THE MANAGEMENT REPORT

UTM-FKA started as a Department of the Faculty of Engineering in 1972, and became a Faculty in 1975. It has 5 departments, 8 laboratories with a Research Institute, 3 Centres of Excellence and 4 support units, including the administration and academic offices.

Currently UTM-FKA has 2175 students, with 675 of them doing Masters and another 280 pursuing PhD. In addition, UTM-FKA has the most number of international students pursuing Civil Engineering discipline in Malaysia. We have about 300 students coming from as far as China, Yemen, Iran, Saudi Arabia, Iraq, Libya, Kazakhstan, Bangladesh, and Indonesia.

Facts and Figures

1 out of 4 Malaysian civil engineers is from UTM-FKA.

1 Undergraduate Programme and 9 Postgraduate Programmes.

Enrolment :
UG – 1220 and PG – 968

44% PG students

280 doing PhD

300 international students from various countries

First faculty in Malaysia to establish and maintain Quality Management System (ISO 9001:2008), andLaboratory Testing (ISO 17025)

UTM-FKA strives hard to provide quality education to prepare our students for professional position in civil engineering fraternity, including industry, commerce and academic, to face the challenge from the government to produce human capital with a first class mindset. This leads to UTM-FKA having to keep its quality management system of ISO9001:2008 and ISO 17025, thus maintaining to be the first civil engineering faculty in Malaysia to obtain both certifications since 1999.

Human Capital Management and Development

The Human Capital Division plans, executes and monitors the management and development of staff and activities at UTM-FKA. By the end of 2011, UTM-FKA had 162 academic staff and 99 non-academic staff in its payroll. Out of this number, 20 are full professors, 46 Associate Professors, 59 Senior Lecturers, 24 lecturers and 13 Tutors.

Facts and Figures

162 faculty members and 99 technical and support staff

100 academic staff with PhD

Staff: Student ratio of 1:10

3 Emeritus Professors

External Examiner: Prof Nethercot from Imperial College
4 visiting Professors

2 Adjunct Professors

13 Industry Advisory Panel

18 international staff from **8** countries

19 staff serving various leadership positions in and outside UTM

In order to place UTM in the global limelight, UTM-FKA had also appointed many eminent personals such as 3 Emeritus Professors, 4 Visiting Professors, 2 Adjunct Professors and an External Examiner, Prof. Nethercot, a prominent international figure. UTM-FKA has also appointed 13 distinguished figures to be its Industry Advisory Panels, Industry Advisory Panel to indicate our seriousness in getting feedbacks from stakeholders to ensure continual quality improvement of graduates. Another effort by UTM-FKA to make ourselves globally visible was to employ 18 international staff from 8 countries.

Promotions of UTM-FKA to hold administrative leadership positions in and outside the University signify our significant contributions to the development of UTM. In the past, 8 faculty members had been appointed as Vice Chancellors (Presidents) of various universities in Malaysia. Currently, out of the 162 academics, **19** are leading various Centres/Divisions/Units in and outside UTM. Faculty members are also involved in various international and national organisations and technical committee members.

The Faculty monitors its staff development by providing resources for training, such as courses, seminars, conferences, workshops and technical visits, organized by the Faculty or relevant external organizations. A total of 206 staff attended national and international symposium, conferences, seminars and workshops in 2011 to enhance their knowledge and skills which would in turn contribute towards achieving the objectives of the Faculty.

Research and Publication.

Research is conducted through the Centres of Excellence and research groups under the 3 major Research Alliances, i.e. RA Water, RA Construction and RA Transport, to mobilize, integrate and consolidate expertise within the faculty. Under the 9th Malaysian Plan, the faculty members had secured 168 research projects worth RM 18.8 million from various research agencies. For this 10th Malaysian Plan, UTM-FKA has an excellent head start, after having secured 103 projects worth RM 7.7 million in 2011 alone. Some of the research agencies involved are the Ministry of Science, Technology and Innovation (MOSTI) with TechnoFund and ScienceFund, the Ministry of Higher Education (MoHE) with Fundamental Research Grant Scheme (FRGS) and Research University Grant (RUG), and Construction Industry

Facts and Figures

9th Malaysian Plan
168 research projects worth RM 18.8 million.

10th Malaysian Plan
103 projects worth RM 7.7 million.

234 papers for conference and seminar proceedings.

Consultation worth 3.3 million.

Development Board (CIDB).

In line with the vision and mission of the university, UTM-FKA staff has been actively involved in research, publication and Intellectual Property and patentships. This year, the academic staff had published 145 international journal papers and 234 papers for conference and seminar proceedings for publication at both national and international level. UTM-FKA has also identified some research products produced by both staff and researchers which may potentially be of good value to be patented, produced and commercialized.

Achievement and Award

In 2011, the University held Citra Karisma annually to honour contributions from its staff. For this year UTM-FKA staff were awarded in the various categories for their achievements. The list of staff achievements as below:

1. **MSC Malaysia - IHL Business Plan Competition (MIBPC) – Merit Awards**.
   Team member:

2. **Introducing and Demonstrating Earthquake Engineering Research in Schools (IDEERS) – 1 awards of Efficiency Ratio Certificate of Excellent, 1 awards of Best Presentation / Poster Award, 3 awards of Quake-Resistant Certificate.**
   Team member:

3. **Student Best Paper Award 2011 at International Conference of Road and Airfield Pavement Technology, Bangkok**
   Team member :Mohd Anwar Bin Sahul Hameed

4. **13th Industrial Art and Technology Exhibition (INATEX 2011)**
   1 Gold Medal and 6 Bronze Medals.
   Team member:

5. **Malaysia Technology Expo 2011**
   gold medal and special award for Green Technology of the Year, Feb 2011
   Team member :

6. **Seoul International Invention Fair (SIIF 2011) - Gold Prize**
   Team member :

7. **mSET - Iktisas Student Excellence Award by Nur Syamimi Binti Zaidi**

8. **REAM**

   Team member

MSC Malaysia-IHL Business Plan Competition (MIBPC) – Merit Awards

FKA TEAM
(Group of 4)

CAMPUS

Inventive solutions

«We have seen young graduates establishing themselves as technopreneurs and winning accolades locally and abroad»

mSet Student Awards 2010

Nur Syamimi Binti Zaidi
mSET-Iktisas Student Excellence Award

Student Best Paper Award 2011 di International Conference of Road and Airfield Pavement Technology, Bangkok pada 3-5 August

Mohd Anwar Bin Sahul Hameed

FKA UTM menang 5 anugerah di Taiwan

Pelajar pra-siswazah Fakulti Kejuruteraan Awam, Universiti Teknologi Malaysia (UTM) sekali lagi mengharumkan nama negara dengan memenangi lima (5) anugerah dalam Pertandingan Rekabentuk dan Demonstrasi Penyelidikan Kejuruteraan Gempa Bumi (IDEERS) 2011 di Taiwan baru baru ini.

UTM yang diwakili oleh 12 orang mahasiswa tahun tiga dan tahun akhir telah merangkul satu (1) anugerah utama prestasi terbaik, satu (1) anugerah pembentangan poster terbaik dan tiga (3) anugerah rekabentuk ketahanan terhadap gempabumi. Pertandingan tahunan ini disertai oleh hampir 100 pasukan termasuk Jepun, Korea, Taiwan, Filipina dan Singapura.

RM 5000 from REAM

INATEX 2011

No	Project Leader	Awars	Product
1	Prof Ir Dr Mohd Warid Hussin	Gold	Cement Free Concrete
2	PM Ir Dr Mohamad Ibrahim Mohamad	Bronze	Flood-proof House for Flood Plain Area
3	Prof Dr KhairulAnuar Kassim	Bronze	Soil Hook System (SHS) as an Innovative Soil Anchor
4	Dr Tan Cher Siang	Bronze	Advanced Joints for Cold-formed Steel Sections in Light Steel Framing
5	Dr Aznah Nor Anuar	Bronze	Photosynthetic Sequencing Batch Reactor (SBR)
6	Dr Aznah Nor Anuar	Bronze	Cyclic Aerobic Granular Sludge Bioreactor (CagSBio)
7	Dr Mohd Fadhil Md Din	Bronze	The Development of Virgin Expandable Polystryne and Kenaf Fibre Composite as Thermal Reduction in Construction Material.

MTE gold medal and special award for Green Technology of the Year, Feb 2011

Our Departments

There are 5 departments in UTM-FKA as listed below:

- Department of Structures and Materials (JSB)
- Department of Geotechnics and Transportation (JGP)
- Department of Hydraulics and Hydrology (JHH)
- Department of Environmental Engineering (JKAS)
- Information Technology Unit (ITUCE)

The strength of the faculty is in the number, expertise and competency of its academic and support staff.

Academic staff distribution and breakdown, by department

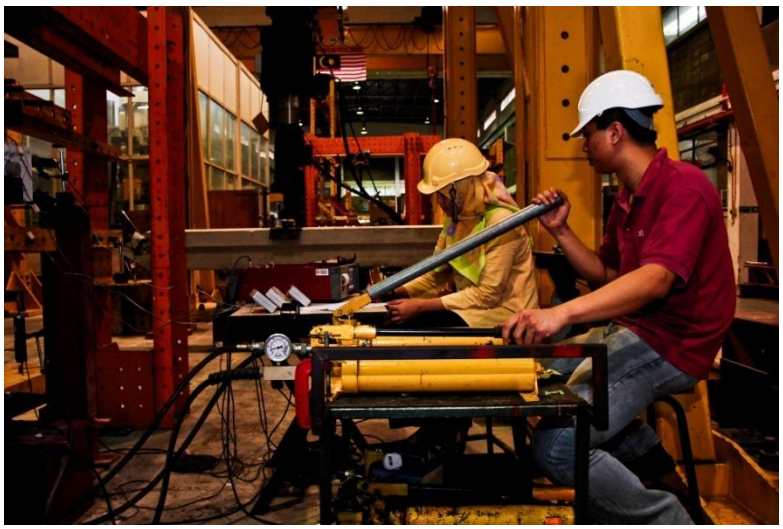
Position	Number		Departments				
	Full Time	Part Time	JSB	JGP	JHH	JKAS	ITUCE
Professor	20	0	9	3	4	4	0
Associate Professor	46	0	24	8	6	4	1
Senior Lecturer	59	1	25	9	10	8	2
Lecturer	24	0	3	9	3	3	6
Tutor	13	0	1	3	6	2	0
Others	0	0	0	0	0	0	0
Total	**162**	**1**	62	32	29	21	9

Department Of Structures And Materials

Department of Structures and Materials has 62 academic staffs including 5 contract lecturers. The academic positions in the department are 9 Professors, 24 Associate Professors, 25 Senior Lecturers, 3 Lecturers and 1 Tutor. The number of Master students by research and taught courses are 495 while the number of registered PhD students for semester 1 session 2011/12 is 124.

The Department of Structures and Materials is one of the main departments in the Faculty of Civil Engineering. The Head of Department oversees various divisions under his domain of Construction Division. Other divisions are the Structures Laboratory and the Materials Laboratory. Apart from the laboratories, there are heads of panels for four divisions as well as the course coordinators. The four divisions are analysis division, design division, material division and construction division. Directly under the heads of panels are the course coordinators for analysis division, design division and material division.

The main activities include colloquium on “The Role of Civil Engineers in Facing the Current Challenges in the Construction Industry” by Dato' Sri Prof. Ir. Dr. Judin Abdul Karim. Prof. Dr. Jahangir Mirza offered several lectures, most notably, “Materials to repair damage Concrete”, and offered several seminars on “Concrete Industry- Environmental Issues Alternative Solutions”, were conducted. Other colloquiums include “Negotiation Support for Value Management” in collaboration with CTMC and “Perisian Bagi Kursus Analisis & Rekabentuk Struktur” by Dr. Christiono Utomo and Dr. Airil Yasreen Mohd Yassin. Useful applications on Matlab were taught by Assoc. Prof. Dr. Suhaimi Abu Bakar in a short course.



Department looks forward to conduct Asia Pacific Structural Engineering & Construction Conference (ASPEC 2012) on 2 - 4 Oct, 2012 in Surabaya, Indonesia and International UTM Bridge 2011 Model competition.

The Department of Structures and Materials is the largest department in UTM-FKA with a strength of 62 academics and 15 technical and support staff. There are four divisions in this department, namely Analysis, Design, Material and Construction. Other than offering academic programmes at postgraduate level, the main activities of the department also include colloqium, seminars, and conferences as below:

- "The Role of Civil Engineers in Facing the Current Challenges in the Construction Industry" by Dato' Sri Prof. Ir. Dr. Judin Abdul Karim (Adjunct Professor)
- "Materials to repair damage Concrete" by Prof. Dr. Jahangir Mirza (Visiting Professor)

Other achievement by the department for 2011 is winning an award for the International UTM Bridge Model competition.

Department Of Geotechnics and Transportation

The Department of Geotechnics and Transportation has a strength of 32 academics and 12 technical and supporting staff. There are three broad areas in this department, namely highways and traffic engineering, transportation planning and management, geotechnical engineering and geology. Other than offering academic programmes at postgraduate level, the main activities of the department also include consultancy works on highway materials, geological and geotechnics field.

In 2011, the department produced numerous journals and conference papers both at international and national levels, which are listed in the publication section. Apart from being involved in the academic roles, department is actively engaged with several local industries and organisations through consultancy

projects. An overview of consultancy by Highways and Transportation division and Geotechnics division indicates execution of projects worth RM 140,000 and RM 200,000 respectively. Those projects involved laboratory and field material testing on rocks, aggregates, bitumen and soil investigation for road construction materials.

The departmental staffs are also being active members in various professional bodies of national and international repute in their respective fields, some of which are:

- Board of Engineers Malaysia
- Instititution of Engineers, Malaysia
- Institute of Quarrying, United Kingdom
- International Committee of Road and Airfield Pavement Technology
- Institute of Geology Malaysia
- Road Engineering Association of Malaysia
- Geological Society of Malaysia
- Transportation Science Society of Malaysia
- South East Asia Geotechnical Society (SEAGS)
- Transportation Research Board (TRB), USA
- National Tropical Rock Engineering Research Group (NaTROCK)
- International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)
- International Society of Rock Mechanics (ISRM) Malaysia
- Institution of Highways and Transportation (MIHT), United Kingdom
- International Union of Geological Society (Geological Environment and Management Group)
- International Association of Engineering Geologist (IAEG)
- Association of Asphalt Paving Technologist (AAPT)
- Road Engineering Association of Asia and Australia (MREAAA)

Besides numerous academic achievements in 2011, Mohd Anuar Sahul Hameed, a student under the supervision of Assoc. Prof. Dr. Mohd Rosli Hainin won the best student paper in the 7th International Conference of Road and Airfield Pavement Technology in Bangkok.

Another major activity co-organized by the Department and Geological Society of Malaysia was National Geoscience Conference. A colloquium by Prof. Madya Dr. Ramli Nazir on Geotechnical design according to Eurocode 7 and one short course by Swee Premix (Johor) Sdn Bhd on pavement materials and construction were successfully conducted.

To provide on-site experience, Geology division had organized a trip which involved 100 undergraduate students to Masai, Kota Tinggi and Mersing. This exposed our students on actual geological issues related to the civil engineering works.

Department Of Hydraulic And Hydrology

The Department currently has 29 academic teaching staff and 8 technical and supporting 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 organisations and universities worldwide through academic links and consultancy projects. The civil engineering profession particularly water resource engineering is evolving to meet the new challenges faced by society including planning and management of water resources and creating a sustainable future for all.

The main scientific areas dealt with the Department related to both the qualitative and quantitative aspects of the river basin, urban watershed, agricultural watershed, rural watershed, estuary, climate and coastal environment and the related water engineering works. The academic staffs of the Department are responsible a total of 18 courses of the Civil Engineering curriculum, some of which are addressed to all the undergraduate students of the Faculty and others to those who follow the Master in Hydraulics and Hydrology programme by taught course. The staffs also supervise final-year students carrying out professional design project and undergraduate theses, postgraduates theses as well as PhD dissertations.

The Department actively pursues innovative and significant research to address the challenges for water resource engineering in the 21st century, such as environmental hydraulics, climate change, flood management, dam break modelling, rainwater harvesting, coastal peat hydrology, coastal engineering,

tsunami modelling and forest hydrology. The Department aims to deliver scientific break through that will lead to solutions by establishing several research groups under the umbrella of the Water Research Alliance. In addition, three of the department staffs serve as leaders of water research alliance and the National Oceanography Directorate. Numerous publications by the department staffs are listed in the publication section. The Department staffs are also actively involved in various consultancy works led by the Centre of Excellence, IPASA and IKPLP. The details of consultancy works are presented in consultancy section. The Department successfully organised short courses, meetings, seminar and colloquiums in 2011.

Department Of Environmental Engineering

The Department of Environmental Engineering is one of the four core departments in the Faculty of Civil Engineering. Although the smallest, the Department is developing fast with the advancement of technology moving towards Green Technology. Environmental Issues are the concerns of the society that need to be addressed, and the Department is promoting forward-looking academic research and internationalization by having academic staff and research fellow from overseas, as well as establishing joint-research efforts with foreign institutions.

The Department is led by the Head of Department whose responsibility is to manage the academic and technical staff under his jurisdiction. The Head of Department is assisted by the Head of Laboratory and two Heads of Panel that are Environmental Engineering and Environmental Management Panels. Course coordinators are directly under their respective panels.

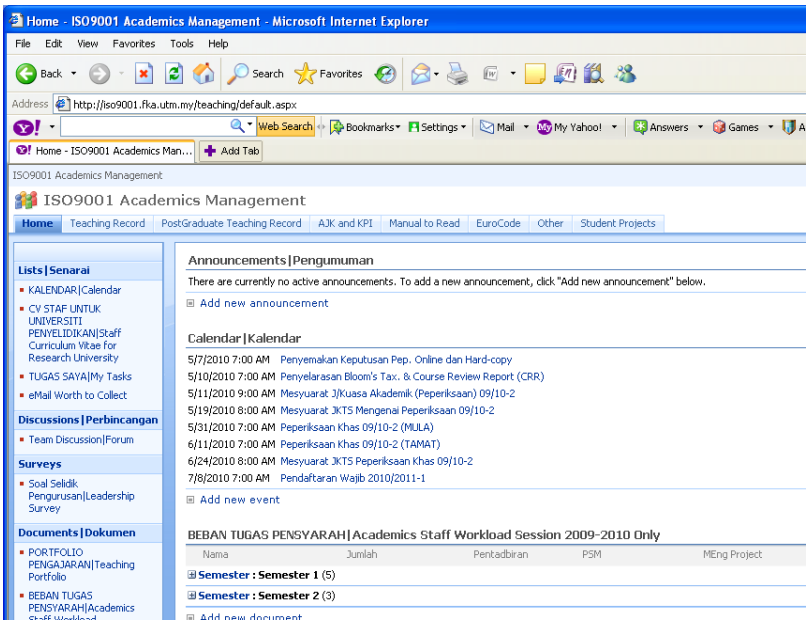
Currently the Department has 21 academic staff including two international lecturers and 6 technical and supporting staff. Altogether, there are 15 academic staffs (with doctoral degrees) and two of them are qualified professional engineers. The expansion within the last few years has seen the Department progressively reforming its curriculum to include emerging technologies and their applications to the environmental engineering.

Information Technology Unit

Information Technology Unit of Civil Engineering is aimed to spearhead the IT services in FKA. Starting as a small unit with few technical staff 6 years ago, ITUCE is expanding by forming several new sections called Services Unit, Academics Unit, Laboratory Unit and Resources Centre Units. ITUCE is headed by Information Technology Manager. At present, ITUCE is the only IT unit in UTM that serves as a department offering IT subjects, laboratory experimentation and

modeling for postgraduate programmes. It focuses on the knowledge based type of information, automating the process to database format, such that raw data analysis and its interpretation for engineering purposes. In order to fulfil the mission, ITUCE offered three core subjects and two optional subjects for the undergraduate programme while for the postgraduate programme, two optional subjects are offered. IT Unit has excelled in teaching as well; high level facilities in teaching include computer laboratories and engineering software 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 civil engineering problems.

Industrial Building systems (IBS), Earthquake and Vibration, Database management system and Vibration based damage detection are the major fields that have been explored. ITUCE staff has contributed in many international and national journals as well as conferences. One significant contribution to the faculty itself is an establishment of ISO9001 online system. Besides, ITUCE also provides IT services for the faculty ranging from computer maintenance, website development to system development.



SURVEYING UNIT

The Survey Unit is responsible for providing teaching and learning, practical training and research for students in the field of survey. The unit is headed by the Unit Coordinator and assisted by one technician and two general staffs. The Survey Unit also work together in research and consultancy activitiers with others laboratories, departments and centre of excellents in Faculty of Civil Engineering.

The Survey Unit laboratory also equip with the advance survey equipments such as Leica TCR803 Reflectorless Total Station, Leica TPS1200 Robotic Total Station, Leica Precise Digital Auto Level, Digital Engineering Auto Level, Close Range Photogrammetry System, UAV Systems, Shallow Water Hydrographic Surveying System (HydroPro Navigation Software and Bathy 500MF Dual Frequency Echo Sounder), Water Level Recorder, Leica SR20 DGPS System, Topcon Hyper II RTK GPS System, LisCAD Engineering Surveying Sorftware and etc. to provide the most excellent facilities in teaching, research and consultancy in the field of survey.

One of the activities carried out by the Survey Unit every semester is the Survey Camp Programmes. The Survey Camp Programmes give a holistic view of the surveying activities needed prior to and during the construction stages of a civil engineering project. Futhermore, the survey camp activities is a platform for student in planning and executing survey work on a larger scale. The surveying work involved depends on the type of project undertaken, but normally include establishing horizontal and vertical controls, detailing, earthwork calculations and setting out.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Semester
Session

INSTITUT KEJURUTERAAN PANTAI DAN LEPAS PANTAI (IKPLP)
COASTAL AND OFFSHORE ENGINEERING INSTITUTE (COEI)

REPORT 2011

1) Active Research:

No	Title	Researcher	Status
1	Modelling of Long shore Sediment Transport (LST) in Swash Zone	1-Prof Dr Ahmad Khairi Abd Wahab 2-Prof Hadibah Ismail 3-PM Ir Faridah Jaffar Sidek 4-Dr. Zulhilmi Ismail	RU Tier 1 – RM145,000
2	Performance of Aqua-Advanced-FRP for Retrofitting of Underwater Concrete (Foreign Visitor R & D Fund)	1- Dr Abdul Chalid (Leader). 2- Dr.Jamaludin Mohammad Yatim.	RM30,000
3	Process Based Stability Formulae For Coastal Structures Made of Geotextile Sand Container	1-Dr. Abdul Chalid 2-Ady Ibrahim Mohammad Saleh	RU Tier 2 – RM40,000
4	Development of Mangrove Vulnerability Index using GIS and LIDAR Technology	1-Prof Hadibah Ismail 2-Prof Dr. Ahmad Khairi Abd Wahab 3-PM Ir. Faridah Jaafar Sidek 4-PM Dr. Anuar Ahmad 5- PM Dr. Zulkifli Mohd Yunus 6- PM Dr. Ismid Mohd Said 7-Daeng Siti Maimunah Ishak	RU Tier 1 – RM145,000
5	Modelling Mangrove Vulnerability to Sea Level Rise	1- Prof Hadibah Ismail 2-PM Ismid Mohd Said 3-Daeng Siti Maimunah Ishak 4-Nur Farhain Mohamed Rusli	Innovation Enhancement – RM20,000
6	Investigation of the Effects of Wave Energy Attenuation by Flexible Porous Breakwaters	1-PM Ir. Faridah Jaffar Sidek 2-Prof Dr. Ahmad Khairi Abd Wahab 3-Daeng Siti Maimunah Ishak	RU Tier 2 – RM40,000

7	Enhancing Coral Growth on Artificial Reefs by Direct Current	1-Prof Dr. Ahmad Khairi Abdul Wahab 2-Adil Mohamad, 3-Rashidah Abdul Shukor	Innovation Enhancement – RM20,000

2) Consultancy Project:

No	Title	Client	Project Cost	Project Manager
1.	Coastal Hydraulic and Sedimentation Study for the Assessment of Dredging Requirements for Ports and River Mouths in Malaysia (5 sites in Sabah and Labuan)	Jabatan Laut Semenanjung Malaysia (Project Completed August 2011)	RM2,211,000-00	Prof Dr Ahmad Khairi Abd Wahab
2.	Hydraulic Study for Offshore Tin Mining in Melaka	UPEN Negeri Melaka (Project ongoing)	RM398,000-00	Prof Dr Ahmad Khairi Abd Wahab
3	Master Plan Study for Five Selected Projects for the Development of Small Fishing Hubs in Malaysia	BPSP, Ministry of Agriculture and Agro Based Industries Malaysia (Project Completed December 2011)	*RM1, 860,000-00*	Prof Dr. Ahmad Khairi Abd Wahab

3) Courses:

No.	Event	Date	Venue
1	Talk on 'How to Publish and Write a Scientific paper in ISI Journals'	29 March 2011	IBD UTMIC
2	Short Course on 'Introduction to Sediment Motion in Open Channels and Morphology'	4-5 May 2011	IBD UTMIC
3	One Day Course 'Basic Theory for Coastal Engineers'	9 May 2011	IBD UTMIC
4	Training Workshop On Sea Level Rise-Estimation and Prediction	27 October 2011	Bilik Mesyuarat IKPLP

4) Joint Research:

No.	Collaborator	Activities	Status
1.	Dorken Reef Resources	• Development of Hydro~Cheese system – laboratory and field monitoring of installations at Pulau Redang, Pulau Perhentian and Pulau Sibu. • Preparation of proposals for large scale deployment in Kelantan and Terengganu	Memorandum of Collaboration

2.	Delft Technical University	• Field measurements of estuary characteristics at Sg Selangor on the 13th December 2011 • Staff training for estuary field works 12-13th December 2011	Memorandum of Collaboration

5) Project Reports (Contract Research)

No.	Project	Report Title	All Authors	Submitted year	Authors in COE
1.	Coastal Hydraulic and Sedimentation Study for the Assessment of Dredging Requirement for Ports and River Mouths in Malaysia	Coastal Hydraulic and Sedimentation Study for the Assessment of Dredging Requirement for Ports and River Mouths in Malaysia-Final Report Vol 1 (Sg. Seguntur)	1- Ahmad Khairi Abd. Wahab 2- Faridah Jaffar Sidek 3--Hadibah Ismail 4-Adi Maimun Abdul Malik 5-Ayob Katimon 6-Zulhilmi Ismail 7-Mohd Halimi Abdul Hamid	Completed	1- Ahmad Khairi Abd. Wahab 2-Faridah Jaffar Sidek 3-Hadibah Ismail 4-Zulhilmi Ismail
2	Coastal Hydraulic and Sedimentation Study for the Assessment of Dredging Requirement for Ports and River Mouths in Malaysia	Coastal Hydraulic and Sedimentation Study for the Assessment of Dredging Requirement for Ports and River Mouths in Malaysia- Final Report Vol 2 (Sg. Papar)	1- Ahmad Khairi Abd. Wahab 2- Faridah Jaffar Sidek 3--Hadibah Ismail 4-Adi Maimun Abdul Malik 5-Ayob Katimon 6-Zulhilmi Ismail 7-Mohd Halimi Abdul Hamid	Completed	1- Ahmad Khairi Abd. Wahab 2-Faridah Jaffar Sidek 3-Hadibah Ismail 4-Zulhilmi Ismail
3	Coastal Hydraulic and Sedimentation Study for the Assessment of Dredging Requirement for Ports and River Mouths in Malaysia	Coastal Hydraulic and Sedimentation Study for the Assessment of Dredging Requirement for Ports and River Mouths in Malaysia- Final Report Vol 3 (Sg. Labuan)	1- Ahmad Khairi Abd. Wahab 2- Faridah Jaffar Sidek 3--Hadibah Ismail 4-Adi Maimun Abdul Malik 5-Ayob Katimon 6-Zulhilmi Ismail 7-Mohd Halimi Abdul Hamid	Completed	1- Ahmad Khairi Abd. Wahab 2-Faridah Jaffar Sidek 3-Hadibah Ismail 4-Zulhilmi Ismail
4	Coastal Hydraulic and Sedimentation Study for the Assessment of Dredging Requirement for Ports and River Mouths in Malaysia	Coastal Hydraulic and Sedimentation Study for the Assessment of Dredging Requirement for Ports and River Mouths in Malaysia- Final Report Vol 4 (Sg. Klias)	1- Ahmad Khairi Abd. Wahab 2- Faridah Jaffar Sidek 3--Hadibah Ismail 4-Adi Maimun Abdul Malik 5-Ayob Katimon 6-Zulhilmi Ismail 7-Mohd Halimi Abdul Hamid	Completed	1- Ahmad Khairi Abd. Wahab 2-Faridah Jaffar Sidek 3-Hadibah Ismail 4-Zulhilmi Ismail
5	Coastal Hydraulic and Sedimentation Study for the Assessment of Dredging Requirement for Ports and River Mouths in Malaysia	Coastal Hydraulic and Sedimentation Study for the Assessment of Dredging Requirement for Ports and River Mouths in Malaysia- Final	1- Ahmad Khairi Abd. Wahab 2- Faridah Jaffar Sidek 3--Hadibah Ismail 4-Adi Maimun Abdul Malik 5-Ayob Katimon 6-Zulhilmi Ismail 7-Mohd Halimi Abdul Hamid	Completed	1- Ahmad Khairi Abd. Wahab 2-Faridah Jaffar Sidek 3-Hadibah Ismail 4-Zulhilmi Ismail

		Report Vol 5 (Sg. Padas)			
6	Master Plan Study for Five Selected Projects for the Development of Small Fishing Hubs in Malaysia	Master Plan Study for Five Selected Projects for the Development of Small Fishing Hubs in Malaysia - Final Report	1- Ahmad Khairi Abd. Wahab 2- Faridah Jaffar Sidek	Completed	1- Ahmad Khairi Abd. Wahab 2- Faridah Jaffar Sidek

6) Other Activities

No.	Activity	Date	Participants
1.	Technical Visit to Turkey • Middle East Technical University, Ankara • Bhosphorus University, Istanbul • Kandili Observatory (Earthquake Monitoring Centre and Tsunami Warning Centre of Turkey), Istanbul	6-13th April 2011	Prof Dr Ahmad Khairi Abd Wahab PM Ir Faridah Jaffar Sidek PM Dr Mohd Zulkifli Mohd Yunos PM Mohd For Mohd Amin Pn Norliza Abdul Rahim (ICC)
2.	Participated in exhibition at *International Conference of Asian Political Parties (ICAPP) – Natural Disaster and Environment Protection*	6-7th May 2011 (PWTC)	IKPLP products displayed at MOSTI Exhibition Booth
3.	Participated in exhibition at *The 22nd Pacific Science Congress*	14-17th June 2011 (Kuala Lumpur Convention Centre)	IKPLP products displayed at UTM-RMC Exhibition Booth
4.	Lawatan Sosial Keluarga IKPLP ke Jakarta dan Bandung	25-28th June 2011	All IKPLP staffs including spouses.
5.	Majlis Ramah Mesra Aidil Fitri IKPLP	18th October 2011	IBD UTMIC

At the Ocean Engineering Laboratory of the Middle East Technical University, Ankara, Turkey with Prof Dr Ahmet Cevdet Yalciner.

At Kandili Observatory, Bosphorus University, Istanbul, Turkey

Dinner with Prof Narayan and Mrs Rama Narayan at Nelayan Restaurant, Tasik Titiwangsa, KL (5th May 2011)

IKPLP staffs and family in Bandung (27th June 2011)

Majlis Ramah Mesra Aidil Fitri IKPLP (18th October 2011)

Dato Wira Prof Dr Mohammad Noor Salleh as special guest (18th October 2011)

Sea Level Rise Estimation and Prediction Training Workshop (27th October 2011)

Discussions with Prof Savanije from Delft Technical University on research activities at IKPLP (12th December 2011)

IPASA

Institute of Environmental & Water Resource Management (IPASA) was established in 1994 is one of the specialized research centres in UTM. Previously known as the Institute of Environmental (IKAS), the centre was established as an effort to integrate available expertise in various fields at UTM to understand and to overcome complex problems related to the environment. Currently, IPASA is headed by an Executive Director and a Deputy Director who are appointed on a rotational basis to head the management team. Even though it was officially formed in 1994, most of IPASA's associated fellows have vast experience in environmental studies, consultancies and teaching since early 1980s.

IPASA is an interdisciplinary center for environmental research, consultation and graduate training. With our wide range of expertise, we have excellent track records in providing consultancy, advisory and testing services. Our team of engineers and scientists deliver environmental solutions through application of leading edge technologies especially to water and wastewater industries, water authorities and environmental agencies. Our members have actively carried out many Environmental Impact Assessment (EIA) and related environmental management and risk assessment projects.

In line with UTM's vision to provide continuous leaning opportunities, IPASA has been conducting seminars, short courses, colloquium and in-service training for professionals, public and private sectors. Together with several government agencies and NGOs, IPASA is also involved in organizing various environmental awareness programs to school children. In conjunction with the establishment of the Iskandar Development Region (IDR), IPASA has strategised itself to take part in development activities by fostering partnership with major players in IDR. Our immediate focus is on river rehabilitation and flood mitigation programs. We anticipate much greater opportunities in the near future in view of the recent policy reform in water sector and increasing concern on the need to manage water and environment in a holistic and sustainable manner.

IPASA research interests encompass several broad areas, and a flexible organization allows for prompt response to environmental issues as they arise. Our research activities cover five main thrusts, i.e.:

- Catchment Hydrology
- Water and Wastewater engineering
- Environmental Biotechnology
- Solid Waste Management
- Socio-Economic Environment.

Through our R&D activities, IPASA is now recognized as a reference centre for water and wastewater technology, river rehabilitation and catchment hydrology. Two of our R&D products, i.e. Wastewater Treatment Plant Design Advisor (WASDA) and Health Risk Assessment Software (RISKAS) have been marketed and used for teaching and operational purposes by universities and companies.

Objectives

The objectives of IPASA are as follow:

- To stimulate, encourage and enhance research programs in environmental related areas;
- To establish collaboration among academics in various disciplines related to environmental studies toward enhancing the research programs;
- To establish and enhance relationship and collaboration between UTM and various agencies (private and public sectors) in environmental research and consultancy;
- To provide advisory and consultancy services to public and private agencies on environmental issues;
- To provide facilities for strengthening postgraduate courses in environmental studies offered by related faculties;
- To provide technical program in the field of environmental technology and management;
- To provide services on environmental quality testing

Capabilities- Core Technologies & Infrastructure

The integrated research programs in IPASA are underpinned by established strengths in water an wastewater engineering, biotechnology, hidraulic and hidrology, geographical information system (GIS), environmental chemistry, waste management, mathematics and information technology. Key capabilities include;

- Water and wastewater treatment in developing countries
- Microbial physiology of biofilm applications in the bioremediation of industrial wastewater.
- Development of anaerobic granules for textile wastewater treatment.
- Green Technology for treating and recycling of coloured wastewater.

- Bioaccumulation of heavy metals from mining and industrial wastes.
- Development of biorock for water and wastewater treatment of wastewater.
- New technologies for handling wastewater and sludge in areas of membrane technologies, Aerobic granular sludge (AGS) for wastewater treatment in hot climate condition and Production of Polyhydroxyalkanoates (PHAs) as a bioplastic material form POME sludge
- Rainfall – runoff processes and modelling in agricultural areas and in forested areas
- River and Lake management and restoration
- Health risk assessment in water and wastewater treatment and operations – development of a health risk assessment program, RISKAS v2.
- Sustainable energy use
- Social Impact Assessment (SIA) & Environmental Impact Assessment (EIA)