

FACULTY OF COMPUTING AND META-TECHNOLOGY

THE GUIDEBOOK OF GRADUATE STUDY PROGRAMS

Academic Session 2022/2023

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DEAN'S FOREWORD

السلام عليكم

Praise goes to the most merciful God Allah SWT for the blessings of life and knowledge for the Faculty of Computing, and Meta-Technology (FKMT or META) to produce and deliver the Guidebook of Graduate Study Programs 2023/2024. To start with, this academic guidebook serves as a source of information for both staff and students, and covers several guidance which state the processes and procedures that META follows throughout your learning experience in Sultan Idris Education University (UPI). Students are encouraged to refer to this useful guidebook when planning and while undergoing your respective programmes.

META strives to offer postgraduate students the opportunity to acquire the knowledge and skills necessary for intellectual, professional, and personal growth through an array of academic, career and lifelong learning programs. On top of that, META provides recent graduate programs based on three different study modes, i.e. coursework mode, mix-mode, and full research mode. META sets high academic standards necessary with flexible learning and conducive research environments. Moreover, META wants to help postgraduate students become digital leaders, exemplary in their chosen academic and professional fields, and, most importantly, marked in their personal and professional lives by practicing good ethics and values we share with them.

Finally, I hope this guidebook can help you to guide your study with the supervision of lecturers who are skilled in their respective fields and competent in supervising postgraduate students. I want to wish you good luck for every endeavour. Believe in yourself, do not be afraid of obstacles, strive for success, do not miss opportunities.

"MALAYSIA MADANI"

"BERKHIDMAT UNTUK NEGARA"

"PENERAJU KEBITARAAN PENDIDIKAN"

Assoc. Prof. Dr. -Ing. Maizatul Hayati Mohamad Yatim

Dean

Faculty of Computing and Meta-Technology

BACKGROUND OF UPSI

In the history of national education, Universiti Pendidikan Sultan Idris (UPSI) is an iconic public institution of higher learning. From a humble but significant inception as a small teachers training college, this institution has now become a reputable full-fledged, comprehensive education university in Malaysia, spanning three eras in its development. The first era saw the establishment of Sultan Idris Training College (SITC) on 29 November 1922 – the first of its kind in then Malaya – which operated until 1957. Then, the second era followed with the upgrading of the previous teachers training college into Maktab Perguruan Sultan Idris (MPSI), which operated in 1957 until 1987. Later, Institut Perguruan Sultan Idris (IPSI) came into being on the 21 February 1987 that lasted until April 1997, the year in which UPSI was established.

Clearly, these three eras spanning 75 years highlight the continual process of training of teachers undertaken by this institution – a remarkable feat by any standard. On the 1 May 1997, this institution was conferred with a full public education university status, which was incorporated under the *Perintah Universiti Pendidikan Sultan Idris (Perbadanan) 1997* and *Perintah Universiti Pendidikan Sultan Idris (Kampus) 1997* through the Government Gazette P.U (A) 132 and 133 dated 24 February 1997.

In its early beginning, there were only four faculties, namely the Faculty of Language, the Faculty of Social Science and Art, the Faculty of Science and Technology, and the Faculty of Cognitive Science and Humans Development. Gradually, the number of academic programs grew with each passing year. As such, in 2002, two new faculties were introduced, namely the Faculty of Information Technology and Communication and the Faculty of Business and Economy, thus increasing the number of faculties to six, with 19 undergraduate programs. The increase in the number of programs offered underscored the imperative to meet the demands of an increasing number of undergraduates and academics. In the same year, the Faculty of Sports Science was established and the Faculty of Social Science and Art was renamed as the Faculty of Art and Music, thus increasing the number of faculties and academic programs to eight and 32, respectively.

The restructuring of UPSI faculties was implemented on 1 June 2010, combining the Department of Arts and the Faculty of Information and Communication Technology to establish the Faculty of Art, Computing and Creative Industries as the ninth Faculty. On 1 Feb 2023, in order to drive aspects of the nation's digitization holistically, UPSI has made strides in realizing the digitization of national education by establishing a new faculty, the Faculty of Computing and Meta-Technology. This is to increase the competitiveness of the university today to realize the vision and mission to be a leader in innovation and creativity, research, commercialization, digitization, creative and high-impact design and produce creative human resources that will advance the national economy.



MOTTO AND AIMS OF UPSI

VISION

To become an excellent university that plays a leading role in educational leadership and spearhead efforts in facing global challenges.

MISSION

To develop and foster strong knowledge of teaching, research, publication, and consultation that contribute to the sound development of a vibrant and knowledgeable society as encapsulated in the nation's vision.

MOTTO

NO.1 EDUCATION UNIVERSITY

AIMS

To achieve the above mission, UPSI will strive to:

- Uphold a high level of sincerity and honesty in intellectual activities by exploring and questioning the accepted truth that will lead to the development, expansion, and enhancement of knowledge.
- Promote continual contributions to help develop and enrich knowledge, especially in the use of Malay Language, in diverse fields.
- Share knowledge through intellectual activities, including information networking, education, publication, and consultation, locally and internationally.
- Nurture individuals' potentials to make them become learned, morally upright, knowledgeable, and highly patriotic.
- Encourage the members of community to be more emphatic such that they will be able to contribute to the society and the nation, particularly in nurturing the spirit of nationalism and patriotism that helps develop a strong Malaysian race and improve universal wellbein

TOP MANAGEMENT OF UPSI



Vice Chancellor

Prof. Dato' Dr. Md Amin bin Md Taff
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**Deputy Vice Chancellor
(Academic & Internalization)**

Prof. Dr. Marzita binti Puteh
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**Deputy Vice-Canselor
(Research & Innovation)**

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(Student Affair & Alumni)**

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Treasurer

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Director

*Department of Development
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Head of Librarian

Miss Noriha binti Muhammad
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Legal Advisor, Legal Division

Madam Salwati binti Mohd Aris

ADMISSION REQUIREMENTS

The entry requirements for Master's programs are as follows:

- i. Candidates must have relevant bachelor's degrees with honest, with a minimum CGPA of 2.50 or others that are deemed acceptable by the faculty, or other equivalent degrees from other institutions of higher learning, or
- ii. Candidates may have other qualifications that have been approved by the Senate,
- iii. Candidates must fulfil specific program requirements, where appropriate, as prescribed by the faculty, and
- iv. International candidates must pass TOEFL with a minimum score of 550 or IELTS with a minimum score of 6.0, except for those who are applying for Malay Language study or other studies that use Malay Language as the medium of instruction.

The entry requirements for doctoral programs are as follows:

- i. Candidates must have relevant master's degrees from Universiti Pendidikan Sultan Idris or from other institutions of higher learning approved by the senate, or
- ii. Candidates may have other qualifications deemed acceptable and have been approved by the senate, and
- iii. Candidates must fulfil specific program requirements, where appropriate, as prescribed by the faculty.
- iv. International candidates must pass TOEFL with a minimum score of 550 or IELTS with a minimum score of 6.0, except for those who are applying for Malay Language study or other studies that use Malay Language as the medium of instruction.

MANAGEMENT AND ADMINISTRATION OF THE FACULTY

DEAN



Dean

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DEPUTY DEANS



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HEADS OF DEPARTMENT



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**Head of Department,
Software Engineering And Smart Technology**

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PROGRAM COORDINATOR



Associate Professor Dr. Nor Hasbiah
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ADMINISTRATION



Senior Assistant Registrar

Pn Marlina Manja Che Baharum

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SUPPORTING STAFF	
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Administration Assistant (P/O) Ms.Siti Farhanim Mohamad Khairul Anwar	farhanim@upsi.edu.my
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General Office Assistant Mr. Jamaluddin bin Ariffin	jamal@upsi.edu.my

ACADEMIC STAFF

DEPARTMENT OF COMPUTER SCIENCE AND DIGITAL TECHNOLOGY

Lecturer		
Bil	Detail	AREA OF SPECIALIZATION
1.	<p style="text-align: center;">Head of Department</p> <p style="text-align: center;">Dr. Mohd Hishamuddin Bin Abdul Rahman mhishamuddin@meta.upsi.edu.my 05-4505094</p> <p>Doctor of Philosophy (Educational Technology) (UTM) Master of Education (Educational Technology) (UTM) Bachelor of Science (Graphics and Multimedia) (UTM) Diploma in Computer Science (Multimedia) UTM</p>	<ul style="list-style-type: none"> ● Multimedia in Education ● Education Technology ● Animation ● Game-based learning ● Gamification
2	<p style="text-align: center;">Assoc. Prof. Ts. Dr. Muhammad Modi bin Lakulu modi@meta.upsi.edu.my 05-4505835</p> <p>Doctor of Philosophy (Computer Science -Knowledge Management) (UPM) Master of Science -Software Engineering (University of Bradford, UK) Bachelor of Science - Computer Science (UTM) Diploma of Computer Science (UTM)</p>	<ul style="list-style-type: none"> ● Educational technology ● Management Information System ● Software Engineering ● Applied Computing
3	<p style="text-align: center;">Assoc. Prof. Dr. Ramlah binti Mailok mramlah@meta.upsi.edu.my 05-4505940</p> <p>Doctor of Philosophy (Ph.D.) (Educational Technology) (UTM) Master of IT(Computer Science) (UKM) Bachelor of Science - Mathematic (UKM) Diploma of Science (UITM)</p>	<ul style="list-style-type: none"> ● Information technology ● Educational technology ● AI in education
4	<p style="text-align: center;">Assoc. Prof. Dr. Maizatul Hayati binti Mohamad Yatim maizatul@meta.upsi.edu.my 05-4506000</p> <p>Doctor of Philosophy (Ph.D.) Human-Computer Interaction (Otto-Von-Guericke University of Magdeburg, Germany) Master of Science - Information Technology (UUM) Bachelor of Science -- Information Technology (UUM)</p>	<ul style="list-style-type: none"> ● Human-Computer Interaction ● Game Design and Development ● Usability Engineering
5	<p style="text-align: center;">Assoc. Prof. Dr. Hjh. Nor Azah binti Abdul Aziz azah@meta.upsi.edu.my 05-4505190/5834</p> <p>Doctor of Philosophy - Islamic Psycho-Spirituality (UM) Diploma – Islamic Revealed Knowledge(UIAM) Master of Computer Science – Multimedia(UPM) Bachelor of Science ((Information Science)(UKM)</p>	<ul style="list-style-type: none"> ● Multimedia Application Development ● Multimedia in Education ● Child Computer Interaction ● Interactive Design ● Islamic psycho-spiritual

		<ul style="list-style-type: none"> ● Gestural Interface Design
6	<p>Assoc. Prof. Dr. Aslina binti Saad aslina@meta.upsi.edu.my 05-4505030 Doctor of Philosophy (Ph.D.) Computer Science (Loughborough University, UK) Master of Science - Information Technology (UiTM) Bachelor of Information Technology (Systems Management) (UKM)</p>	<ul style="list-style-type: none"> ● Information System ● IT in educational ● Software Engineering ● Management Information System ● Computational Thinking
7	<p>Dr. Che Soh bin Said chesoh@meta.upsi.edu.my 05-4505010 Doctor of Philosophy (Ph.D.) Education and Multimedia(USM) Master of Science (Computer Science) (UPM) Bachelor of Computer Science with Education(UTM)</p>	<ul style="list-style-type: none"> ● Virtual Reality ● Augmented Reality ● Computer Animation ● Instructional Technology
8	<p>Dr. Norhisham bin Mohamad Nordin norhisham@meta.upsi.edu.my 05-4505033 Doctor of Philosophy (Ph.D.) Information System (Information System) (University of Western, Australia) Master of IT(Productivity)(UKM) Bachelor of Economics & Political Science -Economics & Political Science (University of Louisville, KY, USA)</p>	<ul style="list-style-type: none"> ● Information Technology ● Online Business and Online Learning
9	<p>Dr. Ummu Husna binti Azizan ummuhusna@meta.upsi.edu.my 05-4505412 Doctor of Philosophy (Ph.D.) Multimedia and Information Technology in Education (USM) Bachelor of Education - Information Technology (UPM)</p>	<ul style="list-style-type: none"> ● Information Technology in Education ● Multimedia in Education ● Gamification
10	<p>Dr. Laili Farhana binti Md Ibharim laili@meta.upsi.edu.my 05-4505164 Doctor of Philosophy (Ph.D.) Multimedia in Education (UPSI) Master of Education (Multimedia in Education) (UPSI) Bachelor of Information Technology (Multimedia)(UM)</p>	<ul style="list-style-type: none"> ● Multimedia in Education ● Game Design and Development ● Multimedia ● Game-Based Learning ● Gamification
11	<p>Dr. Noor Anida Zaria binti Mohd Noor anidazaria@meta.upsi.edu.my 05-4505149 Doctor of Philosophy (Ph.D.) Knowledge Management (Northern University of Malaysia)</p>	<ul style="list-style-type: none"> ● Database ● Knowledge Management (Knowledge Integration) ● Management Information

	<p>Master of Science (Information Technology) (UUM) Bachelor of Information Management (UUM)</p>	<p>System</p> <ul style="list-style-type: none"> ● Entrepreneurship
12	<p>Dr. Hafizul Fahri bin Hanafi hafizul@meta.upsi.edu.my 05-4505065 PG Cert. In Teaching and Learning in Higher Education UPSI – Roehampton University Doctor of Philosophy (Ph.D.) Multimedia in Education (UPSI) Master of Science- Information Technology (Real-Time Software Engineering) (UTM) Bachelor of Science - Computer Science(Software Engineering)(UTM)</p>	<ul style="list-style-type: none"> ● Information Technology ● Augmented Reality in Education ● Virtual Reality in Education ● Artificial Intelligent ● Educational Technology ● Mobile Learning in Education ● E-Commerce and Digital Marketing
13	<p>Ts. Dr. Nazre bin Abdul Rashid nazre@meta.upsi.edu.my 05-4505067 Doctor of Philosophy (Ph.D.) Electrical Engineering (UiTM) Master of Science -Computer Science (UPM) Bachelor of Science - Computer Science (USM)</p>	<ul style="list-style-type: none"> ● Computer Science ● Signal Processing
14	<p>Dr. Haslinda binti Hashim haslinda@meta.upsi.edu.my 05-4505166 Doctor of Philosophy (Ph.D.) Information Technology (Instructional Technology) (Sheffield University) Master of Information Technology (Instructional Technology) (UM) Bachelor of Education (Information Technology) (UPSI)</p>	<ul style="list-style-type: none"> ● Instructional Technology ● Educational Technology
15	<p>Dr. Suhazlan bin Suhaimi suhazlan@meta.upsi.edu.my 05-4505528 Doctor of Philosophy (Ph.D.) Information Technology and Quantitative Sciences (UiTM) Master of Science -- Information Technology Malaysia University of Science and Technology,(UTM) Bachelor of Science - Computer Science (Networking)(UPM) Diploma of Science - Information Technology (Kolej Ugama Sultan Zainal Abidin)</p>	<ul style="list-style-type: none"> ● Computer Science ● Information Technology ● Networking ● Educational Technology ● IoT ● Wireless Technology ● IT in Education ● Mobile Learning
16	<p>Dr. Nor Masharah binti Husain masharah@meta.upsi.edu.my 05450507 Doctor of Philosophy (Ph.D.) IT in Education (UPSI) Master of Education – Information Technology (UPSI) Bachelor of Science (Computer Science) (UKM)</p>	<ul style="list-style-type: none"> ● IT / Multimedia ● IT in Education ● Educational Technology ● Mobile Learning
17	<p>Dr. Noor Hidayah binti Che Lah</p>	<ul style="list-style-type: none"> ● Educational Technology ● Social media & learning

	<p>hidayah.cl@meta.upsi.edu.my 05-4506000 Doctor of Philosophy (Ph.D.)-Educational Technology (Online Social Presence, Online Social Learning Environment, Online Collaborative Learning) (UTM) Master of Education (Educational Technology) (UTM) Educational Technology of Information Technology with Honour (E-Commerce) UMS</p>	<ul style="list-style-type: none"> ● online teaching and learning ● assessment and evaluation ● ICT and education
18	<p>Dr. Nadia Akma binti Ahmad Zaki nadiaakma@meta.upsi.edu.my 05-4506912 Doctor of Philosophy (Ph.D.) UKM Master of Science -- Computer Science UiTM Bachelor of Science(Information Science and Multimedia)(UKM)</p>	<ul style="list-style-type: none"> ● IT/Multimedia ● Game Design and Development ● Human Computer Interaction
19	<p>Ts. Dr. Chee Ken Nee cheekennee@meta.upsi.edu.my 05-4506000 Ph.D (Teknologi Pendidikan) (UTM) Sarjana Pendidikan Sains Dengan ICT (UM) Ijazah Sarjana Muda Sains Dengan Pendidikan - (Pendidikan) (USM)</p>	<ul style="list-style-type: none"> ● Educational Technology ● Multimedia in Education ● Information Technology in Education ● ICT in Education ● Mobile Learning ● Augmented and Virtual Reality ● Robot in Education ● Computers in Education
20	<p>Ts. Dr. Wong Yoke Seng yswong@meta.upsi.edu.my 054506000 Doctor of Philosophy (Ph.D.) in Game Based Learning (UPSI) Master Of Science - Computer Game Technology (Liverpool) Bachelor of Science - Information System Engineering (Campbell College, Buie's Creek, N.C) Advanced Diploma In Science - Information System Engineering (Kolej Tunku Abdul Rahman)</p>	<ul style="list-style-type: none"> ● Game-based Learning ● Gamification ● Game Programming ● Game Design ● Web Programming ● Web Services Programming
21	<p>Dr. Norshahila binti Ibrahim shahila@meta.upsi.edu.my 05-4505174 Doctor of Philosophy (Ph.D.)in Information Technology (UTP) Master of Science - Information Technology (Computer Science) (UKM) Bachelor of Multimedia (UUM)</p>	<ul style="list-style-type: none"> ● Interactive Design ● Information Technology ● Multimedia in Education ● Multimedia Applications ● E-learning ● Human-Computer Interaction ● Mobile Learning Digital Games
22	<p>Dr. Noor Hidayah binti Azmi hidayah@meta.upsi.edu.my</p>	<ul style="list-style-type: none"> ● Multimedia E-learning Technologies

	<p>05-4505142</p> <p>Doctor of Philosophy (Ph.D.) in Information Technology (UiTM) Master of Science -- E-Learning Technologies (<i>MMU</i>) Bachelor of Multimedia (<i>UUM</i>)</p>	<ul style="list-style-type: none"> ● Human Computer Interaction (HCI) ● Child Computer Interaction ● Social Media Studies ● Virtual Reality ● Digital Games
23	<p>Dr. Erni Marlina binti Saari marlina@meta.upsi.edu.my 05-4505025</p> <p>Doctor of Philosophy (Ph.D.) in Computer Science (University Of Nottingham) Master of Science - Computer Science (UM) Bachelor of Information Technology - Multimedia (UiTM)</p>	<ul style="list-style-type: none"> ● Multimedia Studies ● Information Technology ● Computational Thinking ● Computing in Education ● Human Computer Interaction (HCI) ● E-learning ● Digital Games (Interface & Interaction)
24	<p>Dr. Yusri Bin Abdullah yusri.abdullah@meta.upsi.edu.my 016-9105926</p> <p>Ijazah Doktor Falsafah (Teknologi Pendidikan) (UPM) Ijazah Sarjana Pendidikan (Teknologi Maklumat & Komunikasi) (UPSI) Diploma Pendidikan (Pengajian Teknologi Maklumat) Institut Pendidikan Guru, (IPG) Ijazah Sarjana Muda Teknologi Maklumat Dengan Kepujian (<i>UUM</i>)</p>	<ul style="list-style-type: none"> ● Educational Digital Game ● Gamification ● Educational Technology ● Learning & Game Analytics
25	<p>Dr. Nor Farhah Binti Saidin nfarhah_saidin@meta.upsi.edu.my 05-4506000</p> <p>Doctor of Philosophy (Educational Technology) (UTM) Master of Education (Educational Technology) (UTM) Sarjana Muda Sains Komputer (Bioinformatics) (UTM)</p>	<ul style="list-style-type: none"> ● Virtual Reality
26	<p>Miss Amily Shafila binti Shariff amily@meta.upsi.edu.my 05-4505011</p> <p>Master of Science - Information Technology in Education (<i>UTM</i>) Bachelor of Science - Electrical Engineering Technology with Education(<i>UTM</i>)</p>	<ul style="list-style-type: none"> ● Multimedia in Education ● Mobile Learning ● Information Technology in Education

	Diploma of Information Technology (Computer in Education) (<i>UTM</i>)	
27	<p>Mrs. Haslina binti Hassan haslina@meta.upsi.edu.my 05-4505021</p> <p>Master of Multimedia Information System (Interactive Multimedia) <i>Heriot-Watt University, UK</i> Bachelor of Information Technology (Multimedia) (<i>UKM</i>)</p>	<ul style="list-style-type: none"> ● Multimedia Information System ● Multimedia (Multimedia Interactive) ● Teknologi Maklumat (Sains maklumat) ● Teknologi Maklumat (Multimedia) ● Game Based Learning ● Gamification
28	<p>Mr. Rasyidi bin Johan rasyidi@meta.upsi.edu.my 05-4505052</p> <p>Master of Science - Information Technology (UiTM) Bachelor of Science - Computer Science with Education (UTM)</p>	<ul style="list-style-type: none"> ● System Development ● Mobile Apps development ● Multimedia in Education ● Educational Technology ● User Data Modelling
29	<p>Mrs. Nor Zuhaidah binti Mohamed Zain norzu@meta.upsi.edu.my 05-4505073</p> <p>Master of Science (Information Technology) (UiTM) Bachelor of Science - Information Technology (Multimedia) (UUM)</p>	<ul style="list-style-type: none"> ● Multimedia in Education ● Multimedia Learning ● Human Computer Interaction ● Mobile Learning & Special Need ● Qualitative Research - Case Study Design
30	<p>Mr. Ahmad Nurzid bin Rosli nurzid@meta.upsi.edu.my 05-4505054</p> <p>Master of Science - Information Technology (Network and Mobile Computing) (UUM) Bachelor of Science - Information Technology (Networking) (UUM)</p>	<ul style="list-style-type: none"> ● Mobile Computing ● Educational Technology ● Game Design and Development
31	<p>Mrs. Asmara binti Alias asmara@meta.upsi.edu.my 05-4505064</p> <p>Master of Science - Information Technology (UiTM) Bachelor of Science - Information Technology (UiTM)</p>	<ul style="list-style-type: none"> ● Information Technology ● Artificial Intelligence ● Software Engineering

32	<p>Mrs. Nur Saadah binti Fathil nursaadah@meta.upsi.edu.my 05-4505079</p> <p>Master of Information Technology (UiTM) Bachelor of Science - Information Technology (Multimedia) (UUM)</p>	<ul style="list-style-type: none"> ● Mobile Learning ● Multimedia in Education ● Human Computer-Interaction ● Information Technology
33	<p>Mrs. Marzita binti Hj Mansor marzita@meta.upsi.edu.my 05-4505447</p> <p>Master of Science --Information Technology (UiTM) Bachelor of Science - Information Systems Management (UiTM) Diploma of Science - Information System (<i>Kolej Komuniti Mara</i>)</p>	<ul style="list-style-type: none"> ● Human Computer Interaction ● Information Technology ● Multimedia
34	<p>Ts. Salman Firdaus bin Sidek salmanfirdaus@meta.upsi.edu.my 05-4505009</p> <p>Master of Computer Science (Information Security) (UTM) Bachelor of Science -- Computer Science (Software Engineering) (UTM)</p>	<ul style="list-style-type: none"> ● Software Engineering ● Information Security ● Game based learning
35	<p>Mr. Fizaril Amzari bin Omar* fizaril@meta.upsi.edu.my 054506000</p> <p><i>Ijazah Sarjana Pendidikan Teknologi Maklumat (UPSI)</i> <i>Ijazah Sarjana Muda Pendidikan Teknologi Maklumat (UPSI)</i> Diploma in Electronic Engineering (Communications) (Politeknik Sultan Abdul Halim Mu'adzam Shah, Jitra)</p>	<ul style="list-style-type: none"> ● Graphic Design ● Digital Illustration ● Information Technology ● Electronic Engineering ● Game-based learning ● e-learning
36	<p>Mrs. Fadhlina binti Mohd Razali fadhlina@meta.upsi.edu.my 05-4506570</p> <p>Master of Education (Multimedia) (UPSI) Bachelor of Computer Science (UPM)</p>	<ul style="list-style-type: none"> ● Multimedia Applications ● Multimedia in Education ● E-learning ● Human-Computer Interaction ● Interactive Design ● Game Character Design ● Digital Games

* On study leave (SLAB/SLAI)

** On Post-Doctoral Leave/Sabbatical

SOFTWARE ENGINEERING AND SMART TECHNOLOGY

Lecturer		
Bil	Detail	AREA OF SPECIALIZATION
1.	<p align="center">Head of Department</p> <p align="center">Dr. Suliana binti Sulaiman <u>suliana@meta.upsi.edu.my</u> 05-4505055</p> <p>Doctor of Philosophy -- Computer Science and Systems Management (UKM) Master of Information Technology -- Computer Science (UKM) Bachelor of Science -- Computer Science (Artificial Intelligence) (UM)</p>	<ul style="list-style-type: none"> ● Artificial intelligence ● Information systems ● Information retrieval ● Software engineering
2	<p align="center">Prof. Dr. Che Zalina binti Zulkifli <u>chezalina@meta.upsi.edu.my</u> 05-4505520</p> <p>Doctor of Philosophy --- Electrical and Electronic Engineering (Wireless Communication and Mobile System) (USM) Master of Electrical and Electronic Engineering (Electronics and System Design) (USM) Bachelor of Science - Electrical and Electronic Engineering (UTM) Diploma of Technical Education <i>Maktab Perguruan Teknik</i></p>	<ul style="list-style-type: none"> ● Electronics & Electrical Engineering ● Embedded System IoT and Automation
3	<p align="center">Assoc. Prof. Dr. Nor Hasbiah binti Ubaidullah <u>hasbiah@meta.upsi.edu.my</u> 05-4505843</p> <p>Doctor of Philosophy (Ph.D.) -- Information Technology (UKM) Master of Science - Information Systems <i>University Salford, UK</i> Bachelor of Science -- Computer Science (UKM)</p>	<ul style="list-style-type: none"> ● Information System ● Software/ Courseware Engineering ● ICT in Education ● Computational Thinking
4	<p align="center">Assoc. Prof. Dr. Amri bin Yusoff <u>amri@meta.upsi.edu.my</u> 05-4505072</p> <p>Doctor of Philosophy (Ph.D.) in Computer Science (<i>University of Southampton, UK</i>) Master of Engineering – Information Science and System Engineering (<i>OITA University, Japan</i>) Bachelor of Science -- Electrical Engineering (<i>University of Nevada Reno, USA</i>)</p>	<ul style="list-style-type: none"> ● Electronics & Electrical Engineering ● Embedded System ● Robotics and Automation ● IoT ● Game Design and Development ● Game-Based Learning

5	<p>Assoc. Prof. Dr. Bahbibinti Rahmatullah <u>bahbibinti@meta.upsi.edu.my</u> 05-4505527</p> <p>Doctor of Philosophy - Engineering Science (<i>University of Oxford, UK</i>) Master of Engineering Science-(Signal and Image Processing) (MMU) Bachelor of Engineering (Komputer dan Telekomunikasi) (<i>Vanderbilt University, USA</i>) Diploma of Telecommunication Engineering (<i>Universiti Telekom</i>)</p>	<ul style="list-style-type: none"> ● Biomedical Engineering - with focus on fetus and child development ● Computer Science ● IT in Education ● Artificial Intelligence and Machine Learning ● Image Analysis and Signal Processing
6	<p>Assoc. Prof. Ts. Dr. Abu Bakar Bin Ibrahim <u>bakar@meta.upsi.edu.my</u> 05-4506503</p> <p>Doctor of Philosophy -- Electronics (Communication) (UTeM) Master of Education Technical Education (UTM) Bachelor of Computer Technology -- Electrical Engineering (UTM) Diploma of Engineering (Electronics) (UTM)</p>	<ul style="list-style-type: none"> ● Electronics & Electrical Engineering ● Engineering Technology ● Wireless Technology
7	<p>Assoc. Prof. Ts. Dr. Shamsul Arrieya bin Ariffin <u>shamsul@meta.upsi.edu.my</u> 05-4505402</p> <p>Doctor of Philosophy -- Software Engineering (<i>University of Technology, Sydney (UTS)</i>) Master of Information Technology (UiTM) Bachelor of Science - Computer Science (<i>University College London</i>)</p>	<ul style="list-style-type: none"> ● Mobile Learning ● Information Technology/Software Eng. ● Human Computer Interaction/Usability Eng. ● Management Information System ● Gamification ● Software Engineering
8	<p>Assoc. Prof. Dr. Suzani binti Mohamad Samuri <u>suzani@meta.upsi.edu.my</u> 05-4505025</p> <p>Doctor of Philosophy -- Automatic Control and System Engineering (<i>University of Sheffield, UK</i>) Bachelor of Engineering - Electrical and Engineering (UTP)</p>	<ul style="list-style-type: none"> ● Intelligent System ● Data mining, modelling and visualization ● Data analytics and visualization ● Automation and Control ● Electrical and electronics
9	<p>Assoc. Prof. Dr. Ashardi bin Abas <u>ashardi@meta.upsi.edu.my</u> 05-4507218</p> <p>Doctor of Philosophy (Ph.D.) -Artificial Intelligence (<i>University of Bradford</i>) Master of Science-- Mechatronics (Data and Digital Signal Processing) (UIAM) Teaching Certificate - NVQ Level 4 (<i>City and Guild London</i>) Bachelor of Science -- Electrical and Electronics (<i>University Of Hertfordshire</i>) Higher National Diploma -- Electrical and Electronics (<i>Kolej Tuas Polytech Mara</i>)</p>	<ul style="list-style-type: none"> ● Electrical & electronic ● Mechatronics ● Artificial intelligence ● Image processing ● Embedded systems

10	<p>Assoc. Prof. Dr. Wang Shir Li shirli@meta.upsi.edu.my 05-4505022</p> <p>Doctor of Philosophy -- Computer Science (<i>University Of New South Wales</i>) Master of Science -- Electronic and Electrical Engineering (USM) Bachelor of Science -- Technology (Quality Control) (USM)</p>	<ul style="list-style-type: none"> ● Artificial Intelligence ● Data modelling and prediction ● Neural networks ● Evolutionary algorithms ● Adversarial learning
11	<p>Dr. Azniah binti Ismail azniah@meta.upsi.edu.my 05-4505898</p> <p>Doctor of Philosophy -- Computer Science (<i>University of York, UK</i>) Master of Information Technology (Computer Science) (UKM) Bachelor of Science -- Information Technology (Information Management) (UUM)</p>	<ul style="list-style-type: none"> ● Software Engineering Education ● Information Technology Education ● Game-based Learning ● Requirements Engineering ● Natural Language Processing ● Computational Thinking ● Computer Science (CS) Education
12	<p>Dr. Jamilah binti Hamid jamilah@meta.upsi.edu.my 05-4505028</p> <p>Doctor of Philosophy (Ph.D.) – Internet Computing (USM) Master of Science -- Information Technology (USM) Bachelor of Science with Education(Mathematics and Computer Science) (UTM)</p>	<ul style="list-style-type: none"> ● Information technology ● Educational technology ● Virtual Reality and Augmented Reality ● Computer in Education
13	<p>Dr. Mad Helmi bin Ab Majid madhelmi@meta.upsi.edu.my 05-4505561</p> <p>Bachelor of Engineering (Honours) - Kejuruteraan (Kejuruteraan Mekanik) (<i>UIAM</i>) Ijazah Doktor Falsafah Kejuruteraan Robotik - Robotik (Kejuruteraan) (USM) Master of Science (Mechatronics Engineering) - Kejuruteraan (Kejuruteraan Mekanik) (<i>UIAM</i>)</p>	<ul style="list-style-type: none"> ● Mechatronic Engineering ● Robotic Engineering ● Internet of Things (IoT) ● Artificial Intelligence ● STEM
14	<p>Dr. Roznim binti Mohamad Rasli roznim@meta.upsi.edu.my 05-4505066</p> <p>Doctor of Philosophy -- In Science and Technology (USIM) Master of Science - Expert System (UUM) Bachelor of Science -- Information Technology (Artificial Intelligence) (<i>UUM</i>) Diploma of Computer Science (UPM)</p>	<ul style="list-style-type: none"> ● Artificial Intelligence ● Data Mining. ● Intelligent Systems. ● Knowledge Management ● Computer Science. ● Human Computer Interaction. ● IT/AI in Education.

15	<p>Dr. Mohd Fadhil Harfiez bin Abdul Muttalib fadhil@meta.upsi.edu.my 05-4506017</p> <p><i>PhD in Mechanical Engineering (Renewable Energy)</i> <i>Universiti Teknologi PETRONAS(2019)</i></p> <p>Master of Engineering - Mechanical Engineering <i>University of Liverpool, UK(2007)</i></p> <p>Diploma of Science - Mechanical Engineering <i>UTM (2002)</i></p>	<ul style="list-style-type: none"> ● Mechanical Engineering ● Renewable energy, Biomass, CAD, Manufacturing, IoT ● Entrepreneurship ● Technology Design
16	<p>Dr. Muhamad Hariz bin Muhamad Adnan mhariz@meta.upsi.edu.my 05-4506000</p> <p>Ph.D. in Information Technology (UTP) UMaster of Science (Computer Science) (USM) Bachelor of Computer Science (Major in Software Engineering & Minor in Management) (USM)</p>	<ul style="list-style-type: none"> ● Artificial Intelligence ● Data Science ● Data Mining (Healthcare and Education) ● Cloud Computing ● Technology in Business and Entrepreneurship ● Digitalization ● Digital Marketing
17	<p>Dr. Abdullah Hussein Abdullah Al-Amoodi alamoodi@meta.upsi.edu.my 05-4506000</p> <p>Doctor of Philosophy – Artificial Intelligence (UPSI) <i>Master of Science in Computer Networking (Lim Kok Wing University)</i></p> <p>Bachelor of Science (Hons) in Information and Communication Technology (<i>Lim Kok Wing University</i>)</p>	<ul style="list-style-type: none"> ● Artificial Intelligence ● Computer Networking ● Information and Communication Technology
18	<p>Dr. Nor Asiah binti Mohamad @Razak norasiah.razak@meta.upsi.edu.my 0162104041</p> <p>Doctor Of Philosophy - Education (Educational Technology) (UPM) Ijazah Sarjana Pentadbiran Perniagaan - Business Administration (Marketing) (UPM) Diploma - Industrial Automation (Information Technology)(Kolej Universiti Tati)</p>	<ul style="list-style-type: none"> ● Educational Technology ● Instructional Technology ● ICT in Education ● E-Learning ● Sociologist ● Qualitative Advanced Case Study ● Digital Marketing ● Technopreneurship ● Information Technology ● Software Engineering ● Knowledge Management System ● Human Computer Interaction
19	<p>Dr. Sumayyah binti Dzulkifly sumayyah.dz@meta.upsi.edu.my 054505402</p>	<ul style="list-style-type: none"> ● Communication Engineering ● Wireless or Mobile Network ● Machine Learning

	<p>Ijazah Doktor Falsafah Kejuruteraan Telekomunikasi - Kejuruteraan Telekomunikasi (King's College London)</p> <p>Ijazah Sarjana Kejuruteraan Komunikasi - Kejuruteraan Komunikasi (UIAM)</p> <p>Ijazah Sarjana Muda Kejuruteraan Komunikasi - Kejuruteraan Komunikasi(UIAM)</p>	<ul style="list-style-type: none"> ● Internet-of-Things ● Energy Efficiency / Optimisation
20	<p>Dr Okta Nurika</p> <p>okta@meta.upsi.edu.my</p> <p>05-4506000</p> <p>Doctor Of Philosophy In Computer Science and Information Technology (Computer Science and Information Technology) (UTP)</p> <p>Master Degree in Information Technology (Information Technology) (UTP)</p> <p>Bachelor Degree in Business Information System (Business Information System)(University of East London)</p>	<ul style="list-style-type: none"> ● Information Technology ● Computer Science ● Business Information System
21	<p>Dr. Harnani binti Mat Zin</p> <p>harnani@meta.upsi.edu.my</p> <p>05-4505069</p> <p>Master of Science -- Computer Science (Applied Informatics) (USM)</p> <p>Bachelor of Science -- Computer Science (Engineering Information) (USM)</p>	<ul style="list-style-type: none"> ● Information system ● Sentiment analysis ● Data mining ● Opinion mining ● Artificial intelligent
22	<p>Mrs. Saira Banu binti Omar Khan</p> <p>sairabanu@meta.upsi.edu.my</p> <p>05-4505024</p> <p>Master of Science -- Computer Science (USM)</p> <p>Bachelor of Science -- Computer Science (UPM)</p>	<ul style="list-style-type: none"> ● Information Technology ● Multimedia in Education ● Computer Science
23	<p>Mrs. Hasnatul Nazuha binti Hassan</p> <p>nazuha@meta.upsi.edu.my</p> <p>05-4505014</p> <p>Master of Science - Information Technology (Expert System) (UUM)</p> <p>Bachelor of Science -- Information Technology (Artificial Intelligence) (UUM)</p>	<ul style="list-style-type: none"> ● Information Technology ● Artificial Intelligence ● Diagnostics System
24	<p>Mrs. Asma Hanee binti Ariffin</p> <p>asma@meta.upsi.edu.my</p> <p>05-4505527</p> <p>Master of Science - Information Technology (UUM)</p> <p>Bachelor of Science -- Information Technology (Artificial Intelligence) (UUM)</p>	<ul style="list-style-type: none"> ● Information Technology ● Application of Artificial Intelligence ● Virtual Reality ● Project Management ● Knowledge Management ● Affective Engineering

25	<p style="text-align: center;">Mrs. Rohaizah binti Abdul Wahid</p> <p style="text-align: center;"><u>rohaizah@meta.upsi.edu.my</u></p> <p style="text-align: center;">05-4505032/6218</p> <p style="text-align: center;">Master of Science -- Information Technology (Real-Time Software Engineering) (UTM)</p> <p style="text-align: center;">Bachelor of Science -- Information Technology (Artificial Intelligence) (UUM)</p>	<ul style="list-style-type: none"> ● Software Engineering ● Database Management ● Artificial Intelligence ● Information Technology
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* On study leave (SLAB/SLAI)

** On Post-Doctoral Leave/Sabbatical

GRADUATE STUDIES PROGRAMS OFFERED

PROGRAM	MODE	FIELD OF STUDY
Masters	Mixed/ Coursework	<p style="text-align: center;">Master of Education</p> <ul style="list-style-type: none"> ● Multimedia Education ● Information Technology Education ● Internet Computing Education
		<p style="text-align: center;">Master in Design</p> <ul style="list-style-type: none"> ● Games Based Learning
	Research	<p style="text-align: center;">Master of Education</p> <ul style="list-style-type: none"> ● Multimedia Education ● Information Technology Education ● Internet Computing Education
		<p style="text-align: center;">Master of Science</p> <ul style="list-style-type: none"> ● Computerized Graphics and Animation ● Information and Management Systems ● Software Engineering ● Artificial Intelligence ● Internet & Web Computing ● Human Computer Interaction ● Instructional Technology
PROGRAM	MODE	FIELD OF STUDY

PHD		<ul style="list-style-type: none">● Multimedia Education● Information Technology Education● Internet Computing Education● Information and Management Systems● Artificial Intelligence● Internet and Web Computing● Human Computer Interaction● Software Engineering● Computer Aided Technology
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STRUCTURE OF GRADUATE STUDIES PROGRAMS

INTAKE SESSION 2022/2023

(I) MASTER'S EDUCATION PROGRAMS

MODE A (By Research)

COURSE	NO. OF COURSES	CREDIT
Thesis	1	40
*Research Method Courses	1(Audit courses)	4
TOTAL		40

***Note: All candidates must take and pass Research Methodology**

MODE B (By Coursework and Research)

COURSE	NO. OF COURSES	CREDIT
Research Method Courses	3	12
Educational Courses	1	4
Specialization Courses	1	4
Dissertation	1	20
TOTAL		40

MODE C (By Coursework)

COURSE	NO. OF COURSES	CREDIT
Research Method Courses	3	12
Educational Courses	2	8
Specialization Courses	3	12
Elective Courses	1	4
Project Paper	1	8
TOTAL		44

Duration of Study

FULLTIME	3 to 6 semesters
PART TIME	4 to 10 semesters

NOTE: It is recommended that students complete their study within the stipulated duration.

(II) MASTER'S NON-EDUCATION PROGRAMS

MODE A (By Research)

COURSE	NO. OF COURSES	CREDIT
Dissertation	1	40
*Research Method Courses	1(Audit courses)	4
TOTAL		40

***Note: Students are required to register at least one course of research methodology**

Duration of Study

FULLTIME	4 to 6 semesters
PART TIME	6 to 10 semesters

NOTE: It is recommended that students complete their study within the stipulated duration

(III) DOCTORAL PROGRAMS

Program Implementation

COURSE	NO. OF COURSES	CREDIT
Thesis	1	80
*Research Method Courses	1(Audit courses)	-
TOTAL		40

***Note: All candidates must take and pass Research Methodology**

- The program involves research in a particular field, culminating in a thesis.

Duration of Study

FULLTIME	6 to 10 semesters
PART TIME	8 to 14 semesters

NOTE: It is recommended that students complete their study within the stipulated duration

CURRICULUM STRUCTURE
INTAKE SESSION 2022/2023

MASTER OF EDUCATION (MULTIMEDIA) – MT30

Mode B (Master by Research and Coursework)

a) Research Methodology Courses

Course Requirement	Code	Course Name	Credit Hour
Mandatory	GRU60104	Research Methods for Education	4
	DTR60204/ MRU60204	Multivariate Analysis	4
	DTR60404/ MRU60404	Qualitative Research	4
TOTAL			12

Note: Prerequisite for DTR60204/MRU60204 and DTR60404/MRU60404: **MUST** pass GRU60104

b) Educational Courses

Course Requirement	Code	Course Name	Credit Hour
Mandatory	DTP60104/ MTP60104	Instructional Design Theory	4
TOTAL			4

c) Specialization Courses

Code	Course Name	Credit Hour
DMG60504/MMG60504	Educational Game Software Development	4
DMG60604/MMG60604	Virtual Reality and Augmented Virtual Reality	4
TOTAL		4

Students MUST choose any **ONE(1)** of Table c (Specialization Courses), which are equivalent to **FOUR (4)** credit hours

d) Dissertation

Code	Course Name	Credit Hour
DMR59920/MMR59920	Dissertation	20
TOTAL		20

Students must register for a Dissertation course, which is equivalent to 20 credit hours. Students may register for both courses and dissertation once the supervisor has been assigned.

Mode C (Master by Coursework)

a) Research Methodology Courses

Course Requirement	Code	Course Name	Credit Hour
Mandatory	GRU60104	Research Methods for Education	4
	DTR60204/ MRU60204	Multivariate Analysis	4
	DTR60404/ MRU60404	Qualitative Research	4
TOTAL			12

Note: Prerequisite for DTR60204/MRU60204 and DTR60404/MRU60404: **MUST** pass GRU60104

b) Educational Courses

Course Requirement	Code	Course Name	Credit Hour
Mandatory	DTP60104/ MTP60104	Instructional Design Theory	4
	DTP60404/ MTP60404	Technology and Innovation in ICT Education	4
TOTAL			8

c) Specialization Courses

Code	Course Name	Credit Hour
DMG60204/MMG60204	Graphics Design and Animation	4
DMG60504/MMG60504	Educational Game Software Development	4
DMG60604/MMG60604	Virtual Reality and Augmented Virtual Reality	4
TOTAL		12

d) Elective Courses

Code	Course Name	Credit Hour
***	Elective	4
TOTAL		4

Students can choose 1 course from any master's level program offered at UPSI

e) Project Paper

Code	Course Name	Credit Hour
DMR59908/MMR59908	Project Paper	8
TOTAL		8

PROPOSED COURSES OF STUDY BASED ON SEMESTER

Mode B (Master by Research and Coursework)

SEMESTER 1		
<u>Code/ CODE</u>		<u>KREDIT/ CREDIT</u>
GRU60104	Research Methods for Education (full time & Part Time)	4
DTP60104/MTP60104	Instructional Design Theory (full time & Part Time)	4
*****	Specialization Courses (full time & Part Time)	4
*****	Specialization Courses (full time)	4
	TOTAL CREDIT	16(*12)
SEMESTER 2		
<u>Code/ CODE</u>		
DTR60204/MRU60204	Multivariate Analysis	4
DTR60404/MRU60404	Qualitative Research	4
*****	Specialization Courses (full time)/ Dissertation	4
SEMESTER 3		
<u>Code/ CODE</u>		
DMR59920/MMR59920	Dissertation (Proposal Defence & Research Finding)	20
SEMESTER 4		
DMR59920/MMR59920	Dissertation (Viva)	20

*Note: Part time Student maximum 12 credit hours

Mode C (Master by Coursework)

SEMESTER 1		
<u>Code/ CODE</u>		<u>KREDIT/ CREDIT</u>
GRU60104	Research Methods for Education (full time & Part Time)	4
DTP60104/MTP60104	Instructional Design Theory (full time & Part Time)	4
*****	Specialization Courses (full time & Part Time)	4
*****	Specialization Courses/Elective (full time)	4
	TOTAL CREDIT	16(*12)

<u>SEMESTER 2</u>		
DTR60204/MRU60204	Multivariate Analysis (full time & Part Time)	4
DTR60404/MRU60404	Qualitative Research (full time & Part Time)	4
DTP60404/MTP60404	Technology and Innovation in ICT Education	4
*****	Specialization Courses/ Elective (full time)	4
TOTAL CREDIT		<u>16(*12)</u>
<u>SEMESTER 3</u>		
*****	Specialization Courses (Part Time)	4
*****	Specialization Courses (Part Time)	4
DMR59908/MMR59908	Project Paper (full time & Part Time)	8
TOTAL CREDIT		<u>8(*16)</u>

*Note: Part time Student maximum 12 credit hours

**CURRICULUM STRUCTURE
INTAKE SESSION 2022/2023**

MASTER OF EDUCATION (INFORMATION TECHNOLOGY) – MT36

Mode B (Master by Research and Coursework)

a) Research Methodology Courses

Course Requirement	Code	Course Name	Credit Hours
Mandatory	GRU60104	Research Methods for Education	4
	DTR60204/MRU60204	Multivariate Analysis	4
	DTR60404/MRU60404	Qualitative Research	4
TOTAL			12

Note: Prerequisite for DTR60204/MRU60204 and DTR60404/MRU60404: **MUST** pass GRU60104

b) Educational Courses

Course Requirement	Code	Course Name	Credit Hours
Mandatory	DTP60104/MTP60104	Instructional Design Theory	4
TOTAL			4

c) Specialization Courses

Code	Course Name	Credit Hours
DFD60204/MTD60204	Information System Development	4
DFD60504/MTD60504	Data Science in Education	4
DMG60404/MMG60404	Human Centered Computing	4
TOTAL		4

Students **MUST** choose any **ONE(1)** of Table C (Specialization Courses), which are equivalent to **FOUR (4)** credit hours

d) Dissertation

Code	Course Name	Credit Hours
DTR59920/MTR59920	Dissertation	20
TOTAL		20

Students must enrol in the Dissertation course, which is equivalent to **20** credit hours.

Students may register for both courses and dissertation once the supervisor has been assigned.

Mode C (Master by Coursework)

a) Research Methodology Courses

Course Requirement	Code	Course Name	Credit Hours
Mandatory	GRU60104	Research Methods for Education	4
	DTR60204/MRU6020 4	Multivariate Analysis	4
	DTR60404/MRU6040 4	Qualitative Research	4
TOTAL			12

Note: Prerequisite for MRU60204 and MRU60404: **MUST** pass GRU60104

b) Educational Courses

Course Requirement	Code	Course Name	Credit Hours
Mandatory	DTP60104/MTP6010 4	Instructional Design Theory	4
	DTP60404/MTP6040 4	Technology and Innovation in ICT Education	4
TOTAL			8

c) Specialization Courses

Code	Course Name	Credit Hours
DFD60204/MTD60204	Information System Development	4
DFD60504/MTD60504	Data Science in Education	4
DMG60404/MMG60404	Human Centered Computing	4
TOTAL		12

d) Elective Courses

Code	Course Name	Credit Hour
***	Elective	4
TOTAL		4

Note: Students can choose ONE (1) course from any master's level program offered at UPSI

e) Project Paper

Code	Course Name	Credit Hours
DTR59908/MTR59908	Project Paper	8
TOTAL		8

PROPOSED COURSES OF STUDY BASED ON SEMESTER

Mode B (Master by Research and Coursework)

SEMESTER 1		
<u>Code/ CODE</u>		<u>KREDIT/ CREDIT</u>
GRU60104	Research Methods for Education (full time & Part Time)	4
DTP60104/MTP60104	Instructional Design Theory (full time & Part Time)	4
*****	Specialization Courses (full time & Part Time)	4
*****	Specialization Courses (full time)	4
	TOTAL CREDIT	16(*12)
SEMESTER 2		
<u>Code/ CODE</u>		
DTR60204/MRU60204	Multivariate Analysis	4
DTR60404/MRU60404	Qualitative Research	4
*****	Specialization Courses (full time)/ Dissertation	4
SEMESTER 3		
<u>Code/ CODE</u>		
DTR59920/MTR59920	Dissertation (Proposal Defence & Research Finding)	20
SEMESTER 4		
<u>Code/ CODE</u>		
DTR59920/MTR59920	Dissertation (Viva)	20

*Note: Part time Student maximum 12 credit hours

Mode C (Master by Coursework)

SEMESTER 1		
<u>Code/ CODE</u>		<u>KREDIT/ CREDIT</u>
GRU60104	Research Methods for Education (full time & Part Time)	4
DTP60104/MTP60104*	Instructional Design Theory (full time & Part Time)	4
*****	Specialization Courses (full time & Part Time)	4
*****	Specialization Courses/Elective (full time)	4
	TOTAL CREDIT	16(*12)
SEMESTER 2		

DTR60204/MRU60204	Multivariate Analysis (full time & Part Time)	4
DTR60404/MRU60404	Qualitative Research (full time & Part Time)	4
DTP60404/MTP60404	Technology and Innovation in ICT Education	4
*****	Specialization Courses/ Elective (full time)	4
	TOTAL CREDIT	<u>16(*12)</u>
	<u>SEMESTER 3</u>	
*****	Specialization Courses (Part Time)	4
*****	Specialization Courses (Part Time)	4
DTR59908/MTR59908	Project Paper (full time & Part Time)	8
	TOTAL CREDIT	<u>8(*16)</u>

*Note: Part time Student maximum 12 credit hours

CURRICULUM STRUCTURE

MASTER OF EDUCATION (INTERNET COMPUTING) – MT37

INTAKE SEMESTER 2 SESSION 2021/2022 AND ABOVE

Mode B (Master by Research and Coursework)

a) Research Methodology Courses

Course Requirement	Code	Course Name	Credit Hour
Mandatory	GRU60104	Research Methods for Education	4
	DTR60204/ MRU60204	Multivariate Analysis	4
	DTR60404/ MRU60404	Qualitative Research	4
TOTAL			12

Note: Prerequisite for DTR60204/MRU60204 and DTR60404/MRU60404: **MUST** pass GRU60104

b) Educational Courses

Course Requirement	Code	Course Name	Credit Hour
Mandatory	DTP60104/ MTP60104	Instructional Design Theory	4
TOTAL			4

c) Specialization Courses

Code	Course Name	Credit Hour
DKN60304/MIN60304	Cyber Security	4
DFD60504/MTD60504	Data Science in Education	4
DTS60104/MMS60104	Development of Web Application	4
TOTAL		4

Choose 1 from the table above

d) Dissertation

Code	Course Name	Credit Hour
DKS59920/MIR59920	Dissertation	20
TOTAL		20

Students must register for a Dissertation course, which is equivalent to **20** credit hours. Students may register for both courses and dissertation once the supervisor has been assigned.

Mode C (Master by Coursework)

a) Research Methodology Courses

Course Requirement	Code	Course Name	Credit Hour
Mandatory	GRU60104	Research Methods for Education	4
	DTR60204/ MRU60204	Multivariate Analysis	4
	DTR60404/ MRU60404	Qualitative Research	4
TOTAL			12

Note: Prerequisite for DTR60204/MRU60204 and DTR60404/MRU60404: **MUST** pass GRU60104

b) Educational Courses

Course Requirement	Code	Course Name	Credit Hour
Mandatory	DTP60104/ MTP60104	Instructional Design Theories	4
	DTP60404/ MTP60404	Technology and Innovation in ICT Education	4
TOTAL			8

c) Specialization Courses

Code	Course Name	Credit Hour
DKN60304/MIN60304	Cyber Security	4
DTS60104/MMS60104	Development of Web Application	4
DFD60504/MTD60504	Data Science in Education	4
TOTAL		12

d) Elective course

Code	Course Name	Credit Hour
***	Elective	4
TOTAL		4

Students can choose 1 course from any master's level program offered at UPSI

e) Project paper

Code	Course Name	Credit Hour
DKS59908/MIR59908	Project paper	8
TOTAL		8

Students must register Project paper, which is equivalent to **8** credit hours.

PROPOSED COURSES OF STUDY BASED ON SEMESTER

Mode B (Master by Research and Coursework)

SEMESTER 1		
<u>Code/ CODE</u>		<u>KREDIT/ CREDIT</u>
GRU60104	Research Methods for Education (full time & Part Time)	4
DTP60104/MTP60104	Instructional Design Theory (full time & Part Time)	4
*****	Specialization Courses (full time & Part Time)	4
*****	Specialization Courses (full time)	4
	TOTAL CREDIT	16(*12)
SEMESTER 2		
<u>Code/ CODE</u>		<u>KREDIT/ CREDIT</u>
DTR60204/MRU60204	Multivariate Analysis	4
DTR60404/MRU60404	Qualitative Research	4
*****	Specialization Courses (full time)/ Dissertation	4
	TOTAL CREDIT	16(*12)
SEMESTER 3		
<u>Code/ CODE</u>		
DKS59908/MIR59908	Dissertation (Proposal Defence & Research Finding)	20
SEMESTER 4		
<u>Code/ CODE</u>		
DKS59920/MIR59920	Dissertation (Viva)	20

*Note: Part time Student maximum 12 credit hours

Mode C (Master by Coursework)

SEMESTER 1		
<u>Code/ CODE</u>		<u>KREDIT/ CREDIT</u>
GRU60104	Research Methods for Education (full time & Part Time)	4
DTP60104/MTP60104	Instructional Design Theory (full time & Part Time)	4
*****	Specialization Courses (full time & Part Time)	4
*****	Specialization Courses/Elective (full time)	4
	TOTAL CREDIT	16(*12)
SEMESTER 2		

DTR60204/MRU60204 DTR60404/MRU60404 DTP60104/MTP60104 *****	Multivariate Analysis (full time & Part Time) Qualitative Research (full time & Part Time) Technology and Innovation in ICT Education Specialization Courses/ Elective (full time)	4 4 4 4
TOTAL CREDIT		<u>16(*12)</u>
<u>SEMESTER 3</u>		
***** ***** *****	Specialization Courses (Part Time) Specialization Courses (Part Time) Project Paper (full time & Part Time)	4 4 8
TOTAL CREDIT		8(*16)

*Note: Part time Student maximum 12 credit hours

MASTER OF DESIGN (GAMES BASED LEARNING) – MT186

Mode B (Master by Research and Coursework)

a) Research Methodology Courses

Code	Course	Credit hours
MMR60104	<i>Design-Based Research</i>	4
MMR60204	<i>Advanced Design-Based Research</i>	4
TOTAL		8

b) Educational Courses

Code	Course	Credit hours
MTP60104	<i>Instructional Design Theory</i>	4
MTP60304	<i>Analysis of Technological Pedagogical Content Knowledge</i>	4
TOTAL		4

* Choose one (1) course

c) Specialization Course

Code	Course	Credit hours
MMX60104	<i>Gamification Theory and Practices</i>	4
MMX60204	<i>Game-Based Learning Application</i>	4
MMX60304	<i>Playability and Testing</i>	4
MMX60404	<i>Heutagogy in Game Design</i>	4
TOTAL		8

* Choose two (2)

d) Dissertation

Code	Course	Credit hour
MMX59920	Disertasi (<i>Dissertation</i>)	20
TOTAL		20

Course Work Mode (Mode C)

i. Research Methodology Course

Code	Course	Credit hour
MMR60104	(<i>Design-Based Research</i>)	4
MMR60204	(<i>Advanced Design-Based Research</i>)	4
TOTAL*		4

* *Choose only one course

II. Educational Course

Code	Course	Credit hour
MTP60104	(<i>Instructional Design Theory</i>)	4
MTP60304	(<i>Analysis of Technological Pedagogical Content Knowledge</i>)	4
TOTAL		8

III. Specialization Course

Code	Course	Credit hour
MMX60104	(<i>Gamification Theory and Practices</i>)	4
MMX60204	(<i>Game-Based Learning Application</i>)	4
MMX60304	(<i>Playability and Testing</i>)	4

Code	Course	Credit hour
MMX60404	<i>(Heutagogy in Game Design)</i>	4
MMG60104	<i>(Human-Computer Interaction Studies)</i>	4
MMG60204	<i>(Graphics Design and Animation)</i>	4
TOTAL		24

IV. Project Paper

Code	Course	Credit hour
MMX59908	<i>(Project Paper; or two additional courses and Comprehensive Exam)</i>	8
TOTAL		8

** Chose project paper/comprehensive exam*

COURSE SYNOPSIS

GRU60104 Research Methodology in Education

This course introduces the concepts, theories and processes in research. Aspects which are dealt with include identifying area and topic of research; research objectives; problem statement, formulating research questions/hypothesis; theories and models; literature review; methods of data collection and analysis; conclusion and recommendation; report writing and ethics in research.

****Compulsory for Master by Research (Mode A) and Doctor of Philosophy (Ph.D) as an audit course.**

DTR60204/TRMRU60204 Multivariate Analysis

Data analysis is an important knowledge in educational research. This course will be able to assist in developing the skills to conduct data analysis in research and developing the aspect of lifelong learning skills and life skills.

DTR60304/MRU60304 Academic Writing

This course discusses various aspects of academic research documentations and academic writing styles. In particular, thesis writing and documentation, articles structure, research domains, research resources, journal indexing, journal evaluation processes, type of research articles and the process of search

DTP60104/MTP60104 Instructional Design Theory

This course discusses the concept of Instructional Design (ID), the theories involved, strengths and weaknesses of ID models, determines the tasks of instructional designers, evaluates existing instructional material based on ID theory, tracks existing problems and suggests research proposals to find the solutions.

DTP60304/MTP6034 Analysis Technological Pedagogical Content Knowledge

This course discuss the Technological Knowledge (TK), Pedagogical Content Knowledge (PCK), Technological Content Knowledge (TCK), Technological Pedagogical Knowledge (TPK), and Technological Pedagogical Content Knowledge (TPCK) and the relationship with the Content Knowledge (CK) and Pedagogical Knowledge (PK) required for teaching and learning. Based on the selected subject, the course discusses the structure content of the subject, prepares a table of specific teaching content and suggests a suitable teaching model for specific content.

DTP60404/MTP60404 Technology and Innovation in ICT Education

This course discusses the concept, theory, practice and management of technology and innovation; preparation and usage of teaching tool; choosing and evaluating teaching tools; and current issues on technology and innovation in education.

DMG60104/MMG60104 Human-Computer Interaction Studies

This course emphasizes on designing interactive and suitable interfaces for end users' purposes to support the way people communicate and interact in their everyday lives. It focuses on design, evaluation, and implementation of interactive interface design for system effectiveness and efficiency including user satisfaction. The course is important to the students to apply and to measure usability testing (UT), user acceptance testing (UAT), and user experience design (UXD).

DMG60204/MMG60204 Graphics Design and Animation

This course emphasises on a fundamental concept and principle in graphic and animation design. This course also enhance student understanding and skills on the aspect of theory, design and production a graphic and animation product. The students were also exposed to an animation and graphic design product evaluation.

DFD60204/MTD60204 Information System Development

This course discusses the concepts and principles in information systems development. Various methods, tools and techniques are used to develop information systems systematically via appropriate information system methodology.

DKN60104/MIN60104 Computer Network Administration

This course emphasizes on the principle of networking and inter-networking including network media and architecture, data transmission, protocols and applications, the procedures on computer network management, the maintenance procedure of a computer network and socket programming.

DMP60304/MMP60304 Multimedia Interactive Courseware Design

This course emphasizes on the development of interactive multimedia courseware based on an instructional design, multimedia message design, interaction design, courseware design, and multimedia interface design principles

DMG60304/MMG60304 Virtual Environment

This course emphasizes on a fundamental concept and principle of the virtual environment. This course also enhances student understanding on the multimedia application development process in a virtual environment. It also covers the process of designing, producing and evaluating a multimedia application using virtual environment technology.

DMV60104/MMV60104 Audio And Video Production

The course provides students with knowledge and practical skills in using hardware and software for audio and video - that support production method and audio-video editing whether in linear and non-linear form. Students will learn audio and video digitization processes involving specialized techniques, transformation of analogue to digital, pre-production concept, production and post-production. Students will explore the technology and techniques involved in producing and editing digital audio, which can be used in a variety of projects – from enhancing audio on a digital video, to producing video stories and visual information.

DTS60204/MTS60204 Paradigms of Programming

This course provides the insights of concepts and styles of various programming languages. It gives an overview of programming paradigms and emphasizes the importance of understanding the concepts. This course discusses the concepts that are common in various programming languages. It also focuses on some underlying concepts that vary among programming languages according to certain programming paradigms. This course examines at least one programming language for each selected programming paradigm. Main programming paradigms may include imperative, functional, logic and object-oriented paradigms. However, the choice of programming paradigms and languages are subject to change at any time.

DTS60104/MMS60104 Development of Web Application

This course emphasized the knowledge and web programming skill using web application framework. Apart from that, skills in web programming language and SQL are required to manipulate the database to produce a dynamic information system.

DTR60404/MRU60404 Qualitative Study

This course discusses philosophy, epistemology, anthology and qualitative research concepts as well as their application in educational studies. The design of the study from various expert perspectives such as ethnography, phenomenology, case study, grounded theory, narrative, and action research will be discussed. Various sampling techniques and protocols that are suitable for effective data collection as well as in compliance with the reliability and validity of the data will be performed. The focus is on the data collection process and fieldwork techniques. At the end of this course, students are expected will be able to conduct a fieldwork according to the correct process and report the finding with appropriate techniques.

DMG60404/MMG60404 Human-Centered Computing

This course emphasizes on the design, development, deployment and evaluation of interactive information systems that are both usable and accessible. It is a mixed-initiative human-computer system which highlights systems and practices of technology use. The course focuses on designing computational artifacts that better support human endeavors and daily life including user's satisfaction. The course comprises three main areas namely human computer interaction, social computing and cognition, and learning and creativity. The course is important to the students to apply and to measure usability testing (UT), user acceptance testing (UAT), and user experience design (UXD).

DMG60504/MMG60504 Educational Games Software Design

This course emphasises on the fundamental concept and principle in an educational games design. This course also enhance student understanding and skills on the aspect of learning theory, instructional design, educational games design theory, educational games development methodology and evaluation of educational games

DMG60604/MMG60604 Augmented and Virtual Reality

This course emphasises on a fundamental concept and principle of augmented and virtual reality. This course also enhances student understanding on the multimedia application development process in augmented and virtual reality environments. It also covers the process of designing, producing and evaluating a multimedia application using augmented and virtual reality technology.

DFD60504/MTD60504 Data Science for Education

This course emphasizes on the integrated skill set spanning mathematics, statistics, machine learning, databases and other branches of computer science along with a good understanding of the craft of problem formulation into effective solutions. The course focuses on concepts, techniques and tools required to deal with various facets of data science practice, including data collection and integration, exploratory data analysis, predictive modelling, descriptive modelling, data product creation, evaluation, and effective communication. The course is important to

students to understand breadth towards the integration and synthesis of concepts and their application to solving problems. To make the learning contextual, real datasets from a variety of disciplines will be used.

CURRICULUM STRUCTURE

MASTER’S EDUCATION AND NON-EDUCATION PROGRAMS

The following are the master’s non-education programs based on thesis courses, in which students are required to enrol according to the respective programs in each semester.

MASTER OF SCIENCE

Master by Research (Mode A)

Program Code	Course Name	Thesis Code
MT99	Thesis (Computer Graphics and Animation)	DMR59941/MTG59941
MT106	Thesis (Information System and Management)	DTD59941/MTD59941
MT107	Thesis (Software Engineering)	DER59941/MTS59941
MT167	Thesis (Artificial Intelligence)	DKI59941/MFR59941
MT166	Thesis (Human Computer Interaction)	DMG59941/MMG59941
MT62	Thesis (Instructional Technology)	DTP59941/MTT59941
MT108	Thesis (Internet and Web Computing)	DSR59941/MTP59941

CURRICULUM STRUCTURE

DOCTOR OF PHILOSOPHY

The following are the doctoral programs based on thesis courses, in which students are required to enrol according the respective programs.

Program Code	Course Name	Thesis Code
PT30	Thesis (Multimedia Education)	DMR79980/MTM79980
PT36	Thesis (Information Technology Education)	DTR79980/MTK79980
PT37	Thesis (Internet Computing Education)	DKR79980/MTI79980
PT75	Thesis (Information System and Management)	DTD79981/MTD79981
PT76	Thesis (Internet and Web Computing)	DKR79981/MTP79981
PT161	Thesis (Artificial Intelligence)	DKR79981/MIR79981
PT166	Thesis (Human-Computer Interaction)	DMR79981/MMG79981
PT168	Thesis (Software Engineering)	DER79981/MER79981

**Students are required to attend at least one course of research methodology throughout the study and meet the requirements of the audit course. Students may also be required to attend other courses on the Faculty's proposal and meet the audit course requirements.

IMPORTANT NOTES:

RESEARCH PROPOSAL PRESENTATION

1. Students are required to attend at least one (1) presentation of research proposal before they present their research proposal.
- 2 The maximum period given to a PHD/master's degree student (by research and mixed mode) to present the research proposal is as follows:

Study Status PHD /Master	Proposal present <u>before</u>
Full-Time	*Second semester (subsequent to registration of dissertation)
Part-Time	* Third semester (subsequent to registration of dissertation)

3. The Rather Unsatisfactory status will be given to students who fail to present their research proposal after the second semester (for full-time students) or third semester (for part-time students), despite having submitted the research progress report and being given the Satisfactory status by the supervisor. The following are the prescribed levels of assessment for a student:

Study Status PHD/ Master		Status received Status
After second semester (full-time) After third semester (part-time)	First time	Rather Unsatisfactory (KM)
After third semester (full-time) After fourth semester (part-time)	Second time	Unsatisfactory (TM)
After fourth semester (full-time)) After fifth semester (part-time)	Third time	Unsatisfactory and terminated (two consecutive times of Unsatisfactory status) (TM)

RESEARCH FINDINGS PRESENTATION

Students MUST present at least one (1) research findings before submitting the notice and preliminary thesis to IGS (for all PHD students and Master by research starting Semester 2 Session 2017/2018).

RESEARCH PROGRESS REPORT

All PHD and Master Students MUST submit their research progress report online every semester.

FACILITIES OF THE FACULTY

FKMT has an impressive array of laboratories and studios, which are strategically located around the UPSI campus. In particular, the management centre of laboratories occupies the Information Technology Building, which oversees the management and control of such facilities. The following table summarizes the name of buildings and the number of laboratories and studios for learning and teaching activities.

NO	NAME OF BUILDING	NO. OF LABORATORY
1	Information Technology (IT) Building	14
2	Integrated Knowledge Laboratory	8

All laboratories are fully equipped with the latest software and hardware to support the learning and teaching process. In addition, they are open for students to gain internet access to information and materials required for assignments, projects or research. The following table provides the details of the Information Technology laboratories.

No..	LABORATORY	NO. OF LABORATORY
1	Teaching and Learning Computer Lab (General)	12
2	Multimedia Lab	4
3	Animation Lab	1
4	Micro-Teaching Lab	1
5	Engineering Technology Lab	1
6	Postgraduates Computer Lab	2
7	Macintosh Lab	1
8	Robotic Lab	1
9	Electronic Lab	1
10	Animation Studio	1
11	Graphics Studio	1
12	Carpentry Studio	1
TOTAL		27

MISCELLANEOUS FORMS

Please refer to the FKMT website / IGS website to download miscellaneous forms.

STUDENT ATTIRE

Students must at all times comply with the student attire requirements as stipulated by the university rules when attending lectures in lecture halls and interacting with officers at the office counters. Students are also required to comply with the proper attire requirements when they are in the campus.

CONTACT ADDRESS

Faculty of Computing and Meta-Technology
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35900 Tanjong Malim, Perak Darul Ridzuan
Tel No: 05-4506000
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OFFICIAL WORKING HOURS

Monday – Thursday	:	8.00 am – 1.00 pm
		2.00 pm – 5.00 pm
Friday	:	8.00 am – 12.15 pm
		2.45 pm – 5.00 pm

CLOSING

This guidebook has been updated at the time of printing. Information contained therein may change from time to time due to amendments or additions of new information.

Note:

Information in this guidebook is accurate and valid at the time of printing. The faculty reserves the right to add new information or make amendments deemed necessary to the contents of the guidebook without giving prior notice to students.