GRADUATE STUDIES

PROSPECTUS 2014/2015

www.ump.edu.my
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GRADUATE STUDIES

PROSPECTUS 2014/2015

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AT A GLANCE
Gateway to Malaysia 2
UMP Welcomes You 4
From the Vice-Chancellor 6
Vision and Mission 7
From the Dean of IPS 8
International and Local Research Grants 9
Research and Development 10
Central Laboratory 11
Institute of Postgraduate Studies 17
IPS Organization Structure 18
Admission and Duration of Study 19
Course Fees 21
Cost of Postgraduate Studies and Financial Assistance 27
Academic Facilities and Resources 28
Student Support Services 29
List of Programmes 31
UMP Faculties and Centres 32
Application 33

FACULTIES AND CENTRES
Faculty of Chemical & Natural Resources Engineering 35
Faculty of Civil Engineering & Earth Resources 41
Faculty of Computer Systems & Software Engineering 45
Faculty of Electrical & Electronics Engineering 53
Faculty of Industrial Sciences & Technology 59
Faculty of Manufacturing Engineering 63
Faculty of Mechanical Engineering 67
Faculty of Technology 75
Centre for Modern Languages & Human Sciences 81
Preparatory Intensive English (PIE) 85
Geographically, Malaysia is as diverse as its culture. Malaysia is divided into 13 states and 3 Federal Territories, separated by the South China Sea with 11 states and 2 federal territories (Kuala Lumpur and Putrajaya) in Peninsular Malaysia and two states and 1 federal territory (Labuan) in East Malaysia.

Pahang, which covers an area of 35,960 sq. km, is the largest state in Peninsular Malaysia. Pahang has so much to offer the visitor that tourists, both locals and foreign, come back again and again.

Pahang has cool green mountains, rain forests, hill resorts, tranquil fishing villages, long stretches of sandy beaches, mysterious caves and unspoilt lakes.

With a population of 1 million, the state, which lies on the East Coast, offers the finest in beaches such as the famous Cherating Beach, Teluk Chempedak and Beserah Beach. There are the renown hill resorts of Cameron Highlands, Genting Highlands and Fraser's Hill. If you are looking for adventure, why not visit parks such as Kenong Rimba, Endau-Rompin and Taman Negara (National Park).

Source: UMP Graduate Studies Prospectus 2012
Kuantan, the capital of the State of Pahang is the gateway to an adventurous, thrilling and exhilarating tropical holiday. The town located on the east coast of the state facing the blue South China Sea is fast developing into a modern commercial center while still retaining its unique age-old charm and heritage. Modern high-rise structures cohabit harmoniously with pre-war shop houses and colonial buildings. The State Mosque, with its distinctive dome and minarets in a pastel shade of sky blue and mint green stands regal in the middle of the town as a prominent landmark to newcomers to the town.

Places of interests are aplenty in and on the outskirts of Kuantan. A visit to Kuantan is not complete without visiting some of these places, which never fail to arouse the curiosity of the visitors.

The Kuantan river cruise takes visitors through the picturesque landscape of a 500-year mangrove forest reserve that spreads along the Kuantan River. The swamp which covers an area of 340 hectares, is home to a fascinating varieties of estuarine plants, birds and fish species.

Source: UMP Graduate Studies Prospectus 2012
Universiti Malaysia Pahang (UMP) offers a wide range of practical-based higher education programmes in engineering and technology to produce competent engineers. The application-oriented curriculum which integrates theory and practice in the concept of a teaching factory emphasizes experiential and action learning that is task-oriented and concentrated on problem-solving.

UMP focuses on applied research and industrial projects to enrich the teaching and learning processes while promoting the commercialization of the research products, thus exposing our students to the latest research and development activities in the industries.

UMP's laboratories have latest equipment resembling those in industries. A 24-hour internet connection serves students through wired & wireless networks throughout the campus, making in a conducive teaching & learning environment.

Our campus is fully-equipped with the latest ICT systems, including a wireless broadband internet connection to facilitate the university's electronic-based e-Learning and e-Management activities. UMP is committed to be development of human capital and technology to fulfill the needs of industries and contribute of national development.


**UMP Campus in Gambang, Kuantan, Pahang**

UMP now operates at two separate campuses, one in Gambang of about 30 km away from the state capital Kuantan and another in the designated royal residential town of Pekan. Collectively, the University encompasses a land area of 65,000 square meters, accommodating 5,000 students.

The University is only 2.5 hours away from Kuala Lumpur, via the East Coast Expressway. Being strategically located in the East Coast Industrial Belt of Peninsular Malaysia - which hosts a number of multinational corporations (MNCs) in the chemical, petro-chemical, manufacturing, automotive and biotechnology industries. UMP students get extensive exposure to the latest development in the fields of engineering and technology.

**UMP Campus in Pekan, Pahang**

UMP’s main campus of 642 acres in Pekan began its operation in July 2009. At present, the campus harbours three engineering faculties, namely the Mechanical, Electrical & Electronics and Manufacturing Engineering faculties. When construction is fully completed, the Pekan campus can accommodate up to a total of 10,000 students and 2,000 staff.
Established in 2002 as Malaysia’s sixteenth public university, UMP currently offers graduate studies by research at Master's and Doctoral levels. Candidates for studies at the doctoral level would be admitted into the Doctor of Philosophy (PhD) programme. These programmes are offered through the respective academic faculties and centres in UMP.

The general areas of specialisation are as follows: Chemical Engineering Bioprocess, Biotechnology, Industrial Chemistry, Mechanical Engineering, Automotive Engineering, Production Engineering, Electrical Engineering, Electronic Engineering, Instrumentation, Civil Engineering, Construction Engineering, Computer Science, Software Engineering, Technology Management, Industrial Safety and Health, Human Capital Resources, Project Management and Operations Management. Potential candidates are strongly encouraged to enquire with the respective faculties on the availability of supervisor to supervise research work in specific sub-specialisation of the areas listed above.

**UMP provides campus-wide broadband coverage to facilitate students to utilise web-based e-learning applications, library-on-server and others to the maximum, creating a fun and enjoyable learning environment for our students.**

Tailoring our graduates with the needs of present job market, our curriculums are designed to meet the standards set by Ministry of Education, the Malaysian Qualifications Agency and the Engineering Accreditation Council. The curriculums focus on enhancing the capabilities of our students to become highly competent professionals and future global players.

Operating from its campuses in Gambang and Pekan. UMP provides campus-wide broadband coverage to facilitate students to utilise web-based e-learning applications, library-on-server and others to the maximum, creating a fun and enjoyable learning environment for our students.

Our engineering and science laboratories are equipped with state-of-art facilities and equipment resembling those available in the industries, enabling our students to experience a conducive post-graduate and research environment.

Welcome on board!

**Professor Dato' Dr. Daing Nasir Ibrahim**  
Vice-Chancellor  
Universiti Malaysia Pahang
VISION
To be a world-class Technological University.

MISSION
We provide high quality education, research and services in engineering and technology in a culture of creativity and innovation.

OBJECTIVES
1. To produce outstanding graduates by providing competitive engineering and technological programmes.

2. To spearhead cutting edge industry-relevant research initiatives.

3. To be a leading service provider to industries and community based on our niche and areas of expertise.

4. To be recognized as an institution for excellent management and work culture.

PHILOSOPHY
Knowledge, a trust bestowed by Allah to man vicegerent on earth, is to be fully utilized. Emphasis is an applied knowledge guided by Islamic values to develop human capital towards universal harmony and prosperity.

CORE VALUES
1. Strong bond with the creator.
2. Steadfast in upholding shared principles.
3. Creative in making wise decisions.
4. Resolute in facing challenges.
5. Proactive in taking actions.
Welcome.

"Developing Distinctive Career Through Graduate Studies At UMP"

Graduate studies is integral to the core business of a university. Provisions of graduate studies enable a university to transform its students into highly trained and knowledgeable professionals who are capable of embarking on R&D activities and of meeting industrial and organisational related challenges. The development of these professionals helps meet the human resources requirement of the country.

Provisions of graduate studies enable a university to transform its students into highly trained and knowledgeable professionals. Such professionals are capable of embarking on R&D activities and of meeting industrial and organisational related challenges. Graduate studies prepare students to develop a distinctive career. The advance knowledge and skills acquired through graduate studies at Universiti Malaysia Pahang (UMP) would make them leading researchers in the respective fields. At UMP we nurture our graduate students to be confident and independent thus enable them to spearhead entrepreneurial activities on their own.

Institute of Postgraduate Studies (IPS), UMP is committed towards facilitating highly motivated individuals to develop distinctive career through graduate studies. Being a focus university specializing in engineering and technology, UMP hopes to produce future leaders in these fields. We are looking for qualified undergraduates and graduates in the relevant fields who have a strong desire and passion to pursue Master and PhD degrees. Therefore it is with great pleasure that I welcome aspiring applicants to join us at IPS, UMP in our endeavour to become a world class technological university.

Professor Dr. Abdullah Bin Embong
Dean of Institute of Postgraduate Studies
Internal Grants
- UMP Research Grant Scheme
- UMP Postgraduate Research Grants Scheme (PGRS)
- UMP Seed Money Research Grant

National Grants
- RACE - Research Acculturation Collaborative Effort
- FRGS - Fundamental Research Grant Scheme
- ERGS - Exploratory Research Grant Scheme
- PRGS - Fundamental Research Grant Scheme
- LRGS - Long Term Research Grant Scheme
- MOST - eR&D (ScienceFund, Technofund & Innofund)

International Grants
- NPRP (Qatar Government)
- TWAS-COMSTECH (O.I.C. Countries)
- APT (Asia Pacific Telecommunity)
- EPICS (IEEE)
- Intel Research Grant (Intel)
- Weener-Gren Foundation
- JSPS Ronpaku
- Nippon Sheet Glass Foundation
- MTSF - The Malaysian Toyota Science Foundation
- SEAMEO Jasper
- The Korea Research Foundation
- The Sumitomo Foundation
- Pan Asia ICT R&D Grants Programme
UMP's research are centred around specific Niche Areas which are:
- Chemical Engineering and Industrial Biotechnology
- Automotive Engineering and Manufacturing

The university focuses on applied research and industrial projects to boost the teaching and learning process with four focus groups and six expert groups:

**Focus Group**
- Chemical Engineering
- Biotechnology
- Automotive
- Manufacturing

**Expert Groups**
- Process Instrumentation and Control
- Innovative Construction
- Information Technology
- Human Sciences
- Environmental
- Advanced Material
- Communications

**International Recognition and Achievements**

The University has established links with reputable institutions of higher learning in Germany, United States, Indonesia and more on academic collaboration, student as well as staff exchange, and research.

Exhibition of research products by renowned researchers of the University is among the university's main agenda. UMP has received various awards from the International Invention, Innovation, Industrial Design and Technology Exhibition (ITEX), the International Exhibition Ideas - Inventions New Products (IENA 07) in Germany, the Malaysian Invention and Design Society (MINDS) and many more.
**Introduction**

- The idea to develop a Central Laboratory in UMP was submitted in 2009 and the lab was completed by 2010. The official launching ceremony was on June, 17th 2011.
- Central Laboratory was developed as proposed by the Department of Higher Education to fulfill university needs of highly centralized facilities, equipped with the latest technology and expertise for analysis and testing.
- To promote optimum usage of analysis and testing facilities among the academia and industry.
- Central Laboratory is divided into 3 departments; Chemistry Department, Biotechnology Department & Material Department.

**Vision**

To be a Centre of Excellence in technical services of choice.

**Mission**

We provide a world class facility for technical services and development of novel process and products in partnership with industry.

**Contact**

Tel: 6(09) - 549 3351  Fax: 6(09) - 549 3353
Client Charter

- Central Laboratory is committed in providing the best service to our clients.
- Central Laboratory shall provide accurate, reliable and timely test reports to the clients.
- Any request that have been agreed on by both parties in the early stage cannot be changed once the relevant documents have been signed.
- Central Laboratory will be responsible for the test results issued to our clients.
- Central Laboratory shall maintain high professionalism, confidentiality and integrity at all times.

Objective

- To be the center of reference in technical services for academia and industry.
- To provide services by highly trained and competent personnel.
- To attain and maintain International Standard accreditation.
- To support the Malaysian government policy in developing accredited technical service facilities.
- To support the development of entrepreneurs in commercialization of industrial services, novel processes and products.
- To generate return on investment to the University through services offered.
- To become the leading testing laboratory in the East Coast area.

What We Offer

We offer analysis and testing services in the area of:
- Food & Animal Feeds
- Medical Specimen & Industrial Hygiene
- Agriculture & Natural Product
- Environment
- Pharmaceutical, Toiletries & Cosmetics
- Material, Metal & Mineral
- Petrochemical
Chemistry Department

Laboratory

1. Inductively Coupled Plasma MASS Spectrometer (ICPMS) Laboratory

Services
- Elemental Analysis in solid, liquid and semi-solid
- Applicable for food, plant, environment, petrochemical, clinical, geological samples, agriculture and pharmaceutical
** Accredited by Sistem Akreditasi Makmal Malaysia, MS ISO/IEC 17025:2005

2. Nuclear Magnetic Resonance (NMR) Laboratory

Services
- Identification of unknown substances
- Structure verification and elucidation
- Verification of compound purity for raw materials
- Quality control for chemical products
- Chemical reaction research
- Development of chemical products

3. Gas Chromatography (GC) Laboratory

(i) GC Q-TOF MS

Services
- For separating, analyzing & identification of compound that can be vaporized using high resolution and accurate mass spectrometer, Time Of Flight (TOF).

(ii) GC MS

Services
- To identify different substances within a test sample.
- Applicable for drug detection, environmental analysis, natural product and unknown samples.
4. Liquid Chromatography (LC) Laboratory
PREP- LC | LC-MS/MS

Services
- To isolate compounds for drug discovery experiments, to isolate unknown impurities or metabolites, and to purify standards, natural products and biomolecules.

5. Elemental Analysis Laboratory
(i) CHNOS Analyzer

Services
- Determine and analyze C,H,N,O,S in organic and inorganic samples.
- Applicable for solid and liquid samples.

(ii) MERCURY Analyzer

Services
- Mercury detection up to 10 ppm for solid, liquid and gas samples (ex: blood, soil, hair, urine, meat, water etc).
- Applicable for food, environment, petrochemical, clinical, pharmaceutical, agriculture.

6. Water Testing Laboratory
Spectrophotometer

Services
- Water Quality Testing
- Waste Water Quality Testing
- Based on DOE requirement

7. Gas, Diesel & Petroleum (GDP) Laboratory
Spectrophotometer

Services
- To analyse physical and chemical properties of gas, diesel and petroleum samples.

Contact Information
For additional information about Chemistry Department, its services or any other related matter please contact:

Nor Hafizah Zainal Abidin
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Mohd Rafie Rosly
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09 - 549 3346

Siti Nur Fashiha bt Mohd Yasin
nurfashiha@ump.edu.my
09 - 549 3297
Material Department

Laboratory

1. X-RAY Fluorescence (XRF)

**Services**
- Bulk chemical analysis of major elements (Be to U)
- Elemental identification

2. Field Emission Scanning Electron Microscope (FESEM)

**Services**
- Provide images at very high magnification & resolution.
- Elemental identification and element surface mapping via EDX.
- STEM detector for transmission mode (basic TEM imaging).
- Possess the ability to study on nano materials.

3. Scanning Electron Microscope (SEM)

**Services**
- Provides image at high magnification
- Suitable for surface analysis (morphology)

**Contact Information**
For additional information about Material Department, its services or any other related matter please contact:

**Azinuddin Zulfahmi Megat**
azinudin@ump.edu.my
09 - 549 3334

**Syahidah Alwi**
syahidahalwi@ump.edu.my
09 - 549 3336

**Norhaslina Abu Samah**
haslina@ump.edu.my
09 - 549 3296
Biotechnology Department

Laboratory

1. Microbiology & Culture Collection Laboratory

Equipments
- Research Fluorescence Microscope
- Colony Counter
- Automated Microbial Identification System
- Freeze Dryer

Services
Identification of Microorganism, Microbiological Analysis **, Freeze Drying, Imaging.

**Accredited by Sistem Akreditasi Makmal Malaysia, MS ISO/IEC 17025:2005

2. Molecular Technology Laboratory

Equipments
- Real Time PCR
- Conventional PCR
- Electrophoresis System & BioImaging System
- BioPhotometer

Services
Isolation and Detection of DNA: Animal, Plant & Microorganism, Pork Detection (Halal Analysis), Pathogen Detection.

3. Food Technology Laboratory

Services
Proximate Analysis

Contact Information
For additional information about Biotechnology Department, its services or any other related matter please contact:

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09 - 549 3342

Fadhlullah Rahman
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09 - 549 3352
Institute of Postgraduate Studies (IPS) supervises and promotes the graduate programmes of UMP. This includes administering the admission, appointment of supervisors, candidature reviews, provision of financial assistance and assessment. The centre is headed by a dean who is assisted by administrative officers and administrative assistants.

**Graduate Programmes**

UMP currently offers two modes of study at the graduate level. The graduate studies by coursework at the Masters level and graduate studies by research are at Master’s and Doctoral levels. These programmes are offered through the respective academic faculties of UMP. The general areas of specialization are as follows:

- Chemical Engineering
- Bioprocess Engineering
- Biotechnology
- Industrial Chemistry
- Mechanical Engineering
- Automotive Engineering
- Production Engineering
- Electrical Engineering
- Electronic Engineering
- Instrumentation
- Civil Engineering
- Construction Engineering
- Computer Science
- Software Engineering
- Technology Management
- Industrial Safety and Health
- Human Capital Resources
- Project Management
- Operations Management

Potential candidates for the research mode programmes are strongly encouraged to enquire the respective faculties on the availability of a supervisor to supervise research work in specific subspecialization areas listed above.
Professor Dr. Abdullah Bin Embong
Dean
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Assistant Registrar
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- Promotion & Exhibition
- Professional & Personal Development Unit
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Assistant Administration Officer
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- Convocation
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Administrative Assistant
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- Promotion & Exhibition
- Web Master
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Email: ahanisah@ump.edu.my

Mohd Azizi Bin Ishak
Administrative Assistant
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- Scholarship
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Mohd Rahmad Bin Ya
Office Assistant
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Email: mrahmad@ump.edu.my
**Admission**

Application for a research-based degree is open throughout the year. Interested applicants should first visit the website of the respective faculties to identify a potential supervisor. IPS encourages applicants to communicate with their potential supervisor in the course of preparing the research proposal that is required for admission.

Applicants may apply through UMP's website [http://www.ump.edu.my > Master & PhD > Institute of Postgraduate Studies > Online application](http://www.ump.edu.my). Applicants are encouraged to follow-up with IPS on the status of their application at least one (1) month after submitting their application. The duration of an application process is one (1) month approximately.

**Admission Requirements**

**Doctoral Programme**
A Master degree in the relevant area from a university or institute recognized by the University Senate OR an equivalent professional qualification in a related field recognized by the University Senate.

**Master Programme**

a) **Master Degree Programme (Full Time / Part Time by Research)**
A Bachelor degree with honours (minimum 2.75/4.00)* in the relevant area from recognized universities or equivalent professional qualifications that are recognized by the University Senate.

*b*subject to Faculty requirement

b) **Master Degree Programme (Full Time / Part Time by Coursework)**
- Recognized degree with CPA 2.50/4.00 and above or
- Recognized degree with CPA lower than 2.50/4.00. The candidates must have minimum of 5 years working experience in related fields.

**English Language Requirements**

Candidates should have a good command of English equivalent to IELTS 6.0, TOEFL* 550 points (for international students only) or MUET Band 4 (for local students only).

*TOEFL ITP is not acceptable.*

Candidates who have obtained a lower result or have not taken the TOEFL / IELTS are required to sit for the Preparatory Intensive English (PIE) classes and obtain Band 6.0 in the UMP English Proficiency Test (UMP-EPT) before registration. For more information regarding PIE, please refer to page 85.
Mode Of Study

An applicant may choose to enrol as a full time or part time student subject to the study programme offered by the Faculty. However, international candidates may only register as full-time students.

Research Programme

<table>
<thead>
<tr>
<th>Programme</th>
<th>Full-Time</th>
<th>Part-Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum no. of semesters</td>
<td>Maximum no. of semesters</td>
</tr>
<tr>
<td>Master</td>
<td>2 semesters</td>
<td>6 semesters</td>
</tr>
<tr>
<td>PhD</td>
<td>4 semesters</td>
<td>12 semesters</td>
</tr>
</tbody>
</table>

Coursework Programme

<table>
<thead>
<tr>
<th>Programme</th>
<th>Full-Time</th>
<th>Part-Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum no. of semesters</td>
<td>Maximum no. of semesters</td>
</tr>
<tr>
<td>Master</td>
<td>3 semesters</td>
<td>6 semesters</td>
</tr>
</tbody>
</table>
### Course Fees

#### Research

Total academic fee per semester (in MYR**)

<table>
<thead>
<tr>
<th></th>
<th>Full Time</th>
<th></th>
<th>Part Time</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local (MYR)</td>
<td>International (MYR)</td>
<td>Local (MYR)</td>
<td>International (MYR)</td>
</tr>
<tr>
<td></td>
<td>1st</td>
<td>Subsequent</td>
<td>1st</td>
<td>Subsequent</td>
</tr>
<tr>
<td>Master</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cluster: Engineering</td>
<td>2,150</td>
<td>1,600</td>
<td>4,330</td>
<td>3,480</td>
</tr>
<tr>
<td>Cluster: Science</td>
<td>2,150</td>
<td>1,600</td>
<td>3,330</td>
<td>2,480</td>
</tr>
<tr>
<td>PhD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cluster: Engineering</td>
<td>2,650</td>
<td>1,900</td>
<td>4,830</td>
<td>3,780</td>
</tr>
<tr>
<td>Cluster: Science</td>
<td>2,650</td>
<td>1,900</td>
<td>3,830</td>
<td>2,780</td>
</tr>
</tbody>
</table>

1. Health Insurance: MYR300.00 per year
2. Visa: MYR20.00 - MYR100.00 (depending on the country of origin)
3. Personal Bond (required by Immigration Office-depending on the country of origin)
4. Student Pass: MYR60.00 per application
5. Social Pass/Renewal per passport: MYR90.00
6. Special Pass: MYR100.00 (if application is late for renewal of Visa)
7. Social pass for a child in a student's passport: MYR500
8. Personal Insurance: MYR270

**MYR: Ringgit Malaysia**
## Course Fees

### Coursework

1. **MASTER OF ENGINEERING**
   - Master of Chemical Engineering with Entrepreneurship

<table>
<thead>
<tr>
<th>Component</th>
<th>Local Student (MYR 285/credit hour)</th>
<th>International Student (MYR 400/credit hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; Semester</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Semester</td>
</tr>
<tr>
<td>Tuition Fees (MYR)</td>
<td>4,275 (15 c/hour* x MYR285)</td>
<td>4,275 (15 c/hour* x MYR285)</td>
</tr>
<tr>
<td>Services</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Health</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>Welfare</td>
<td>30</td>
<td>30</td>
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<tr>
<td>Insurance</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Examination Fees</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>One Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registration</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Student Card</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Alumni</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Sub-Total</td>
<td>5,250</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>TOTAL (MYR)</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* MYR: Ringgit Malaysia
  c/hour: credit hours
2. MASTER OF SCIENCE
- Computer Networking
- Software Engineering

<table>
<thead>
<tr>
<th>Component</th>
<th>Local Student (MYR 285/credit hour)</th>
<th>International Student (MYR 400/credit hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st Semester</td>
<td>2nd Semester</td>
</tr>
<tr>
<td>Tuition Fees (MYR)</td>
<td>4,560 (16 c/hour* x MYR285)</td>
<td>4,275 (15 c/hour* x MYR285)</td>
</tr>
<tr>
<td>Services</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Health</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Welfare</td>
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<td>30</td>
</tr>
<tr>
<td>Insurance</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Examination Fees</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>One Off</td>
<td>Registration</td>
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<td>Sub-Total</td>
<td>5,510</td>
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<td>TOTAL (MYR)</td>
<td>13,750</td>
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* MYR: Ringgit Malaysia
  c/hour: credit hours
### 3. MASTER OF SCIENCE
- Information & Communication Technology

<table>
<thead>
<tr>
<th>Component</th>
<th>Local Student ( MYR 285/credit hour)</th>
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<tr>
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<td>2&lt;sup&gt;nd&lt;/sup&gt; Semester</td>
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<td>4,560 (16 c/hour* x MYR285)</td>
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<tr>
<td>Services</td>
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<td>Insurance</td>
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<td>Examination Fees</td>
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* MYR: Ringgit Malaysia  
  c/hour: credit hours
4. MASTER OF BUSINESS ADMINISTRATION

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<th>Component</th>
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<td>2&lt;sup&gt;nd&lt;/sup&gt; Semester</td>
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<td>Insurance</td>
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<tr>
<td>Welfare</td>
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<tr>
<td>Examination Fees</td>
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<tr>
<td>One Off</td>
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<td>Registration</td>
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<td>Student Card</td>
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<td>Alumni</td>
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<td><strong>TOTAL (MYR)</strong></td>
<td><strong>TOTAL (MYR)</strong></td>
<td><strong>TOTAL (MYR)</strong></td>
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<tr>
<td></td>
<td><strong>19,300</strong></td>
<td><strong>19,300</strong></td>
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</tbody>
</table>

* MYR: Ringgit Malaysia  
  c/hour: credit hours
### 5. MASTER OF MECHANICAL ENGINEERING

<table>
<thead>
<tr>
<th>Component</th>
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<td>1&lt;sup&gt;st&lt;/sup&gt; Semester</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Semester</td>
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<tr>
<td>Tuition Fees (MYR)</td>
<td>4,275 (15 c/hour x MYR285)</td>
<td>4,275 (15 c/hour x MYR285)</td>
</tr>
<tr>
<td>Services</td>
<td>300</td>
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<td>Health</td>
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<td>Insurance</td>
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<tr>
<td>Examination Fees</td>
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<td>One Off</td>
<td></td>
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<tr>
<td>Registration</td>
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<tr>
<td>Student Card</td>
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<tr>
<td>Sub-Total</td>
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<td>5,000</td>
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<tr>
<td><strong>TOTAL (MYR)</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* MYR: Ringgit Malaysia  
  c/hour: credit hours
Cost of Postgraduate Study

The estimated total cost of studying at UMP (inclusive of tuition and living expenditure) for an 18 month Master degree candidature is RM35,000. The estimated total cost for a 36 month doctoral candidature is about RM70,000. The bulk of this cost is living cost since the tuition fees charged for both Malaysian and international students are low. As such, the actual total cost depends on the candidates’ lifestyle and preferences.

International students are required to take life insurance of RM300 per year. International students are also advised to take up medical insurance for self and family due to the high cost of medical services in Malaysia.

Financial Assistance

UMP does provide a limited number of financial assistance for deserving candidates. This assistance may cover living cost only or cover both living expenses and tuition fees. The financial assistance by UMP is in two forms, being:

Graduate Research Scheme (GRS)
- The UMP Graduate Research Scheme (GRS) is awarded to outstanding postgraduate students who have a passion for research and are able to demonstrate leadership qualities and soft skills that will benefit their faculty or Centre of Excellence.

- This entitles the student to monthly allowance only as below:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Amount (MYR)</th>
<th>Maximum Duration</th>
</tr>
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<tbody>
<tr>
<td>Master Degree</td>
<td>MYR 1,500.00</td>
<td>24 months</td>
</tr>
<tr>
<td>Doctor of Philosophy</td>
<td>MYR 1,800.00</td>
<td>36 months</td>
</tr>
</tbody>
</table>

Note: Maximum appointment and funding for Master’s Degree is up to 2 years. Maximum Appointment and funding for Doctoral Studies is up to 3 years. Tuition and Exam Fees are not covered.

Doctoral Scholarship Scheme (DSS)
- The UMP Doctoral Scholarship Scheme (DSS) is awarded to outstanding postgraduate students who have a passion for research and are able to demonstrate leadership qualities and soft skills that will benefit their faculty or Centre of Excellence.

- This entitles the student to monthly allowance and tuition fees only as below:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Amount (MYR)</th>
<th>Maximum Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor of Philosophy</td>
<td>MYR 1,800.00</td>
<td>36 months</td>
</tr>
</tbody>
</table>

UMP Fellowship Scheme
Further information for UMP Fellowship Scheme and application forms can be accessed through website [http://pendaftar.ump.edu.my](http://pendaftar.ump.edu.my). Approval for this scheme will be considered through an interview process.
Funding Scheme From Ministry Of Education (MOE)

MyBrain15 programme (MyMaster, MyPhD & MyPhD Industry)

MyBrain15 program is a funding program of study at postgraduate level and become one of the critical agenda projects under the National Higher Education Strategic Plan (PSPTN). The aim of the program is to create a group of highly knowledgeable human resource as a catalyst for research, development and innovation. The implementation of this program will be able to develop a first world talent base that will be one of the initiatives to drive Malaysia into a high income nation.

Under this program, the Government aims to produce 60,000 PhD holders among the people of Malaysia by the year 2023. The programs are implemented through MyBrain15 Program MyPhD, MyMaster, MyPhD Industry.

For further details please visit this website:

MyBrain15: http://www.mohe.gov.my/MyBrain15

MyPhD
https://payloan.mohe.gov.my/MyBrain15/index_myphd.php

MyMaster
https://payloan.mohe.gov.my/MyBrain15/index_mymaster.php

MyPhD Industry
https://payloan.mohe.gov.my/MyBrain15/index_phdindustri.php

Academic Facilities and Resources

UMP’s laboratories have the latest equipment resembling those in industries. A 24-hour internet connection serves students through the wired and wireless networks throughout the campus, making it a conducive teaching and learning environment.

Library

UMP has two libraries, one at each campus. The library of UMP plays an important role in its service for resource in teaching and learning, research and consultancy. It is also a catalyst in promoting culture of knowledge sharing at UMP and the community enriching various knowledge repository.

The Library in Pekan campus started its service since March 2010. UMP's libraries have a vast collection of books and multimedia for circulation and reference. UMP subscribes to various repository databases such as Physical facilities include discussion rooms, seminar rooms, multimedia room, computer laboratories and audio visual rooms.

The e-Resource of UMP’s Library provides comprehensive access to full-text e-Journals available at the Library. The portal allows you to search for online databases, e-Journals, e-Books by title or browse title by subject. The e-Resource provides both on-campus and off-campus access to the Library's Electronic Resource.
**Student Support Services**

UMP at MEC City Gambang has been specially refurbished to provide an excellent study and learning environment. The University provides a wide variety of campus facilities for its academic staff and students. UMP has set up facilities to ensure that students enjoy the convenience of travel and accommodation when undertaking a program at the university.

UMP is equipped with wireless internet accesses, which allow students and staff to access the internet from their laptops. Wireless internet access points have been installed at strategic locations on campus to facilitate internet access. UMP students, with notebooks, thus have the advantage of being able to access the internet anywhere, anytime on campus that is within range of the wireless internet access points. This flexibility allows them to access and download material from the web directly to their notebooks at their convenience.

The Student Affairs & Alumni Department (SAFFAD) administers all matters relating to student welfare on campus. There are numerous student clubs and societies to meet the varied interests and recreational needs of the students.

**International Office**

The International Office (IO) serves as a 'one stop centre' for all internationalisation activities of the University. IO is committed to provide high quality services to its internal and external clients. The IO will also strive to promote and enrich the academic and cultural experience at UMP by facilitating the exchange of people and ideas.

**Accommodation**

UMP provides ample accommodation for undergraduate and graduate students in five residential colleges. Available allocation is for 70% students only. Rooms type available are single, twin sharing and quad sharing. Bus service is provided to students who are living at nearby housing estates for commuting to the campuses. An inter-campus bus service is also provided every 15 minutes in the morning and another series in the evening.
There is no allocation for family houses or apartments. However, the SAFFAD can assist in the search for local private houses for rent in the vicinity, within a 25km radius. Rentals for unfurnished 2-4 bedroom houses are usually set between RM500.00 - RM1,000.00 (USD140.00 - USD280.00) per month.

Transit houses are available for students with families (spouse and children) while they search for house to rent. The maximum period given for each student family to stay at a Transit house is six months only. **Transit house is not part of the students' residential facilities.**

**Sports Facilities**

Sport facilities in UMP campus: gymnasium, badminton court, squash court, table tennis, tennis court, basketball, soccer field, volleyball and takraw court. The sports complex building has the biggest capacity in Pahang with twelve badminton courts. UMP also has a jogging track with exercise equipment.

**Health Services**

UMP has a medical centre that gives outpatient services to the students and staff of UMP. It is situated strategically in the centre of the campus with easy access for all students.

**Postgraduate Students Club (POSTAC)**

POSTAC whose membership comprise of all graduate students has been formed. The main objective of the club is to help create an environment conducive for graduate studies. The club provides support to new students to settle down in UMP and organize recreational and leisure activities for its members. IPS also provides allocation to help finance the club’s activities.
Doctor of Philosophy

**Engineering : Cluster**
- Automotive
- Bio-Process
- Chemical
- Civil
- Construction
- Electrical
- Electronic
- Gas
- Industrial
- Instrumentation
- Manufacturing
- Mechanical
- Mechatronic

**Science : Cluster**
- Advanced Materials
- Biotechnology
- Chemistry
- Computer Science
- Environmental Technology
- Environmental Management
- Food Science
- Food Technology
- Humanities Technology
- Industrial Chemistry
- Mathematics
- Physics
- Software Engineering
- Statistics
- Technology Management

Master of Science

**Engineering : Cluster**
- Automotive
- Bio-Process
- Chemical
- Civil Engineering
- Construction
- Electrical
- Electronic
- Gas
- Industrial
- Instrumentation
- Manufacturing
- Mechanical
- Mechatronic

**Science : Cluster**
- Advanced Materials
- Biotechnology
- Chemistry
- Computer Science
- Environmental Technology
- Environmental Management
- Food Science
- Food Technology
- Industrial Chemistry
- Mathematics
- Physics
- Software Engineering
- Statistics
- Human Capital Resources
- Industrial Safety & Health
- Operation Management
- Project Management
- Techno-preneurship
- English Language & Professional Communication
- Halal Management System
- Human Performance System
- Technology Enhanced Language Learning
**UMP Faculties and Centres**

**Pekan Campus**
- Faculty of Electrical & Electronics Engineering
- Faculty of Manufacturing Engineering
- Faculty of Mechanical Engineering
- Automotive Engineering Centre, AEC

**Gambang Campus**
- Faculty of Industrial Sciences & Technology
- Faculty of Chemical & Natural Resources Engineering
- Faculty of Civil Engineering & Earth Resources
- Faculty of Computer Systems & Software Engineering
- Faculty of Technology
- Centre for Modern Languages & Human Sciences
- Center of Excellence for Advanced Research in Fluid Flow (CARIFF)
- Centre for Earth Resources Research & Management (CERRM)
How To Apply

Application needs to be done online through our website [http://ips.ump.edu.my](http://ips.ump.edu.my). All supporting documents as well as qualifications to satisfy the entry requirements, such as academic transcripts and degree scrolls, English language proficiency as well as your identity documents and proof of payment. These documents must be sent in hardcopy (certified by an academic or your employer) as soon as the online application is made. IPS will acknowledge receipt of your documents and you will receive an offer letter if your application is successful.

When To Apply

Applications for programmes by coursework is opened twice a year, usually in January and July. It is important to check the deadline for your chosen programme. Applications received before the deadlines will be processed promptly, while applications received past the deadlines, will be processed only if vacancies are available for the selected programme.

Applications for graduate studies programmes by research mode is open throughout the year.

Terms And Conditions

If you accept the offer of a place at the Universiti Malaysia Pahang a contract is formed. The terms of this contract include the following conditions, and your acceptance of a place is expressly subject to them.

As a condition of enrolment you will need to:
- Produce a proof of identity
- Produce documentary evidence that you satisfy the entry requirements of the course, or have qualifications deemed equivalent by the University
- Pay the fees prescribed for the course in accordance with published payment schedules, or produce acceptable evidence of sponsorship

As a condition of enrolment you must also abide by the University’s Memorandum and Articles, Statutes, Regulations, Rules, Procedures and Codes of Conduct as amended from time to time under the authority of the Court of Governance or the Senate.
Faculty of Chemical and Natural Resources Engineering (FKKSA) of UMP was established in 2002 with the aim of providing engineering programmes in the field of chemical and natural resources engineering. The faculty is also tasked to embark on research and development activities, particularly in the area of fine and specialty chemicals, chemical process up-scaling and biotechnology-related processes in order to generate expertise relevant to the needs of the industry especially the nearby Gebeng, Kerteh and Paka Industrial Area. Various research activities in the chemical engineering and industrial biotechnology-related area have been conducted with the aim of developing indigenous resources. The broad areas of research in the faculty are as follows:

- Industrial Biotechnology
- Renewable Energy
- Separation Processes
- Fluid Flow
- Advance Material
- Reaction Engineering
- Food/Pharmaceutical/Drug
- Combustion/Explosion Engineering
- Process Control, Instrumentation and Optimization
- Environmental Engineering
- Computational Fluid Dynamic (CFD)
- Process Design, Modelling and Operation
- Ionic Liquid
- Oil and Gas Engineering
- Process Safety

The research and development activities are supported by the state-of-art facilities in the Chemical Engineering Laboratory and the expertise in various research areas. The details of the facilities and expertise could be obtained through the FKKSA’s website.

Contact
Dean
Faculty Of Chemical & Natural Resources Engineering
Universiti Malaysia Pahang
Lebuhraya Tun Razak, 26300 Gambang, Kuantan, Pahang, MALAYSIA
Tel: 6(09) - 549 2888
Fax: 6(09) - 549 2889
http://fkksa.ump.edu.my
MASTER OF CHEMICAL ENGINEERING WITH ENTREPRENEURSHIP

- Coursework

**Course Structure**
- Transport Phenomena
- Advanced Chemical Reaction Engineering
- Accounting and Financing for Entrepreneur
- Business Law
- Chemical Product Design and Management
- Advanced Separation System
- Advanced process Control & Instrumentation
- Business Practices Entrepreneurship
- Business Plan
- Intellectual Property Law
- Dissertation/Master Project

**Electives**
- Biocatalyst and Bioenergy
- Biotechnology Entrepreneurship Management
- Recycling and Reuse of Water Composites Rubber
- Technology & Engineering
- Polymer Technology
- Corrosion Engineering

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**Admission Requirements**

- Recognized degree with CPA 2.50/4.00 and above or
- Recognized degree with CPA lower than 2.50/4.00. The candidates must have minimum of 5 years working experience in related fields.

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**English Language Requirements**

Candidates should have a good command of English equivalent to IELTS 6.0, TOEFL* 550 points (for international students only) or MUET Band 4 (for local students only).

*TOEFL ITP is not acceptable.

Candidates who have obtained a lower result or have not taken the TOEFL / IELTS are required to sit for the Preparatory Intensive English (PIE) classes and obtain Band 6.0 in the UMP English Proficiency Test (UMP-EPT) before registration. For more information regarding PIE, please refer to page 85.
### Duration

<table>
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<th>Programme</th>
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<td>Maximum no. of semesters</td>
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<tr>
<td>Master</td>
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### Course Fees

<table>
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<th>Component</th>
<th>Local Student (MYR 285/credit hour)</th>
<th>International Student (MYR 400/credit hour)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; Semester</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Semester</td>
</tr>
<tr>
<td>Sub-Total</td>
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</tr>
<tr>
<td>TOTAL(MYR)</td>
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<td>19,765</td>
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MYR: Ringgit Malaysia
MASTER OF SCIENCE and DOCTOR OF PHILOSOPHY
- Research

Research Thrust Areas

Chemical Engineering
- Catalyst and Reaction Engineering
- Chemical Engineering Design
- Chemical Process Simulation
- Chemical/Physical Modification
- Fluid Mechanics
- Heat/Mass Transfer Operations
- Indigenous Raw Materials Processing
- Industrial Chemical Production
- Plant Design and Testing
- Polymerisation Process
- Process Control

Bio-Process Engineering
- Bioconversion
- Biofertilizer
- Biofuel
- Bioplastic
- Bioprocess Design
- Bioseparation
- Design Technology
- Downstream Processing
- Enzyme Technology
- Fermentation Technology
- Immobilized Technology
- Product Recovery

Environmental Technology
- Waste of Wealth/Resource Recovery
- Environmental Monitoring and Characterization
- Environmental Engineering & Hydrodynamic

GIS & Remote Sensing
- River Basin and Flood Control

Gas Engineering
Admission Requirements

**Master Applicant**
A Bachelor degree with honours (minimum 2.75/4.00)* in the relevant area from recognized universities or equivalent professional qualifications that are recognized by the University Senate.

*subject to Faculty requirement

**PhD Applicant**
A Master degree in the relevant area from a university or institute recognized by the University Senate OR an equivalent professional qualification in a related field recognized by the University Senate.

**English Language Requirements**
Candidates should have a good command of English equivalent to IELTS 6.0, TOEFL* 550 points (for international students only) or MUET Band 4 (for local students only).

*TOEFL ITP is not acceptable.

Candidates who have obtained a lower result or have not taken the TOEFL / IELTS are required to sit for the Preparatory Intensive English (PIE) classes and obtain Band 6.0 in the UMP English Proficiency Test (UMP-EPT) before registration. For more information regarding PIE, please refer to page 85.

**Admission**
Application for a research-based degree is open throughout the year. Interested applicants should first visit the website of the respective faculties to identify a potential supervisor. IPS encourages applicants to communicate with their potential supervisor in the course of preparing the research proposal that is required for admission. Applicants may apply through UMP’s website [http://www.ump.edu.my > Master & PhD > Institute of Postgraduate Studies > Online application](http://www.ump.edu.my > Master & PhD > Institute of Postgraduate Studies > Online application). Applicants are encouraged to follow-up with IPS on the status of their application at least one (1) month after submitting their application. The duration of an application process is one (1) month approximately.
### Duration

<table>
<thead>
<tr>
<th>Programme</th>
<th>Full-Time</th>
<th>Part-Time</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Minimum no. of semesters</td>
<td>Maximum no. of semesters</td>
</tr>
<tr>
<td>Master</td>
<td>2 semesters</td>
<td>6 semesters</td>
</tr>
<tr>
<td>PhD</td>
<td>4 semesters</td>
<td>12 semesters</td>
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### Course Fees

Total academic fee per semester (in MYR**)

<table>
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<tr>
<th>Programme</th>
<th>Faculty</th>
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<th>International (MYR)</th>
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<td>1st</td>
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<td>1st</td>
</tr>
<tr>
<td>Master</td>
<td>Full Time</td>
<td>2,150</td>
<td>1,600</td>
<td>4,330</td>
</tr>
<tr>
<td>PhD</td>
<td></td>
<td>2,650</td>
<td>1,900</td>
<td>4,830</td>
</tr>
</tbody>
</table>
The Faculty offers postgraduate programmes in Innovative Construction, Geotechnical & Transportation and Environmental Engineering. Other supportive areas of research include potable water supply and smart traffic engineering. The Environmental and Chemical Laboratory at the faculty has been accredited and it is the centre for testing samples in the eastern region of Peninsular Malaysia. The Faculty provides excellent research opportunities for students in all fields of science, engineering and technology.

**Innovative Construction Expert Group**
This is one of the expert groups in the Faculty of Civil Engineering which is focused on innovative construction of structures and use of materials which includes the Industrialised Building Systems, Sustainable Green Index Construction, Intelligent Building Maintenance, Innovative Construction Materials and Information Technology in Construction. This group has interesting projects associated with IBS and innovative materials as experimental projects as well as the use of ICT in construction such as Construction Industry Value Chain, Facilities Management and Building Information Modeling. This group is headed by Prof. Datin Dr. Nasly Mohamed Ali and Dr. Cheng Hock Tian.

**Environmental Engineering**
Environmental Engineering and Hydrodynamics includes Domestic and Industrial Wastewater Treatment and Clean Energy Production. The Expert Group is an active group involving Sustainable Water & Wastewater Treatment & Reuse, Sustainable Management of Municipal & Industrial Wastes, and Waste to Wealth/ Resource recovery. This team is headed by Dr. Edriyana A. Aziz.

**Contact**
Dean  
**Faculty of Civil Engineering and Earth Resources**  
Universiti Malaysia Pahang  
Lebuhraya Tun Razak, 26300 Gambang,  
Kuantan, Pahang, MALAYSIA

Tel: 6(09) - 549 2999  
Fax: 6(09) - 549 2998  
http://fkasa.ump.edu.my
Geotechnical & Transportation
Sustainable Highway & Transportation Index, Highway materials and safety, Soil improvement and GIS & Remote Sensing. This expert group is headed by Dr. Muzamir Bin Hassan.

MASTER OF SCIENCE and DOCTOR OF PHILOSOPHY
- Research

Research Thrust Areas

**Structures and Materials**
- Industrialized Building System
- Steel Frames and Trusses
- Interlocking load bearing blocks

Sustainable Construction
- Structural Engineering
- Building Engineering

Innovative Construction Material
- Fibre Reinforced Concrete
- High Strength Concrete
- In Field Treatment Process
- Concrete Materials

Geotechnical and Highway Engineering
- Sustainable Highway & Transportation Index
- Highway Safety
- Highway Material
- Soil Improvement
- GIS & Remote Sensing

**ICT in Construction**
- Finite Element Analysis
- Database & Information Systems
- Building Information Modeling
- Building & Construction
- Sustainable Construction
- Facilities Management
- Building Maintenance
- Construction Industry Value Chain
- Construction Project Management
- Green Building Index

**Environmental Management**
- Sustainable Water & Wastewater Treatment & Reuse
- Sustainable Management & Municipal & Industrial Wastes
Admission Requirements

Master Applicant
A Bachelor degree with honours (minimum 2.75/4.00)* in the relevant area from recognized universities or equivalent professional qualifications that are recognized by the University Senate.
*subject to Faculty requirement

PhD Applicant
A Master degree in the relevant area from a university or institute recognized by the University Senate OR an equivalent professional qualification in a related field recognized by the University Senate.

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Admission

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### Course Fees

Total academic fee per semester (in MYR**)

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<td>1st</td>
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<tr>
<td>Master</td>
<td>2,150</td>
<td>1,600</td>
</tr>
<tr>
<td>PhD</td>
<td>2,650</td>
<td>1,900</td>
</tr>
</tbody>
</table>
The Faculty of Computer Systems and Software Engineering graduate program is designed to offer advanced knowledge in the specific aspects of computer science. The purpose of our graduate program is to provide the continuous learning environment as well as to fulfill the need of postgraduate students at the East Coast of Malaysia. Currently, there are 5 research groups under the faculty which strongly reflect our expertise and research. These research groups' areas are as follows:

**Information System Group (IS)**

Information System (IS) group focuses on Data Mining and Knowledge Management. Data mining is seen as an increasingly important tool by modern business to transform data into business intelligence giving an informational advantage. It is currently used in a wide range of profiling practices, such as marketing, surveillance, fraud detection, and scientific discovery. Knowledge management has been widely studied to explore concepts, methodologies, mechanisms and tools to facilitate the success of implementation in organizations. However, many organizations adopting knowledge management face significant challenges to balance between technologies, contents, processes and humans in the implementation. As such, continuous researches on the success models with holistic approach influence the research movements and focus.

**Software Engineering Research Group (SERG)**

Software Engineering Research Group (SERG) has given strong focus on two main research areas namely Requirement Analysis and Design as well as Software Quality Assurances. For requirement analysis and design, SERG investigates relevant issues related to requirements quality problems that arise in any

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**Contact**

**Dean**

**Faculty of Computer Systems and Software Engineering**

Universiti Malaysia Pahang  
Lebuhraya Tun Razak, 26300 Gambang,  
Kuantan, Pahang, MALAYSIA

Tel: 6(09) - 549 2133  
Fax: 6(09) - 549 2144  
fskkp.ump.edu.my  
pg-fskkp@ump.edu.my
typical software applications such as inconsistency, incorrectness, incompleteness and ambiguity. SERG also explores on sustainable design and high maintainability software that promote low cost solutions mainly through reusability of design patterns and architectural patterns. Concerning software quality assurances, SERG is now looking into novel techniques and methodology to improve the current state-of-practice particularly on new strategies for software verification and validation as well as configuration management.

**Soft Computing and Intelligent System Group (SPINT)**

Soft Computing & Intelligent System Research Group (SPINT) focuses on intelligent system, decision support system and soft computing. These researches are closely related in broad areas of chemical engineering, biotechnology, automotive, and manufacturing. SPINT is taken from the word Dutch which relates to spider. The spider web resembles network connection to other fields relating to optimization problem. This is suitable with Soft Computing and Intelligent System fields such as Traveling Salesman Problem (TSP), Time Tabling Problem, Vehicle Routing Protocol (VRP), Scheduling, Modeling and Simulation.

**System Network and Security (SysNet)**

System Network and Security Research Group (SysNet) was formed to initiate and encourage research activities in the area of computer systems and network security. Research projects in the group focus on various aspects of network and computer security. The aim of the group is to collaborate with industries and participate in academic research activities, as well as to provide an active base for postgraduate and postdoctoral research.

**Multimedia Computing & Visualization (MCVIS)**

As the name suggest, the Multimedia Computing and Computer Vision (MCViS) group focuses on the field of multimedia computing, computer vision, image processing and visualization. The vision of this group is to discover new understanding, developing new techniques as well as the addressing their applications and spreading excellence through teaching and implementation. This group takes a holistic and integration approaches since there are no clear boundaries within the other sub area.
MASTER OF SCIENCE (COMPUTER NETWORKING)
- Coursework

Course Structure
Core Structure
- Current Issues in Networking
- Advanced Network Analysis and Design
- Network Security
- Network Performance
- Internetwork Concept
- Network Service and Management
- Project Management
- Research Methodology and Project Proposal
- Final Project

Electives
- Internetwork Concept
- Network Service and Management
- Human Behavior in IT
- Computer Ethics & Policies
- Internetwork Scalability
- Multilayer Switching
- Internetwork Troubleshooting
- Computer Network Research and Applications

MASTER OF SCIENCE (SOFTWARE ENGINEERING)
- Coursework

Course Structure
Core Structure
- Human Aspect of Software Engineering
- Software Configuration and Management
- Architectures for Software System
- Software Engineering For Professional Practices
- Project Management
- Research Methodology and Project Proposal
- Final Project

Electives (2)
- Software Process Control
- Software Testing and Verification
- Software Cost Estimation and Metrics
- Formal Method Specification
- Advanced Programming in Software Engineering
- Special Topics
- Software Product Marketing
- Robust Engineering Design
- Software Reliability Engineering
### Duration

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<th>Component</th>
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<td>TOTAL(MYR)</td>
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<td>13,750</td>
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### Admission Requirements

- Recognized degree with CPA 2.50/4.00 and above or
- Recognized degree with CPA lower than 2.50/4.00. The candidates must have minimum of 5 years working experience in related fields.

### English Language Requirements

Candidates should have a good command of English equivalent to IELTS 6.0, TOEFL* 550 points (for international students only) or MUET Band 4 (for local students only).

*TOEFL ITP is not acceptable.*

Candidates who have obtained a lower result or have not taken the TOEFL / IELTS are required to sit for the Preparatory Intensive English (PIE) classes and obtain Band 6.0 in the UMP English Proficiency Test (UMP-EPT) before registration. For more information regarding PIE, please refer to page 85.
MASTER OF SCIENCE (INFORMATION AND COMMUNICATION TECHNOLOGY)
- Coursework

Course Structure
Core Structure
- Problem Solving in ICT
- Data Management
- Data Communication and Networking
- Software Design and Development
- Current Issues in ICT
- Web Technologies
- Information Security
- Project Management
- Research Methodology and Project Proposal
- Final Project

Electives (1)
- Software Engineering for Professional Practice
- Mobile Computing
- Human Computer Interaction
- Web Application Development
- Computer Ethics and Policies

Admission Requirements

- Recognized degree with CPA 2.50/4.00 and above or
- Recognized degree with CPA lower than 2.50/4.00. The candidates must have minimum of 5 years working experience in related fields.

English Language Requirements

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<td></td>
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</table>
MASTER OF SCIENCE and DOCTOR OF PHILOSOPHY
- Research

Research Thrust Areas

**Information System**
- Association Rules Mining
- Cloud Computing
- Data Classification & Clustering
- Data Mining Visualization
- Distribution Database
- Grid Computing
- Soft and Rough Set Theory
- Scheduling
- Web Mining
- Knowledge Based System
- Knowledge Engineering
- Knowledge Audit
- Knowledge Flow Analysis
- Knowledge Representation
- Application of Knowledge in Real Life
- Knowledge Visualization

**Software Engineering**
- Human Computer Interaction
- Software Process Management
- System Design
- Software Development Methodology & Environment
- Software Testing and Quality Assurances
- Software Requirement Analysis
- Software Configuration and Maintenance
- Software Verification and Validation

**Soft Computing and Intelligent System**
- Decision Support System
- Autonomous Agent System
- Machine Translation
- Optimization
- Modeling and Simulation
- Scheduling

**Multimedia & Visualisation**
- Image Processing
- Multimedia Computing
- Visualization
- Computer Vision

**System Network and Security**
- Cloud and Distributed Computing
- Wireless Network
- Mobile Communication
- Network Monitoring
- Information Security
- Parallel Processing
- Sensor Network

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**Admission Requirements**

**Master Applicant**
A Bachelor degree with honours (minimum 2.75/4.00)* in the relevant area from recognized universities or equivalent professional qualifications that are recognized by the University Senate.
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**PhD Applicant**
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English Language Requirements

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The Faculty of Electrical and Electronics Engineering offers:
1. Master and PhD by research
2. Master by coursework

The research activities focus into three main areas that usually capture the broad range of research activities within it. The main research areas are as follow:

**Sustainability Energy & Power Electronics**
The focus areas of research include machine & drives, real-time monitoring systems, electric vehicles, smart grid, alternative energy, power electronics application, renewal energy, power quality and energy efficiency.

**Applied Electronics & Computer Engineering**
The focus areas of research include industrial electronics, RF & wireless communication and embedded system design. In addition, the expertise of the members is relevant to areas in microcomputer, data communication, computer system, data, image and video processing, speech processing and vision system. Biomedical instrumentation, RF & wireless communication are also in the field of research areas.

**Instrumentation & Control Engineering**
The focus areas of research include instrumentation & control system for industries in the fields of manufacturing, petrochemical and biotechnology. It is also capable in giving expert support in biotech industries especially in the identification of appropriate instrument for specific purpose and also designing an effective control system. In addition, research in robotics and unmanned system are also actively being carried out.

Contact

Dean
Faculty of Electrical & Electronics Engineering
Universiti Malaysia Pahang
26600 Pekan, Pahang, MALAYSIA

Tel: 609 - 424 6000
Fax: 609 - 424 6111
http://fkee.ump.edu.my/
MASTER OF ELECTRICAL ENGINEERING

- Coursework

Course Structure

Core Subjects (9 credits):
- Advanced Power Electronics  - Advanced Digital System  - Advanced Control System

Electives (15 credits):
- Advanced Digital Signal & Image
- Applied Computer Vision
- Advanced Materials in Electronics
- Biomedical Engineering
- Nanotechnology & Microsystem
- Advanced RF Circuit Design
- RF Communication & Digital MEMs
- RF Circuit Design
- Advanced Antenna Design & Propagation
- Electromagnetic Interference & Electromagnetic Compatibility
- Advance Robotics
- Computational Intelligence
- Control & Navigation System
- Modern Electrical Drives
- HVDC & Facts
- Power Quality
- Energy Storage Technology
- Vehicular Power Electronics
- Special Topics

Note: Above are some of the electives courses that will be offered and may be changed.

Project(12 credits)
Others (4 credits)

TOTAL 40 credits

Admission Requirements

- Recognized degree with CPA 2.50/4.00 and above or
- Recognized degree with CPA lower than 2.50/4.00. The candidates must have minimum of 5 years working experience in related fields.

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MASTER OF SCIENCE and DOCTOR OF PHILOSOPHY

- Research

Research Thrust Areas

Power Electronics & Drives
- Power/Energy Conversion (rectifier, inverter, converter etc)
- Control and Optimization of Power Electronics Application.
- Others Power Electronics Applications (new topology, active power filter etc)
- Power Quality
- Electric Vehicles
- Motor Drives - AC and DC

Power Systems
- Voltage Profile Stability
- Control & Optimization of Power Generation and Power Networks
- Economic Dispatch
- Power System Protection
- Multi-agents Application
- Socio-economics of Power Systems
- Distributed Generation (DG) in Grid Systems
- High Voltage Technology
- Other Power Systems Problem

Data & Image Processing
- Computer Vision System
- Machine Vision
- Intelligent System
- RF & Wireless Communication

Advance Material
- Nano Device
- Semiconductor System

Micro Processing System
- Artificial Intelligence
- Digital Signal Processing
- Electronic System

Renewable Energy
- Application of Solar Power
- Application of Wind Turbine
- Integration of Renewable Energy/Distributed Generations (DGs)
- Smart Grid/micro Grid (modelling, control, optimization integration, load sharing etc)
- Energy Storage
- Energy Harvesting
- Socio-economics of Renewable Energy
- Other Problem in Renewable Energy

Biomedical Instrumentation & Application
- EEG & ECG Signal Processing
- Bionano Technology

Industrial Automation and Robotics Systems
- Nonlinear Control
- Motion Control
- Harmonics Factor
- Power Drive and Control
- Real-time Systems
- Precision and Optimization

Industrial Instrumentation & Control
- Industrial Control Technology
- Intelligent Sensor
- Nonlinear Control
- Noise Vibration
- Artificial Intelligent

Robotics & Unmanned Systems
- Artificial Intelligence
- Nonlinear Control
- Motion Control
- Estimation and Filtering
- Autonomous Navigation
- Real-time Systems
- Precision and Optimization
Admission Requirements

Master Applicant
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Total academic fee per semester (in MYR**)

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</tr>
<tr>
<td>Master</td>
<td>2,150</td>
<td>1,600</td>
<td>4,330</td>
<td>3,480</td>
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<tr>
<td>PhD</td>
<td>2,650</td>
<td>1,900</td>
<td>4,830</td>
<td>3,780</td>
</tr>
</tbody>
</table>
The Faculty offers courses that are relevant to today's industry with aim to address the increasing need of skillful manpower in the field of science and technology. It is also aligned to the national goal to increase knowledgeable and competent human capital, namely Research Scientists and Engineers (RSE). The Faculty is equipped with state-of-the-art facilities to support graduate students in their research. There are four main focus areas within the Faculty:

**Advanced Materials**
This group conducts research on Renewable Energy, Nanotechnology, Composite, Catalysis, Liquid Crystals and Sensor. The group is led by Professor Dr. Jose Rajan.

**Natural Products & Biotechnology**
This group conducts research on Medicinal Chemistry, Essential Oils, Bioremediation and Industrial Microbiology & Enzymes. The group is led by Professor Dr. Mashitah Mohd. Yusoff.

**Environment & Food**
This group conducts research on Halal Food, Oleochemistry and environmental study related to water and soil. The group is led by Dr. Wan Mohd Faizal Wan Ishak.

**Futures & Trends**
This group conducts research on Mathematical, Statistical, Fundamental of Mathematical Sciences and Quality and Productivity Improvement. The group is led by Dr. Mohd Zuki Salleh.

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**Contact**

**Dean**
Faculty of Industrial Sciences & Technology
Universiti Malaysia Pahang
Lebuhraya Tun Razak, 26300 Gambang,
Kuantan, Pahang, MALAYSIA

Tel: 609 - 549 2767/2765
Fax: 609 - 549 2766
http://fist.ump.edu.my
MASTER OF SCIENCE and DOCTOR OF PHILOSOPHY
- Research

Research Thrust Areas
Chemistry and Industrial Chemistry
- Natural Products
- Fine & Specialty Chemicals
- Catalysis
- Oleochemical
- Petrochemical
- Polymer Chemistry
- Analytical Chemistry
- Environmental Monitoring and Characterization

Biotechnology
- Bioprocess and Fermentation
- Enzyme Technology
- Industrial Biochemistry
- Industrial Microbiology
- Bionanotechnology
- Biosensor/Diagnostic Kits
- Bioremediation
- Cell Culture Technology

Advanced Materials and Physics
- Nanostructured Materials
- Renewable Energy Materials and Devices
- Supercapacitors
- Semiconductor Physics
- Optical Physics
- Polymer Nanocomposites
- Biomaterials

Food Sciences and Technology
- Freeze-drying
- Supercritical Fluid Extraction
- Instantiation
- Food Chemistry
- Food Microbiology
- Functional Food
- Sensory Analysis

Mathematics and Statistics
- Fluid Mechanics
- Heat and Mass Transfer
- Group Theory and Application
- Formal Language Theory and Its Application
- Topology and Its Application
- Numerical Methods
- Social Statistics
- Quality and Productivity Improvement
- Stochastic Modeling
- Meteorological Modeling
- Multivariate Analysis
- Structural Equation Modeling
- Application of Mathematics and Statistics in Industry
Admission Requirements

**Master Applicant**
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**PhD Applicant**
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<tr>
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<td>1,600</td>
</tr>
<tr>
<td>PhD</td>
<td>2,650</td>
<td>1,900</td>
</tr>
</tbody>
</table>
The Faculty of Manufacturing Engineering was established in 2008 with the target to produce competent professionals for the manufacturing industry. Being an industry-driven faculty, the faculty offers several academic programs which are significant in preparing students with essential engineers attributes such as solid scientific foundation, psychomotor skills, critical thinking skills, communication skills, and entrepreneurship.

**MASTER OF SCIENCE and DOCTOR OF PHILOSOPHY**

- Research

**Research Thrust Areas**

**Mechatronics**

- Haptic Interface

- Fully Flexible Assemble Systems

- Energytronics: Mechatronics for Alternative Energies

**Contact**

**Dean**

Faculty of Manufacturing Engineering

Universiti Malaysia Pahang

26600 Pekan, Pahang, MALAYSIA

Tel: 609 - 424 5800  Fax: 609 - 424 5888

http://fkm.ump.edu.my/
Research Thrust Areas

Manufacturing Design and Process
- Die Design, Simulation and Manufacturing
- Mold Design, Simulation and Manufacturing
- Hot Press Forming
- Three Dimentional Blow Molding
- Aluminium Tooling
- Tools Design, Model and Manufacture
- Manufacturing Process Sustainability

Manufacturing Systems
- Lean Manufacturing
- Assembly Line Balancing
- Discrete Event Simulation
- Sustainable Manufacturing
- Supply Chain Management
- Industrial Engineering Optimisation
- Intelligent Manufacturing Systems
- Reliability and Quality

Manufacturing Automation
- Unmanned Aerial Vehicle
- Robotic Applications
- Renewable Energy Power Management
- Wireless Sensors and Actuators
- Intelligent Controller Systems
- CNC Technology
- Servo Mechanism Controller
# Admission Requirements

## Master Applicant
A Bachelor degree with honours (minimum 2.75/4.00)* in the relevant area from recognized universities or equivalent professional qualifications that are recognized by the University Senate.  
*subject to Faculty requirement

## PhD Applicant
A Master degree in the relevant area from a university or institute recognized by the University Senate OR an equivalent professional qualification in a related field recognized by the University Senate.

# English Language Requirements
Candidates should have a good command of English equivalent to IELTS 6.0, TOEFL* 550 points (for international students only) or MUET Band 4 (for local students only).  
*TOEFL ITP is not acceptable.

Candidates who have obtained a lower result or have not taken the TOEFL / IELTS are required to sit for the Preparatory Intensive English (PIE) classes and obtain Band 6.0 in the UMP English Proficiency Test (UMP-EPT) before registration. For more information regarding PIE, please refer to page 85.

# Admission
Application for a research-based degree is open throughout the year. Interested applicants should first visit the website of the respective faculties to identify a potential supervisor. IPS encourages applicants to communicate with their potential supervisor in the course of preparing the research proposal that is required for admission. Applicants may apply through UMP’s website [http://www.ump.edu.my > Master & PhD > Institute of Postgraduate Studies > Online application](http://www.ump.edu.my). Applicants are encouraged to follow-up with IPS on the status of their application at least one (1) month after submitting their application. The duration of an application process is one (1) month approximately.
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<td>8 semesters</td>
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### Course Fees

Total academic fee per semester (in MYR**)

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The Faculty of Mechanical Engineering, Universiti Malaysia Pahang is situated in the Royal town of Pekan in the State of Pahang. It is located at the waterfront facing the South China Sea, approximately 270 km to the east of the capital city of Kuala Lumpur. The university was established more than a decade ago and has since made big strides as a research and learning institution, equipped with high-end facilities and driven by capable faculties. Apart from undergraduate programmes in Mechanical Engineering, the faculty offers postgraduate degrees in a wide range of research fields including:

- Advanced Structural Integrity & Vibration
- Automotive
- Computational Analysis
- Corrosion & Fracture
- Energy Sustainability
- Human Engineering
- Manufacturing Process

The Faculty has strong links with automotive, manufacturing as well as oil & gas industry in the East Coast Region. Most of our undergraduate students add value to their studies through our structured soft-skill development, industrial placement scheme, gaining vital professional experience and enhancing their employment prospects.

The faculty embarks on research and development activities in the areas of automotive, structural integrity & vibration, manufacturing, computer simulation, product design and development, corrosion & fracture and material engineering to generate technologies relevant to the needs of the industry. The faculty aims to be a centre for industries particularly in the East Coast region.

Contact

Dean
Faculty of Machanical Engineering
Universiti Malaysia Pahang
26600 Pekan, Pahang, MALAYSIA
Tel: 609 - 424 6200  Fax: 609 - 424 6222
http://fkm.ump.edu.my
Research: Focus Groups

Energy Sustainability Focus Group (ESFG)
The Energy Sustainable Focus Group (ESFG) aims at producing quality research, products and services in energy sustainability. The group is committed to identifying potential areas for renewable energy (RE) and energy efficient (EE) initiatives in all sectors. In particular, the group strives to conduct research and development in biomass, tidal energy, wind energy and greenhouse emissions.
http://energyfkmump.weebly.com/

Human Engineering Group
The Human Engineering Group (HEG) conducts research related to the biomechanics, ergonomics, bio-nano, health and safety. In addition, HEG works in the design and specific application areas such as medical devices and development of technology for diverse user groups. The group believe that the combination of engineering, technology and human can work together in order to improve the lifestyle.
http://heg.ump.edu.my/

Corrosion & Fracture Focus Group (CFRAC)
The Corrosion and Fracture Focus Group (CFRAC) conducts research and provide quality services in the petrochemical/oil and gas industry. Our goal is to develop a universal fracture criterion for pipelines and pressure vessels through advanced experimental and finite element studies in order to improve safety, reliability and reducing regular inspection and cost.
http://cfracfkm.ump.edu.my/

Advanced Structural Integrity & Vibration Research (ASIVR)
The Advanced Structural Integrity and Vibration Research Group (ASIVR) was founded with a vision of becoming a leading research group in vibration & structural integrity area particularly in the oil and gas sector. The ASIVR undertakes both fundamental and applied research projects and specializes in vibration, structural dynamics, fatigue and acoustic. The ASIVR has established local and oversea research partnerships both from universities and industries.
http://asivr.ump.edu.my/

The Automotive Focus Group (AUTO)
Automotive Focus Group (AUTO) is established to provide high quality and appropriate solution in automotive niche related research and development. Some of the main research interest including the renewable fuels, ride, handling & comfort and combustion technology. Supported with the state-of-the-art and high end laboratory equipment along with the commitment from the experience and vibrant associates, the AUTO group aims to be the national and international reference centre to automotive industry.
http://autogroupfkm.ump.edu.my/
Manufacturing Process Focus Group (MPFG)
The Manufacturing Process Focus Group (MPFG) conduct activities related to the area of manufacturing processes. The main objective of this group is to enhance manufacturing productivity as well as minimizing the environmental impact of manufacturing process. Research areas undertaken includes joining & welding, machining, sheet metal forming, casting, non-traditional processing and powder metallurgy and process automation.
http://mpfgfkm.ump.edu.my/

Computational Analysis Group (CAG)
The Computational Analysis Group (CAG) is devoted towards research and development of computational and simulation tools related to fluid mechanics, solid mechanics and structure. These areas still have much to be unearthed and various phenomena that remain to be discovered via mathematical methods and computational tools. The group is highly dedicated towards developing mathematical methods and computational tools that will help solve major engineering problems.
http://cagfkm.ump.edu.my/

MASTER OF SCIENCE and DOCTOR OF PHILOSOPHY
- Research

Research Thrust Areas
Advanced Materials and Structure
- Advanced Materials-metal
- Fatigue and Fracture
- Corrosions
- Finite Element Analysis
- Structural Design
- Failure Analysis
- Composite

Manufacturing
- Joining & Welding
- Metal Forming
- Casting/Foundry
- Laser Processing
- Machine Design
- Micro/Nano Machining
- Non-traditional Manufacturing Process
- Intelligence Manufacturing
- Powder Metallurgy

Energy & System
- Solar energy
- Biomass
- Wind Energy
- Natural Gas
- Hydropower
- Petroleum
- Industrial Burner & Furnace
- Solid Propulsion
- Energy Storage

Advanced Structural Integrity & Vibration
- Dynamics System and Control
- Structural Dynamics
- Damage Detection
- Experimental Mechanics
- Condition Based Monitoring and Maintenance
- Acoustic Emission
- Vibration Control
Research Thrust Areas
Computational Analysis
- Computational Mechanics Design Simulation
- Computational Fluid Dynamics
- Fluid Flow
- Thermal Energy
- Heat Transfer
- Finite Element Analysis

Engine & Fuels
- Diesel/Gasoline/Hydrogen engine
- Hybrid Engine
- Sterling Engine
- Turbo Jet
- Biofuel
- Emission Control
- Fuel Additives
- Fueling, Intake, Exhaust
- Clean Combustion Technology
- Engine Testing and Instrumentation

Manufacturing System Engineering
- Industrial Engineering
- Operations Management
- Quality Engineering
- Production Planning Engineering
- Energy Economy

Sports and Human Engineering
- Image Processing
- Biosensors & Instrument
- Ergonomics
- Biomechanics
- Sports Equipment

Vehicle Dynamic
- Active Vibration Control/ Suspension System
- Driving Behavior
- Ride Control & HVAC
- Steering/Braking System
- Vehicle Safety
- Powertrain Engineering/Chassis Engineering
- Drivetrain
- Tyre Slips & Performance
- Vehicle Stability Control
## Admission Requirements

### Master Applicant
A Bachelor degree with honours (minimum 2.75/4.00)* in the relevant area from recognized universities or equivalent professional qualifications that are recognized by the University Senate.

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### Course Fees

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<td>PhD</td>
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</tbody>
</table>
MASTER OF ENGINEERING (MECHANICAL ENGINEERING)
- Coursework

Course Structure

Semester 1
MKM1233 - Advanced Manufacturing
MKM1253 - Advanced Numerical Analysis
MKM1113 - Advanced Thermodynamics
MKM1133 - Instrumentation & Control System
MKM2263 - Environment & Regulatory Issues
Total Credit Hour = 15

Semester 2
MKM1123 - Advanced Fluid Mechanics
MKM1243 - Precision Machining
MKM1213 - Noise, Vibration & Harnesses
MKM1223 - Advanced Material Processing
MKM1143 - Research Methodology
Total Credit Hour = 15

Semester 3
MKM14*3 - Elective MKM2316 - Dissertation
MKM14*3 - Elective Total Credit Hour = 12

Admission Requirements

- Recognized degree with CPA 2.50/4.00 and above or
- Recognized degree with CPA lower than 2.50/4.00. The candidates must have minimum of 5 years working experience in related fields.

English Language Requirements

Candidates should have a good command of English equivalent to IELTS 6.0, TOEFL* 550 points (for international students only) or MUET Band 4 (for local students only).

*TOEFL ITP is not acceptable.

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<tr>
<td></td>
<td>3 semesters</td>
<td>6 semesters</td>
</tr>
</tbody>
</table>

### Course Fees

<table>
<thead>
<tr>
<th>Component</th>
<th>Local Student (MYR 285/credit hour)</th>
<th>International Student (MYR 400/credit hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; Semester</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Semester</td>
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<tr>
<td>Sub-Total</td>
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<td>5,000</td>
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<tr>
<td>TOTAL(MYR)</td>
<td><strong>14,395</strong></td>
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</tr>
</tbody>
</table>

| TOTAL(MYR) | **19,765** |            |             |            |            |             |
Faculty of Technology was established on September 12, 2011 after the separation between Department of Technology Management and Department of Manufacturing Engineering.

This faculty formerly known as Faculty of Manufacturing Engineering & Technology Management (FKPPT) was established in 2008.

The focus of the Faculty is to produce competent professionals for the university and to establish strong technology and business education in research and innovation that fulfill local and international industries requirement.

Contact

Dean

Faculty of Technology

Universiti Malaysia Pahang
Lebuhraya Tun Razak, 26300 Gambang, Kuantan, Pahang, MALAYSIA

Tel: 609 - 549 2166
Fax: 609 - 549 2167
http://ftech.ump.edu.my/
MASTER OF BUSINESS ADMINISTRATION
- Coursework

Specialisation Areas
Engineering Management  Business Engineering  Technology Management
- Manufacturing System  - Supply Chain & Logistics  - Technology Assessment
- Advanced Production  - Product Management  - Engineering Technology Innovation
- Lean Manufacturing  - Service Management  - Knowledge Management
- Safety, Health & Environment  - Financial Engineering  - Sustainable Development & Green Technology
- Advanced Operation Research

Core Courses
- Managerial Economics  - Strategic Management
- Risk Management  - Financial Management
- Management Accounting for Control and Decision Making  - Strategic Leadership & Business Transformation
- Organisation Behaviour  - Managerial Decision Modeling
- Innovation Management and Entrepreneurship  - Strategic Marketing
Admission Requirements

- Recognized degree with CPA 2.50/4.00 and above or
- Recognized degree with CPA lower than 2.50/4.00. The candidates must have minimum of 5 years working experience in related fields.

English Language Requirements

Candidates should have a good command of English equivalent to IELTS 6.0, TOEFL* 550 points (for international students only) or MUET Band 4 (for local students only).

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Course Fees

<table>
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<tr>
<th>Component</th>
<th>Local Student ( MYR 375/credit hour)</th>
<th>International Student ( MYR 525/credit hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st Semester</td>
<td>2nd Semester</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>6,600</td>
<td>6,350</td>
</tr>
<tr>
<td>TOTAL(MYR)</td>
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<td></td>
</tr>
</tbody>
</table>
MASTER OF SCIENCE and DOCTOR OF PHILOSOPHY
- Research

Research Thrust Areas
Occupational Health and Safety
Technology Management
- Operations Management
- Human Capital Resources
- Project Management

Admission Requirements

| Master Applicant | A Bachelor degree with honours (minimum 2.75/4.00)* in the relevant area from recognized universities or equivalent professional qualifications that are recognized by the University Senate. *subject to Faculty requirement |
| PhD Applicant    | A Master degree in the relevant area from a university or institute recognized by the University Senate OR an equivalent professional qualification in a related field recognized by the University Senate. |

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The Centre for Modern Languages and Human Sciences (CMLHS) was established to complement the development of students’ technical and engineering knowledge; as knowledge and skills in engineering alone are insufficient to produce competitive graduates. The centre is divided into three departments, which are the Human Sciences Department, the Modern Languages Department and Soft Skills Department.

Being a service centre, we not only provide University core courses, but our responsibilities include providing training for students and staff such as MUET, Study Skills, IELTS, English and Communication Course, Islamic Services Course and biofeedback. We also provide external trainings and consultancies to local and multinational organizations.

Being an excellent centre, CMLHS offers postgraduate courses combining humanities, technologies and engineering. Through the process, the graduate programmes offered by CMLHS are the most updated which meet the current needs of the industries and the demands of the local communities.

**Expert Groups and Niche Areas**
Here at CMLHS, our knowledge, skills and niche areas are classified and manifested through 6 significant Expert Groups which are:

- **Human Performance** led by Assoc. Prof. Dr. Muhammad Nubli Wahab
- **Human Environment** led by Dr. Mansor Bin Sulaiman
- **Language & Communication** led by Dr. Noor Raha Binti Mohd Radzuan
- **Engineering Education** led by Assoc. Prof. Dr. Ainol Haryati Ibrahim
- **Pahang Heritage Trail** led by Dr. Norrihan bt Sulan
- **Halal Administration** led by Assoc. Prof. Dr. Hasan Bin Ahmad

**Contact**

Dean  
Centre for Modern Languages & Human Sciences  
Universiti Malaysia Pahang  
Lebuhraya Tun Razak, 26300 Gambang, Kuantan, Pahang, MALAYSIA  
Tel: 6(09) - 549 3111  
Fax: 6(09) - 549 2766  
http://cmlhs.ump.edu.my/
MASTER OF SCIENCE and DOCTOR OF PHILOSOPHY
- Research

Research Thrust Areas
Human Performance System
  - Pahang Heritage
  - Soft Skills
  - Education
  - Social Sciences
  - Human Development
  - Arts
  - Civilization

Halal Management System
  - Islamic Banking
  - Finance
  - Food Industries
  - Food Technology
  - Islamic Studies
  - Usuluddin
  - Syariah

Technology Enhanced Language Learning
  - CMC
  - TELL
  - CALL

English Language & Professional Communication
  - TESL
  - Linguistics
  - Communication
Admission Requirements

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Total academic fee per semester (in MYR***)
**PIE Structure**

**DIAGNOSTIC TEST: 1 HR (10 RQ, 10GQ & 1 WQ)**
Carried out during overseas promotion/first day of class

**PIE (Foundation)**
A required level in which students will sit for PIE-EPT at the end of the month. Results will determine next level

- **Elementary** (2 < Band < 4)
- **Intermediate** (4 < Band < 5.5)
- **Upper-Intermediate** (5.5 < Band < 6)

* Students will sit for PIE-EPT (equivalent to UMP-EPT) at the end of each level & may exit if required band is achieved.

** However it is suggested that the minimum requirement to undergo PIE is three levels if a student starts at Band 3 and below.

Proposed time: 8.00 - 13.30 (5 days a week)

**Proposed Components:**

<table>
<thead>
<tr>
<th>Components</th>
<th>Duration</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar</td>
<td>6 x 4</td>
<td>24</td>
</tr>
<tr>
<td>Reading</td>
<td>8 x 4</td>
<td>32</td>
</tr>
<tr>
<td>Writing</td>
<td>8 x 4</td>
<td>32</td>
</tr>
<tr>
<td>Speaking</td>
<td>3 x 4</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100 Hours</strong></td>
</tr>
</tbody>
</table>
 PIE Fees

 PIE Programme
 RM2000/ level. Students have to pay for three (3) levels upon registration. If they exit at any time within the three levels, the fees will be absorbed as their tuition fees.

 PIE-EPT
 RM300. To be paid once (1) upon registration.

 PIE System Requirements

 The system must be linked to BPA, IPS, IO, Finance & JHEPA. Just like any programme, the system should have these components:
 - Registration
 - Attendance
 - Mark entry for each component (Writing, Reading & Grammar)
 - Pass/Fail results for Speaking component
 - Overall results (total of all components exc Speaking) + Speaking P/F results.
 - Space for comments on attendance, progress, etc.

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