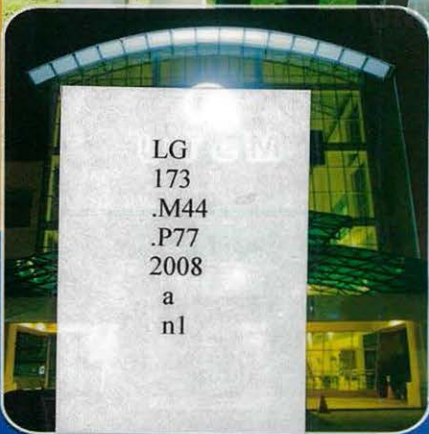


UNIVERSITI TEKNIKAL MALAYSIA MELAKA

PROSPECTUS 2008-2009



Where Great Technical Careers Begin



Jutaan Terima Kasih

Kepada
CANSELORI
Daripada

Perpustakaan

Universiti Teknikal Malaysia Melaka
Karung Berkunci 1200, Hang Tuah Jaya
75450 Ayer Keroh, Melaka
Malaysia

Tel: 06-2332281/2286 Fax: 06-2332284

Laman Web: <http://library.utm.edu.my> E-Mail: library@utm.edu.my

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UNIVERSITI TEKNIKAL MALAYSIA MELAKA



Foreword by the Vice Chancellor



The prospectus is a comprehensive compilation of information pertaining to a wide range of learning and career development opportunities available at UTeM. The learning programmes are designed to provide students with academic and the latest technological skills, enabling them to become competent professionals adaptive to the fast evolving technology.

The Practice and Application Oriented approach (POA) embedded in our course modules is instrumental in further strengthening the development of competent professionals with world wide perspectives and thinking. Generic skills essential to understanding issues related to sustainability, risk, uncertainty, economics and project management are also fostered through the POA practices. Our programmes also emphasise critical and reflective thinking, competency in all forms of communication and the rudiments of complex consultative processes.

Students and staff of UTeM come from countries with different ethnic and cultural backgrounds, all working amicably in a conducive teaching and learning environment.

This prospectus details the description of our academic programmes, our unique features, supporting services and facilities, and other information that we hope will interest prospective students. Please take the time to visit our website at www.utem.edu.my for more information.

UTeM is moving towards a world class university. Allow us to lead you in your career path. We care for you why not be a part of us !



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UTeM

Where Great Technical Careers Begin

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

UTeM





Welcome to UNIVERSITI TEKNIKAL MALAYSIA MELAKA

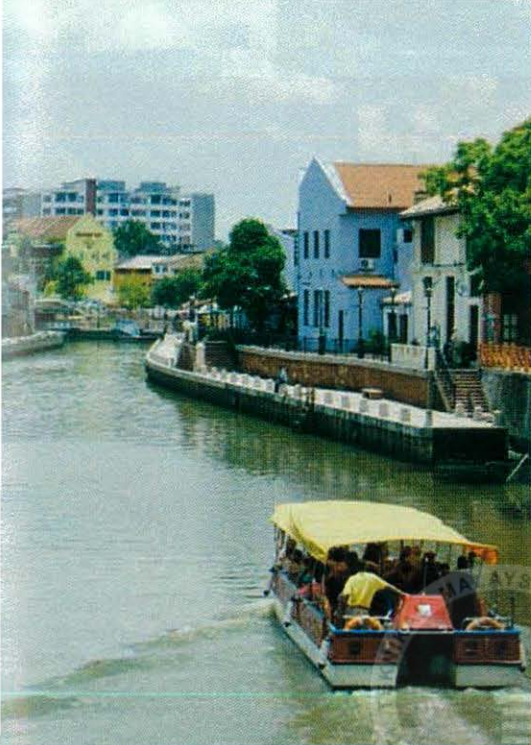


To be one of the world's leading innovative
and creative technical universities.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

MISSION

To produce highly competent professionals
through world class higher technical education
based on application-oriented teaching,
learning and research with smart-university industry
partnership in line with national aspirations.



Melaka where it all began!

Founded some 600 years ago, Melaka (or Malacca as it used to be known) is where the history of Malaysia began. The city is rich with historical and cultural attractions and is easy to get to, being located on the main highway of Peninsular Malaysia. It is 120 km south-east of Malaysia's capital, Kuala Lumpur and 250 km north-west of Singapore.

A visit to Melaka is a must for foreign and local tourists. Places of interest include mausoleum of the legendary Malay warrior, Hang Tuah, Hang Tuah's Well, the mausoleum of Tun Teja (a princess at the centre of the Hang Tuah legend), the replica of the Melaka Sultan's Palace, A Famosa (the remains of the Portuguese fort), The Stadthuys (the Dutch administrative complex), St. Francis Xavier's Church and a variety of museums.

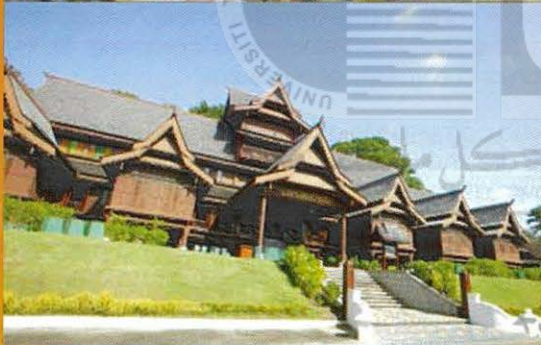
The Chinese who came to Melaka and adopted Malay customs and language are known as Baba and Nyonya. Traces of their heritage (known as Peranakan) can be seen in Chinatown as well as at the Baba and Nyonya Heritage Museum. The adventurous may visit the well of Hang Li Poh (a princess from China who married the fifth ruler of Melaka) and then walk-up Bukit China (Chinese Hill) to get a panoramic view of the historical city.

Another main attraction of Melaka is the variety of food such as Nyonya, Thai, Chinese, Indian, Chitty and Portuguese cuisine, in addition to the delightful Malay cuisine.

Travellers can also enjoy a pleasurable holiday at one of the tropical islands – Pulau Besar or Pulau Upeh. The islands are easily accessible by frequent boat services.



A Brief History of Melaka



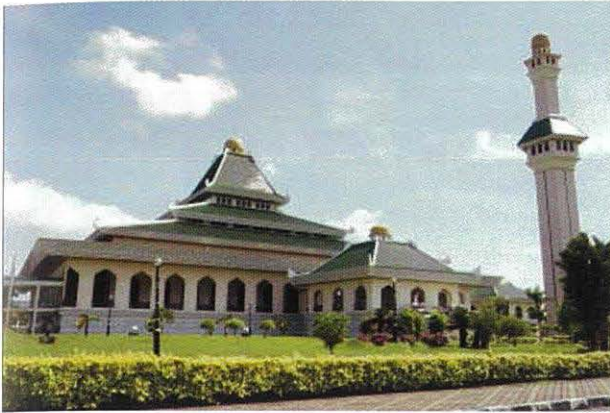
The history of the state of Melaka (originally spelled Malacca) is largely the story of the city for which it is named. It began with the fascinating and partly legendary tale of the Hindu prince Parameswara.

The Malay Annals relate that Parameswara was a fourteenth-century Palembang (Sumatra) prince who, fleeing from a Javanese enemy, escaped to the island of Temasik (present-day Singapore) where he quickly established himself as its king. Shortly afterward, however, Parameswara was driven out of Temasik by a Siamese invasion, and with a small band of followers, he set out along the west coast of the Malay peninsular in search of a new refuge.

The refugees settled first at Muar, Johor, but were quickly driven away by a huge number of monitor lizards. The second spot chosen seemed equally unfavourable, as the fortress that the refugees began to build, collapsed immediately.

Parameswara and his followers moved on. Soon afterward, during a hunt near the mouth of a river called Bertam, he saw a white mouse-deer or *pelanduk*, kick one of his hunting dogs. So impressed was he by the mouse-deer's brave gesture that he decided immediately to build a city on the spot. He asked one of his servants the name of the tree under which he was resting and, being informed that the tree was called Malaka, gave that name to the city. The year was 1400.

Although its origin is as much romance as history, the fact is that Parameswara's new city was situated at a point of tremendous strategic importance. Midway along the straits that linked China to India and the Near East, Melaka was perfectly positioned as a centre of maritime trade. The city grew rapidly, and within fifty years it had become a wealthy and powerful hub of international commerce, with a population of over 50,000.



It was during this period of Melaka's history that Islam was introduced to the Malay world via Gujarati traders from western India. By the first decade of the sixteenth century Melaka was a bustling, cosmopolitan port, attracting hundreds of ships each year. The city was known worldwide as the centre of silk trade and porcelain from China; textiles from Gujarat and Coromandel in India; camphor from Borneo; sandalwood from Timor; nutmeg, mace, and cloves from the Moluccas, gold and pepper from Sumatra; and tin from western Malaya.

Unfortunately, this fame arrived at just the moment when Europe began to extend its power to the East, and Melaka was one of the very first cities to attract its covetous eye. The Portuguese under the command of Alfonso de Albuquerque arrived first, taking the city after a sustained bombardment in 1511.

Sultan Mahmud, who was then the ruler of Melaka, fled to Johor, from where the Malays counter-attacked the Portuguese repeatedly, though without success. One reason for the strength of the Portuguese defence was the construction of the massive fort of A Famosa or Porta De Santiago. Today only a small portion of this fort has survived.

A Famosa ensured Portuguese control of the city for the next one hundred and fifty years. In 1641, the Dutch after an eight-month siege and a fierce battle, captured Melaka. The city was almost completely ruined but over the next century and a half, the Dutch rebuilt it and occupied it largely as a military base, using its strategic location to control the Straits of Malacca.

In 1795, when the Netherlands was captured by French Revolutionary armies, Melaka was handed over to the British by the Dutch to avoid its capture by the French. Although the British returned the city to the Dutch in 1808, it was soon given back to the British in exchange for Bencoleen in Sumatra.

From 1826, the English East India Company in Calcutta ruled the city until 1867, when the Straits Settlements (Melaka, Penang and Singapore) became a British Crown colony. The British continued their control until the Second World War when the Japanese took over and occupied from 1942 to 1945.

Following the defeat of the Japanese, the British resumed their control until 31st. August 1957, when anti-colonial sentiments culminated in a proclamation of independence by Tunku Abdul Rahman Putra Al-Haj, Malaysia's first Prime Minister.



Profile



Universiti Teknikal Malaysia Melaka (UTeM) formerly known as Kolej Universiti Teknikal Kebangsaan Malaysia (KUTKM) was established on 1 December, 2000. It was established under Section 20 of the University and University College Act 1971 (Act 30) under the Orders of Kolej Universiti Teknikal Kebangsaan Malaysia (Incorporated) 2001. UTeM is the 14th Public Higher Education Institution (PHEI) in Malaysia. It is a pioneer in the "Practice and Application Oriented" teaching and learning method for technical education in Malaysia.

The university currently operates from three campuses, the Main Campus in Durian Tunggal, Industry Campus in Ayer Keroh, and City Campus within Melaka. The 766-acre main campus is expected to be completed by 2010. Currently, two faculties, Electrical Engineering and Electronics and Computer Engineering are in full operation at the main campus. At present, most of the university activities take place at the Industry Campus. The third campus; the City Campus which is in the heart of Melaka City houses the Institute of Technology Management & Entrepreneurship, University Publisher, Centre for Teaching & Learning, and Centre for Quality Assurance & Accreditation.

UTeM has five faculties and two centres. The faculties are Electrical Engineering, Electronic and Computer Engineering, Mechanical Engineering, Manufacturing Engineering, and Information & Communication Technology whilst the two academic centres are the Language and Human Development Centre, and the University-Industry Centre (UNIC). The Institute of Technology Management and Entrepreneurship was established to offer post-graduate programmes on technology management and entrepreneurship. The Centre for Graduate Studies was established to coordinate postgraduate studies at UTeM.

The university offers academic programmes at diploma, bachelor, master and PhD levels. UTeM aims to produce professionals who are highly qualified, skilful, efficient and technically competent.

Teaching & Learning Approach



UTeM adopts the Practice and Application Oriented education approach. It is an approach that requires students to experience the professional practice of their specialisation and to apply their knowledge to solve industrial related problems. This approach seeks to integrate 'theory and practice' that synergies academic rigour with engineering practices. A fundamental characteristics of the education delivered by UTeM is that all of its teaching activities focus on the 'how' and 'how to' in addition to the 'what'.

UTeM adopts a unique strategy for effective teaching and learning that includes the following:

(a) Innovative and Creative teaching and learning strategies

These techniques give strong theoretical knowledge with emphasis on practical applications. Innovation and creativity are interrelated core objectives of UTeM that are fundamental in its effort to excel in its role to become one of the most innovative and creative world class technical universities.



(b) Use of effective teaching and learning techniques

- computer-based teaching
- problem-based learning
- experiential learning
- action-based learning
- simulation-based teaching
- experiment and practical sessions
- industrial application software
- industrial exposure
- projects

(c) Teaching Factory

The teaching factory practice adopted by UTeM primarily offers an industrial environment in relation to design, prototyping, production and quality assurance processes. This practice ensures students develop a deep understanding of their studies based on real situations.

The practice and application oriented education approach allows UTeM to produce highly competent professionals with global perspective and thinking derived through:

- Competency development
- Action-based learning
- Simulation of real situations and problems
- Solving industry related problems

Programmes & Courses

■ Faculty of Electrical Engineering

- Bachelor of Electrical Engineering (Power Electronics & Drives)
- Bachelor of Electrical Engineering (Control, Instrumentation & Automation)
- Bachelor of Electrical Engineering (Industrial Power)
- Bachelor of Mechatronics Engineering
- Diploma in Electrical Engineering

Graduate Studies By Research

- Master of Science and Doctor of Philosophy in Electrical Engineering

■ Faculty of Electronic & Computer Engineering

- Bachelor of Electronic Engineering (Industrial Electronics) with Honours
- Bachelor of Electronic Engineering (Computer Engineering) with Honours
- Bachelor of Electronic Engineering (Telecommunication Electronics) with Honours
- Bachelor of Electronic Engineering (Wireless Communication) with Honours
- Diploma in Electronic Engineering

Graduate Studies By Research

- Master of Science and Doctor of Philosophy in Electronics & Computer Engineering

■ Faculty of Manufacturing Engineering

- Bachelor of Manufacturing Engineering (Manufacturing Process)
- Bachelor of Manufacturing Engineering (Manufacturing Design)
- Bachelor of Manufacturing Engineering (Robotic and Automation)
- Bachelor of Manufacturing Engineering (Manufacturing Management)
- Bachelor of Manufacturing Engineering (Engineering Materials)
- Diploma in Manufacturing Engineering

Graduate Studies By Research

- Master of Science and Doctor of Philosophy in Manufacturing Engineering

■ Faculty of Mechanical Engineering

- Bachelor of Mechanical Engineering (Automotive)
- Bachelor of Mechanical Engineering (Design and Innovation)
- Bachelor of Mechanical Engineering (Structure and Materials)
- Bachelor of Mechanical Engineering (Thermal-Fluids)
- Diploma in Mechanical Engineering

Graduate Studies By Research

- Master of Science and Doctor of Philosophy in Mechanical Engineering

■ Faculty of Information & Communication Technology

- Bachelor of Computer Science (Software Development)
- Bachelor of Computer Science (Computer Networking)
- Bachelor of Computer Science (Database Management)
- Bachelor of Computer Science (Interactive Media)
- Bachelor of Computer Science (Artificial Intelligence)
- Diploma in Information and Communication Technology

Graduate Studies By Research

- Master in Information and Communication Technology
- Doctor of Philosophy in Information and Communication Technology

Graduate Studies By Taught Courses

- Master of Computer Science (Internetworking Technology)
- Master of Computer Science (Software Engineering and Intelligence)
- Master of Computer Science (Database Technology)
- Master of Computer Science (Security Systems)

■ Institute of Technology Management and Entrepreneurship

Graduate Studies By Research

- Master of Science in Entrepreneurship
- Master of Science in Technology Management
- Master of Science in Human Resource Development
- Master of Science in Technical Communication
- Master of Science in Industrial Counselling
- Doctor of Philosophy in Technology Management
- Doctor of Philosophy in Entrepreneurship
- Doctor of Philosophy in Human Resource Development
- Doctor of Philosophy in Quality Management
- Doctor of Philosophy in Strategic Management

Graduate Studies By Taught Courses

- Master of Business Administration (Advanced Operation Management)
- Master of Business Administration (Technology Innovation Management)



Faculty of Electrical Engineering

OVERVIEW

We offer a variety of courses which are related to electrical engineering. The contents of these courses are mainly similar in the principal years, where we emphasise more on fundamental knowledge of wide scientific foundation in mathematics, physics and computers. As you cruise on to the subsequent years of these courses, you will come across several subjects of specialization based on the specific field that you have chosen.

Currently, there is a course for Diploma of Electrical Engineering and four main courses offered that lead to Bachelor in Electrical Engineering which is Industrial Power, Power Electronics & Drives, Control, Instrumentation & Automation or Mechatronics Engineering.

For post graduate programmes, we offer courses in Master and Doctorate levels, both by research. For further information on the courses, kindly contact us via our email or website given below.

CONTACT ADDRESS

Faculty of Electrical Engineering
Universiti Teknikal Malaysia Melaka,
Locked Bag 1200,
Hang Tuah Jaya,
75450 Ayer Keroh,
Melaka, Malaysia

Phone : +606 555 2345

Fax : +606 555 2222

Email : fke@utem.edu.my

Website : www.utem.edu.my/fke

LIST OF PROGRAMMES

- Bachelor of Electrical Engineering (Industrial Power)
- Bachelor of Electrical Engineering (Power Electronics & Drives)
- Bachelor of Electrical Engineering (Control, Instrumentation & Automation)
- Bachelor of Mechatronics Engineering
- Diploma in Electrical Engineering

Graduates Studies by Research

- M.Sc in Electrical Engineering (by research)
- PhD in Electrical Engineering

• Bachelor of Electrical Engineering (Industrial Power)

This course emphasises on the electrical energy system which includes power generation and transmission, power distribution, power protection, application of energy, load management and regulation procedure of electrical energy. It also comprises the introduction to electrical components such as circuit breaker, regulator and others.

Career Prospects

In general, graduates undertaking this course will be eligible as an engineer in the following industries:

- Generation companies
- Tenaga Nasional Berhad (TNB), Independent Power Producers (IPP)
- Transmission companies (TNB)
- Distribution companies (TNB)
- Research and development
- Consultant firms - System Protection Maintenance (SPM)
- Assembly Company such as Malaysia Transformer
- Oil and Gas
- Academic Institutions

• Bachelor of Electrical Engineering (Power Electronics & Drives)

The Power Electronics & Drives (PED) course is aimed to produce graduates who have broad electrical engineering knowledge and strong technical competency in the field of PED. The importance of the PED is being increasingly visible in the electrical engineering technologies which utilise power electronics conversion and control technique to design and produce high efficiency, high performance, miniaturized of the end products and more environmental friendly equipment. Most of the PED applications involved in multi-discipline technologies ranging from analog & digital control system, power conversion, sensors, various types of electrical motor, interfacing, computer and embedded controller design and programming.

The power electronics and drives applications can be seen in various industrial and consumer sectors such as:

- **Home application:** refrigerators, air conditioning, washing machines, lighting, vacuum cleaners and cooking appliances
- **Commercial:** battery charger, computers, electronic ballast, hand power tools and vending machines
- **Aerospace:** aircraft power systems, space vehicle power system and satellite power system.

- **Automotive:** alarm and security systems, electric vehicle, amplifier and regulator.
- **Industrial:** blower, boiler, processing equipments, elevators, motor drive starter, uninterruptible power supply, conveyors system, linear induction motion control, hoists, dryer, electric furnaces, pumps and compressors.
- **Medical:** fitness machines, laser power supply and medical instruments.
- **Security system:** Alarm and security system, radar.
- **Transportation:** Magnetic levitation, trains and locomotive and subways.
- **Utility system:** VAR compensators, power factor correction, static circuit breakers and renewable energy.

The PED course offers various subjects covering from the fundamental theory including electrical circuits, signals processing, digital & analog electronics, electro-magnetic, microprocessor, power system and control system to the advance topics such as converter and inverter technology, high performance motor drive and active power filter with emphasis on the design, analysis and applications.

Career Prospects

In accordance with types of employment, graduates undergoing the course can be employed in the following profession:

- Design engineer,
- Production engineer,
- Power utilities engineer,
- Plant maintenance engineers,
- Field engineer, test engineer, researcher, development engineer, consultancy engineer and lecturer.

• Bachelor of Electrical Engineering (Control, Instrumentation & Automation)

This course is a broad area that discusses the methods that apply in the production and instrument engineering. The control, instrumentation and automation engineering is a combination of three areas; control engineering, instrumentation engineering and automation engineering. This combination results in a complex system, which comprises analysis and control design system, robotics, introductory to FMS system and automation.

Career Prospects

In accordance with types of employment, graduates undergoing the course can be employed in the following profession:

- Instrumentation Engineers
- Design Engineers
- Control Engineer
- Process Engineers
- Maintenance Engineers
- Research Officers
- Development Officers
- Academicians



• Bachelor of Mechatronics Engineering

This course provides engineering knowledge and skills in the mechatronics field which is the interdisciplinary of mechanical, electrical, electronics and computer engineering. Graduates of this course have a great opportunity to work in research & development (R&D), maintenance, production and process works in industries and other sectors which are normally delivered by mechanical, electrical and computer engineers.

Career Prospects

In accordance with types of employment, graduates undergoing the course can be employed in the following profession :

- Mechatronics Engineers
- Electrical Engineers
- Electronics Engineers
- Production Engineers
- Process Engineers
- Academicians



• Diploma In Electrical Engineering

The Diploma in Electrical Engineering is designed to provide the necessary theoretical knowledge and the required practical skills to individuals who are eager to join the industry work force at an early stage. It provides students with the relevant academic and "hands-on" experience necessary for them to quickly become productive in their jobs after graduation. It also provides the flexibility, knowledge, skills and motivation as a basis for progression to further studies, and upon successful completion of this course, graduates may pursue their studies to bachelor degree especially in UTeM.

Career Prospects

The career prospects for diploma graduates includes the following fields:

- Manufacturing and Industrial sectors;
- Manufacturing of electrical equipments;
- Manufacturing of high voltage and low voltage components;
- Renewable Energy;
- Oil and Gas companies;
- Advanced Technology Industries such as aerospace industry;
- Consultant firms;
- Automation Manufacturing System firms;
- Biomedical Engineering firms;
- Software Development firms;
- Research and Development Centre

• M.Sc in Electrical Engineering (by research)

This programme will run for an optimum period of 24 months but it can be reduced to 18 months once all the research objectives have been achieved. Research in our faculty includes the area of Power System & Industrial Application, Power Electronic & Drive, Control, Instrumentation & Automation and Electric Machine. We offer programs that will not only improve your research skills and methodology but also research topics that are closely related and applicable to the industry. You will be supervised by experienced lecturers here. All research in UTeM are closely monitored by the University-Industry Centre (UNIC). Below are several fields of interest that are offered by our faculty:

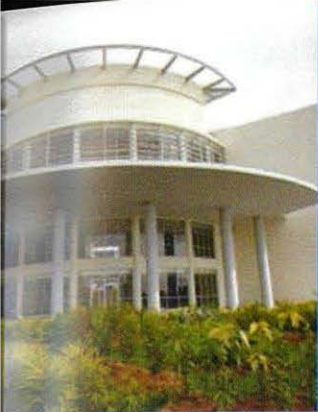
- Power System Generation, Operation and Control
- Analysis and Modeling of Power System
- Transmission and Distribution Systems
- Energy Efficiency and Renewable Energy
- Power Quality Analysis
- SCADA-based Remote Terminal Unit (RTU) Distribution Automation System
- Vision-based Autonomous Robot Navigation

• PhD In Electrical Engineering

The normal duration of this program is 36 months. PhD candidates may choose their own supervisors from Electrical Engineering Faculty or any other faculty here in UTeM. Below are several fields of interest that are offered by our faculty:

- Vision Guided Manipulator and Multi-sensor Feedback System for Robotic Applications
- Power Electronics Converter
- Modeling and simulation of induction and synchronous machines
- Vector control of induction and synchronous machines
- Applications of artificial intelligence in high performance AC drives
- Internet-based Variable Speed Motor Drives





Faculty of Electronic & Computer Engineering

OVERVIEW

The Faculty of Electronic and Computer Engineering (FKEKK) established 22 June 2001, created history by being the first faculty to move to the permanent UTeM main campus in Durian Tunggal, Melaka on 22nd December 2004. FKEKK plays an important role of producing engineers who not only possess strong fundamental knowledge in electronic engineering but also is competent with the practical skills obtained from a practice and application oriented learning approach.

FKEKK is headed by a Dean and comprises three departments; they are :

- The Department of Industrial Electronics
- The Department of Computer Engineering
- The Department of Telecommunication Engineering

CONTACT ADDRESS

Faculty of Electronic & Computer Engineering
Universiti Teknikal Malaysia Melaka,
Locked Bag 1200,
Hang Tuah Jaya,
75450 Ayer Keroh,
Melaka, Malaysia

Phone : +606-555 2000

Fax : +606-555 2112

Email : fkekk_kp@utem.edu.my

Website : www.utem.edu.my/fkekk



LIST OF PROGRAMMES

Currently FKEKK offers four Basic Degree and one Diploma programme. The Programmes are:

- Bachelor of Electronic Engineering (Industrial Electronics) with Honours
- Bachelor of Electronic Engineering (Computer Engineering) with Honours
- Bachelor of Electronic Engineering (Telecommunication Electronics) with Honours
- Bachelor of Electronic Engineering (Wireless Communication) with Honours
- Diploma in Electronic Engineering

• Bachelor of Electronic Engineering (Industrial Electronics) with Honours

Industries are using more electronic systems in the running of machineries, control of manufacturing process as well as in the automation of manufacturing process. Among the main application of electronic systems in industries are robotic control systems, electrical machine drives and Programmable Logic Controllers (PLC).

In order to increase Malaysia's industrial competitiveness, knowledgeable and skillful engineers in industrial electronics engineering are required. The demand for professional work force in this field is increasing.

University graduates must possess the ability to analyse and design electronic circuits. They must also possess the practical skills in the design, running and maintenance of industrial control systems in order to remain relevant and be the first choice of industries. It is for these reasons that Industrial Electronics is offered by FKEKK.

Career Prospects

The following are among the career prospects for graduates of the Industrial Electronics course:

- Controllers of electronic and computerised systems used by industrial automated machines.

- Enhancers of industrial electronic systems used to increase quality and productivity.
- Designers of test systems and analysers for electronic and electromechanical circuits.
- Research and Development engineers that are useful and capable of contributing their knowledge to multinational industries, local industries, universities and local agencies like MIMOS and SIRIM.

• Bachelor of Electronic Engineering (Computer Engineering) with Honours

Computer-based industries are in very high demand today. These include manufacturing of consumer products such as TV, audio-video devices, CD drive and player, communication devices, mobile phone and etc. Computers and computer-related hardware can be said to be the heart of all industries.

Due to the rapid development of computer, multimedia and information technologies, computers are not only being used in industries, but they are also widely used by individuals. Computers not only speed up our job but they also simplify it. Large amounts of data can be managed and saved effectively. With the creation of the Multimedia Super Corridor (MSC), there is a sudden increase in job opportunities.

Malaysia is also the main exporter and the third highest producer of semiconductor devices in the world. To fulfill this demand, we need to produce our products more efficiently with advanced techniques and computer

assistance to design and upgrade these semiconductor devices.

The Computer Engineering course is designed to provide a complete undergraduate training in computer-related fields such as computer organisation, architecture, networking, and computer system design and etc, that is to meet the needs of industries sensitive to IT and multimedia developments.

Career Prospects

Graduates career prospects are in the:

- Manufacturing of computer products, such as computer system manufacturing, manufacturing of its peripherals such as computer screens, disc drives, printers, scanners, audio amplifiers and etc;
- Manufacturing of computer-based products, such as TVs, CD & VCD players, alarm systems and security systems;
- Manufacturing, testing and analysing of electronic components.
- Research and development of products which are beneficial to multinational industries, local industries, small-scale industries, universities and local agencies like MIMOS and SIRIM;
- Participation of secondary industries in which the end product is not electronic but depends on electronic systems to produce, for example, the palm oil filtering industries, the textile industries and food manufacturing industries;
- Maintenance services industries such as the telephone industries, multimedia industries, hospital and transportation.

• Bachelor of Electronic Engineering (Telecommunication Electronics) with Honours

The rapid development in telecommunication electronics has brought about a drastic growth of electronics-based telecommunication technologies in Malaysia. Telecommunication electronics comprises audio-video systems, microwave systems, satellite systems, mobile radio systems, radar systems, fibre optics systems, computer networking and digital and multimedia telecommunication systems. Malaysia needs engineers who are knowledgeable, competent and skilful, and capable in telecommunication electronics to remain globally competitive. Recently, this need has increased drastically and it is estimated that this situation will continue.

Graduates from other universities have the capability to design and analyse, but they normally require a longer on-the-floor training period before they can work effectively and productively in the industry.

With the implementation of "practical and application oriented teaching" FKEKK believes that graduates with this unique feature can contribute effectively to the related industry. Our graduates are more readily employed and can fit into the required job specifications with a shorter on the job training period.

Career Prospects

The main career market for graduates are in:

- the design and development of telecommunication equipments,
- telecommunication network management,
- the design of micro-satellite systems.
- the teaching of telecommunication related subjects at educational agencies,

- R&D which are beneficial to multinational industries, local industries, small-scale industries, universities and local agencies like MIMOS and SIRIM,
- the service industries, including telephone industry, multimedia industry, hospital, transportation, etc.

• Bachelor of Electronic Engineering (Wireless Communication) with Honours

The telecommunication field is rapidly expanding worldwide. It covers all topics on analogue signal communication, data communication, transmission and reception systems, digital signal processing, radio frequency and microwave, telecommunication switching system, mobile telephone system, transmission and reception devices, radio communication devices and also satellite and radar devices.

The Department of Telecommunication Engineering, Faculty of Electronic and Computer Engineering has taken the initiative to offer a new course in Wireless Communication at degree level. This field has been identified as a high-potential area to be developed for industrial development in the future. The knowledge in this field is required for communication purposes such as broadcasting and global security monitoring. The Wireless communication field encompasses many significant areas of telecommunication such as mobile telephone systems, transmission and reception devices, radio communication devices, satellite and radar.

Career Prospects

The career prospect for graduates of this course is considered highly promising. Potential companies that can offer jobs for the graduates include TM Berhad, Celcom Berhad, Maxis, Digi, Time, Flextronics, Alcatel, Percec, KUB-Fujitsu, Marconi, Motorola and ATSB.

Newly graduated engineers can also do research work in wireless communication at multinational and local industries, universities and local agencies such as telecommunication companies, SIRIM, and the military. They can also establish telecommunication-related companies.

Graduates can do maintenance and upgrading work in mobile phone production industry, multimedia industry, hospital and military communication system, transportation industries such as aircraft and many other companies where most of the equipments used are electronics and telecommunication-based.

Graduates can also disseminate their knowledge on wireless communication at public and private Institutions of Higher Education, polytechnics and community colleges.



• Diploma in Electronic Engineering

The rapid development of electronics and the vast usage of computers have caused an enormous growth of electronic-based industries in Malaysia. Malaysia is already known as the main exporter of semiconductor and the third largest semiconductor device producer in the world.

Industrial Electronics includes the manufacturing of consumer products such as computers, TV, audio-video devices, CD drive and player, communication devices, mobile phones and etc. Even in non-electronic based industries, electronic systems are used to produce the end product such as in oil refinery, cars and rubber-based manufacturing.

In order to increase Malaysia's industrial competitiveness, knowledgeable and skilful manpower in industrial electronic engineering is needed. The demand for semi-professional work force in this field is increasing with the growth of global industries.

Career Prospects

Through this diploma course, the Faculty hopes to produce semi-professionals to support the rapidly growing electronic industry of Malaysia. They are useful as Technical Assistants or Assistant Engineers in all the engineering fields mentioned above. Graduates with outstanding academic achievements will be accepted to further their studies to a degree level.





Faculty of Manufacturing Engineering

OVERVIEW

Manufacturing or production is a process of transforming raw materials into a product. It includes designing and producing a product through various methods and machines. Manufacturing activity is the backbone of the nation's development since it contributes between 20 – 30 percent of the Gross National Product (GNP). Generally, as the nation's manufacturing activity increases, it will actually improve the standard of living of its populace. Manufacturing engineering is a branch of engineering that requires knowledge and experience in order to fully grasp, exploit and control all the engineering techniques in manufacturing process and methods of producing products. It also requires aptitude to plan for manufacturing methods, research and develop tools, process and machines as well as the ability to combine facilities and systems in the intention of producing cost-effective products in a more feasible way. The Manufacturing Engineering Programme at UTeM is also developed to enhance the graduates capabilities in solving manufacturing engineering problems. Theoretical aspects and practical sessions are embedded in the engineering education approach to ensure that the graduates of manufacturing engineering program at UTeM are able to function effectively in their career. For further information, please contact:

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

Dean
Faculty of Manufacturing Engineering
Universiti Teknikal Malaysia Melaka,
Locked Bag 1200,
Hang Tuah Jaya,
75450 Ayer Keroh,
Melaka, Malaysia

Phone : +606-233 2421

Fax : +606-233 2414

Email : fkp@utem.edu.my

Website : www.utem.edu.my/fkp

LIST OF COURSES

- Bachelor of Manufacturing Engineering (Manufacturing Process)
- Bachelor of Manufacturing Engineering (Manufacturing Design)
- Bachelor of Manufacturing Engineering (Robotic and Automation)
- Bachelor of Manufacturing Engineering (Manufacturing Management)
- Bachelor of Manufacturing Engineering (Engineering Materials)
- Diploma in Manufacturing Engineering

• Bachelor of Manufacturing Engineering (Manufacturing Process)

The course comprises mathematical principles, engineering science and manufacturing technology. Aside from the core engineering knowledge, students will be exposed to various engineering metallic and non-metallic material processing techniques.

Career Prospects

Graduates from this program are expected to have strong engineering background and skills required to build their career as Process Engineer, Production Engineer, Manufacturing Engineer, Sales Engineer, Machine Tool Designer and Manufacturing Engineering Consultant.



• Bachelor of Manufacturing Engineering (Manufacturing Design)

Manufacturing design is a branch of manufacturing engineering that focuses on design function in the effort to reduce product manufacturing cost. The course comprises mathematical principles, engineering science and manufacturing technology. Aside from the core engineering knowledge, students will be exposed to systematic techniques and approaches in design for manufacturing and assembly. The skills will help them in designing quality products and cost-effective system which are environmentally safe.

Career Prospects

Graduates from this course will have the knowledge and competencies required to become:

- Design Engineers,
- Manufacturing Engineers,
- Sales Engineers,
- Design Instructors
- Design Consultants.

• Bachelor of Manufacturing Engineering (Robotic and Automation)

Productivity or optimum usage of production source is among the important objectives in a manufacturing system. The usage of high-end computer and control system will help manufacturing engineers in increasing productivity. Therefore, Robotic & Automation course will give opportunities to manufacturing engineers to study automation technology such as numerical and adaptive control, industrial robot, sensor and flexible manufacturing system.

Career Prospects

Graduates from this programme will have knowledge and competencies required to become Design Engineers, Production Engineers, Manufacturing Engineers, Sales Engineers, Designers, Machine Tool Designers and Manufacturing Design Consultants.

• Bachelor of Manufacturing Engineering (Manufacturing Management)

The main objective of this course is to produce high calibre manufacturing engineers who understand technological and management challenges in an industrial organisation. The program stresses on the operation of modern manufacturing trends such as agile manufacturing system and lean manufacturing. Manufacturing information system will become the integration factor that will ensure production is according to time, quantity, quality and cost.

Career Prospects

Graduates from this program will have knowledge and competencies required to become Industrial Engineers, Production Planners, Quality Engineers, Production Engineers, Manufacturing Engineers and Sales Engineers.

• Bachelor of Manufacturing Engineering (Engineering Materials)

The syllabus and curriculum of this programme stresses on manufacturing process aspects as a whole, material selection and material behaviour in service. The laboratory for this course is equipped with high-end equipment suitable for the integration concept of theory and practice. In addition, graduates have the potential to do research for the development and production of advanced materials.

Career Prospects

Graduates from this program will have knowledge and competencies required to become Product Engineers, Process Engineers, Quality Control Engineers, Production Engineers, Manufacturing Engineers and Sales Engineers.

• Diploma in Manufacturing Engineering

Diploma in Manufacturing Engineering emphasises knowledge and skills in the process, manufacturing methods and machine utilisation activities in order to produce finished goods that fulfil consumer demands at logistical cost. Students will be taught the fundamental knowledge in manufacturing engineering. Aside from the theoretical knowledge, students will be exposed to various manufacturing skills, which include metal fabrication, graphics engineering, CNC technology and CAD/CAM

Career Prospects

Graduates from this program are expected to have strong engineering background and skills required to build their career as Technical Specialists, Manufacturing Technicians, Assistant Production Engineers and Sales Engineers.



Faculty of Mechanical Engineering

OVERVIEW

The Faculty of Mechanical Engineering was established on 22 June, 2001. The Faculty of Mechanical Engineering operates at the Industry Campus in Taman Tasik Utama, Ayer Keroh, Melaka.

According to the 10 year university strategic plan, the faculty is expected to have seven departments, a few laboratories, administration units and centres of excellence. Under the first phase of its development, the construction of the academic building, administration and laboratories for five departments have been approved.

CONTACT ADDRESS

Faculty of Mechanical Engineering
Universiti Teknikal Malaysia Melaka,
Locked Bag 1200,
Hang Tuah Jaya,
75450 Ayer Keroh,
Melaka, Malaysia

Phone : +606 233 2430

Fax : +606 233 2429

Email : fkf@utem.edu.my

Website : www.utem.edu.my/fkf



LIST OF PROGRAMMES

- Bachelor of Mechanical Engineering (Automotive)
- Bachelor of Mechanical Engineering (Design & Innovation)
- Bachelor of Mechanical Engineering (Structure & Materials)
- Bachelor of Mechanical Engineering (Thermal-Fluids)
- Diploma in Mechanical Engineering
- **Bachelor of Mechanical Engineering (Automotive)**

The Bachelor of Mechanical Engineering (Automotive) was initially offered at the 2003/2004 academic session. The automotive specialisation covers, in particular, the vehicle system. The automotive market demand requires advance technology for driving comfort, engine efficiency and safety. Automotive engineers are responsible in designing and analysing vehicle system for fulfilling these needs.

The researchers' interests in this discipline include engine combustion, autoerotic, automotive design component, and vehicle structure analysis using simple structure surface (SSS) and finite element analysis (FEA), power delivery system, suspension system, and vehicle chassis.

Career Prospects

The graduates may enjoy careers like:

- Body design and innovation, and vehicle components
- Industrial equipment layout, and work flow in automotive industry
- Dependable study, and quality automotive products
- Maintenance management, and service and repair
- Research and development in automotive technology

- **Bachelor of Mechanical Engineering (Design & Innovation)**

The Bachelor of Mechanical Engineering (Design & Innovation) degree program begins in the 2003/2004 intake. It is basically a Mechanical Engineering degree program with emphasis on mechanical design and innovation. The area of mechanical design engineering and innovation is important in order to keep in pace with the rapid technological development to meet customers' requirements. The degree program is very much related to area of innovation of products, new product development (NPD), engineering design analysis and design improvement of existing products. This require substantial amount of technical skill in using computer technology to assist students in designing creative and innovative products. Students will also be exposed to the latest technology in prototype and model making using state-of-the-art equipment. Among topics covered are Advanced Computer Aided Design (CAD), Computer Aided Engineering (CAE), Innovation and Creativity, Prototypes Development Technologies, Design Reliability & Quality, Design for Manufacturing and Assembly (DFMA), and Design Optimization & Analysis.

Career Prospects

Graduates from this program are commonly employed as an engineer in the following fields: -

- New product development and innovation
- Continuous improvement in manufacturing industry
- Design reliability and quality
- Cost and design optimization
- Research and development
- Product engineering

• Bachelor of Mechanical Engineering (Structure & Materials)

The Bachelor in Mechanical Engineering (Structure and Materials) is the second programme implemented by FKM-UTeM. It specialises in the area of structure of engineering component, application and study in engineering material. This field involves the study of structure mechanics and material, structure analysis using finite element method or FEM and other methods, the use of computer programme to design component and engineering structure and analysing stress, strain and strength making use of the state of the art equipment. The study of materials involves the properties of engineering material, their usage and producing engineering materials such as metals, polymers, ceramics, composites and advance materials. The students will also be exposed to laboratory experiments including Destructive Test and Non-Destructive Test (NDT).

Career Prospects

Graduates from the Structure and Material field usually would work or function as an engineer in the field of:-

- Structural Mechanics in structure and component design.
- Advance material and material processing.
- Material failure in structure and component.
- Selection and composition of engineering material for product design.



• Bachelor of Mechanical Engineering (Thermal-Fluids)

The Bachelor of Mechanical Engineering (Thermal Fluids) is the first academic programme offered by this university. It is a Mechanical Engineering programme which specialises in the area of thermo (or thermodynamics) and also fluids. The area of thermodynamics involves the study of HVAC (Heat Ventilation and Air Conditioning), Heat transfer, systems involved and production or transfer of heat (whether through conduction, convection or radiations), generating electrical energy, internal combustion and its impact on the environment. The study also includes the generation of alternatives energy sources.

The study in fluids involve the static and dynamic behaviour or fluids flow which comes in many forms such as liquids and gases. The characteristics of fluids/gases flow in a piping system and dam, fluids system like pump, compressor, turbine, rotor dynamics machine, power generation system, work and momentum are also learnt to emphasise the study of hydraulic, pneumatic and automation at a higher level.

Career Prospects

Graduates from this area of study, would usually work or function as an engineer in the fields such as:-

- Power generation and renewal energy sources.
- Plant maintenance, air conditioning system and other thermo system.
- Design and maintenance of hydraulics and pneumatics system.
- Petrol-Chemical and Processing Industries.
- Transportation industries especially related to engine.

• Diploma in Mechanical Engineering

The objective of the Diploma programme is to produce skilled human resources who are competent and have the fundamental knowledge of science and technology and who are competitive and well prepared to absorb the current technological transfer, especially in the area of Mechanical Engineering. This programme is also the feeder or path for the SPM leavers to further their studies at higher levels, as in the Bachelor of Mechanical Engineering programme in FKM.





Faculty of Information and Communication Technology

OVERVIEW

The Faculty of Information and Communication Technology provides a number of undergraduate and postgraduate programmes. Our programmes are professionally relevant and intellectually challenging and have been accredited by the Ministry of Higher Education Malaysia. We work hard to ensure that our subjects provide a strong theoretical base while exposing students to practical applications. The faculty has staff and students from multiracial backgrounds and cultures. The faculty is recognised by ICT bodies, employers and the government as being one of the leading professional ICT schools.

CONTACT ADDRESS

Faculty of Information and Communication Technology
Universiti Teknikal Malaysia Melaka,
Locked Bag 1200,
Hang Tuah Jaya,
75450 Ayer Keroh,
Melaka, Malaysia

Phone : +606 233 2510

Fax : +606 233 2508

Email : ftmk@utem.edu.my

Website : [//ftmk.utem.edu.my](http://ftmk.utem.edu.my)



LIST OF PROGRAMMES

- Bachelor of Computer Science (Software Development)
- Bachelor of Computer Science (Computer Networking)
- Bachelor of Computer Science (Database Management)
- Bachelor of Computer Science (Interactive Media)
- Bachelor of Computer Science (Artificial Intelligence)
- Diploma in Information and Communication Technology

• Bachelor of Computer Science (Software Development)

The Bachelor of Computer Science (Software Engineering) course is offered to produce graduates who possess knowledge and skills in ICT. Graduates are equipped with advanced knowledge and skills especially in the field of software engineering and development to fill the demands of the industry. These include analyzing, synthesizing, designing complex systems including intelligent systems, maintaining, testing, assuring quality and managing software projects.

Career Prospects

The graduates enjoy careers as:

- Information Systems Officers
- Software Engineers
- Software Project Managers
- Software Quality Assurance Members
- Systems Analysts
- Application Systems Administrators
- Software Testers
- Software Maintainers
- Software Developer Consultants

The graduates also have the opportunity to further their studies to the Master and PhD levels.

• Bachelor of Computer Science (Computer Networking)

The Bachelor of Computer Science (Computer Networking) course is offered to produce graduates with knowledge and skills in ICT. Graduates are also equipped with advanced knowledge and skills especially in analysis, design and management of network systems and computer communications.

Career Prospects

The graduates enjoy careers as:

- Systems Analysts
- Information Systems Officers
- Networks Administrator/ Managers
- Network Project Managers
- Network Programmers or Network Engineers
- Application Systems Administrators

The graduates also have the opportunity to further their studies to the Master and PhD levels.

• Bachelor of Computer Science (Database Management)

The main objective of the Bachelor of Computer Science (Database Management) course is to produce graduates with knowledge and skills in ICT. Graduates are equipped with advanced knowledge and skills in the field of database. These include analysing, designing and developing programs based on structured query, managing and administering database management systems including distributed databases to fulfil the needs of the industry. Students are able to develop data mining applications and build security features to secure a database.

Career Prospects

The graduates enjoy careers as:

- Database Analysts
- Database Designers
- Database Administrators/ Managers
- Database Architects
- Database Programmers
- Database Applications Consultants

The graduates also have the opportunity to further their studies to the Master and PhD levels.



• Bachelor of Computer Science (Interactive Media)

The main objective of the course is to produce graduates with knowledge and skills in ICT. In addition, graduates will be equipped with:

- Knowledge about interactivity in the design and development of multimedia software.
- The basic principles and concepts of multimedia and interactive products such as virtual reality application and interactive CD-ROMs.
- The concepts of human-computer interaction, computer graphics, computer games and multimedia project management. These also include video production skills beginning from pre-production, storyboard to post-production.
- Professionalism and ability in developing media interactive products and multimedia applications.

Career Prospects

Graduates of this course have the opportunity to hold positions as web designers and programmers, computer games designers, computer graphics designers, computer animators, audio and video engineers, interface designers, interactive media application developers or multimedia consultants in the fields of:

- Advertising and Marketing
- Manufacturing
- Museums and Art Galleries
- Television and Film
- Entertainment
- Freelance Consultancy
- Electronic Manufacturing
- Information Industry
- Direct and Electronic Marketing
- Public Education
- Disability Services
- Public Sector

The graduates also have the opportunity to further their studies to the Master and PhD levels.

• **Bachelor of Computer Science (Artificial Intelligence)**

The Bachelor of Computer Science academic programme develops student understanding in Computer Science, particularly in Information & Communication Technology. Graduates will be equipped with scientific knowledge and engineering skills in Artificial Intelligence to fulfil the needs of the industry especially in ICT, robotics and manufacturing.

Career Prospects

Upon completing the course, graduates can have the following careers:

- Knowledge Engineers
- Intelligent Systems or Expert Systems Developers
- Systems Analysts
- Systems Programmers
- Systems Designers
- Software Developers
- Software Consultants
- Computer Scientists
- Researchers

The graduates also have the opportunity to further their studies to the Master and PhD levels.

• **Diploma In Information and Communication Technology**

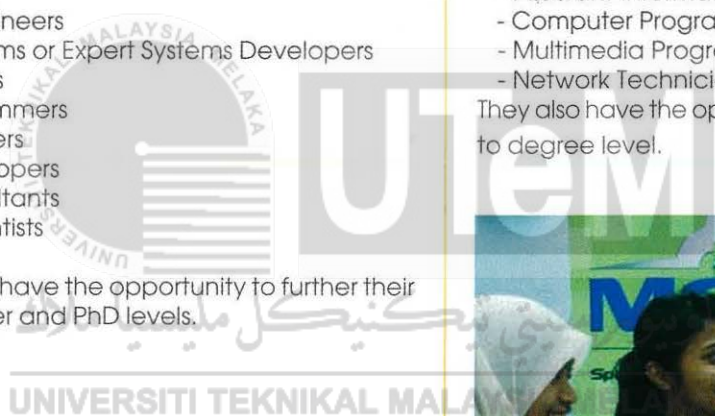
The Diploma in ICT is offered to produce intermediate-level ICT professionals. Graduates will be equipped with knowledge and skills in ICT particularly computer programming and software development, computer systems and hardware, multimedia, internet technologies and computer networks.

Career Prospects

The graduates may embark on careers such as:

- Assistant Information Systems Officers
- Computer Programmers
- Multimedia Programmers and Systems
- Network Technicians

They also have the opportunity to pursue their studies to degree level.





Centre for Graduate Studies

OVERVIEW

The Centre for Graduate Studies of Universiti Teknikal Malaysia Melaka (UTeM) was established to further enhance the contribution of UTeM in the areas of engineering, information technology and technology management through rigorous and dedicated academic research. The research activities at UTeM are geared towards the combination of applied industrial and academic excellence.

The Centre for Graduate Studies strives to provide quality higher degree education relevant to the needs of the varied participants. The ability to respond to the participants' needs is facilitated by a programme structure which permits flexibility while maintaining the academic requirements and standards. It also focuses on close professional relationships between staff and students. The Centre is part of an academic community, which prides itself of having an outstanding reputation for teaching and research. The academic staff, working at the frontier of their subjects, are often in close collaboration with colleagues from the industries as well as the public sector. In the spirit of supportive fraternity, all students, regardless of creed or background, benefit from the challenges and opportunities presented by such a conducive environment.

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Students tend to have closer bonds with their academic faculties and individual supervisors. All graduate students at UTeM as well as those involved in teaching and supporting them, are also members of the Centre for Graduate Studies. The Centre supports academic excellence of faculties by providing a high-level focus within the University for graduate studies and the interest of the graduate students. It also organises research training programs and participates in quality assurance for postgraduate degrees.

We, at the Centre for Graduate Studies, are committed to providing you with numerous opportunities to develop your competencies and knowledge while assisting you with a supportive and challenging environment.

“STRIVE FOR EXCELLENCE”

CONTACT ADDRESS

Centre For Graduate Studies
Universiti Teknikal Malaysia Melaka,
Locked Bag 1200,
Hang Tuah Jaya,
75450 Ayer Keroh,
Melaka

Phone : +606 - 233 3368 / 3373/ 3376/ 3372

Fax : +606 - 233 3369

E-mail : pps@utem.edu.my

Website : www.utem.edu.my/pps

GRADUATE PROGRAMMES BY RESEARCH

i) Faculty of Electrical Engineering

Doctor of Philosophy (Ph.D) and
Master of Science (MSc)

- Power System Generation, Operation and Control
- Analysis and Modeling of Power Systems
- Power Electronics and Drives
- Energy Efficiency and Renewable Energy
- Control and Automation
- Mechatronics System

ii) Faculty of Electronic & Computer Engineering

Doctor of Philosophy (Ph.D) and
Master of Science (MSc)

- Industrial Automation System Design
- Telecommunication Systems Design
- Intelligent Microcontroller Design

iii) Faculty of Manufacturing Engineering

Doctor of Philosophy (Ph.D) and
Master of Science (MSc)

- Concurrent Engineering
- Precision Engineering
- Autonomous and Intelligent Manufacturing
- Competitive Manufacturing
- Advanced Materials

iii) Faculty of Mechanical Engineering

Doctor of Philosophy (Ph.D) and
Master of Science (MSc)

- Thermal Fluids
- Structural Mechanics & Advanced Materials
- Design & Innovation
- Automotive Engineering

iv) Faculty of Information and Communication Technology

Doctor of Philosophy (Ph.D) and
Master of Science (MSc)

- Software and Information Systems
Engineering
- Data and Knowledge Engineering
- Artificial Intelligence, Modeling and Decision
Technology
- Networking and Internet Computing
- Computer Systems and Security

v) Institute of Technology Management and Entrepreneurship

Master of Science (MSc.)

- Technology Management
- Entrepreneurship
- Human Resource Development
- Technical Communication
- Industrial Counselling

Doctor of Philosophy (Ph.D)

- Technology Management
- Entrepreneurship
- Human Resource Development
- Quality Management
- Strategic Management

GRADUATE PROGRAMMES BY TAUGHT COURSES

- i) Faculty of Manufacturing Engineering
(Collaborative Programmes with Coventry University)
Master of Science (MSc.)
- Engineering Business Management
 - Manufacturing Systems Engineering
- ii) Faculty of Information and Communication Technology
Master of Computer Science (MCSc.)
- Internetworking Technology
 - Software Engineering and Intelligence
 - Database Technology
 - Security Systems
- iii) Institute of Technology Management and Entrepreneurship
Master of Business Administration (MBA)
- Technology and Innovation Management
 - Advanced Operations Management





Centre for Languages and Human Development

OVERVIEW

The Centre for Languages and Human Development was established on 13th September 2006 and fully operated on 1st December 2006. In-line with the University's aspiration to produce competent technical graduates, the centre plays an important role in providing necessary training in the fields of languages, human development and generic skills amongst UTeM undergraduates.

In addition, the courses offered aim to incorporate self-reliance in accordance with the practice and application oriented approach practised by UTeM. This will increase the graduates' employability in the various industries. The centre also hopes to develop citizens who are highly knowledgeable, responsible and valuable to the community.

The mission of the centre is to promote an integrated education which will produce mature graduates with dynamic personality, excellent leadership skills, as well as high discipline and moral standards.

Currently, the centre has four main departments:

1. Department of Human Development
2. Department of Languages
3. Department of Islamic Studies and Humanities
4. Department of Co-Curricular Studies

CONTACT ADDRESS

Centre for Languages and Human Development
Universiti Teknikal Malaysia Melaka
Locked Bag 1200
Hang Tuah Jaya
Ayer Keroh 75450
Melaka, Malaysia.

Phone : +606-233 3064

Fax : +660-233 3144

Website : www.utem.edu.my/pbpl

A. Department of Human Development

The department aims to uphold the main focus of the university in incorporating the 7 elements of soft skills to incorporate generic skills in teaching and learning. The elements involved are:

- Communication
- Critical Thinking and Problem Solving
- Lifelong Learning and Information Management
- Leadership
- Entrepreneurship
- Teamwork
- Professional Ethics and Moral

Four compulsory elective subjects are offered to both Diploma and Bachelor levels namely:

- Technocrat Communication
- Organisational Communication
- Negotiation
- Creative and Critical Thinking

B. Department of Languages

The department offers compulsory as well as elective subjects for Diploma and Bachelor levels. It aims to promote mastery of knowledge in soft skills and third languages as an added value for undergraduates to be more competitive and employable. The subjects are :

- Foundation English
- Technical Communication I
- Malay Language II
- Arabic II
- Mandarin II
- Japanese II
- German II
- French II
- Technical Communication II
- Malay Language I
- Arabic I
- Mandarin I
- Japanese I
- German I
- French I

C. Department of Islamic Studies and Humanities

The department offers compulsory and compulsory elective subjects both for Diploma and Bachelor levels. The subjects offered are in the field of humanities which aim to promote understanding, respect and appreciation of common values in creating a better society.



Compulsory subjects:

- Islamic Civilization and Asia Civilization
- Ethnic Relations
- Philosophy of Science and Technology
- Malaysian Socioeconomy Development

Compulsory elective subjects:

- Institutions in Islam
- Industrial and Organisational Psychology

D. Department of Co-Curricular Studies

The department offers compulsory elective subjects at Diploma and Bachelor levels. All the co-curricular subjects offered are given credits as in other academic courses taken by the undergraduates.

The subjects offered aim to meet the university's vision to promote a balanced education which later produce mature graduates with dynamic personality, excellent leadership skills, high discipline and moral values as well as to promote cooperation and integration in the community.

The subjects are as follows:

- | | |
|-----------------------------|------------------------------------|
| • Public Speaking (English) | • Public Speaking (Malay) |
| • Video and Photography | • Interior Designing |
| • Arts | • Technological Entrepreneurship |
| • <i>Fiqh Amali</i> | • <i>Fiqh Muamalat</i> |
| • <i>Tahsin Al-quran</i> | • Publication and Journalism |
| • Auto Maintenance | • <i>PRS & Sahabat Khidmat</i> |
| • <i>Kompang</i> | • <i>Caklempang</i> |
| • <i>Gamelan</i> | • <i>Nasyid</i> |
| • Choir | • English Theater |
| • Silat Gayong | • Karate-do |
| • Taekwondo | • Aerobics |
| • Go-kart | • Football |
| • Cycling | • Badminton |
| • Archery | • Shooting |
| • Paramotor | • Fencing |
| • Equestrian | • Cricket |
| • Yachting | • Netball |
| • Tennis | • Hockey |
| • Softball | • Golf |
| • Volleyball | • Kayak |
| • Sepak Takraw | • Swimming |
| • Kor Suksis Polis I | • Kor Suksis Polis II |





Centre for Continuous Learning

OVERVIEW

The establishment of UTeM's Centre for Continuous Learning was greatly motivated by the need for a centre to promote lifelong education in the Melaka region. Continuing education, especially for the working adults and professionals is becoming an essential part of many education providers within the country and has been incorporated in many higher education institutions. This comes as a result of the country's demand in more professional and high-skilled human capitals. Many employers are looking for the added value in employees in this day and age that the need for continuous improvement in knowledge and skills is becoming a prerequisite rather than an option for career advancement.

In meeting the demands of the current employers and realizing the importance of industrial adaptability among workers, UTeM has dedicated the Centre for Continuous Learning to undertake the tasks of providing education for the working adults, professionals, unemployed graduates and those seeking second chance at education. Among the courses that are lined up at the centre include Executive Diploma programs, short courses from various fields of Information Technology, Engineering and Language and other professional development courses. We are also providing courses which are jointly organized by our smart partners who will be able to assist us in meeting the industry's demands better.

The Centre receives positive feedback from both public and private institutions for short term courses and Executive Diploma programs. These courses offer up-to-date knowledge and skills for them to advance in their careers and achieve better understanding in the required fields.

Contemporary objectives include

- To provide executive diploma programs suited for the working adults
- To provide short courses and training for personnel at every level in the industry
- To provide professional courses in collaboration with professional institutions
- To provide part-time undergraduate courses for working adults and those seeking a second chance at education

We are

- The coordination center for lifelong learning at UTeM
- The link between scholars and the community
- The main point of contact for people interested in continuing education

Types of courses available

- Short courses
- Executive Diploma
- Part-time undergraduate courses

FOR ENQUIRY, PLEASE CONTACT :

Marketing Manager
Center for Continuous Learning (UTeM-CCL)
Locked Bag 1200,
Hang Tuah Jaya,
75450 Ayer Keroh,
Melaka, Malaysia
Email: fararishah@utem.edu.my
Tel : +606-233 2479
Fax : +606-233 3436



اونيورسي تيكنيكل مليسيا ملاك
UNIVERSITI TEKNIKAL MALAYSIA MELAKA



Institute of Technology Management and Entrepreneurship

OVERVIEW

Having successfully established five faculties and two centres, Universiti Teknikal Malaysia Melaka (UTeM) has been given the approval by the Ministry of Higher Education to initiate a set-up for the promotion of entrepreneurs in Malaysia. This institute is known as the "Institute of Technology Management and Entrepreneurship". Management of technology is a field of study that is gaining recognition due to its powerful nature in meeting global competitiveness. Many organisations today rely heavily on technology in their operations and day-to-day activities. To support and improve the efficiency of the organisation's operations, managers need to keep themselves abreast with the techniques in managing the technology adopted in the organisation. This requires a thorough understanding of technology and the processes that are necessary to ensure the right utilisation of technology.

The aims of the institute are to support the above need and as such, the main task of this institute is to anchor R&D activities as well as offer post-graduate programmes and training in the technological and entrepreneurship areas.

اونيورسيتي تيكنيكل مليسيا ملاك
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

CONTACT ADDRESS

Institute of Technology Management and Entrepreneurship
Universiti Teknikal Malaysia Melaka
Block C, City Campus,
Jalan Hang Tuah,
75300 Melaka, Malaysia.

Phone : + 606-238 3049

Fax : +606-283 3131

Email : iptk@utem.edu.my

Website : www.utem.edu.my/iptk

The Doctor of Philosophy (Ph.D) programme (by research) is designed for managers who have been in technology-based industries and would like to pursue a higher position in the organisational structure either in the technical or business management field.

Areas of study :

- Technology Management and Entrepreneurship
- Research and Development Management
- Quality Management
- Technical communication
- Training and Technology Education

The Master of Science programme is conducted by research and is designed for those whose career are closely linked to Technology-based industry and want to climb the career ladder in either technical or business management areas. The programme is also suitable for those who aspire to become a successful manager of Entrepreneurship.

The Master of Science programmes :

- Master of Science in Entrepreneurship
- Master of Science in Human Resource Development
- Master of Science in Technology Management
- Master of Science in Technical Communication
- Master of Science in Industrial Counseling

In-line with UTeM's mission to provide multi disciplinary programmes, IPTK has now embarked on providing MBA programmes that focus on improving the manager's ability to manage an organisation. Using technology as a basis, our MBA programme will expose students to current issues and theories which are vital in managing service organisations as well as manufacturing industries

The MBA programmes :

- Technology and Innovation Management
- Advanced Operations Management





Centre for Teaching and Learning

OVERVIEW

The Centre for Teaching and Learning (CTL) was established in 2003. The centre aims to achieve recognition from MS ISO 9000 in teaching and learning.

The Objectives of CTL are:

- to plan, implement and evaluate training and development programmes conducted to improve the quality of teaching and learning.
- to design training modules to enhance the quality of teaching and learning process.
- to plan and implement higher learning certificate programmes in teaching and learning for academics.
- to lead the development process and implementation of electronic teaching and learning approach.
- to execute and encourage comprehensive research activities to elevate the quality of teaching and learning.
- to provide the guidelines and policies pertaining to the implementation of "Outcome Based Education".
- to provide a platform for professional trainings of academics.





CONTACT ADDRESS

Centre for Teaching and Learning
Universiti Teknikal Malaysia Melaka
Block B, Level 3,
City Campus,
Jalan Hang Tuah,
75300 Melaka, Malaysia.

Phone : +606-283 3461
Fax : +606-283 3493
Email : ppp@utem.edu.my



UteM

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Facilities



Teaching & Learning

UTeM provides various sophisticated facilities such as lecture halls, well-equipped laboratories for Robotic & Automation, Instrumentation, Thermodynamics & Technology Multimedia and Chemistry Laboratories. Besides these, Language Lab and Smart Lab are also available. The Advanced Manufacturing Centre (AMC), the teaching factory will be in operation by the end of 2008.



Accommodation

UTeM provides on-campus accommodation to 3,600 students in three residential colleges. All residential colleges have complete facilities.

Information on private residences for rent is also available. Almost all accommodations at Taman Tasik Utama and Taman Bukit Beruang have three bedrooms. The monthly rent for such accommodation ranges from RM 250 to RM 800 per month.

Knowledge Infrastructure

UTeM provides libraries at the three campuses. There is a wide range of collections available in the libraries. Books, magazines, journals and other related reading materials are selected according to the needs identified. It operates from 8.00am to 11.00pm on weekdays and from 8.00am to 4.30pm on weekends. The libraries are also open during the semester breaks and operate from 8.00am to 4.30pm on weekdays. However, the library is closed on weekends during the semester breaks.



Medical Care

All students are eligible for medical attention at the students' clinic which operates from 8.15 a.m. to 4.30 p.m. daily. Health services are also available from appointed panel clinics within close vicinity of the campuses.



Food

There are numerous delicious and economical café and restaurants available throughout the campuses.



Transportation

The university provides 16 buses for the use of its students and staff. These buses ferry students between hostels and campuses. Getting around Melaka by bus is easy and relatively cheap. Public transport such as taxis and buses (Salira) operate from Melaka town (Melaka Central in Jalan Tun Razak) to UTeM.

Student Services & Activities



Activities

A student's life is no fun without activities and opportunities of having a good time with friends. Sports and recreational activities can aid students in building up their mental and physical strength as well as social interaction skills. Students are encouraged to participate in:

- Activities of various clubs and societies.
- Religious activities coordinated by the Religious Unit of Student Affairs Office.
- Culture-based programmes coordinated by the Cultural Unit of the Student Affairs Office.



Career & Counseling Centre

Students can obtain guidance and information on career opportunities from the Counselling Unit at the Student Affairs Office. Students may attend the various workshops organised by the Student Affairs Office for instance; Resume Writing, Mock-Interviews and Career Talk.

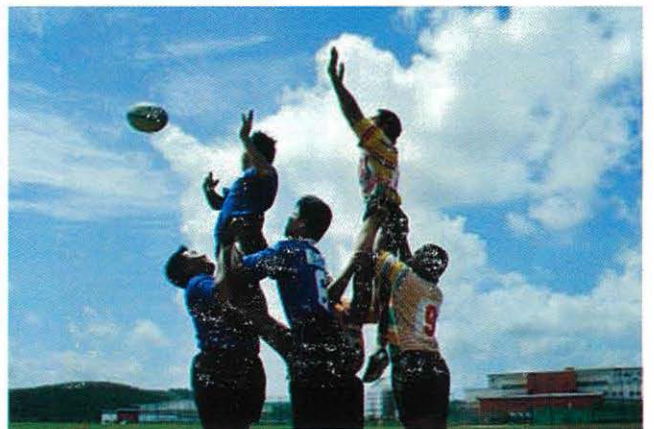
Students may seek counselling service and guidance on personal or academic matters. The service is available daily from 8.00 a.m. to 4.00 p.m. For appointment, please call 06-233 2439



Extra Co-curricular Activities

Students can be a member of any of the extra co-curricular activities listed below:

- Student Representative Council
- Clubs such as Cultural & Arts, Technopreneurship, Unity, *Rakan Muda*, Secretariat Association, Taekwando, *Silat Gayong*, Martial Art and etc.
- Musical Clubs such as *Kompang*, and *Cak Lempong*, Gamelan, and *Nasyid*.



Scholarships

Students who meet the requirements for scholarships can apply to the Ministry of Education Malaysia, the Public Service Department and the State Foundation in every state.

Generally the requirements are as follows:

- Malaysian Citizen
- Applicants must be under the age of 36 as of July 2008
- Applications are only applicable for listed courses
- A credit in English (SPM) or Band 3 and above (MUET)
- A CGPA of at least 2.75 (Matriculation Studies) and 3.0 (Polytechnic)
- Interested and have the potential to become educators
- Excellent health

Educational Loans

Students may apply for Perbadanan Tabung Pendidikan Tinggi Nasional (PTPTN) using the application form provided by the Student Affairs Office. Every application should be sent through the Student Affairs Office. Any application, which is personally sent by an applicant, will not be entertained by PTPTN.

Generally the requirements are as follows:

- Malaysian Citizenship
- SPM or any equivalent
- Obtained a pass in the 'mean test' which is conducted to evaluate applicants' family financial strength
- Currently not under any sponsorship
- Full time first-degree or diploma in government and Private Institutions of Higher Learning (IPTA and IPTS). Applications from student of private higher institutions of learning will only be considered if they study courses that are certified by the Private Education Department.

The loan rate will be based on parents' / guardians' monthly income compared to the current PTPTN budget. Current loan rate according to parents' / guardians' monthly income:

<u>Monthly Income</u>	<u>Loan Rate</u>
RM 4,001 and above	- Fees only
RM 2,001 – RM 4,000	- Partial
RM 2,000 and below	- Full

University Industry Centre (UNIC)

UNIC acts as a one-stop centre to facilitate information regarding research, grants and industry linkages. Together with UTeM Holding Sdn. Bhd., this centre will help the university to generate income through commercialisation of the research output.

The main function of UNIC is to provide management, administrative and implementation services as well as support, liaise and sustain the R&D activities of the university. Besides that, the centre coordinates all grant applications to the Ministry of Sciences, Technology and Innovation (MOSTI), and the Ministry of Higher Education (MOHE) under the following schemes:

- Sciencefund
- Industry Grant Scheme (IGS)
- Multi Media Super Corridor Grant Scheme (MGS)
- Demonstrator Application Grant Scheme (DAGS) and
- Fundamental Research Grant (FRGS)

The main objectives of UNIC are to:

- identify university research areas
- disseminate information about research
- coordinate all research grants at university level
- create research culture among academic staff
- encourage collaboration among academic staff from different disciplines to conduct research



UNIC is also responsible for managing all consultancy activities of the university. Drawing on the expertise and resources of the Academic Faculties and Institute of Technology Management and Entrepreneurship, UNIC facilitates the commercial interaction between UTeM and external clients by providing services that include:

- Technical expertise and advice
- Project Management
- Contract Research and Development
- Collaborative research projects
- Short courses
- Customised in-house training programmes
- Professional & Life long learning
- Material Testing



Industrial Training

Industrial Placement

The University Industry Centre (UNIC) is responsible for the coordination of the Industrial Placement Programmes for all Academic Faculties of UTeM. Industrial placement is a compulsory component for all degree and diploma programmes at UTeM. The experience and skills acquired from a period of placement can be invaluable and provide an advantage to our students when applying for employment after graduation.

Objectives

- To acquaint students with real-life working environments
- To provide opportunities for students to apply knowledge learnt
- To provide opportunities for students to learn new skills & be aware of current technologies
- To instill the right work attitude and professionalism
- To establish strong relationships with industries
- To provide opportunities for organisation to assess students as prospective employees
- To allow organisations to consider offering final year projects to students.

Duration

Bachelor Programmes	—	20 weeks
Diploma Programmes	—	10 weeks

Industrial Visits by the Lecturers

The objective of the Industrial Visit by the lecturers is to ensure that work undertaken by the students during their industrial attachment is appropriate and that they are making an effective contribution to the placement organisations.

The visit will be conducted twice for the degree programmes and once for the diploma programmes. The university will inform the company in writing, prior to the visit. The company will then inform the students and make the necessary arrangements for discussion between the visiting lecturers, students and the supervisors during the visit.

Further Information

For general enquiries and admission into UTeM's academic programmes, please contact :

Academic Administration Unit, Registrar's Office

Tel : +606 233 2237/2252/3305/3308 Fax : +606 233 3307

Email : bpa@utem.edu.my

or

Centre for Graduate Studies

Tel : +606 233 3375 Fax : +606 233 3369

Email : pps@utem.edu.my

UNIVERSITI TEKNIKAL MALAYSIA MELAKA