# POSTGRADUATE PROGRAM

- Artificial Intelligence
- Data Science
- Internet of Things

## INTRODUCTION

- The research scope for Postgraduate programme is tailored to solve the real world industry problems. Multiple industrial collaboration research projects are aimed to build the academia-industry ecosystem.
- The programs offered are able to meet the current demand for employment needs in the public and private sectors over the next few years.
- Students are required to take few advanced fundamental courses that designed to enhance their fundamental and improving technical writing skills.
- Throughout the study, students may choose their target specializations such as Artificial Intelligence (AI), Data Science (DS) and Internet of Things (IoT).
- However, the research is not limited to respective specialization, in fact it may evolve to other fields in preparing for IR5.0.

## **STUDENT INTAKE**

Mode of Study - Full-time and Part-time

	Mode of Study	Minim	um Duration	Мах	imum Duration			
	Full-time		3 years emesters)	(1	5 years 2 semesters)			
Part-time		(8	4 years (8 semesters)		8 years (16 semesters)		ASTER	
		Mode of Study		Minimum Duratio		Maximum Duration		
PHD			Full-time		2 years (4 semester)		4 years (8 semesters)	
		Part-time		4 years (8 semesters)		8 years (16 semesters)		

## **EXPERTISE AND FOCUS**

We are committed to quality and excellence in research, engaging in both fundamental and applied research that focus on real world problems or issues.

We emphasize on creating new knowledge and innovative products that make impact to the society, academia, government, industry and environment. Other relevant high demands of research focus also may be not limited to:

- Artificial Intelligence
- Big Data Analytics
- Computer Vision
- Neuroinformatics
- Data Science
- Internet of Things (IoT)
- Automation
- Advanced Communications



#### FEW COURSES OFFERED TO SUPPORT RESEARCH ACTIVITY:

\*Specialization elective course

MASTER	PHD
<ul> <li>Techniques in Artificial Intelligence</li> <li>Advanced Machine Learning</li> <li>Deep Learning</li> <li>Data Visualization</li> <li>Programming for Data Science</li> <li>Advanced Data Science</li> <li>Big Data Analytics</li> <li>Smart System</li> </ul>	<ul> <li>Techniques in Artificial Intelligence</li> <li>Advanced Machine Learning</li> <li>Deep Learning</li> <li>Data Visualization</li> <li>Programming for Data Science</li> <li>Advanced Data Science</li> <li>Big Data Analytics</li> <li>Smart Cities</li> <li>Parallel and Distributed Computing for Big Data</li> </ul>

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# CURRICULUM STRUCTURE:

	MASTER	PHD			
Course subject	<ul> <li>Course information that will be offered is as follows:</li> <li><b>RESEARCH METHODOLOGY IN COMPUTING</b> <ul> <li>The course aims to train students with the knowledge and skills necessary to develop and conduct research.</li> <li>Covers key research philosophies and paradigms, design principles, ethics, research methods and data collection and analysis techniques appropriate to Computer research and related sub-disciplines.</li> </ul> </li> <li>ADVANCED ALGORITHMS Students are required to take this course to strengthen their knowledge, skills and expertise in areas related to the three specializations in the Postgraduate Program. SPECIALIZATION ELECTIVE COURSES: Students must choose ONE (1) specialization elective courses offered under their respective specializations. Course selection is based on the recommendation of the Supervisory Committee.</li></ul>				
Research activity	<ul> <li>Master Research Course: This course facilitates the course of study by monitoring student's performance on: <ol> <li>Research progress on a regular basis</li> <li>Proposal defense in semester 2 or 3</li> <li>Presentation of seminars/ conferences/ colloquiums/ talks/ workshops</li> <li>Publication</li> <li>Thesis / Oral Examination</li> </ol></li></ul>	<ul> <li>Doctoral Research Course: This course facilitates the course of study by monitoring student's performance on: 1. Research progress on a regular basis</li> <li>2. Proposal defense in semester 2 or 3</li> <li>3. Presentation of seminars/ conferences/ colloquiums/ talks/ workshops</li> <li>4. Publication</li> <li>5. Thesis / Oral Examination</li> <li>Research Seminar in Computing</li> <li>Students will provide research review articles, forums, sharing sessions by guest speakers and faculty members. seminar sessions will be held to hone the skills of presentation, writing and commenting on research in the field of specialization</li> <li>Entrepreneurial Leadership Course</li> <li>To develop students 'skills to understand and be confident in applying the latest and advanced theories, processes and methodologies in business operations as well as develop students' skills to become leaders in organization</li> </ul>			

## **MASTER OF COMPUTING (RESEARCH MODE)**

### **ELIGIBILITY REQUIREMENT**

- a) A Bachelor's degree (Level 6, MQF) in Computing or related fields with a minimum CGPA of 3.00 or equivalent, as accepted by the HEP Senate **OR**
- b) A Bachelor's degree (Level 6, MQF) in Computing or related fields or equivalent with a minimum CGPA of 2.75 can be accepted subject to rigorous internal assessment OR
- C) A Bachelor's degree (Level 6, MQF) in Computing or related fields or equivalent with a minimum CGPA of 2.50 can be accepted subject to a minimum of FIVE (5) years of working experience in the related fields and rigorous internal assessment; OR
- d) Other qualifications equivalent to a Bachelor's degree (Level 6, MQF) in the field of Computing or related fields recognised by the Government of Malaysia must undergo appropriate prerequisite courses as determined by the HEP; **OR**

\*\*Candidates without a qualification in the related fields or relevant working experience must undergo appropriate prerequisite courses as determined by the HEP and meet a minimum CGPA of 2.50 with a minimum of FIVE (5) years of working experience in the related fields and rigorous internal assessment.

\*Applicable to all doctoral programmes, including doctoral degrees by retrospective or prior publication and TVET.

#### ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENT)

- Achieve a minimum score of 6.0 in the IELTS or equivalent.
- If a student does not meet this requirement, the HEP must offer English proficiency courses to ensure that the student's proficiency is sufficient to meet the needs of the programme.

**TUITION FEES** 

		Master of	comput	ing		
	Full time (RM) Part time (RM)					
	Option 1	Option 2	Option 3	Option 1	Option 2	Option 3
Semester 1	3,470.00	1,970.00	1,470.00	3,070.00	1,570.00	1,070.00
Semester 2	2,200.00	2,700.00	2,200.00	1,800.00	2,300.00	1,800.00
Semester 3	2,200.00	2,700.00	3,200.00	1,800.00	2,300.00	2,800.00
Semester 4	2,200.00	2,700.00	3,200.00	1,800.00	2,300.00	2,800.00
Semester 5 and	1,300.00	1,300.00	1,300.00	900	900	900
Subsequent						
Thesis examination	750	750	750	750	750	750

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\*Students may choose any option for tuition fees payment.

## **DOCTOR OF PHILOSOPHY** (RESEARCH MODE)

## ELIGIBILITY REQUIREMENTS

a) A Master's degree (Level 7, MQF) in the field of Computing or related fields as accepted by the HEP Senate; OR

A Master's degree (Level 7, MQF) in non-Computing fields with a minimum of FIVE (5) years of working experience in b) the field of computing or related fields must undergo appropriate prerequisite courses as determined by the HEP; **OR** 

c) Other qualifications equivalent to a Master's degree in the field of Computing or related fields recognised by the Government of Malaysia must undergo appropriate prerequisite courses as determined by the HEP; **OR** 

d) \*A Master's degree (Level 7, MQF) in non-Computing fields with less than FIVE (5) years of working experience in the field of computing or related fields must undergo appropriate prerequisite courses as determined by the HEP and subject to rigorous internal assessment.

\*Applicable to all doctoral programmes, including doctoral degrees by retrospective or prior publication and TVET.

#### ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENT)

- Achieve a minimum score of 6.0 in the IELTS or equivalent.
- If a student does not meet this requirement, the HEP must offer English proficiency courses to ensure that the student's proficiency is sufficient to meet the needs of the programme.

## **TUITION FEES**

Doctor of Philosophy								
	Full time (RM)			Part time (RM)				
	Option 1	Option 2	Option 3	Option 1	Option 2	Option 3		
Semester 1	3670.00	2,170.00	1,670.00	3,170.00	1,670.00	1,170.00		
Semester 2	2,400.00	2,900.00	2,400.00	1,900.00	2,400.00	1,900.00		
Semester 3	2,400.00	2,900.00	2,900.00	1,900.00	2,400.00	2,400.00		
Semester 4	2,400.00	2,900.00	2,900.00	1,900.00	2,400.00	2,400.00		
Semester 5 & semester 6	1,500.00	1,500.00	2,500.00	1,000.00	1,000.00	2,000.00		
Semester 7 and subsequent semester	1,500.00	1,500.00	1,500.00	1,000.00	1,000.00	1,000.00		
Thesis examination	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00		

\*Students may choose any option for tuition fees payment.

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