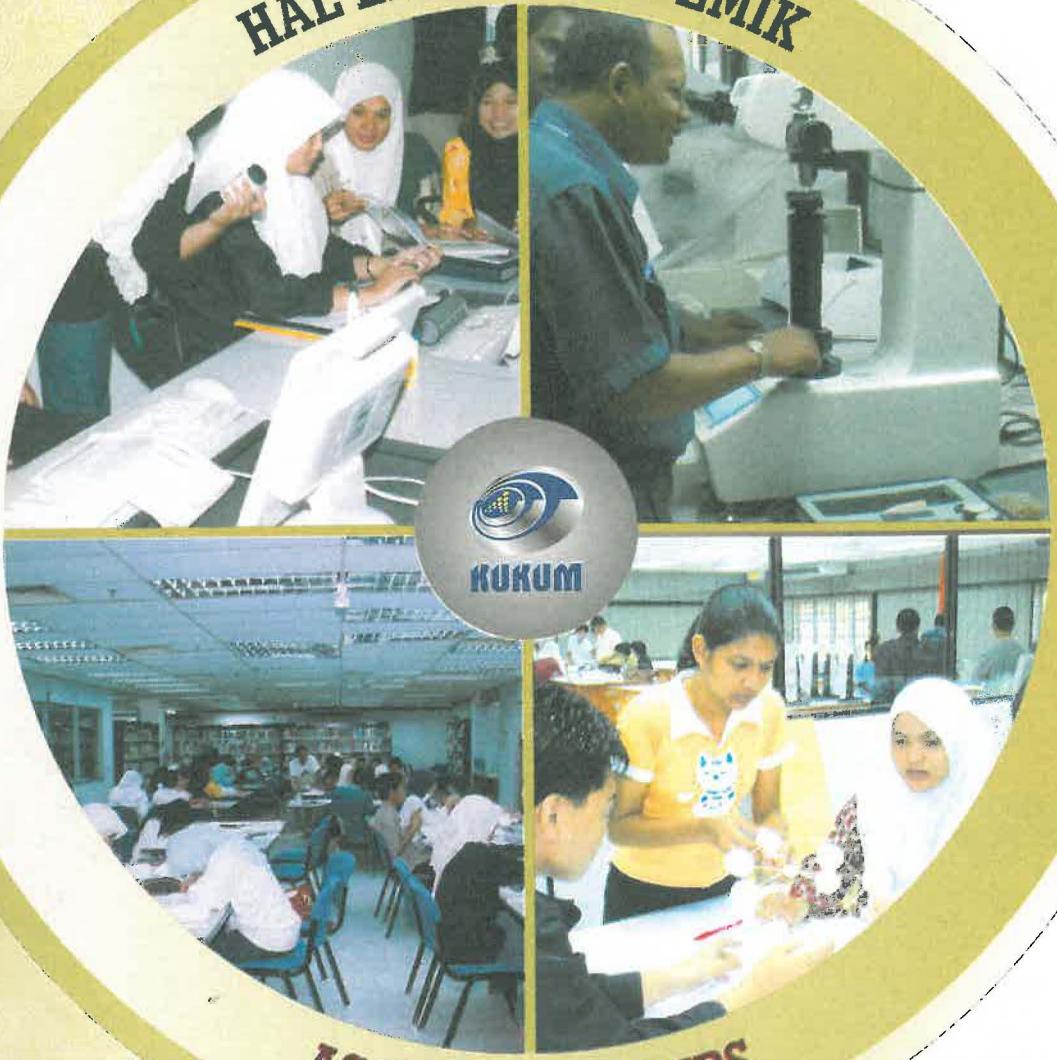


HAL EHWAL AKADEMIK



ACADEMIC AFFAIRS



PROGRAM PENGAJIAN

KUKUM menawarkan 10 program Ijazah Sarjana Muda Kejuruteraan dan 11 program Sarjana Sains Kejuruteraan dan Doktor Falsafah. Kesemua program mempunyai matlamat untuk menghasilkan graduan kejuruteraan yang berketrampilan dalam pelbagai bidang strategik yang berupaya mencari penyelesaian kepada pelbagai bentuk masalah menerusi pemikiran yang inovatif. Program kejuruteraan yang dijalankan di Universiti ini menitikberatkan kepada kaedah 'practical-oriented' iaitu lebih penekanan diberikan kepada aspek amali, dan kursus-kursusnya menyatukan teori dengan amali mengikut keperluan industri. Kurikulum semua program sentiasa dihalusi secara berterusan dengan :

- » Mengambilira pandangan, kesimpulan hasil kajian serta maklumbalas dari masyarakat khasnya industri.
- » Memenuhi kehendak badan-badan penasihat profesional seperti Institut Jurutera Malaysia dan Lembaga Jurutera Malaysia.
- » Memastikan keseimbangan kepakaran teori dengan kemahiran amali.
- » Mengadakan kaji semula kandungan kursus setiap semester dan kaji semula kandungan kurikulum sekurang-kurangnya sekali dalam empat tahun.

Semua program akademik di KUKUM mendukung objektif-objektif berikut:

- » Mengeluarkan jurutera yang kompeten dalam aspek teori dan juga praktikal agar dapat melaksanakan tugas-tugas kejuruteraan yang berkaitan seperti penyelidikan & pembangunan, rekabentuk, pengeluaran, pembinaan, penyelenggaraan, penjualan, dan pengurusan. Tugas-tugas ini seharusnya dapat dilakukan dalam kapasiti seperti kakitangan organisasi ataupun sebagai usahawan;
- » Menyumbang kepada bekalan tenaga manusia mahir untuk menyokong keperluan Pelan Induk Perindustrian Negara;
- » Menyumbang melalui penyelidikan, perundingan dan pengajaran kepada pembangunan negara, khususnya masyarakat setempat;
- » Membentuk pelajar agar dapat mempunyai sifat patriotik dan jatidiri yang tinggi dan terpuji.

Program-program pengajian tersebut adalah seperti berikut : / The educational programmes are as follows:

PUSAT PENGAJIAN / SCHOOL

1. Pusat Pengajian Kejuruteraan Komputer dan Perhubungan / School of Computer and Communication Engineering
2. Pusat Pengajian Kejuruteraan Mikroelektronik / School of Microelectronic Engineering
3. Pusat Pengajian Kejuruteraan Bahan / School of Materials Engineering
4. Pusat Pengajian Kejuruteraan Sistem Elektrik / School of Electrical Systems Engineering
5. Pusat Pengajian Kejuruteraan Mekatronik / School of Mechatronic Engineering
6. Pusat Pengajian Kejuruteraan Pembuatan / School of Manufacturing Engineering

PROGRAM PENGAJIAN / STUDIES PROGRAMMES

1. Kejuruteraan Komputer / Computer Engineering
2. Kejuruteraan Perhubungan / Communication Engineering
1. Kejuruteraan Mikroelektronik / Microelectronic Engineering
2. Kejuruteraan Elektronik / Electronic Engineering
1. Kejuruteraan Bahan / Materials Engineering
2. Kejuruteraan Metalurgi / Metallurgical Engineering
1. Kejuruteraan Sistem Elektrik / Electrical Systems Engineering
2. Kejuruteraan Elektronik Industri / Electronic Industry Engineering
1. Kejuruteraan Mekatronik / Mechatronic Engineering
1. Kejuruteraan Pembuatan / Manufacturing Engineering



KUKUM

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PUSAT AKADEMIK DAN PEMANTAPAN AKADEMIK

Selain daripada pusat-pusat pengajian yang menawarkan subjek-subjek wajib yang perlu diambil oleh semua pelajar, terdapat beberapa buah pusat pemantapan akademik yang bertujuan menyokong kepentingan akademik KUKUM.

Pusat Kemahiran Komunikasi dan Keusahawanan

Pusat Kemahiran Komunikasi & Keusahawanan (PKKK) adalah sebuah pusat perkhidmatan akademik. Ia tidak menawarkan apa-apa program akademik yang membawa kepada penganugerahan ijazah. Sebaliknya, ia menawarkan kursus-kursus keperluan universiti yang wajib diambil oleh semua pelajar tanpa mengira program akademik yang diambilnya. Selain itu, PKKK turut menawar kursus teras seperti Matematik Kejuruteraan I, II & III serta Kemahiran Komunikasi & Teknologi Maklumat.

Pusat Kerjasama Industri

Pusat Kerjasama Industri berperanan menjalin hubungan dengan pihak industri daripada pelbagai aspek, terutama di dalam program-program yang berkaitan terus dengan pembelajaran pelajar. Program seperti program pendedahan kepada Industri (InDex), Forum Bersama Industri, Latihan Perindustrian Kakitangan dan lain-lain lagi diselia dan diselaraskan oleh pusat ini. Sesetengah dari program ini wajib diikuti oleh semua pelajar. Maklumat mengenai program-program ini dihebahkan kepada pelajar dari semasa ke semasa.

Pusat Kejuruteraan

Pusat Kejuruteraan ditubuhkan bagi mengendalikan makmal dan bengkel umum (gunasama) yang diperlukan oleh pelbagai program yang ditawarkan oleh KUKUM. Oleh kerana program-program kejuruteraan yang dijalankan pada dasarnya menitikberatkan kepada kaedah 'lab intensive', maka penekanan yang lebih harus diberikan kepada amalan praktikal. Di samping itu, Pusat Kejuruteraan juga menyokong aktiviti-aktiviti Penyelidikan dan Pembangunan (R&D) di KUKUM. Antara makmal yang terdapat di sini termasuklah Makmal PCB, Makmal Teknologi Mikropemprosesan, Makmal Asas Kejuruteraan Elektrik dan Elektronik, Pusat CAD/CAM, Bengkel Kejuruteraan Elektrik, Bengkel Kejuruteraan Mekanikal, Makmal kejuruteraan Pembuatan, Pusat Pengajaran Fabrikasi IC, dan Makmal ICT. Pusat Kejuruteraan juga menawarkan kursus Kemahiran Kejuruteraan yang wajib diambil oleh semua pelajar.

ACADEMIC AFFAIRS

ACADEMIC CENTRE AND ACADEMIC SUPPORT

Besides the schools that offer compulsory subjects which have to be taken by all students, there are a few supporting centres have been purposely established to support the KUKUM's academic importance.

Centre of Communication and Entrepreneurship skills

The Centre of Communication and Entrepreneurship Skills is the centre of academic service. It does not offer any academic programmes that granting the degree conferment. Conversely, it offers university requirement courses that are compulsory for all students to take regardless of their academic programmes. Besides, this centre also offers the core courses such as Engineering Mathematics I, II, and III including Communication skills and Information Technology.

Centre of Industrial Collaboration (CIC)

The Centre of Industrial Collaboration plays an important role in building the relationships with the industry sector in various aspects especially that pertaining to the student's learning. The Programmes which are supervised and monitored by this centre includes Industry Exposure (InDex), Forum with Industry Sector, Staff Industrial Training and others. Half of the programmes are compulsory for all students and information of the programmes are spread to the students from time to time.

Engineering Centre

The Engineering Centre has been set up to operate the laboratory and public workshops for diverse programmes that offered by KUKUM. Because of the engineering programmes carried out have basically emphasized more on the 'lab intensive' method, so more stress should be given to the practical practice. Besides that, this centre also supports the Research & Development (R&D) activities in KUKUM. Among the laboratories available here are PCB Laboratory, Microprocessor Technology Laboratory, Principle of Electric and Electronic Engineering Laboratory, CAD/CAM Centre, Electronic Engineering Workshop, Mechanical Engineering Workshop, Manufacturing Engineering Laboratory, IC Fabrication Teaching Centre and ICT Laboratory. This centre also offers the Engineering Skills Course which is compulsory for all students.

HAL EHWAL AKADEMIK

CIRI-CIRI GRADUAN KUKUM

Ciri-ciri Graduan KUKUM dibincangkan dengan panjang lebar dalam beberapa mesyuarat Majlis Pengurusan Akademik dan akhirnya dipersejui yang graduan KUKUM adalah jurutera-jurutera yang berdasarkan praktikal.

- » berkebolehan mengaplikasikan ilmu asas bidang sains dan kejuruteraan
- » mempunyai kompetensi teknikal yang mendalam dalam disiplin kejuruteraan khusus yang diikutinya
- » berkebolehan berkomunikasi dan menggunakan ICT dengan berkesan
- » berkebolehan menggunakan teknik, kemahiran dan alat-alat kejuruteraan moden yang diperlukan dalam tugas-tugas kejuruteraan
- » dapat menyesuaikan diri dengan mudah untuk memenuhi kehendak industri
- » berupaya mengenalpasti masalah, mencari jalan penyelesaian, menginovasi dan menambahbaik rekabentuk serta amalan sedia ada
- » memahami tentang tanggungjawab profesional, etika dan komitmen kemasyarakatan
- » memahami tentang keperluan pembelajaran sepanjang hayat, serta kebolehan melaksanakannya (iaitu dapat menyesuaikan diri kepada keadaan dan kehendak semasa dengan mengaplikasi dan/atau mengemaskini ilmu dan kemahiran yang dimiliki)
- » berkebolehan bekerja dengan berkesan dalam pasukan sehingga dapat menyumbang kepada hubungan kerja yang efektif serta pencapaian matlamat pasukan. Ini dilakukan dalam kapasiti sebagai ketua pasukan dan juga ahli pasukan
- » mempunyai pandangan dan pemikiran yang global dalam soal sosial, budaya dan tanggungjawab antarabangsa
- » mempunyai pemahaman tentang keusahawanan dan proses-proses inovasi, serta keperluan untuk merealisasikan pembangunan mampan
- » berkebolehan menghargai nilai estetik melalui pembangunan dan aplikasi budibicara

ACADEMIC AFFAIRS

CHARACTERISTICS OF KUKUM GRADUATES

The characteristics of TUC graduates were discussed at length during the numerous TUC Academic Management Council meetings. It was finally agreed that TUC graduates are practical-oriented engineers who have:

- » acquired the ability to apply knowledge of basic science and engineering in-depth technical competency in a specific engineering discipline
- » the ability to communicate effectively and use ICT effectively
- » the ability to use techniques, skills, and modern engineering tools necessary for engineering practice so as to be easily adaptable to industrial needs
- » the ability to identify problems, create solutions, innovate and improve current designs and practices
- » an understanding of professional and ethical responsibilities, and have a high commitment to the community
- » a recognition of the need for, and an ability to engage in, life long learning. In other words, the graduates can adapt to new situations and demands by applying and/or updating their knowledge and skills appropriately
- » the ability to function and contribute effectively in teams both as a leader as well as an effective team player
- » an international perspective on social, cultural, and global responsibilities
- » an in-depth appreciation and understanding of entrepreneurship, the process of innovation, and the need for sustainable development
- » the ability to appreciate aesthetic values through development and application of personal judgment

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HAL EHWAH AKADEMIK - MAKMAL & DEWAN KULIAH

ACADEMIC AFFAIRS - LAB. & LECTURE HALLS

KOD / CODE	KAP. / CAP.	NAMA / NAME	LOKASI / LOCATION
DKG1	100	Bilik Pok & Kassim / Pok & Kassim Room	Kampus Kubang Gajah
DKG2	150	Bilik Kuliah 2 / Lecture Room 2	Kampus Kubang Gajah
DKG3	150	Bilik Kuliah 3 / Lecture Room 3	Kampus Kubang Gajah
DKG4	200	Bilik Kuliah 4 / Lecture Room 4	Kampus Kubang Gajah
DKG5	200	Bilik Kuliah 5 / Lecture Room 5	Kampus Kubang Gajah
DKP1	200	Bilik Kuliah Automart 1 / Automart Lecture Room 1	Kuala Perlis
DKP2	200	Bilik Kuliah Automart 2 / Automart Lecture Room 2	Kuala Perlis
DKP3	250	Bilik Kuliah Automart 3 / Automart Lecture Room 3	Kuala Perlis
BKP	70	Bilik Kuliah Rumah Kedai Kuala Perlis / Kuala Perlis Shop Houses Lecture Room	Kuala Perlis
BKY	70	Bilik Kuliah Makmal Kejuruteraan / Engineering Lab. Lecture Room	Kampung Wai
DKW1	100	Dewan Keikhlasan / Keikhlasan Hall	Bangunan KWSP
DKW2	70	Dewan Ilmu / Ilmu Hall	Bangunan KWSP
MBG1	35	Makmal Bahan 1 / Material Lab. 1	Kubang Gajah
MBG2	35	Makmal Bahan 2 / Material Lab. 2	Kubang Gajah
MBG3	35	Makmal Bahan 3 / Material Lab. 3	Kubang Gajah
MBG4	35	Makmal Bahan 4 / Material Lab. 4	Kubang Gajah
MCK		Makmal Lukisan Kejuruteraan / Engineering Drawing Lab.	KIK
MCP1		Makmal Komputer CAD/CAM 1 / CAD/CAM Computer Lab. 1	Kuala Perlis
MCP2		Makmal Komputer CAD/CAM 2 / CAD/CAM Computer Lab. 2	Kuala Perlis
MCP3	60	Makmal Teknologi Mikro-p 1 / Micro-p1 Technology Lab.	Kuala Perlis
MCP4	60	Makmal Teknologi Mikro-p 2 / Micro-p2 Technology Lab.	Kuala Perlis
MEY1	70	Makmal Teknologi Elektrik / Electrical Technology Lab.	Kampung Wai
MEY2	35	Makmal Asas Sistem Kuasa / Basic Power System Lab.	Kampung Wai
MEY3	35	Makmal Elektronik Kuasa / Power Electronic Lab.	Kampung Wai
MEY4	35	Makmal Analisis & Kawalan Kuasa / Analysis & Power Control Lab.	Kampung Wai
MKG1	64	Makmal Komputer 1 / Computer Lab. 1	Kubang Gajah
MKG2		Makmal Asas Kejuruteraan E&E A / Basic Engineering E&E Lab. A	Kubang Gajah
MKG3		Makmal Asas Kejuruteraan E&E B / Basic Engineering E&E Lab. B	Kubang Gajah
MKW1	66	Makmal Komputer Mikro-p / Micro-p Computer Lab.	Bangunan KWSP
MKW2		Makmal Komputer Rekabentuk / Computer Design Lab.	Bangunan KWSP
MKW3		Makmal Bahasa / Language Lab	Bangunan KWSP
MKY1	60	Makmal Komputer Kampung Wai 1 / Kampung Wai Computer Lab. 1	Kampung Wai
MKY2	60	Makmal Komputer Kampung Wai 2 / Kampung Wai Computer Lab. 2	Kampung Wai
MKY3	60	Makmal Komputer Kampung Wai 3 / Kampung Wai Computer Lab. 3	Kampung Wai
MKY4	60	Makmal Komputer Kampung Wai 4 / Kampung Wai Computer Lab. 4	Kampung Wai
MKY5	60	Makmal Komputer Kampung Wai 5 / Kampung Wai Computer Lab. 5	Kampung Wai
MKY6	60	Makmal Perhubungan 1 / Communication Lab. 1	Kampung Wai
MKY7	60	Makmal Perhubungan 2 / Communication Lab. 2	Kampung Wai
MKY8	60	Makmal Elektronik Termaju / Advanced Electronic Lab. 1	Kampung Wai
MMP1	10	Makmal Fizik Semikonduktor / Physic Semiconductor Lab. 1	SMI
MMP2	35	Makmal "Failure Analysis" / Failure Analysis Lab.	SMI
MMP3	12	Bilik Bersih / Clean Room	SMI
MNY1		Makmal Kawalan 1 / Control Lab. 1	Kampung Wai
MNY2		Makmal Kawalan 2 / Control Lab. 2	Kampung Wai
MNY3		Makmal Dinamik 1 / Dynamic Lab. 1	Kampung Wai
MNY4		Makmal Dinamik 2 / Dynamic Lab. 2	Kampung Wai
MNY5		Makmal Mekatronik / Mechatronic Lab.	Kampung Wai
MPP1		Makmal Rekabentuk / Design Lab.	SMI
MPP2		Kilang Mengajar / Teaching Factory	SMI
MPY1	60	Makmal Kejuruteraan / Engineering Lab.	Kampung Wai
MPY2	35	Makmal Termodynamik / Thermodynamic Lab.	Kampung Wai
MPY3	35	Makmal Bendalir / Liquid Lab.	Kampung Wai
MPY4	35	Makmal Kawalan Proses / Process Control Lab.	Kampung Wai
MPY5	35	Makmal Instrumenasi / Instrumentation Lab.	Kampung Wai
MUW1-4		Makmal Komputer PKKK 1-4 / PKKK Computer Lab. 1-4	KIK



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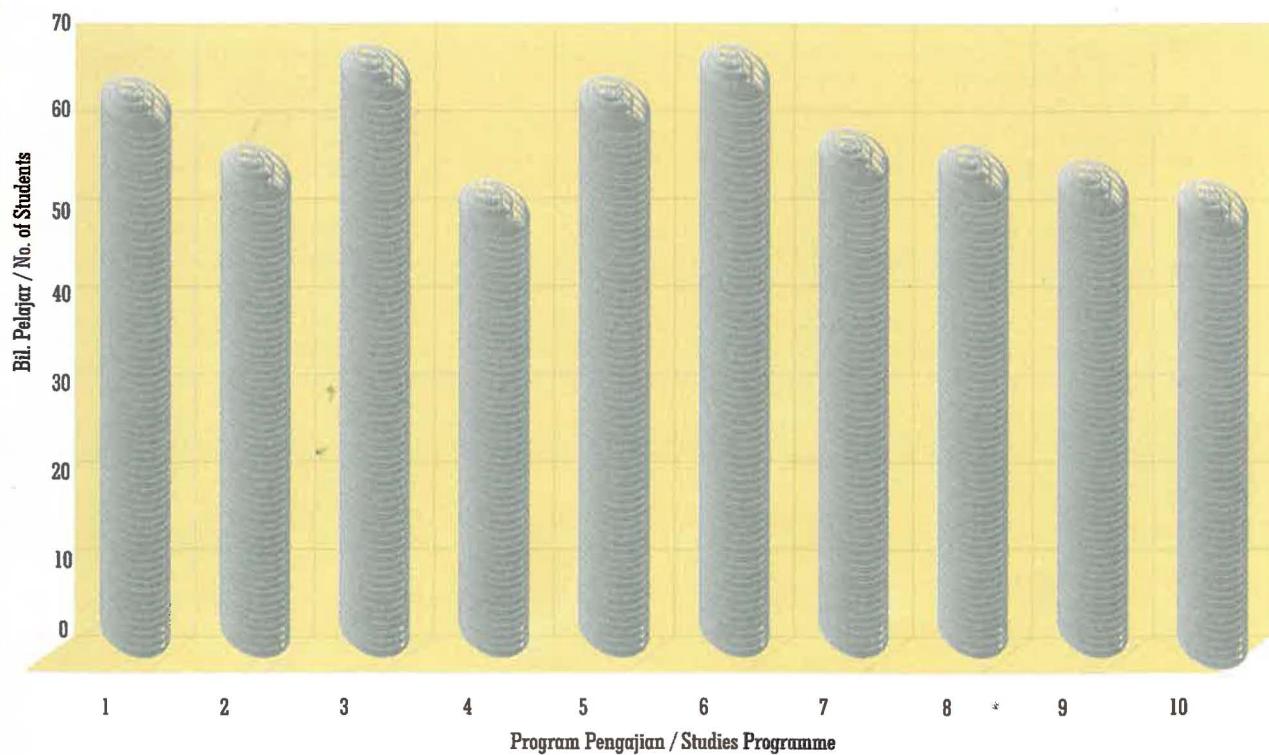
HAL EHWAH AKADEMIK - ENROLMENT PELAJAR

ACADEMIC AFFAIRS - STUDENTS ENROLMENT

Statistik bilangan pelajar mengikut program pengajian / Statistics of the amount of students per studies programme

PROGRAM PENGAJIAN / STUDIES PROGRAMME	Semester Pengambilan / Intake Semester				Jumlah / Total
	2002-S1	2003-S1	2003-S2	2004-S1	
1. Kejuruteraan Elektronik / Electronic Engineering		46	14	63	123
2. Kejuruteraan Mikroelektronik / Microelectronic Engineering	60	45	9	56	170
3. Kejuruteraan Bahan / Materials Engineering		42	14	66	122
4. Kejuruteraan Pembuatan / Manufacturing Engineering		50	12	52	114
5. Kejuruteraan Komputer / Computer Engineering	49	46	6	63	164
6. Kejuruteraan Mekatronik / Mechatronic Engineering		56	8	66	130
7. Kejuruteraan Elektronik Industri / Electronic Industry Engineering		49	6	57	112
8. Kejuruteraan Perhubungan / Communication Engineering		53	8	56	117
9. Kejuruteraan Sistem Elektrik / Electrical Systems Engineering		48	13	55	116
10. Kejuruteraan Metalurgi / Metallurgical Engineering		42	9	52	103
Jumlah Keseluruhan / Total Overall	109	477	99	586	1271

Graf bilangan pelajar mengikut program pengajian sesi 2004/2005 / Graph for the amount of students per studies programme for the 2004/2005 session



1. Kejuruteraan Elektronik / Electronic Engineering
2. Kejuruteraan Mikroelektronik / Microelectronic Engineering
3. Kejuruteraan Bahan / Materials Engineering
4. Kejuruteraan Pembuatan / Manufacturing Engineering
5. Kejuruteraan Komputer / Computer Engineering

6. Kejuruteraan Mekatronik / Mechatronic Engineering
7. Kejuruteraan Elektronik Industri / Electronic Industry Engineering
8. Kejuruteraan Perhubungan / Communication Engineering
9. Kejuruteraan Sistem Elektrik / Electrical Systems Engineering
10. Kejuruteraan Metalurgi / Metallurgical Engineering

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HAL EHWAL AKADEMIK - ENROLMENT PELAJAR

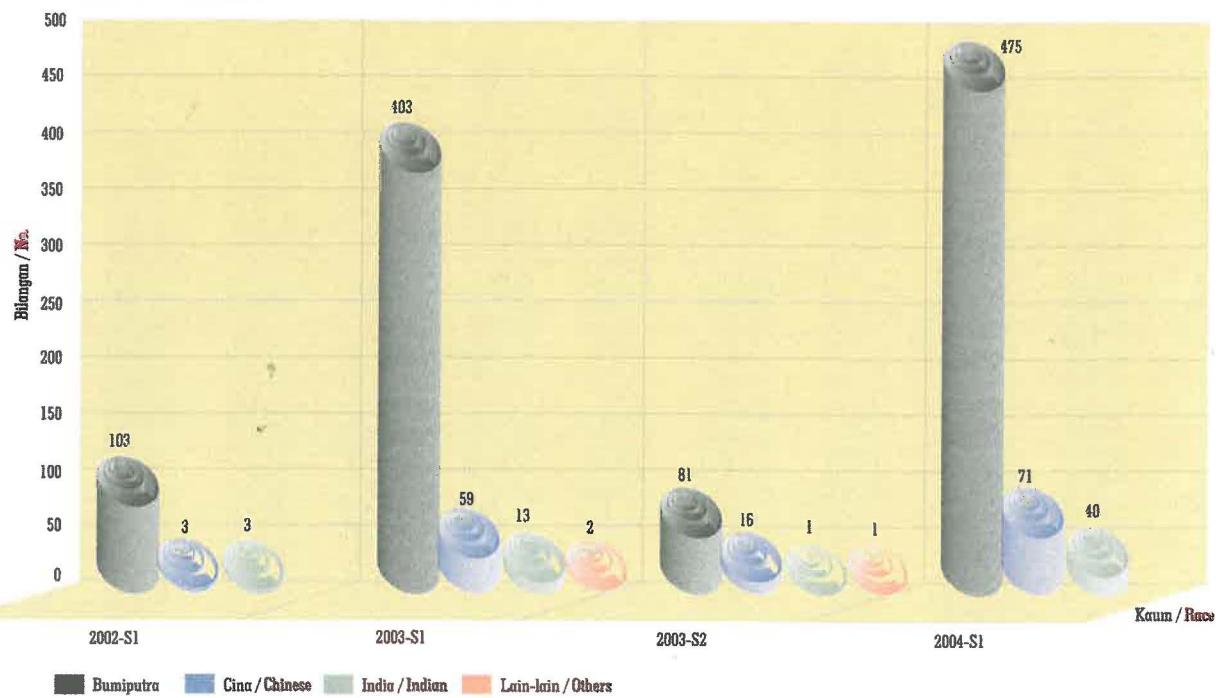
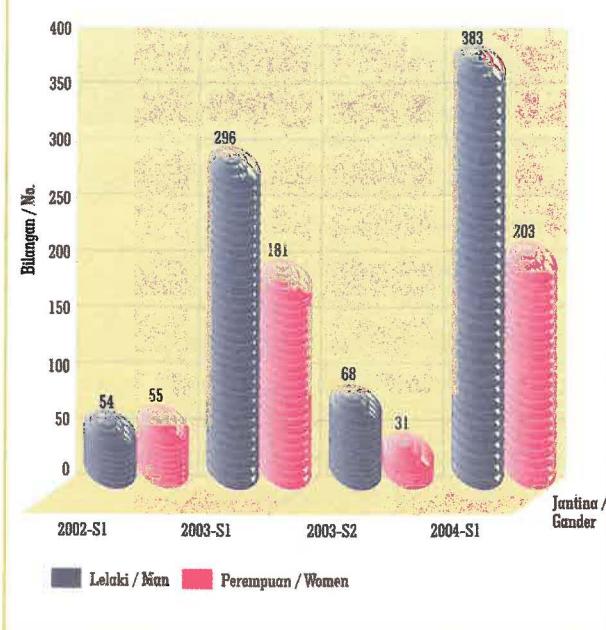
Bilangan pelajar mengikut Semester Pengambilan, Status dan Jantina /
The amount of students per semester intake, status and gender

STATUS IANTINA / GENDER STATUS	Semester Pengambilan / Intake Semester					Jumlah
	2002-S1	2003-S1	2003-S2	2004-S1		
1. Lelaki / Man	54	296	68	383	801	
2. Perempuan / Women	55	181	31	203	470	
Jumlah Keseluruhan / Total Overall	109	477	99	586	1271	

Bilangan pelajar mengikut Semester Pengambilan dan Kaum /
The amount of students per semester intake and race

STATUS KAUM / RACE STATUS	Semester Pengambilan / Intake Semester					Jumlah
	2002-S1	2003-S1	2003-S2	2004-S1		
1. Bumiputra	103	403	81	475	1062	
2. Cina / Chinese	3	59	16	71	149	
3. India / Indian	3	13	1	40	57	
4. Lain-lain / Others		2	1		3	
Jumlah Keseluruhan/ Total Overall	109	477	99	586	1271	

ACADEMIC AFFAIRS - STUDENTS ENROLMENT



HAL EHWAH AKADEMIK - PENGAJIAN IJAZAH TINGGI

ACADEMIC AFFAIRS - POSTGRADUATE STUDIES

PENGENALAN

Pejabat Pengajian Ijazah Tinggi Kolej Universiti Kejuruteraan Utara Malaysia (KUKUM) ditubuhkan bagi mengurus dan menyelaras proses kemasukan pelajar pengajian ijazah tinggi yang terdiri daripada pelajar Sarjana Sains (Penyelidikan) dan Doktor Falsafah. Pejabat ini juga bertanggungjawab dalam meningkatkan pengambilan pelajar ijazah tinggi melalui promosi dan publisiti tentang peluang pengajian ijazah tinggi. Sebagai pusat dalam pengajian ijazah tinggi, pejabat ini memantau pelaksanaan dasar dan peraturan program ijazah tinggi supaya selari dengan sistem pendidikan terkini yang sentiasa berubah. Tambahan pula, pengurusan dan pentadbiran Pengajian Ijazah Tinggi yang berkembang menuntut supaya dasar-dasar dan peraturan tertentu digubal untuk kelancaran proses pentadbiran.

KUKUM menerima kelompok pertama pelajar pengajian ijazah tinggi pada bulan Jun 2004 bagi sesi akademik 2004/2005. Pengajian Ijazah Tinggi KUKUM mengamalkan sistem pengambilan dan pendaftaran sepanjang tahun yang mana pelajar boleh memohon dan mendaftar sepanjang tahun. Sehingga akhir tahun 2004, Pengajian Ijazah Tinggi telah membuat tiga (3) kali pengambilan pelajar iaitu pada bulan Jun, September dan Disember 2004 dengan jumlah pelajar seramai 20. Sehingga akhir tahun 2004, KUKUM menawarkan sebanyak (11) program ijazah tinggi yang meliputi :

1. Doktor Falsafah
2. Sarjana Sains (Kejuruteraan Bahan)
3. Sarjana Sains (Kejuruteraan Metalurgi)
4. Sarjana Sains (Kejuruteraan Komputer)
5. Sarjana Sains (Kejuruteraan Perhubungan)
6. Sarjana Sains (Kejuruteraan Sistem Elektrik)
7. Sarjana Sains (Kejuruteraan Elektronik Industri)
8. Sarjana Sains (Kejuruteraan Mikroelektronik)
9. Sarjana Sains (Kejuruteraan Elektronik)
10. Sarjana Sains (Kejuruteraan Pembuatan)
11. Sarjana Sains (Kejuruteraan Mekatronik)

INTRODUCTION

The Postgraduate Studies Office in the Northern Malaysia University College of Engineering (KUKUM) is established to manage and coordinate the admission process for the postgraduate studies which comprises the Master of Science (Research) and Doctor of Philosophy (PhD) students. It is also responsible in increasing the intake of the postgraduate studies students through promotion and publicity about the studies' opportunity. As a centre of postgraduate studies, the office monitors the implementing basis and the postgraduate programme's rules so that they will be in line with nowadays education system which is always changing. Moreover, the expanding management and administration of the postgraduate studies demands that certain policies and rules are drafted for a smooth administration process.

KUKUM received the first group of postgraduate studies's students on June 2004 for 2004/2005 academic session. KUKUM's Postgraduate Study practices the whole year intake and registration system where students can apply and register for the whole year. Until the end of year 2004, the Postgraduate Study has made three times student intake in June, September and December 2004 with a total 20 students. Up to the end of year 2004 also, KUKUM offers 11 postgraduate programmes which comprise:

1. Doctor of Philosophy (PhD)
2. Master of Science (Materials Engineering)
3. Master of Science (Metallurgical Engineering)
4. Master of Science (Computer Engineering)
5. Master of Science (Communication Engineering)
6. Master of Science (Electrical Systems Engineering)
7. Master of Science (Electronic Industry Engineering)
8. Master of Science (Microelectronic Engineering)
9. Master of Science (Electronic Engineering)
10. Master of Science (Manufacturing Engineering)
11. Master of Science (Mechatronic Engineering)

Bidang penyelidikan yang ditawarkan di KUKUM adalah mengikut Pusat Pengajian yang sedia ada
Research area that is offered in KUKUM is based on the existing schools::

Pusat Pengajian / Schools

Kejuruteraan Komputer dan Perhubungan / Computer & Communication Engineering

Kejuruteraan Mikroelektronik / Microelectronic Engineering

Kejuruteraan Bahan / Materials Engineering

Kejuruteraan Sistem Elektrik / Electrical Systems Engineering

Kejuruteraan Mekatronik / Mechatronic Engineering

Kejuruteraan Pembuatan / Manufacturing Engineering

Bidang Penyelidikan / Research Fields

Kejuruteraan Komputer / Manufacturing Engineering

Kejuruteraan Perhubungan / Communication Engineering

Kejuruteraan Mikroelektronik / Microelectronic Engineering

Kejuruteraan Elektronik / Electronic Engineering

Kejuruteraan Bahan / Materials Engineering

Kejuruteraan Metalurgi / Metallurgical Engineering

Kejuruteraan Sistem Elektrik / Electrical Systems Engineering

Kejuruteraan Elektronik Industri / Electronic Industry Engineering

Kejuruteraan Mekatronik / Mechatronic Engineering

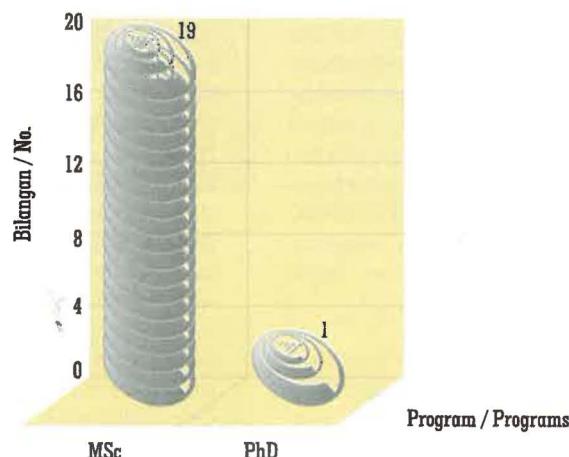
Kejuruteraan Pembuatan / Manufacturing Engineering



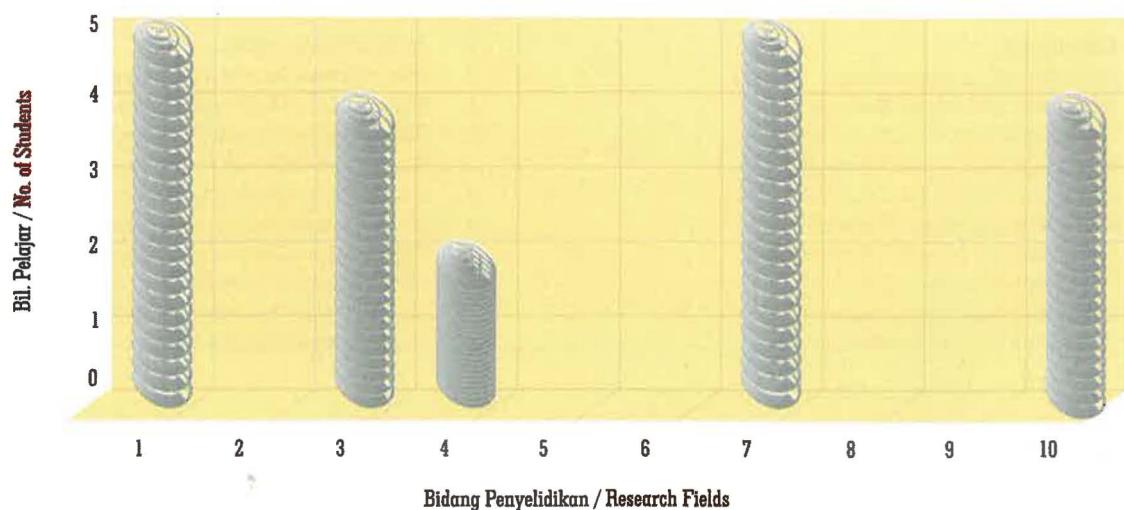
HAL EHWAH AKADEMIK - PENGAJIAN IJAZAH TINGGI

ACADEMIC AFFAIRS - POSTGRADUATE STUDIES

Enrolmen pelajar ijazah tinggi sehingga Disember 2004 adalah seperti di bawah : /
Enrolment of post graduate students until December 2004 is as below:



Enrolmen pelajar ijazah tinggi mengikut bidang penyelidikan adalah seperti di bawah : / Enrolment of post graduate students per research area is as below:



1. Kejuruteraan Komputer / Manufacturing Engineering
2. Kejuruteraan Perhubungan / Communication Engineering
3. Kejuruteraan Bahan / Materials Engineering
4. Kejuruteraan Sistem Elektrik / Electrical Systems Engineering
5. Kejuruteraan Metalurgi / Metallurgical Engineering

6. Kejuruteraan Elektronik Industri / Electronic Industry Engineering
7. Kejuruteraan Mikroelektronik / Microelectronic Engineering
8. Kejuruteraan Elektronik / Electronic Engineering
9. Kejuruteraan Pembuatan / Manufacturing Engineering
10. Kejuruteraan Mekatronik / Mechatronic Engineering

Pengajian Ijazah Tinggi mensasarkan enrolmen pelajar sepanjang sesi akademik 2004/2005 bagi program Sarjana Sains akan mencecah 35 orang pelajar dan program Doktor Falsafah akan mencapai 7 orang pelajar.

The Postgraduate Study is targeting the students' enrolment for the Master of Science programmes for 2004/2005 academic session will reach 35 students and the Doctor of Philosophy (PhD) programmes will reach 7 students.

HAL EHWAL AKADEMIK - PENGANTARABANGSAAN

LAWATAN KE LUAR NEGARA TAHUN 2004

- » **20-26 Januari**
Seminar Promosi Pendidikan Malaysia di Dubai, UAE dan Muscat, Oman.
- » **28-30 Januari**
Pembentangan kertas kerja bertajuk "Artificial Life and Robotics" (AROB 2004) oleh Prof. Madya Dr. Mohd. Rizan Muhammad Juhari di Oita, Jepun
- » **19-21 Februari**
Lawatan kerja oleh Encik Khairul Nizar Ismail ke Regional Research Laboratory & Indian Institute of Mineral Engineers, Bhubaneswar, India.
- » **10-11 Mac**
Prof. Madya Dr. Zuraidah Mohd. Zain dijemput sebagai penceramah oleh Asian Institute of Technology, Bangkok bagi tajuk 'Quality Management in Education and Quality Management Tools and Techniques' dan 'Improving Student Performance Using Quality Tools'
- » **29 Mac-3 April**
Lawatan ke lima buah universiti di Sumatera, Indonesia: Fakultas Teknik, Universitas Islam Utara Sumatera, Medan, Fakultas Teknik Universitas Andalas, Fakultas Teknik Universitas Sriwijaya, Palembang, Dan Fakultas Teknik Universitas Riau, Pekanbaru.
- » **17-23 April**
Encik Khairul Nizar Ismail, Pengurus Rancangan PPK. Bahagian menghadiri "Training Course of Scanning Electron Microscope" oleh JEOL LTD di Tokyo, Jepun.
- » **17-24 April**
Seramai 3 orang staf dari PPK. Mikroelektronik yang terdiri daripada pensyurah, PLV dan staf Teknikal mengikuti Latihan Operasi dan Penyelenggaraan Alatan Scanning Electron Microscope di Jepun
- » **23&26 April**
Prof. Madya Dr. Zuraidah Mohd. Zain dijemput sebagai penceramah oleh Asian Institute of Technology, Bangkok bagi tajuk 'Quality Management in Education: Malaysia Experience and Quality Management in Education and Training'
- » **30 Jun -2 Julai**
Membuat tindakan susulan berhubung Kerjasama KUKUM dengan Asian Institute of Technology, Bangkok diketuai oleh Dekan Pengurusan Akademik.
- » **1-2 Julai**
Prof. Madya Dr. Zuraidah Mohd. Zain dijemput sebagai penceramah oleh Asian Institute of Technology, Bangkok bagi tajuk 'Improving Student Performance Using Quality Tools'
- » **24-26 Ogos**
Seramai 3 orang staf dari PPK. Mikroelektronik yang terdiri daripada pensyurah, PLV dan staf Teknikal mengikuti Kursus Teori dan 'Software' bagi Peralatan 'Electron Beam Lithography' di Syarikat 'Raith GmbH' Dorthmund, Jerman

ACADEMIC AFFAIRS - INTERNATIONALISATION

TRIPS TO OVERSEAS IN 2004

- » **January 20th-26th**
Malaysian Education Promotion Seminar in Dubai, UAE and Muscat, Oman.
- » **January 28th-30th**
A paperwork presentation titled 'Artificial Life and Robotics' (AROB 2004) by Associate Professor Dr. Mohd. Rizan Muhammad Juhari in Oita, Japan.
- » **February 19th-21st**
A working visit by Mr. Khairul Nizar Ismail to Regional Research Laboratory & Indian Institute of Mineral Engineers, Bhubaneswar, India.
- » **March 10th-11th**
Associate Professor Dr. Zuraidah Mohd. Zain was invited as a speaker by the Asian Institute of Technology, Bangkok on the topics "Quality Management in Education and Quality Management Tools and Techniques" and "Improving Student Performance Using Quality Tools"
- » **March 29th-April 3rd**
A trip to five universities in Sumatra, Indonesia: Technique Faculty, North Islamic University Sumatra, Medan, University Andalus Technique Faculty, University Sriwijaya Technique Faculty, Palembang and University Riau Technique Faculty, Pekanbaru.
- » **April 17th-23rd**
Mr. Khairul Nizar Ismail, Chairman of the School of Material Engineering Planning, attended the 'Training Course of Scanning Electron Microscope' by JEOL LTD in Tokyo, Japan.
- » **April 17th-24th**
Three staff from the School of Microelectronic Engineering comprised of the lecturer, Vocational Training Officer (VTO) and Technical staff attended the Operational and Maintenance Programme Training of the Scanning Electron Microscope equipment in Japan.
- » **April 23rd&26th**
Associate Professor Dr. Zuraidah Mohd. Zain was invited as a speaker by the Asian Institute of Technology, Bangkok on the topic "Quality Management in Education: Malaysia Experience and Quality Management in Education and Training"
- » **June 30th - July 2nd**
A follow up visit pertaining to the KUKUM's Collaboration with Asian Institute of Technology, Bangkok led by Dean of Chancellery Academic Affairs.
- » **July 1st-2nd**
Associate Professor Dr. Zuraidah Mohd. Zain was invited as a speaker by the Asian Institute of Technology, Bangkok on the topic "Improving Student Performance Using Quality Tools"
- » **August 24th-26th**
Three staff from the School of Microelectronic Engineering comprised of a Lecturer, PLV and Technical staff attended the Theory and Software Training for the Electron Beam Lithography equipment at 'Raith GmbH' Company in Dorthmund, Jerman.



LAPORAN TAHUNAN 2004

ANNUAL REPORT

HAL EHWAH AKADEMIK - PENGANTARABANGSAAN

ACADEMIC AFFAIRS - INTERNATIONALISATION

- » **25-27 Ogos**
Pembentangan kertas kerja oleh Prof. Madya Dr. Mohd. Rizon Muhammad Juhari di persidangan International Conference On Control, Automation and System ICCAS 2004 di Bangkok, Thailand
- » **25-28 Ogos**
Encik Mohd. Mizan Mohammad Aslam, pensyarah PKKK membentang kertas kerja "Should Western Institution and Scholar Conduct Research On The Future of Malay Civilization" di Leiden Universiti, Belanda.
- » **8-23 September**
Rombongan Lawatan ke Universiti-universiti di Korea dan Pertandingan Akhir ROBOCON 2004 diketuai oleh Yg. Bhg. Dato' Rektor, Seoul, Korea Selatan
- » **14-23 September**
Lawatan kerja oleh Prof. Madya Dr. Shamsul Baharin ke Institute Technology Royal, Melbourne, Swinburne University, University Technology of Sydney, University of New South Wales dan Wollongong University, Australia.
- » **15-23 September**
Timbalan Rektor Akademik, Prof. Madya Dr. Ali Yeon Md. Shakaff bersama Dekan PPK. Mikroelektronik dan Dekan PPK Bahar telah mengadakan lawatan ke RMIT University, The University of New South Wales, Swinburne University of Technology, University of Wollongong dan University of Technology Sydney, Australia.
- » **20 November-4 Disember**
Dr. Lawrence Chang Hooi Tuang, pensyarah PKKK membentang kertas kerja di Persidangan Antarbangsa "First-Order Partial Derivative Estimation at 3- Dimensional Scattered Data Points" di Bahrain dan Egypt, Mesir.
- » **22-25 November**
Lawatan pembinaan kerjasama IMT-GT (KUKUM) dengan universiti-universiti di Indonesia. Objektif lawatan ialah untuk melatih dan menyediakan satu pasukan dari kelangan pimpinan pelajar KUKUM untuk menjadi perantara pihak pengurusan KKUKUM dengan pelajar KUKUM secara terbuka dan lebih konstruktif. Lawatan diketuai oleh Yg Bhg. Dato' Rektor turut sama diiringi oleh beberapa orang pegawai dan wakil Majlis Perwakilan Pelajar (MPP).
- » **25-26 November**
Prof. Madya Dr. Zuraidah Mohd. Zain dijemput sebagai penceramah oleh Asian Institute of Technology, Bangkok bagi tajuk 'Quality Management in Education and Quality Management Tools and Techniques' dan 'Improving Student Performance Using Quality Tools'
- » **25-27 November**
Lawatan ke Universiti-universiti di Medan, Indonesia Universiti Sumatera Utara (USU) dan Universiti Islam Sumatera Utara (UISU), Medan, Indonesia diketuai oleh Yg. Bhg. Tuan Rektor KUKUM

PENASIHAT AKADEMIK

- » Prof. Dr. Karl Kohlhof dari Cologne, Jerman telah dilantik sebagai Penasihat Akademik (Academic Advisor) KUKUM Sidang 2003/2004.

ACADEMIC ADVISOR

- » Prof. Dr. Karl Kohlhof from Cologne, Germany has been appointed as KUKUM's Academic Advisor for the 2003/2004 session.



HAL EHWAH AKADEMIK - PENGANTARABANGSAAN

PEMERIKSA LUAR

- » Prof. Dr. Kasmiran Jumari, Pengarah Pusat Komputer, Universiti Kebangsaan Malaysia telah dilantik sebagai Pemeriksa Luar bagi Program Sarjana Muda Kejuruteraan Komputer di Pusat Pengajian Kejuruteraan Komputer&Perhubungan sidang akademik 2003/2004.
- » Prof. Dr. Burhanuddin Yeop Majlis, Pengarah Institute of Microengineering and Nanoelectronics dari Universiti Kebangsaan Malaysia telah dilantik sebagai Pemeriksa Luar di Pusat Pengajian Kejuruteraan Mikroelektronik sidang akademik 2003/2004.
- » Prof. Masanori Sugisaka dari Oita Universiti, Jepun telah dilantik sebagai Pemeriksa Luar di Pusat Pengajian Kejuruteraan Mekatronik sidang akademik 2003/2004.
- » Dr. R. Vasant Kumar telah dilantik sebagai Pemeriksa Luar Pusat Pengajian Kejuruteraan Bahan. Beliau adalah "senior lecturer" /pensyarah kanan di Department of Material Science&Metallurgy di University of Cambridge, UK.
- » Prof. (Dr.) Vibuthi Narain Misra telah dilantik sebagai Penasihat Akademik Pusat Pengajian Kejuruteraan Bahan. Beliau adalah Pengarah Regional Research Laboratory, Bhubaneswar, Orissa, India.
- » Dr. Ashraf Jawaid telah dilantik sebagai Pemeriksa Luar Pusat Pengajian Kejuruteraan Pembuatan. Beliau adalah Dekan dan pensyarah dalam Kejuruteraan Pembuatan di Coventry University.
- » Prof. Jae-Eung Oh telah dilantik sebagai Pemeriksa Luar dan Penasihat Akademik Pusat Pengajian Kejuruteraan Mekatronik. Beliau adalah pensyarah di School of Mechanical Engineering, Hanyang University, Seoul, Korea.
- » Dr. William John Ion telah dilantik sebagai Penasihat Akademik Pusat Pengajian Kejuruteraan Bahan. Beliau adalah pensyarah kanan di Department Design, Manufacturing and Engineering Management di University of Strathclyde, UK.
- » Prof. (A) Tony J. Moses telah dilantik sebagai Pemeriksa Luar Pusat Pengajian Kejuruteraan Sistem Elektrik. Beliau adalah Timbalan Pengarah di Cardiff School of Engineering dan juga Pengarah Wolfson Centre for Magnetics Technology.
- » Pemeriksa-pemeriksa luar yang dijemput melawat KUKUM dalam tempoh 10 hari dalam satu sidang akademik. Mereka dipertanggungjawabkan untuk membuat pemerhatian, penilaian serta memberi saranan kepada Rektor KUKUM berhubung dengan kualiti sistem akademik, khususnya sistem peperiksaan serta kursus-kursus yang ditawarkan.

ACADEMIC AFFAIRS - INTERNATIONALISATION

EXTERNAL EXAMINER

- » Prof. Dr. Kasmiran Jumari, Director of Computer Centre in National University Malaysia has been appointed as the External Examiner for the Bachelor of Computer Engineering Programmes at the School of Computer and Communication Engineering for 2003/2004 academic session.
- » Prof. Dr. Burhanuddin Yeop Majlis, Director of Microengineering and Nanoelectronics Institute from National University Malaysia has been appointed as the External Examiner for the School of Microelectronic Engineering in the 2003/2004 academic session.
- » Prof. Masanori Sugisaka from Oita University, Japan has been appointed as the External Examiner for the School of Mechatronic Engineering in the 2003/2004 academic session.
- » Dr. R. Vasant Kumar has been appointed as the External Examiner for the School of Materials Engineering. He is a senior lecturer at Department of Material Science & Metallurgy of the Cambridge University, UK.
- » Prof. Dr. Vibuthi Narain Misra has been appointed as the Academic Advisor for the School of Materials Engineering. He is the Director of the Regional Research Laboratory, Bhubaneswar, Orissa, India.
- » Dr. Ashraf Jawaid has been appointed as the External Examiner for the School of Manufacturing Engineering. He is Dean and Lecturer in Manufacturing Engineering at Coventry University.
- » Prof. Jae-Eung Oh has been appointed as the External Examiner and Academic Advisor for the School of Mechatronic Engineering. He is a lecturer in the School of Mechanical Engineering at Hanyang University, Seoul, Korea.
- » Dr. William John Ion has been appointed as the Academic Advisor for the School of Materials Engineering. He is a senior lecturer at the Department of Design, Manufacturing and Engineering Management of the Strathclyde University, UK.
- » Prof. (A) Tony J. Moses has been appointed as the Academic Advisor for the School of Electric System Engineering. He is a Deputy Director at Cardiff School of Engineering and also a Director of Wolfson Centre for Magnetics Technology.
- » The external examiners have been invited to visit KUKUM for 10 days in one academic session . They are responsible to make an observation, assessment and give suggestion to the KUKUM's Rector pertaining to academic quality system especially the examination system and also the courses offered.



HAL EHWAL AKADEMIK - PENGANTARABANGSAAN

ACADEMIC AFFAIRS - INTERNATIONALISATION

AKTIVITI-AKTIVITI HAL EHWAL AKADEMIK

JANUARI

- » Bengkel Perancangan Strategik KUKUM 2004 diadakan pada 16-18 Januari di Sheraton Perdana, Langkawi.
- » Kursus "IC Design- Software Mentor Graphic" oleh Emerald System di Makmal Rekabentuk IC, Bangunan KWSP pada 5,12 dan 19 Januari 2004. Para peserta terdiri daripada staf-staf akademik yang terlibat dalam pengajaran kursus tersebut.

FEBUARI

- » Satu program ceramah daripada pihak Silterra Sdn. Bhd dan lawatan ke Makmal "Cleanroom" telah diadakan pada 12 Februari 2004 . Semua pelajar tahun 2 Mikrolelektronik terlibat dalam lawatan dan ceramah ini.
- » Bengkel Perancangan Strategik Fasa 3 diadakan pada 27-29 Februari 2004 di Hotel Park Royal, Pulau Pinang.

MAC

- » Seminar oleh Pemeriksa Luar&Penasihat Akademik KUKUM diadakan pada 4 Mac 2004 di Dewan Keikhlasan, Aras 10, Bangunan KWSP. Pemeriksa luar terdiri daripada Prof. Dr. Kasimiran Jumari dan Prof. Dr. Burhanuddin Yeop Majlis dan Penasihat Akademik pula ialah Prof. Dr. Karl Kohlhof.
- » Program INDEX 2004 diadakan pada 15-16 Mac 2004 . Peserta terdiri daripada semua pelajar Tahun 1.
- » Lawatan INDEX ke beberapa buah industri di Kedah dan Pulau Pinang seperti SR Technology, Agilent, Permintex, dan Pentamaster diadakan pada 17 Mac 2004 melibatkan pelajar Tahun 1 pusat-pusat pengajian.
- » Bengkel IndEx 2004 anjuran Pusat Kerjasama Industri telah diadakan pada 15-17 Mac 2004 di Dewan Serbaguna, Kolej Matrikulasi Perlis. Beberapa penceramah dari industri dijemput untuk memberi pendedahan tentang budaya kerja di industri kepada para pelajar.
- » PPK Bahan telah menyertai pameran International Materials Technology Conference & Exhibition pada 23-25 Mac di Hotel Istana, Kuala Lumpur. Pasukan penyelidik pusat pengajian diketuai oleh Prof. Madya Dr. Shamsul Baharin Jamaludin. Sebanyak 4 produk penyelidikan hasil dari penyelidikan pensyarah PPK. Bahan telah dipamerkan di pameran ini. Seramai 4 orang pelajar Tahun 1 PPK. Bahan turut serta pameran ini.

APRIL

- » Pada 5 dan 12 April 2004., Syarikat Altera Corporation (M) Sdn. Bhd telah mengendalikan Kursus Penggunaan Perisian QuartusII di Penang Skill Development Center, PSDC, Bayan Lepas .Tujuan kursus ialah untuk memperkenalkan perisian tersebut kepada pihak universiti dan industri dalam negara. Seramai 4orang staf akademik yang terlibat dengan Makmal Rekabentuk FPGA (Field Programmable Gate Array) dilantik sebagai perserta.

ACADEMIC AFFAIRS ACTIVITIES

JANUARY

- » KUKUM Strategic Planning 2004 workshop was held on January 16th 18th at Sheraton Perdana, Langkawi.
- » The course "IC Design-Software Mentor Graphics" by Emerald System was held at the Design Laboratory, KWSP Building on January 5th, 12th, and 19th 2004. The audience comprised of the academic staff that involved in the course teaching.

FEBRUARY

- » A talk programme by Silterra Sdn. Bhd. and a visit to the "Cleanroom" Laboratory on February 12th 2004. All of the Microelectronic second year students involved in these events.
- » Phase 3 of the Strategic Planning workshop was held on February 27th - 29th 2004 at Park Royal Hotel, Penang.

MARCH

- » A seminar by KUKUM's External Examiners and Academic Advisors was being held on March 4th 2004 at the Keikhlasan Hall, Level 10, of KWSP Building. The external examiners comprised of Prof. Dr. Kasimiran Jumari and Prof. Dr. Burhanuddin Yeop Majlis while the Academic Advisor is Prof. Dr. Karl Kohlhof.
- » The INDEX 2004 programme was held on March 15th 16th 2004. The audience was from the first year students.
- » INDEX trip to a few industries in Kedah and Penang such as SR Technology, Agilent, Permintex and Pentamaster on March 17th 2004 that involved first year students of all schools.
- » IndEx Workshop 2004 organized by the Centre of Industrial Collaboration (CIC) was held on March 15th -17th 2004 at the Multipurpose Hall of the Matriculation College in Perlis. Several speakers from the industry had been invited to give exposure about the industrial work culture to the students.
- » School of Materials Engineering was involved in the International Materials Technology Conference & Exhibition on March 23rd 25th 2004 at the Istana Hotel, Kuala Lumpur. The researchers team of the school was led by Associate Professor Dr. Shamsul Baharin Jamaluddin. About 4 research products which resulted from lecturers' research at the School of Materials Engineering had been displayed. Four first year students of the school also participated in the exhibition.

APRIL

- » On April 5th and 12th 2004, Altera Corporation (M) Sdn. Bhd. has organized the QuartusII Software Application Course at Penang Skill Development Center, PSDC, Bayan Lepas. The purpose of the course is to introduce the software to the university and the industry in the country. Four academic staff which involved with FPGA (Field Programmable Gate Array) Design Laboratory has been appointed as the participants.

HAL EHWAH AKADEMIK - PENGANTARABANGSAAN

ACADEMIC AFFAIRS - INTERNATIONALISATION

- » Kursus Linux & Perisian Sumber Terbuka anjuran Pusat Pengajian Kejuruteraan Komputer & Perhubungan diadakan pada 6-7 April 2004 di DKP2, Kuala Perlis. Kursus ini terbuka kepada semua staf dan para peserta terdiri daripada staf akademik dan juga juga peserta dari agensi-agensi kerajaan di Perlis, Kedah dan Pulau Pinang.

MEI

- » Ceramah "Kaedah Penulisan Modul Pengajaran & Makmal" diadakan pada 19 Mei 2004 di Dewan Keikhlasan, Aras 10, Bangunan KWSP. Para peserta terdiri daripada staf-staf akademik. Objektifnya ialah untuk mendedahkan para peserta kepada kaedah yang lebih berkesan.
- » Bengkel Pengurusan Latihan Industri (inTra) telah diadakan pada 27 Mei 2004 di Bukit Ayer Jungle Park Resort, Perlis. Bengkel ini dianjurkan oleh Pusat Kerjasama Industri. Para peserta terdiri daripada Dekan-dekan dan staf akademik.

Kursus "Research Methodology" telah diadakan pada 29 Mei 2004 di Dewan Ilmu, KWSP.

- » Kolokium Penyelidikan Mingguan Antara Pusat Pengajian diadakan setiap hari jumaat bertempat di Bilik Mesyuarat Aras 1, Blok A, Kompleks Pusat pengajian di Jejawi. Sepanjang tahun 2004, sebanyak 4 siri kolokium telah diadakan. Objektif utama kolokium ini ialah untuk menggalakkan pertukaran pendapat berkencan hasil penyelidikan yang telah atau sedang dijalankan oleh staf-staf akademik di KUKUM, disamping menyemai budaya penyelidikan dikalangan staf KUKUM.

JUN

- » Minggu Suaikend Sidang Akademik 2004/2005 pada 13-19 Jun 2004 dan pendaftaran pelajar baru Sidang Akademik 2004/2005 di Kolej Kediaman Kampung Wai pada 13 Jun 2004
- » Majlis Sambutan Siswa Minggu Suaikenal Sesi 2004/2005 pada 16 Jun 2004 di Dewan Sivik, Arau
- » Pendaftaran kursus Semester Pertama, Sidang Akademik 2004/2005 pada 19 Jun 2004 di Kompleks Pusat Pengajian.
- » Majlis Penutup Minggu Suaikenal Sidang Akademik 2004/2005 di Kolej Kediaman Kampung Wai pada 19 Jun 2004.

JULAI

- » Bengkel Sistem Felo (Rakan Pendamping Siswa-RPS) diadakan pada 5-6 Julai di Hotel Seri Malaysia, Alor Star. Bengkel ini dianjurkan oleh Jabatan Hal-Ehwal Akademik.
- » Program Interaksi Pelajar Lama dan Pelajar Baru PPK Pembuatan telah diadakan di Dewan Serbaguna, Kg. Wai pada 7 Julai 2004. Tujuan program adalah untuk memperkenalkan pelajar lama kepada pelajar-pelajar baru dan mengeratkan tali silaturrahim sesama pelajar dan semua staf PPK Pembuatan.
- » Seminar "Introduction to Design With Verilog" diadakan pada 13 Julai 2004 di Makmal Rekabantuk IC, Aras 9, Bangunan KWSP. Seminar ini diadakan sempena Majlis Pemasyturan Tuanku Canselor KUKUM.

- » The Linux & Software Source Course was held on April 6th -7th 2004 at DKP2, Kuala Perlis. This course was open to all staff and most of the participants came from the academic staff and government agency in Perlis, Kedah and Penang.

MAY

- » A talk of "Writing Teaching Module & Laboratory Method" was held on May 19th 2004 at Keikhlasan Hall, Level 10, of the KWSP Building. The participants are among the academic staff. The objective was to expose to the participants a more effective method.
- » The Industry Training Management (InTra) workshop had been held on May 27th 2004 at Bukit Ayer Jungle Park Resort, Perlis. It was projected by the Centre of Industrial Collaboration (CIC) and the participants are among Deans and the academic staff.
- » The "Research Methodology" Course was held on May 29th 2004 at the Ilmu Hall, KWSP.
- » The Colloquium of Weekly Research among Schools is held every Friday at the Meeting Room Level 1, Block A, School Complex in Jejawi. Along the year 2004, four colloquium series has been done. The main objective is to encourage an opinion exchange about the research outcome is produced by the academic staff in KUKUM beside inculcating research cultures among the KUKUM's staff.

JUNE

- » The Orientation Week of the 2004/2005 Academic Session on June 13th 19th 2004 and new students registration of the 2004/2005 Academic Session at the College Hostel of Wai Village on June 13th 2004.
- » The Orientation Week of Undergraduates Welcoming Ceremony of the 2004/2005 session on June 16th 2004 at the Civics Hall, Arau.
- » First semester course registration for the new students of the 2004/2005 Academic Session on June 19th 2004 at the School Complex.
- » A closing ceremony of the Orientation Week for the students of the 2004/2005 Academic Session on June 19th 2004 at the Wai Village College Hostel.

JULY

- » Fellow System Workshop (Students' Coaching Fellow) was held on July 5th - 6th 2004 at Seri Malaysia Hotel, Alor Star. It was projected by the Academic Affairs.
- » School of Manufacturing Engineering has organized an the Senior Students and New Students Interaction programme at the Multipurpose Hall, Wai Village on July 7th 2004. The purpose is to introduce the old students to the new students and to foster strong relationships between themselves and all staff of the School of Manufacturing Engineering.
- » A seminar of "Introduction to Design with Verilog" was held on July 13th 2004 at the IC Design Laboratory, Level 9, of the KWSP Building. This seminar is held in conjunction with the Inaugural Occasion of KUKUM's Chancellor Proclamation.



HAL EHWAL AKADEMIK - PENGANTARABANGSAAN

- » Pertandingan "Robot Line Follower" anjuran Pusat Pengajian Kejuruteraan Mekatronik sempena Majlis Pemasyhuran Tuanku Canselor KUKUM diadakan pada 15-16 Julai 2004 di Stadium Utama Perlis. Setiap pusat pengajian menghantar diwakili oleh kumpulan pelajar masing-masing. Pusat Pengajian Kejuruteraan Sistem Elektrik telah menjadi juara.

SEPTEMBER

- » Ceramah Penyelidikan Bersama Pemeriksa Luar Pusat Pengajian Kejuruteraan Mekatronik , Prof. Sugisaka Masanori bertojuk 'Remote Of Autonomous Robots Via Internet' diadakan pada 2 September 2004.
- » Pertandingan Debat Piala Rektor kali ke-2 diadakan pada 4-8 September 2004. PPK. Bahan dan PPK. Mikroelektronik berjaya memasuki perbandingan akhir. Johan dimiliki oleh PPK. Bahan.
- » Pendaftaran pelajar-pelajar Pengajian ijazah Tinggi Sesi 2004/2005 kemasukan bulan September diadakan pada 6-17 September 2004.
- » Hari Ko-Kurikulum Kemerdekaan diadakan pada 18 September 2004 di Padang Bandaran Kangar. Para peserta terdiri daripada semua pelajar-pelajar yang mendaftar kursus Ko-Kurikulum Semester 1, Sidang Akademik 2004/2005. Para jemputan luar turut sama dijemput.
- » Forum "Cabaran Bidang Kejuruteraan Masa Hadapan" diadakan di Perkarangan Pusat Kejuruteraan, Kuala Perlis pada 24 September 2004.
- » Ceramah "Accreditation - Requirement & Preparation" oleh Dr. Norman Mariun (Section Vice Chair, IEEE), diadakan pada 24 September di Dewan Keikhlasan, Tingkat 10, Bangunan KWSP, Kangar.
- » PPK. Bahan telah mengadakan Majlis Pelancaran Rakan Pendamping Siswa dan Penyampaian Anugerah Sijil Dekan pada 30 September 2004 di Dewan Serbaguna, Kampung Wai. Perjumpaan ini melibatkan semua pelajar dan semua staf.
- » Latihan Kemasukan Data Markah Kursus dan Peperiksaan Akhir diadakan oleh Unit Peperiksaan, Jabatan Pendaftar di Makmal Bahasa, Aras 9, Bangunan KWSP pada 29-30 September 2004. Para peserta terdiri daripada wakil-wakil pusat pengajian.

OKTOBER

- » Bengkel E-Learning diadakan pada 1-2 Oktober 2004 di Cinta Sayang Country Resort, Sungai Petani, Kedah. Para peserta terdiri daripada wakil-wakil staf akademik pusat pengajian, staf ICT serta ahli-ahli Subject Matter Expert (SME).
- » Bengkel Persediaan InTra 2004 diadakan pada 25-28 Oktober 2004 di DKPI, Kuala Perlis.
- » Pada 5 Oktober 2004, PPK. Mikroelektronik telah mengadakan Majlis Makan Malam, Anugerah Dekan dan perjumpaan RPS di Dewan Kolej Kediaman , Kampung Wai. Objektifnya ialah untuk menyediakan persekitaran pertemuan RPS yang mesra, membantu meningkatkan potensi dan keyakinan diri pelajar, mengeratkan hubungan sesama pelajar dan staf serta meraikan kejayaan pelajar dalam peperiksaan. Seramai 10 orang pelajar menerima Sijil Anugerah Dekan dan 14 orang

ACADEMIC AFFAIRS - INTERNATIONALISATION

- » The competition of "Robot Line Follower" was projected by School of Mechatronic Engineering in conjunction with the Inaugural Occasion of KUKUM's Chancellor Proclamation on July 15th 16th 2004 at the Perlis Main Stadium. Every school was represented by their own student group. The School of Electric System Engineering has become the winner.

SEPTEMBER

- » A research talk by External Examiner of the School of Mechatronic Engineering, Prof. Sugisaka Masanori on "Remote of Autonomous Robots Via Internet" on September 2nd 2004.
- » The second time competition of the Rector Debate Trophy was held on September 4th-8th 2004 .The School of Materials Engineering and the School of Microelectronic Engineering qualified to the final round .The winner was the School of Materials Engineering.
- » Registration of the Postgraduate Studies students for the 2004/2005 session of the September intake was held on September 6th 17th 2004.
- » The Independence Co curriculum Day was held on September 18th 2004 at the Kangar Town Square. The participants were among the students who registered for the first semester Co curriculum Course for the 2004/2005 Academic Session. The outside guests were also invited.
- » A forum "The Challenge of Engineering Course in Future" was held at the Engineering Centre Compound, Kuala Perlis on September 24th 2004.
- » A talk titled "Accreditation Requirement & Preparation" by Dr. Norman Mariun (Section Vice Chair, IEEE), was held on September 24th 2004 at Keikhlasan Hall, Level 10, of the KWSP Building, Kangar.
- » The School of Materials Engineering hosted the Student's Coaching Fellow Launching Event and the Dean Award Certificate for excellent students at the Multipurpose Hall Wai Village on September 30th 2004 . This event involved all the KUKUM's students and staff.
- » The training of the Course Marks Data Entry and Final Examination held by the Examination Unit, Registrar Department in the Language Laboratory, Level 9, of the KWSP Building on September 29th 30th 2004. The participants were the representatives of every school.

OCTOBER

- » The E-Learning workshop was held on October 1st 2nd 2004 at Cinta Sayang Country Resort, Sungai Petani, Kedah. The participants were among the representatives of academic staff from the schools, ICT staff and also members of the Subject Matter Expert (SME).
- » The InTra Preparation Workshop 2004 was held on October 25th 28th 2004 at DKPI, Kuala Perlis.
- » On October 5th 2004, the School of Microelectronic Engineering has organized the Dinner Occasions', Dean Award and SCF meeting at the College Hostel Hall, Wai Village. The objectives is to prepare comfortable environment for SCF meeting, to help students increase their potential and confidence of themselves, foster the relationships between students and staff and also celebrate the students' success in the examination. About 10 people of students received the Dean Award Certificate and 14 students



LAPORAN TAHUNAN 2004

ANNUAL REPORT

HAL EHWAH AKADEMIK - PENGANTARABANGSAAN

ACADEMIC AFFAIRS - INTERNATIONALISATION

pelajar menerima Sijil Anugerah Bestari.

NOVEMBER

- » Pendaftaran Kursus Semester 2, Sidang Akademik 2004/2005 pada 23 November 2004 bertempat di Kompleks Pusat Pengajian, Jejawi.
- » Seminar Metalurgi Pertama 2004 telah diadakan di Universiti Kebangsaan Malaysia, Bangi, pada 27 November 2004. Seminar ini telah dianjurkan oleh kumpulan penyelidik metalurgi UKM. Rombongan peserta seramai 6 orang itu diketuai oleh Prof. Madya Dr. Shamsul Baharin Jamaluddin dan Ir. Prof. Madya Mohabattul Zaman. Seminar ini bertujuan untuk memberi peluang kepada penyelidik yang berkaitan dengan metalurgi berkumpul, berbincang dan membentang hasil penyelidikan terkini dalam bidang yang berkaitan dengan metalurgi.

DISEMBER

- » PPK. Bahan telah menganjurkan Bengkel Pelan Strategik di RECSAM, Pulau Pinang pada 2-5 Disember 2004. Seramai 25 orang staf akademik dan staf terlibat. Objektif utama bengkel ini ialah untuk merancang pelan strategik pusat pengajian tahun 2005
- » Bengkel perancangan Strategik PPK. Mikroelektronik 2005-2006 telah diadakan di Feringgi Beach Hotel, Pulau Pinang. Seramai 23 orang staf akademik dan sokongan terlibat. Objektif utama bengkel ini ialah untuk membebangkan strategi pusat pengajian dalam melaksanakan plan strategik KUKUM tahun 2005-2006.
- » Persidangan Saintifik Persatuan Mikroskopi Elektromn Malaysia (EMSM) yang ke-13 telah diadakan pada 13-15 Disember 2004 di The Palm Garden Hotel. Persidangan ini menemukan para penyelidik dan ahli akademik yang terlibat dalam EMSM. Prof. Madya Dr. Zul Azhar Zahid Jamal telah diberi penghargaan oleh EMSM untuk menerima Anugerah Khidmat Cemerlang atas jasa beliau selama penglibatan dalam persatuan tersebut.
- » Lima orang staf PPK. Bahan telah melakukan lawatan kerja ke 2 syarikat berstatus MSC di Cyberjaya iaitu Syarikat Excelnet Sdn. Bhd dan InventQjaya, pada 14-15 Disember 2004. Tujuan lawatan adalah untuk meneroka peluang-peluang kerjasama yang boleh dijalankan di antara syarikat-syarikat tersebut dengan PPK. Bahan khususnya dan KUKUM secara amnya.
- » Bengkel Perancangan Strategik Pusat Pengajian Kejuruteraan Komputer&Perhubungan diadakan pada 18-19 Disember 2004 bertempat di Naza Hotel, Pulau Pinang. Semua staf PPK hadir.
- » Bengkel Perancangan Strategik PPK Pembuatan ini telah diadakan di Hotel Swiss Inn, Sungai Petani pada 18 dan 19 Disember 2004. Kesemua staf PPK Pembuatan yang terdiri daripada 25 orang telah menghadiri bengkel ini.

received the Intelligent Award Certificate.

NOVEMBER

- » The course registration by the second semester students for the 2004/2005 Academic Session on November 23rd 2004 at the School Complex, Jejawi.
- » The First Metallurgical Seminar 2004 was held at the National University Malaysia, Bangi on November 27th 2004 and it was organized by NUM metallurgy researchers group. The group of 6 people was led by Associate Professor Dr. Shamsul Baharin Jamaluddin and Ir. Associate Professor Mohabattul Zaman. The seminar was intended to give an opportunity to the researchers to gather, discuss and present the latest research outcome in the area pertaining to metallurgy research.

DECEMBER

- » School of Materials Engineering has organized the Strategic Plan Workshop at RECSAM, Penang on December 2nd 5th 2004. There are about 25 academic staff and other staff who participated. The main objective of the workshop is to outline the strategic plan for the school in the year 2005.
- » The Strategic Planning Workshop of the School of Microelectronic Engineering 2005-2006 was held at the Feringgi Beach Hotel, Penang. There were 23 academic and supporting staff involved. The main objective of the workshop was to discuss the school strategy in implementing the KUKUM's strategic plan of the year 2005-2006.
- » The 13th Scientific Convention by the Malaysian Electron Microscopy Association (EMSM) was held on December 13th 15th 2004 at The Palm Garden Hotel. This convention is to meet the researchers and the academic members that involved in EMSM. Associate Prof. Dr. Zul Azhar Zahid Jamal has been honoured by EMSM to receive the Excellent Service Award for his merit along the involvement in the association.
- » Five staff from the School of Materials Engineering have made a working visit to two companies with MSC status in Cyberjaya which are Excelnet Sdn. Bhd and InventQjaya on December 14th 15th 2004. The visit's objective is to explore the opportunities for collaborations between the companies and the School of Materials Engineering specifically and KUKUM generally.
- » The Strategic Planning Workshop of the School of Computer & Communication Engineering was held on December 18th 19th 2004 at the Naza Hotel, Penang and all of the school's staff were present.
- » The Strategic Planning Workshop of the School of Manufacturing Engineering was held at the Swiss Inn Hotel, Sungai Petani on December 18th-19th 2004. All the 25 school's staff had attended the workshop.

