEN	SENIOR LECTURER DM52		
14	EN. MOHD IKMAL FITRI MARZUKI	LECTURER DM 45	2787	2.17 (BA)
15	EN. SAIFUL FADZLI SALIAN	LECTURER DM 45	2828	7.18
16	TN. HJ. ABDUL RAHIM AHMAD	LECTURER DM 41	3411	4.104
17	PN. MAHIZAN AB.MANAN	ASISTANT LECTURER DM 32	3409/2921	4.102