ABOUT FACULTY OF CIVIL ENGINEERING

Technical College Building, 1975 at Jalan Gurney , Kuala Lumpur

UTM'S establishment is in line with the development of the civil engineering faculty since the objective and its inception was to train Technical Assistants, for the Department of Railways, Survey and Public Works, Federated Malay States.

UTM started in 1904 when the Treacber Technical School began its operation at Weld Road (now Jalan Raja Chulan) to train Technical Assistants.

The school was then upgraded to the status of Technical College and officially opened on March 1, 1905 officiated by the British High Commissioner, Sir Donald Mac Gillivray. The college offered courses at a Diploma level and one of the courses was a Diploma in Civil Engineering.

On March 1972, His Majesty DYMM Yang Dipertuan Agong officially proclaimed the formation of Institut Teknolgi Kebangsaan (ITK)under section 5 (1) of the university and University College Act, 1971.

On 1 April, 1975 the institute reached another milestone of its history when it was officially declared as Universiti Teknologi Malaysia. The Faculty of civil engineering started with a Department of Engineering in 1972, and later became a Faculty in 1975. The journey of the faculty started as a college becoming an institute and finally a faculty.

In 1989, the Faculty moved from the UTM Kuala Lumpur Campus at Jalan Semarak to UTM Johor Bahru Campus. During its initial formation, the faculty had 3 departments, namely the Structures and Materials Department, the Hydraulics and Hydrology Department and the Geotechnics and Transport Department. The new Environmental Engineering Department was set up in 1976.

To support the service and future development of the facu;ty, three (3) management units were formed The units are the Information Technology Unit (ITUCE), the Surveying Unit and the Civil Engineering Testing Unit (CETU). The faculty has a long history of producing distinguished graduates who have contributed substantially of the development of the infrastructure in Malaysia.

According to the QS World ranking 2013, UTM represented by Faculty of Civil Engineering was ranked 135 in the world and was top in Malaysia based on Civil Engineering Courses. The faculty has ranked 53 based on employers reputation worldwide which indicate that our faculty's graduates are highly sought after. We stand tall and proud to be the largest contributor of quality civil engineering graduates to the nation.

A LEADING GLOBAL UNIVERSITY

1020 UG Students

1126 PG Students

53% Postgraduate

399 PhD Students

351 International Students

Ranked 53 2013 QS World Ranking (Civil) based on employers reputation

Ranked 135 2013 QS World Ranking (Civil)

Ranked 150 2012 QS World Ranking (Environmental)

2013 Host Institution for Civil Engineering in ASEAN-AUN/SEED

UTM Faculty of Civil Engineering
UNIVERSITI TEKNOLOGI MALAYSIA

A leading in **Civil Engineering Education** & Research in Asia, Influencing the future.

A leading institution in **Civil Engineering Education** & **Research in Asia**, Influencing the future.

The **UTM Faculty of Civil Engineering** is a leader in **Civil Engineering** education and research. It has consistently been ranked **54** in the **QS World Ranking** in Civil Engineering Education. We are globally oriented university with a strong global reputation.

APPLICATION
For more information Please contact
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Our Advisory Panel

Under Graduate Industrial Advisory Panel (IAP)

Tan Sri Dato' Ir. Jamilus Hussein

CEO
KLIA Premier Holdings Sdn. Bhd.

Dato' Sri Prof.Ir. Dr. Judin Abdul Karim

CEO
Construction Industry Development Board, CIDB

Ir. Dr. Mohd. Sabri Abdullah

Managing Director
DRSA Consulting Sdn. Bhd

Datuk Ir. Dr. Ahmad Fikri Hussein

CEO
KOMPAKAR Inc. Bhd.

Dr. Mohamed Roseli Zainal Abidin

Director
Humid Tropics Centre

Ir. Dr. Che Ariffin bin Che Hassan

Director
Edp Consulting Group Sdn. Bhd.

Ir. Dr. Zuhairi Abd. Hamid

Executive Director
Construction Research Institute of Malaysia (CREAM)

Dr. Md. Yunus Ab. Wahab

Technical Manager
Dynatest Asia Pacific Sdn. Bhd.

Post Graduate Industrial Advisory Panel (IAP)

Dr. Maslin Hassan

TQR Engineering & Services

Ir. Dr. Ng See King

Evenfit Consult Sdn. Bhd.

Ir. Dr. Che Ariffin bin Che Hassan

Director
Edp Consulting Group Sdn. Bhd.

Ir. Dr. Mohd. Fadhillah Hj. Mahmood

WIRA KERJAYA Sdn. Bhd.

Ir. Hj. Mohamed Haniffa b. Abdul Hamid,

Indah Water Konsortium Sdn. Bhd.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

UTM
UNIVERSITI TEKNOLOGI MALAYSIA
Faculty of Civil Engineering

POSTGRADUATES (PEO)

PEO 1
Mastery of competencies and integration of knowledge required in the profession.

PEO 2
An appreciation of the value of lifelong learning and possessing enthusiasm and strong commitment to continued acquisition of new knowledge and skills.

PEO 3
Advanced leadership and team working skills that allow professionals to become visionary and inspirational leaders.

PEO 4
Highly developed oral and written communications skills that fit at all level, appropriate to the field of profession.

PEO 5
An appreciation of the ethics and integrity in management, leadership and good governance, and responsibility to their professions and community.

PROGRAMME OUTCOMES

Postgraduates (PO)

PO 1 Advanced knowledge

PO 2 Critical Thinking and Research

PO 3 Communication

PO 4 Professional Ethics & Integrity

PO 5 Life-long learning

PO 6 Management and Entrepreneurship

PO 7 Teamwork and Leadership

Innovative ● Entrepreneurial ● Global
www.utm.my

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

DESCRIPTIONS

PEO 1
Graduates are competent, innovative and entrepreneurial in acquiring and applying knowledge towards solving complex civil engineering problems.

PEO 2
Graduates possess leadership qualities, able to work, manage in diverse teams and serve the society in multidisciplinary environment.

PEO 3
Graduates demonstrate professionalism and uphold ethical values with emphasis on sustainable environment

PEO 4
Graduates are able to communicate effectively, possess strong self confidence and recognise the need for life-long learning

UTM
UNIVERSITI TEKNOLOGI MALAYSIA
Faculty of Civil Engineering

PROGRAMME OUTCOMES (PO)

DESCRIPTIONS

PO 1 Ability to apply knowledge of science, mathematics, civil engineering principles and other relevant field of studies to solve complex engineering problems

PO 2 Ability to analyse and use appropriate techniques, resources and modern tools to solve complex engineering problems and actitivies

PO 3 Ability to design solutions for complex problems and design components, systems, or processes that comply specific requirement with appropriate consideration of other requirements.

PO 4 Ability to resolve complex problems based on investigation or research using integration of knowledge and the consequent responsibilities relevant to professional practice.

PO 5 Ability to communicate effectively and with confidence including complex engineering activities.

PO 6 Ability to apply engineering, management and finance principles in managing project

PO 7 Ability to function effectively as an individual or in a team to achieve common goals in diverse teams and in multi-disciplinary settings.

PO 8 Ability to perpetually seek and acquire contemporary technological changes.

PO 9 Ability to demonstrate entrepreneurial skills, lead and manage a team effectively in multidisciplinary environment with self- assurance

PO 10 Ability to understand the impact of engineering decisions and apply professional ethics for sustainable development.

Our faculty is one of the highest ranked engineering faculty in Malaysia and is recognized locally and internationally for excellence in producing high quality graduates. It is also reown for being able to transfer knowledge and technology from the laboratory to the marketplace.

We strive to provide quality education to prepare our students for professional position in the civil engineering fraternity, including industry, commerce and academic. We have established our own quality management systems and testing based on ISO9001:2008 and ISO 17025 respectively. We are proud to be being the first civil engineering faculty in UTM to obtain both certifications and maintaining them since 1999.

The comprehensive curriculum content, with innovative and state-of-the-art teaching and delivery techniques are designed and incorporated in the curriculum to exploit the students' minds and effectively develop their range of intellectual and practical skills. Students are moulded into multi-skilled professionals with high intellectual capabilities and strong emotional endurance to succeed in their professional lives.

Currently we offer one programme for Bachelor of Engineering i.e. Bachelor of Engineering (Civil) and 10 postgraduate studies programme at Masters and PhD. in various areas including Structures and Materials, Geotechnical, Highway, Transportation, Water and Environmental Engineering.

Departments
Structures and Materials
Hydraulics and Hydrology
Geotechnics and Transportation
Environmental Engineering

Centres of Excellence
Coastal and Offshore Engineering Institute(COEI)
Construction Research Centre (CRC)
Environmental and Water Resources Management (IPASA)

Laboratories
Structural, Material and Computer Laboratory
Geotechnics Laboratory
Transportation Laboratory
Hydraulics and Hydrology Laboratory
Environmental Engineering Laboratory

Surveying Unit

Our Industrial Advisory Panel
Professional Practice Project Unit

Lecture Theatres / Room
Lecture theatre accommodates 200
Lecture theatre accommodates 120
15 classrooms - accommodates 60

Departments at the Faculty of Civil Engineering

The Department of Structures and Materials

This department is the largest department in the Faculty of Civil Engineering. The major areas of study under the administration of the department are Structural Mechanics, Analysis and Design, Construction Materials, and Construction Technology and Management. Currently there are 65 academic staff who are proficient in various fields under these study areas. Among them, 9 are professors, 24 are Associate Professors, 32 are Lectures. Six persons are now holding various high level administration posts at the University level. 65% (42) of the academic staff are having Ph.D qualification while the rest are having Masters Degree.

The Department of Geotechnics and Transportation

The Department of Geotechnics and Transportation comprises the areas of geotechnical engineering, transportation and highway engineering. Geotechnical engineering uses the principles of soil mechanics and rock mechanics to investigate subsurface conditions and materials. It is a useful knowledge to evaluate the stability of slope, design of earthwork and foundation of structure as well as monitoring site condition and assess risk of failure.

Transportation is a broad based profession that encompasses infrastructure, transport mode, traffic and control system. It is concerned not only with the planning, design, construction, operation, maintenance and control of transportation facilities, but also with safety of users. It drives the economy through the provision of safe, economic, efficient, effective and environmentally sustainable delivery of transport services. Transportation draws strength from other allied professions and are usually not treated in isolation. Its compatibility with geotechnical engineering is seamless.

The combination of geotechnical engineering and the transportation sections enable the department to provide a wide range of multi-disciplinary training and services in soil-related and transportation-related problems. Graduates specialize in geotechnics and/or transportation find careers in the broad range of disciplines that draw heavily on the elements of rock and soil mechanics, highway materials and traffic design, and environmental geotechnics.

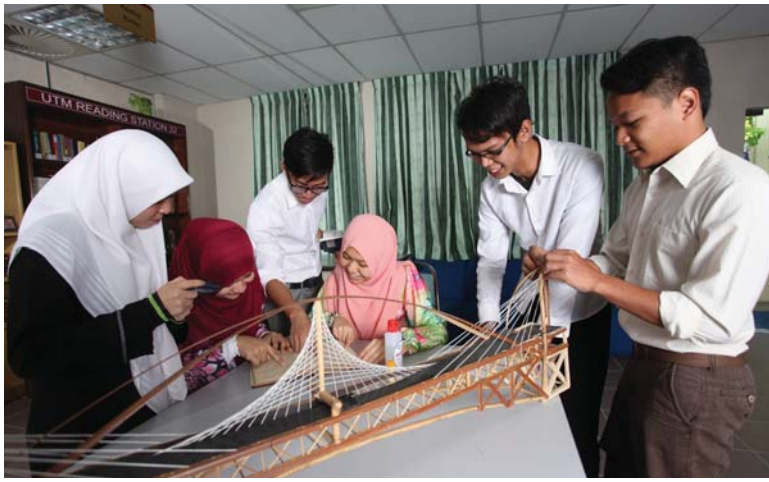
Besides 34 academic staff, there are 13 dedicated technical staff involve in assisting academic staff in laboratory sessions or research works for undergraduate and postgraduate students.

The Department of Hydraulics and Hydrology

The civil engineering profession particularly in water resource engineering is constantly evolving to meet the new challenges faced by society including planning and managing water resources and creating a sustainable future for all. The main scientific areas dealt with by the Department relate to both the qualitative and quantitative aspects of the river basin, urban watershed, agricultural watershed, rural watershed, estuary, climate and coastal environment and related water engineering work.

The Department currently has 30 academic teaching staff and 8 technical staff. A unique feature is the close link with the industry and public bodies, which is integral to the department's approach to research, education and knowledge exchange. The department is closely involved with several prominent local water industries, water resource related organizations and universities worldwide through academic links and consultancy projects.

Beside teaching and supervising students at undergraduate and post graduate levels, they are actively involve in research. The Department actively pursues innovative and significant research to address the challenges of water resource engineering in the 21st century, such as environmental hydraulics, climate change, flood management, coastal engineering and management, river basin management, peat hydrology and forest hydrology. They organize yearly short courses, international conferences and colloquiums.



The Environmental Engineering Department

Rapid changes that has taken place in the world today, along with increasing urbanisation and industrialisation culminate constributed to in environmental problems. Engineers and other professionals are continually facing the daunting task of managing waste and wastewater issues.

Recognizing the need for education and training of personnel that can handle such problems efficiently, the Environmental Engineering Department was set up in 1976. It aims to train students to become leaders in civil engineering with environment and sustainability concerns in mind.

The department has developed and promoted forward-looking academic research and internationalisation by having academic staff and research fellow from overseas, as well as establishing joint-research efforts with foreign institutions. The expansion within the last four years has increased the strength of the department to 25 academic staff.

The department has been progressively reforming its curriculum to include emerging technologies and their applications in environmental engineering. Along with the Faculty, the department has introduced many courses to be chosen as elective courses in the senior years, towards producing graduates with various levels expertise with a specialised background.

Besides teaching, the department is also highly dynamic in research and consultancy especially in the field of water quality management, water and wastewater treatment, and waste management. The department trains students to become research professionals, well-versed in the latest technologies, in tandem with the Faculty's motto to be Always Ahead. The well-qualified academic staff and the ever-improving environmental laboratory have been the backbone of the department's success in attracting both local and foreign undergraduate and post-graduate students.

The Laboratory Unit and Resources Centre Units.

The ITUCE is headed by an Information Technology Manager. ITUCE now is the only IT unit in UTM that serves as a department offering IT subjects, laboratory experimentation and modeling for postgraduate programmes. We are focusing on the knowledge based type of information. Automating the process to database format , such that raw data can be analyzed and interpreted for engineering purposes.

In order to fulfil the mission, ITUCE offers three core subjects and two optional subjects for the undergraduate programme while for the postgraduate programme, two optional subjects are offered. In 2009 ITUCE was given excellent feedback in teaching by achieving a minimum of 4.5 over 5.0 in the e-pp evaluation for its lecturers. The excellence in teaching is further proven by completing the teaching records for all courses and the progress of input in e-learning. It is 100% for L1 and 70% for L2. High level facilities in teaching include computer laboratories and engineering soft wares for students to enhance their IT skills in civil engineering. ITUCE is also actively involved in research especially in the application of Information Technology tools to solve civil engineering problems.

IBS, Earthquake, Database management system and Vibration based damage detection are the major fields that have been explored. In 2009, ITUCE was awarded grants amounting to a total of RM290,000.00 grant for research and innovation works.

In publication, the ITUCE's staff has produced 6 international conference papers and 3 international journal papers. Moreover, ITUCE's staff is also actively involved as reviewers for International journals. ITUCE staffs are also active in consultancy. In 2009 ITUCE was able to complete four projects worth RM65,000. One of the successful contributions to the faculty is establishing an online ISO9001 system. Apart from that, ITUCE also provides IT services for the faculty ranging from computer maintenance, website development to system development.

The Survey Unit

The Surveying Unit oversees the surveying or geomatics needs of the faculty's community. It is well-equipped with some of the latest state-of-the-art equipment. The unit primarily provides teaching and learning, research and practical training to students. As a way of contributing to the society, the staff in the unit is also involved in rendering professional surveying services to third parties. The unit consists of two academic staff, one of whom is the coordinator, and three support staff.

In 2013, the staff was actively involved in a research funded by the MOHE under the FRGS. The grant obtained was valued at RM92,000.00. Currently, the unit has a doctoral candidate carrying a research in photogrammetry. The unit also organises off-campus survey camps which are attended by 220 local and overseas students each semester.