



Laporan Tahunan
2000
annual report
Universiti Putra Malaysia

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UNIVERSITI PUTRA MALAYSIA

LAPORAN TAHUNAN 2000 ANM

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Unit Pembangunan Sahsiah Pelajar
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Fakulti Pengajian Pendidikan
Faculty of Educational Studies

Fakulti Pertanian
Faculty of Agriculture

Fakulti Perhutanan
Faculty of Forestry

Fakulti Perubatan Veterinar
Faculty of Veterinary Medicine

Fakulti Sains dan Pengajian Alam Sekitar
Faculty of Science and Environmental Studies

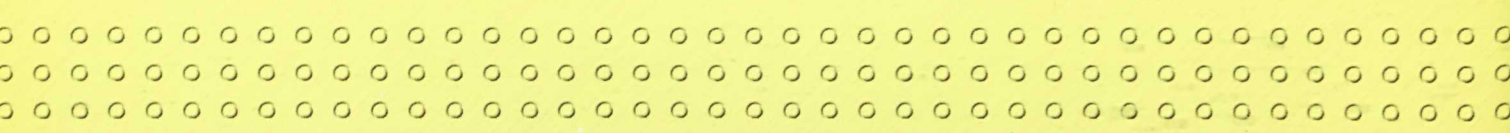
Fakulti Sains Komputer dan Teknologi Maklumat
Faculty of Computer Science and Information Technology

Fakulti Reka Bentuk dan Seni Bina
Faculty of Design and Architecture

Fakulti Sains Makanan dan Bioteknologi
Faculty of Food Science and Biotechnology

Fakulti Pengajian Bahasa Moden dan Komunikasi
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Fakulti Perubatan dan Sains Kesihatan
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- Institut Biosains
The Bioscience Institute
- Institut Multimedia
Multimedia Institute
- E-universiti
E-university
- Bahagian Teknologi Maklumat
Information Technology Division
- Bendahari
Bursary
- Institut Teknologi Maju
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LAPORAN UNIVERSITI PUTRA MALAYSIA 2000 ANNUAL REPORT

Universiti
Putra Malaysia
REPORT UNIVERSITI PUTRA MALAYSIA



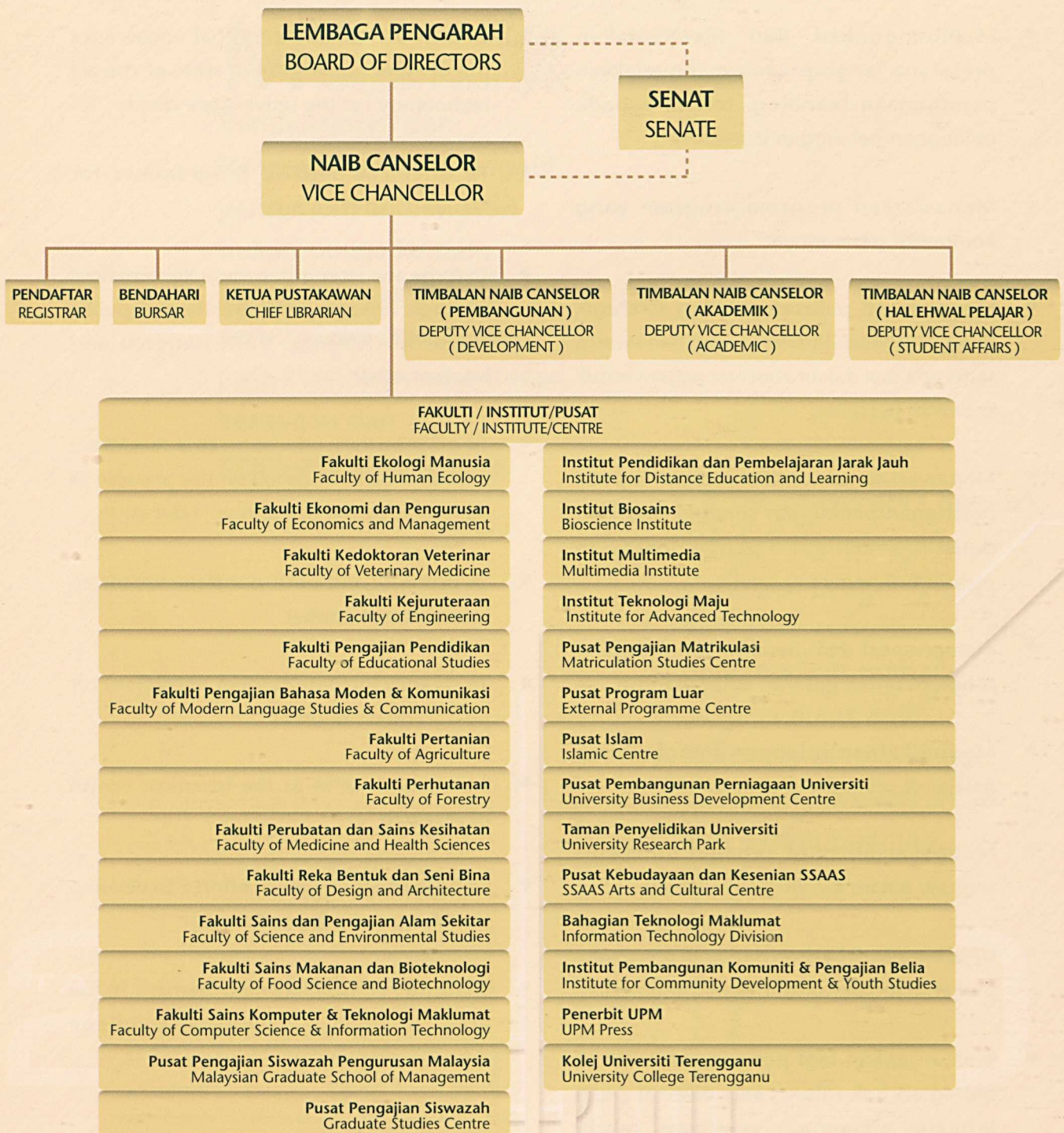
Misi Universiti adalah menjadi Pusat Pembelajaran dan Penyelidikan yang unggul yang menyumbangkan bukan sahaja kepada kemajuan manusia dan penerokaan ilmu tetapi juga kepada pembentukan kekayaan dan pembangunan negara.

The University's mission is to be a leading Centre of Learning and Research, contributing not only towards human advancement and discovery of knowledge but also to wealth creation and nation building.

- Membangunkan dan menyediakan prasarana lengkap yang menggalakkan penggunaan teknologi terkini kepada pelanggan-pelanggan Universiti.
- Menawarkan program-program yang kompetitif pasarannya.
- Mengadakan pakatan-pakatan strategik dengan institusi-institusi awam dan swasta sama ada dari dalam atau luar negara untuk kebaikan bersama.
- Menawarkan pendidikan tinggi kepada pelanggan-pelanggan seramai mungkin dalam semangat pendemokrasian pendidikan negara.
- Mempromosi dan menawarkan program-program untuk pasaran antarabangsa.
- Meningkatkan bilangan pengambilan pelajar di peringkat ijazah tinggi.
- Mengekalkan UPM sebagai universiti termaju dalam aktiviti penyelidikan.
- UPM berada di barisan hadapan menerajui perkembangan Koridor Raya Multimedia.
- Memantapkan lagi pengurusan UPM di bahagian-bahagian yang dikenal pasti termasuk pengurusan kewangan, fakulti dan kolej kediaman.
- To provide infrastructure that encourages the use and application of state-of-the-art technology for the university's clients
- To offer competitive programmes for learning and training
- To forge and strengthen mutually beneficial strategic linkages with private and public sector institutions, both national and international
- To offer tertiary education to a maximum number of clients based on the premise of democratization of national education
- To promote and offer programmes for an international market
- To steadily increase student enrolment for postgraduate degrees
- To establish UPM as the foremost centre of research
- To be in the forefront of efforts to develop the Multimedia Super Corridor
- To further consolidate management in the areas of finance, faculty and college accommodation

CARTA ORGANISASI

Organisational Chart



● **PENGERUSI**

CHAIRMAN

Y.Bhg Datuk Ramli bin Ahmad

● **ANGGOTA**

DIRECTORS

Y.Bhg Profesor Tan Sri Dato' Syed Jalaludin bin Syed Salim

- Naib Canselor/Vice Chancellor

Y.Bhg Dato' Dr. Abdul Aziz bin Sheikh Abdul Kadir

Y.Bhg Dato' Dr. Noor Laily bt. Dato' Abu Bakar

Y.Bhg Dato' Patrick Lim Soo Kit

Y.Bhg Dato' Haji Isahak bin Mohd. Yusof

Y.Bhg Tan Sri Dr. Johari bin Mat

Y.Bhg Tuan Haji Ithnin bin Haji Hassan



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CANSELOR
CHANCELLOR

T.Y.T. Tun Dato' Seri (Dr.) Haji Hamdan bin Sheikh Tahir
S.M.N., P.S.M., D.U.P.N., D.P., D.P.M.N., K.M.N.

PRO-CANSELOR
PRO-CHANCELLORS

Y.Bhg Tan Sri Dato' Haji Hashim Aman
P.M.N., P.S.M., S.S.S.A., D.P.M.K., D.S.N.S., D.P.M.J., D.C.S.M., J.M.N.

Y.Bhg Tan Sri Dato' Thong Yaw Hong
P.S.M., S.I.M.P., D.I.M.P., J.M.N., S.M.P., J.B.S., A.M.N.

NAIB CANSELOR
VICE-CHANCELLOR

Y.Bhg Profesor Tan Sri Dato' Dr. Syed Jalaludin bin Syed Salim
P.S.M., D.P.M.P., D.S.S.A., J.S.M.
B.Vet.Sc &A.H.(Punjab), M.Phil., Ph.D.(London), F.A.S.

TIMBALAN NAIB CANSELOR
DEPUTY VICE-CHANCELLORS

Hal Ehwal Akademik
Academic Affairs

Profesor Dr. Kamel Ariffin bin Mohd. Atan J.S.M
B.A. (Malaya), M.A. (Western Ontario), Ph.D (New South Wales)
(hingga/till 30/9/1999)

Profesor Dr. Muhamad bin Awang J.S.M.
Drs. (Bandung, ITB), Ph.D. (Sheffield)
(mula/beginning 1/10/1999)

Pembangunan
Development

Profesor Dr. Muhamad bin Awang J.S.M.
Drs. (Bandung, ITB), Ph.D (Sheffield)
(hingga/till 30/9/1999)

Profesor Dr. Abdul Rahman bin Md. Aroff K.M.N.
B.A., Dip.Ed. (Malaya), M.Ed (Sheffield)
Ph.D (Southampton)
(mula/beginning 1/10/1999)

Hal Ehwal Pelajar
Student Affairs

Profesor Dr. Abdul Rahman bin Md. Aroff K.M.N.
B.A., Dip.Ed. (Malaya), M.Ed (Sheffield)
Ph.D (Southampton)
(hingga/till 30/9/1999)

Profesor Madya Dr. Haji Idris bin Abdol S.S.A., D.S.M. , K.A.T., P.K.
Dip.Agric. (Malaya),
B.S., M.S., Ph.D (Louisiana State)

● **PENDAFTAR**
REGISTRAR

Ahmad Zekri bin Abdul Khalil, K.M.N., P.M.P., A.M.N.
M.Econ (Malaya), Dip. in Mgmt. Analysis (INTAN), M.M.I.M.,
Cert. in Small Bus. Mgmt. (M.I.M)
(hingga/till 12/7/2000)

Kamalul Aripin bin Musa
B.A. (Hons.) Malaya.
(mula/beginning 13/7/2000)

● **BENDAHARI**
BURSAR

Noormah bt. Hj. Mohamed A.M.N.
Corporation of Secretaries (UK), ADIA (ITM), R.A. (M)

● **KETUA PUSTAKAWAN**
CHIEF LIBRARIAN

Kamariah bt. Abdul Hamid
A.L.A. (London), M.L.S. (Hawaii)

● **DEKAN**
DEAN

Fakulti Ekologi Manusia
Faculty of Human Ecology
Prof. Madya Dr. Abdullah Al-Hadi bin Haji Muhammed
B.A. (Hons.) (UKM), M.S. (Eastern Michigan), Ph.D (Malaya)

Fakulti Ekonomi dan Pengurusan
Faculty of Economics and Management
Profesor Dr. Nik Mustafa Raja Abdullah
Dip. Agric. , (UPM), B.S. (California-Davis), M.S., Ph.D (Oregon State)

Fakulti Perubatan Veterinar
Faculty of Veterinary Medicine
Profesor Dato' Dr. Hj. Sheikh Omar bin Abdul Rahman D.P.S.K., S.S., J.S.M.
B.V.Sc. (Queensland), M.V.Sc. (Saskatchewan), M.R.C.V.S. (London)

Fakulti Kejuruteraan

Faculty of Engineering

Profesor Ir. Dr. Radin Umar bin Radin Sohadi

B. Eng. (Hons.), M.Eng. (Sheffield), Ph.D. (Birmingham), P.Eng., F.I.E.M., M.I.H.T. (UK),
M.R.E.A.A.A., M.A.A.A.M. (USA)**Fakulti Pengajian Pendidikan**

Faculty of Educational Studies

Prof. Madya Dr. Kamariah binti Hj. Abu Bakar

Cert. Ed. (Malaya), B. Sc., M.Sc., (SUNY), Ph.D. (SIU)

Fakulti Pengajian Bahasa Moden & Komunikasi

Faculty of Modern Language Studies & Communication

Profesor Dr. Shaik Md. Noor Alam S.M. Hussain

LLB (Hons) (Lond.), LL.M (Mal.), Ph.D (IIU)

Fakulti Pertanian

Faculty of Agriculture

Profesor Dr. Mohd Yusof bin Hussein

Dip. Agric. (Malaya), B.S., M.S. (Louisiana State), Ph.D. (Adelaide)

Fakulti Perhutanan

Faculty of Forestry

Prof. Madya Dr. Rusli bin Mohd

B.C.M. B.Sc.(For.) (UPM), M.Phil. (Edinburgh), Ph.D. (North Carolina State)

Fakulti Sains dan Pengajian Alam Sekitar

Faculty of Science and Environmental Studies

Profesor Dr. Wan Md. Zin bin Wan Yunus

SmSn. (UKM), M.Sc. Ph.D. (Salf.)

Fakulti Sains Makanan dan Bioteknologi

Faculty of Food Science and Biotechnology

Profesor Dr. Gulam Rusul bin Rahmat Ali

D.V.M. (Pakistan), M.Sc. (Reading), M.Sc. (Ed. Admin), Ph.D. (Wisconsin)

Fakulti Reka Bentuk dan Seni Bina

Faculty of Design and Architecture

Assoc. Prof. Dr. Mustafa Kamal bin Mohd Shariff

Dip. Agric. (UPM), B.S. (Louisiana State), M.S. (Tennessee),

Ph.D. (Colorado State)

Fakulti Perubatan dan Sains Kesihatan

Faculty of Medicine and Health Sciences

Prof. Madya Dr. Jammal bin Ahmad Essa

D.J.N., M.B.B.S. (Singapore), M.R.C.O.G. (London), F.R.C.O.G. (London), A.M. (Malaysia),
F.A.M.S. (Singapore), F.I.C.S.**Fakulti Sains Komputer dan Teknologi Maklumat**

Faculty of Computer Science and Information Technology

Prof. Madya Dr. Abd. Azim bin Abd. Ghani

B.Sc. (Indiana State), M.Sc. (Miami), Ph.D. (Strathclyde)

Pusat Pengajian Siswazah
Graduate Studies Centre
Prof. Madya Dr. Kamis bin Awang
B.Sc. (For.) Hons, Ph.D. (A.N.U.)

Pusat Pengajian Siswazah Pengurusan Malaysia
Malaysian Graduate School of Management
Profesor Dr. Md. Zabid bin Abdul Rashid
B.S. (Agribus.) (UPM), M.Sc. (London), D.E.A., D.Sc.(Aix-Marseille / ESSEC)

PENGARAH **DIRECTOR**

Institut Pendidikan dan Pembelajaran Jarak Jauh (IDEAL)
Institute for Distance Education and Learning
Prof. Madya Dr. Azahari bin Ismail
Dip. Agric. (Malaya), B.S., M.Sc. (Louisiana State),
Ph.D. (Florida State University)

Taman Penyelidikan Universiti
University Research Park
Profesor Dr. Jinap bt. Selamat
Dip.Sc. & Educ. (UPM), B.Sc., M.Sc., (Louisiana State),
Ph.D. (Pennsylvania State)

Pusat Islam
Islamic Centre
Prof. Madya Dr. Hj. Muhd Fauzi bin Muhamad
B.A. (Hons), (YPIK Nilam Puri), M.A. & Ph.D. (Al-Azhar)
Dip. Ed. (Ainu-Syams Kaherah)

Pusat Pengajian Siswazah Perubatan
Medical Graduate Centre
Profesor Datuk Dr. Mohd Sham Kasim
P.J.N., K.M.N., P.M.C. M.B.B.S. (Sydney), D.C.H. (Glasgow)
M.R.C.P. (UK), A.M. (Malaysia), F.R.C.P. (Edinburgh), F.A.M.M.

Pusat Pembangunan Perniagaan Universiti
University Business Development Centre
Profesor Dato' Dr. Nik Muhamad bin Nik Abdul Majid
D.P.S.K. Dip.Agric. (Malaya), B.S. (Agric.) M.F. (Louisiana State),
Ph.D (British Columbia)

Pusat Kebudayaan dan Kesenian Sultan Salahuddin Abdul Aziz Shah
SSAAS Arts and Cultural Centre
Prof. Madya Dr. Hj. Mohamed Ali bin Rajion
K.M.N., B.V.Sc. (Melbourne), M.Sc. (New England), Ph.D (Melbourne)

Pusat Pembangunan Perisian
Software Development Centre
Prof. Madya Dr. Bachok bin M. Taib
B.Sc. (Hons.) (UKM), M.Sc. (Reading), Ph.D (Wollongong)

Pusat Program Luar**External Programme Centre**

Prof. Madya Dr. Abdul Aziz Saharee K.M.N.
B.V.Sc. (Melbourne), M.Sc. (Edinburgh), Ph.D (UPM)

Pusat Antarabangsa**International Centre**

Profesor Dr. Shaik Md. Noor Alam S.M. Hussain
LL.B. (Hons) (Lond.), LL.M (Mal.), Ph.D (IIU)

Unit Perancangan Korporat**Corporate Planning Unit**

Prof. Madya Hj. Zainal Abidin bin Kidam
B. Agric.Sc. (Hons) (Malaya), M.B.A. (Wisconsin-Madison)

Institut Biosains**Biosciences Institute**

Profesor Dr. Abdul Rani bin Bahaman J.S.M.
D.V.M. (Mymensingh), B.Sc. (La Trobe), M.Phil (Massey), Ph.D (UPM)

Institut Teknologi Maju (ITMA)**Institute for Advanced Technology**

Profesor Ir. Abang Abdullah bin Abang Ali
B.Sc. (Hons.) (Brighton), M.Sc. (Manchester), F.I.E.M., P.Eng., F.I.C.E., C.Eng.

Institut Multimedia**Multimedia Institute**

Prof. Madya Dr. Makhdzir bin Mardan
Dip. Agric. (UPM), B.S., M.S. (Louisiana State), Ph.D. (Guelph)

E-Universiti**E-University**

Profesor Dr. Han Chung Kwong
B.S. (Agribus.), M.S. (UPM), Ph.D (Cambridge)

Institut Pembangunan Komuniti dan Pengajian Belia**Education and Community Development Centre**

Profesor Dr. Rahim bin Md. Sail J.S.M., D.S.M.
Dip. Agric. (Malaya), B.S. (California Davis), M.S., Ph.D (Wisconsin)

Penerbit Universiti Putra Malaysia**Universiti Putra Malaysia Press**

Puan Sumangala Pillai
B. Soc. Sc. (Hons.) (USM), Dip. Publishing (UM)

Kampus Kemena Bintulu Sarawak**Kemena Bintulu Campus, Sarawak**

Prof. Madya Dr. Joseph Bong Choon Fah
Dip. Agric. (Malaya), B.Sc. Agric. (UPM), M.S. (Mississippi State)

REKTOR

RECTOR

Profesor Dato' Dr. Mohamed Mahyuddin bin Mohd Dahan

TIMBALAN REKTOR

DEPUTY RECTOR

Profesor Dr. Sulaiman bin Md. Yassin

PENDAFTAR

REGISTRAR

Hj. Mohd. Suib bin Hj. Maulud

BENDAHARI

BURSAR

Nor Azizah bt. Kassim

PUSTAKAWAN

LIBRARIAN

Aishah bt. Mohd Nasir

DEKAN

DEAN

Fakulti Sains dan Teknologi

Faculty of Science and Technology

Profesor Dr. Mohd Azmi bin Hj. Ambak

Fakulti Pengurusan dan Ekonomi

Faculty of Economics and Management

Prof. Madya Dr. Abd. Majid bin Md. Isa

HAL EHWAL KEMAHASISWAAN

STUDENT AFFAIRS

Prof. Madya Zainal Ashirin bin Shahardin

PENGARAH INSTITUT OSEANOGRAFI

DIRECTOR, INSTITUTE OF OCEANOGRAPHY

Prof. Madya Dr. Mohd Lokman bin Husain

Universiti Putra Malaysia (UPM) telah mengorak langkah untuk mempertingkatkan tahap pencapaian akademik dan penyelidikan serta kemajuan dalam pelbagai aspek terutamanya dalam bidang pertanian, sains dan teknologi dan teknologi maklumat bagi mewujudkan sebuah universiti yang unggul pada masa depan. Untuk mencapai hasrat tersebut, UPM berusaha melahirkan pelajar yang cemerlang dan berkualiti serta tenaga pengajar atau ahli akademik yang profesional.

Pada tahun 2000, UPM telah berjaya melahirkan seramai 14,659 graduan melalui tiga sidang konvokesyen. Graduan yang dihasilkan meningkat sebanyak 89.4% berbanding tahun sebelumnya. Keadaan ini menunjukkan bahawa UPM berjaya mengeluarkan graduan yang ramai di samping menjaga kualiti akademiknya. Daripada jumlah tersebut, 59 adalah graduan Doktor Falsafah, 1,111 graduan Sarjana, 10,287 graduan ijazah Pertama dan 3,202 graduan Diploma. Seramai 139 pelajar mendapat kelas pertama dan 3,359 pelajar mendapat kelas kedua tinggi bagi program ijazah pertama. Ini menunjukkan bahawa UPM mampu membekalkan tenaga profesional dalam pelbagai bidang.

Secara keseluruhannya, pengambilan pelajar telah menurun sebanyak 26.54% pada tahun 2000 berbanding tahun 1999 iaitu daripada 15,907 kepada 11,684 pelajar. Penurunan ini adalah disebabkan tiada pengambilan pelajar Matrikulasi di samping usaha UPM mengimbangi jumlah pelajar dengan ahli akademik serta kemudahan-kemudahan yang disediakan bagi menjamin pelajar yang dikeluarkan nanti benar-benar berkualiti.

Dari segi enrolmen pelajar, UPM mempunyai bilangan pelajar seramai 33,217 orang, menurun 6.16% berbanding tahun sebelumnya. Walau bagaimana pun program pengajian siswazah menunjukkan peningkatan sebanyak 4.39% bagi program Doktor Falsafah dan 21.36% bagi program Sarjana. Ini menunjukkan bahawa UPM memberikan penumpuan yang lebih kepada program ijazah tinggi bagi melahirkan lebih ramai pakar dalam bidang-bidang tertentu.

Pusat Pengajian Siswazah UPM memainkan peranan penting dalam melahirkan graduan ijazah tinggi di UPM. Pada tahun 2000 seramai 1,713 pelajar telah mendaftar dalam pelbagai bidang pengajian yang menjadikan enrolmen pelajarannya kepada 5,567 orang. Daripada jumlah tersebut, seramai 595 pelajar adalah dari 45 negara di seluruh dunia dan ini menunjukkan bahawa UPM mampu menjadi pusat kecemerlangan antarabangsa.

Di samping itu, Pusat Pengajian Siswazah juga giat mempertingkatkan aktiviti promosi melalui pameran-pameran yang diadakan di peringkat antarabangsa seperti di Oman, Afrika Selatan, Indonesia, Dubai dan Pakistan bagi menggalakkan serta memperkenalkan UPM di peringkat antarabangsa. Pada tahun 2000 juga sebanyak 997 bidang pengajian di peringkat kedoktoran dan sarjana telah ditawarkan dan 162 daripadanya adalah bidang baru yang kebanyakannya adalah dalam bentuk penyelidikan. Ini menunjukkan pertambahan 19.4% bidang berbanding tahun sebelumnya dan ianya memberi gambaran tentang pertambahan pakar serta bidang-bidang penyelidikan di UPM.

Program pendidikan jarak jauh (PJJ) yang dikendalikan oleh Institut Pendidikan dan Pembelajaran Jarak Jauh (IDEAL) juga merupakan antara saluran yang digunakan oleh UPM untuk membantu melahirkan tenaga profesional dari kalangan masyarakat yang bekerja serta ingin mempertingkatkan tahap pendidikan mereka. Sebanyak sembilan program baru ditawarkan melalui program PJJ menjadikan keseluruhannya 22 program. Daripada 22 program yang ditawarkan empat adalah



Academic and research excellence in tandem with developments in agriculture, science and technology and information technology have paved the way for Universiti Putra Malaysia to establish itself as one of the foremost universities of the future. Towards this end, efforts have been directed at enhancing the professionalism of the academic staff so as to produce students of calibre.

The year 2000 saw 14,659 students graduating, recording a 89.4% increase over the previous year. The convocation this year had to be divided into three sessions to accommodate the increased number of graduands. This is a clear indication of UPM's capacity to contribute towards producing professional manpower in various fields without compromising on academic quality. Of this total, 3,202 graduated with diplomas, 10,287 with Bachelor degrees, 1,111 with Masters, and 59 with Ph.Ds. I am proud to note that 139 attained First Class Honours while another 3,359 attained Second Class Upper Honours, a clear testimony of the excellence achieved in teaching-learning.

Generally there was a decline (26.54%) in student intake from 15,907 in 1999 to 11,684 in year 2000. This could be attributed to the non-intake of matriculation students and the University's goal of having a more manageable lecturer-student ratio and sharing of resources that would lead to better academic performance.

Total enrolment figures for year 2000 stood at 33,217, a decline of 6.16% over 1999. However, postgraduate student enrolment saw a 4.39% increase for Ph.D and a 21.63% increase for Masters degree programmes. This clearly reflects the University's aim of producing knowledge-workers in various fields.

The Graduate Studies Centre has played an important role in drawing students for the various postgraduate study programmes. A total of 1,713 students registered bringing the enrolment to 5,567. Of this, 595 were foreign students from 45 different countries. This augurs well for the University as a reputable international centre of learning.

The Graduate Studies Centre has stepped up efforts to promote and market its programmes to foreign countries. It took part in several exhibitions and roadshows in Oman, South Africa, Indonesia, Dubai and Pakistan. For year 2000, of the 997 Ph.D and Masters courses offered, 162 courses were mainly research based. This is an increase of 19.4% over the 1999 courses and reflects the professional manpower and research capability of the University.

The distance learning programme under the Institute for Distance Education and Learning is another channel employed by UPM to train professional manpower. This programme is targeted at working people who wish to further their education. Nine new courses have been introduced bringing the total number of courses to 22, four of which are Masters courses. For year 2000,

program sarjana. Pengambilan pelajar PJJ pada tahun 2000 adalah seramai 1,943 pelajar yang menjadikan jumlah enrolmennya meningkat 26.36% kepada 10,080 pelajar berbanding 7,977 pada tahun 1999 manakala seramai 1,677 graduan berjaya dihasilkan pada tahun 2000.

Pusat Pengajian Siswazah Pengurusan Malaysia (MGSM) melalui kerjasama dengan Fakulti Ekonomi dan Pengurusan menawarkan pelbagai program pengajian siswazah dan program pembangunan eksekutif. Pada tahun 2000, MGSM telah menerima masuk seramai 198 pelajar baru yang menjadikan jumlah pelajarinya 604 orang. Program Sarjana Pentadbiran Perniagaan (MBA) merupakan program yang menjadi pilihan utama dengan jumlah pelajar seramai 364 orang.

Pusat Program Luar juga merupakan salah satu saluran bagi UPM melahirkan masyarakat berpendidikan tinggi melalui kerjasama dengan kolej-kolej swasta (IPTs). UPM telah bekerjasama dengan 30 IPTs yang mengendalikan seramai 8,483 pelajar dan Program Diploma Sains Komputer merupakan pilihan utama pelajar dengan bilangan pelajar yang paling ramai. Ini menunjukkan bahawa masyarakat semakin yakin terhadap UPM dalam mengendalikan program-program berasaskan ICT. Di samping itu, melalui program ini juga, seramai 1,943 graduan telah berjaya dihasilkan pada tahun 2000. UPM juga sentiasa memantau tahap pencapaian serta kualiti akademik IPTs bagi menjamin kualiti pelajar yang dihasilkan setaraf dengan pelajar sepenuh masa di UPM.

UPM memberi penekanan serius kepada penyelidikan sebagai pusat kecemerlangan yang akan menyumbang secara langsung kepada pembangunan industri, mencapai objektif sosioekonomi negara serta mewujudkan suasana penyelidikan yang kondusif ke arah pencapaian ilmu. Pada tahun 2000, UPM telah menerima peruntukan sebanyak RM25.62 juta untuk membiayai 509 projek penyelidikan yang merangkumi projek IRPA jangka panjang dan jangka pendek. Daripada jumlah tersebut RM2.2 juta digunakan bagi membiayai projek penyelidikan jangka pendek. UPM juga menerima peruntukan penyelidikan lain seperti dari Unit Perancang Ekonomi (EPU), Kementerian Pertanian, Kementerian Pendidikan, agensi-agensinya negeri, Petronas dan sebagainya.

Melalui kumpulan penyelidik UPM yang multidisiplin, sebahagian besar projek penyelidikan mempunyai potensi untuk dikomersilkan. Tiga projek penyelidikan telah dipatenkan sementara 12 yang lain masih dalam

1,943 students enrolled under the Distance Learning Programme bringing the total number to 10,080 from 7,977 in 1999, an increase of 26.36%. A total of 1,677 students graduated in 2000.

The Malaysian Graduate School of Management (MGSM) in collaboration with the Faculty of Economics and Management has introduced several programmes for graduates and executive development. A total of 198 students were accepted by MGSM for year 2000 bringing the enrolment to 604. Of the programmes offered by MGSM, the MBA is the most sought-after with 364 students enrolled.

The External Programme Centre serves as yet another channel for tertiary educational opportunities. This Centre is responsible for identifying suitable private tertiary colleges (IPTs) to which UPM franchises definite programmes. A total of 8,483 students have registered with 30 such colleges. The Diploma in Computer Science programme appears to be the programme of first choice – a clear indication of the need for ICT courses as well as UPM's ability to offer training in this field. This collaboration saw 1,943 students graduating in year 2000. To ensure that the IPTs maintain the academic standards that prevail on campus, UPM has instituted a monitoring system that calls for regular inspection of staff credentials and the teaching-learning environment.

As a centre of excellence, UPM has been actively involved in carrying out research that is aimed at both establishing a knowledge-seeking environment as well as meeting industry needs so as to meet the socio-economic objectives of the nation. In year 2000, UPM received an allocation of RM25.62 million for 509 projects for funding long term IRPA projects and both short term projects. Of this amount, RM 2.2 million was for short term projects. Besides these allocations, several academic staff also received grants from the Economic Planning Unit, Ministry of Agriculture, Ministry of Education, state agencies, Petronas and other bodies for specific research studies.

Several multidisciplinary group projects show commercial potential. Three such projects have already been patented and 12 others are awaiting patent rights. Meanwhile 10 products have been commercialised in collaboration with industrial undertakings.

Academic staff at UPM continued to show their excellence in research by winning both national and international awards. An academic staff of the Faculty

proses. Manakala terdapat sepuluh produk telah dikomersilkan melalui usaha sama dengan pihak industri.

Pegawai-pegawai akademik UPM terus menunjukkan kecemerlangan dalam bidang penyelidikan dengan memenangi hadiah dan anugerah di peringkat kebangsaan dan antarabangsa. Encik Husaini Omar, Pensyarah Fakulti Kejuruteraan telah memenangi pingat emas reka cipta terbaik serta anugerah reka cipta terbaik bagi negara membangun di Pameran Reka Cipta di Geneva ke-28. Beberapa lagi pegawai akademik UPM juga menerima anugerah dan pingat seperti Anugerah Langkawi ke-9 (2000) serta beberapa anugerah dalam I-TEX 2000.

Dalam usaha UPM mempertingkatkan kualiti akademiknya, pengurusan sumber manusia perlulah cekap dan terancang bagi memastikan tahap pencapaian UPM berada di landasan sebenar. Sehubungan itu, pada tahun 2000 seramai 211 orang telah dilantik mengisi jawatan kosong yang terdiri daripada 149 jawatan kumpulan pengurusan dan profesional dan 62 jawatan kumpulan sokongan. Sementara itu seramai 64 orang dalam jawatan kumpulan sokongan dilantik secara kontrak bagi memastikan kelicinan aktiviti-aktiviti yang menyokong kepada kecemerlangan akademik.

Seramai 29 kakitangan akademik telah dinaikkan pangkat, sementara 114 kakitangan telah bersara manakala 158 kakitangan telah diluluskan cuti belajar bagi melanjutkan pengajian di peringkat Sarjana dan Ph.D. UPM juga telah menganugerahkan perkhidmatan cemerlang kepada 187 kakitangan atas kecemerlangan perkhidmatan yang diberikan dalam membantu UPM dari segi pentadbiran, pendidikan, penyelidikan dan pembangunan.

Aktiviti pembangunan juga perlu bergerak aktif bagi mewujudkan keseimbangan dengan pertambahan bilangan pelajar supaya kemudahan-kemudahan yang disediakan mencukupi untuk melahirkan pelajar-pelajar yang berkualiti dan cemerlang. Sehubungan itu pelbagai projek pembangunan telah dilaksanakan sepanjang tahun 2000 dan UPM telah menerima peruntukan hampir RM152 juta di bawah peruntukan Pembangunan Rancangan Malaysia ke-7 (RMK-7). Antara projek-projek yang berjaya disiapkan dalam tahun 2000 ialah pembinaan bangunan tambahan Fakulti Ekonomi dan Pengurusan, Stadium UPM, dewan kuliah Fakulti Pengajian Pendidikan, tempat letak kereta berpusat, pembinaan tembok pagar UPM, naik taraf

of Engineering, Husaimi Omar, won a gold medal for best design in the developing countries category at the 28th Design Exhibition at Geneva. Other academic staff have also won medals at the I-TEX 2000 and the recipient of the 9th Langkawi Award was also from UPM.

In order to maintain its academic standards and to remain on the right track, UPM has drawn up plans to manage its human resource needs efficiently. In relation to this, 211 staff were appointed to various posts. Of this, 149 were in the professional and management group and 62 in the support group. A further 64 support staff were appointed on a contract basis to smoothen activities that supports academic excellence.

Twenty-nine academic staff were promoted, 158 were given study leave to pursue their Masters or Ph.D while another 114 retired. The annual Excellent Service Awards were given to 187 staff for outstanding contribution in the fields of administration, teaching, research and development.

Infrastructure development has to be in tandem with the increase in student population if we are to produce well-trained students of calibre. UPM received a RM152 million allocation under the 7th Malaysia Plan (RMK7) to undertake a number of development projects. Projects completed in 2000 include an annex to the Faculty of Economics and Management building, a Sports Stadium, a lecture hall for the Faculty of Educational Studies, a central car park, a wall fencing for UPM, renovations to the Faculty of Science and Environmental Studies and several other projects. Ongoing projects include constructions of the Engineering and Information Technology Complex, an additional building for the Faculty of Medicine and Health Sciences and upgrading of the electricity supply system for the University.

UPM has always paid particular attention to fostering linkages and establishing collaborative programmes with the industrial, private and public sectors and renown universities in the fields of education, research, technological development and IT. Towards this end, 18 MoUs were signed while a total of 35 delegations from various parts of the world came to UPM to explore areas of collaboration and cooperation.

In an effort to promote excellence in the services that it offers as well as enhance the e-learning environment through the increased use of ICT, the E-University has

bangunan Fakulti Sains dan Pengajian Alam Sekitar dan lain-lain lagi. Projek-projek dalam pembinaan pula ialah pembinaan Kompleks Kejuruteraan dan Teknologi Maklumat, bangunan tambahan Fakulti Perubatan dan Sains Kesihatan dan naik taraf bekalan elektrik di Universiti.

UPM bergerak aktif dalam memperkukuhkan hubungannya dengan pelbagai pihak melalui kerjasama dengan sektor industri, sektor swasta, sektor awam dan universiti-universiti terkemuka dari dalam dan luar negara terutamanya dalam bidang penyelidikan, pendidikan, pembangunan teknologi dan teknologi maklumat. Untuk tujuan itu UPM telah menandatangani 18 memorandum persefahaman/perjanjian kerjasama sepanjang tahun 2000. Dalam pada itu UPM juga telah menerima sebanyak 35 delegasi pelawat dari seluruh dunia yang ingin mewujudkan hubungan kerjasama dengan UPM.

Dalam usaha UPM meningkatkan kecemerlangan perkhidmatan di samping mewujudkan persekitaran e-pembelajaran serta meningkatkan penggunaan Teknologi Maklumat Komunikasi (ICT), UPM telah menubuhkan e-universiti yang bertujuan untuk mentransformasi universiti supaya dapat menjadi pusat ilmu utama dalam masyarakat antarabangsa. Pada masa yang sama juga UPM telah menubuhkan Pusat Pendidikan dan Pembangunan Komuniti (PEKA) yang bertujuan untuk mengenal pasti, merancang dan melaksana aktiviti-aktiviti penyelidikan berkaitan dengan isu-isu semasa yang mempunyai impak ke atas pendidikan dan pembangunan komuniti, pengajian belia dan pemajuan desa.

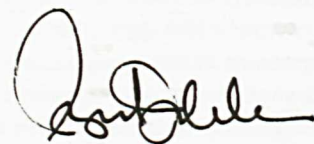
UPM juga telah menubuhkan Pusat Fermentasi di bawah Institut Biosains yang berasaskan kekuatan UPM dalam bidang sains kehidupan dan ianya membuktikan pencapaian cemerlang pengurusan penyelidikan dalam usaha memperkukuhkan bidang industri pertanian dan pemakanan teknologi tinggi.

Akhir sekali saya mengucapkan terima kasih kepada semua pihak yang telah berusaha membantu UPM mencapai kemajuannya sejajar dengan misi universiti untuk menjadi sebuah universiti yang ulung di rantau ini dalam aspek pendidikan, penyelidikan dan pembangunan.

been established. It is hoped that this move will transform the university into one of the premier institutions of learning acknowledged internationally. UPM has also set up the Educational and Community Development Centre whose objectives are to identify, plan and implement various research activities on current issues which would have an impact on the field of education and community development, youth education and rural development.

Outstanding research carried out in the life sciences has allowed for the Bioscience Institute of UPM to set up a Fermentation Centre. This is an excellent achievement by the research management in its efforts to strengthen the fields of agroindustry and high technology nutrition.

Finally, I wish to place on record my sincere appreciation and gratitude to all who have contributed in one way or other towards the accomplishment of our the mission to be a leading University in this region in the aspects of education, research and development.



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SISWAZAH

Pada tahun 2000 seramai 14,659 pelajar telah bergraduasi dan dianugerahkan ijazah serta diploma masing-masing. Secara keseluruhan, pertambahan siswazah yang bergraduasi pada tahun 2000 ialah seramai 6,920 (89.4%) pelajar berbanding dengan tahun 1999. Bilangan siswazah mengikut peringkat pengajian adalah seperti terdapat di Jadual 1.

Pengeluaran graduan ijazah pertama UPM meningkat 65.04% berbanding tahun 1999, manakala graduan siswazah meningkat sebanyak 23.55% dan graduan diploma juga meningkat sebanyak 472.8% berbanding tahun 1999.

JADUAL/TABLE 1

BILANGAN SISWAZAH MENGIKUT KATEGORI
NUMBER OF GRADUATES BY CATEGORY

	1999	2000
Doktor Falsafah Ph.D	41	59
Sarjana Masters	906	1111
Ijazah Pertama Bachelors	6233	10287
Diploma Diploma	559	3202
JUMLAH/TOTAL	7739	14659

Nota: Bilangan adalah termasuk program PJJ, Program Luar, MGSM dan KUT

Note: Includes PJJ, External Programme, MGSM and KUT graduates

Pengambilan Pelajar

Pada sesi 2000, Universiti Putra Malaysia telah mengambil seramai 11,684 pelajar dengan pecahan seperti di Jadual 2.

Secara keseluruhan, terdapat penurunan dalam pengambilan pelajar iaitu sebanyak 4,223 pelajar berbanding tahun sebelumnya. Mengikut pecahan, program siswazah menunjukkan penurunan sebanyak 25.42%, ijazah pertama menurun 17.8%, manakala diploma pula meningkat sebanyak 21.96%.

GRADUATES

In 2000, a total of 14,659 students graduated and were conferred degrees and diplomas. Generally, the number of students who graduated in 2000 increased by 6,920(89.4%) compared to 1999. The breakdown of graduates according to various study programmes is shown in Table 1

Compared to 1999, the number of first degree graduates increased to 65.04% while there was a 23.55% increase for postgraduates, and 472.8% for diploma graduates.

JADUAL/TABLE 2

PENGAMBILAN PELAJAR
STUDENT INTAKE

	1999	2000
Doktor Falsafah Ph.D	236	176
Sarjana Masters	2036	1537
Ijazah Pertama Bachelors	10393	8544
Diploma Diploma	1170	1427
Matrikulasi Matriculation	2072	-
Jumlah/Total	15907	11684

Nota: Tidak termasuk program PJJ, Program Luar, MGSM dan KUT

Note: Excludes PJJ, External Programme MGSM and KUT students

Student Intake

For the 2000 session, 11,684 students were enrolled for various programmes as shown in Table 2.

Overall, the student intake declined by 4,223 students compared to the previous year. A breakdown of figures shows a 25.42% decline for postgraduate intake and 17.8% decline for the Bachelor programme while the Diploma programme registered a 21.96% increase.

Enrolmen Pelajar

Pada tahun 2000, UPM mempunyai bilangan pelajar seramai 33,217 orang iaitu secara keseluruhannya menurun sebanyak 6.16% berbanding tahun sebelumnya. Pelajar program Doktor Falsafah meningkat sebanyak 4.39% manakala bagi program Sarjana pula peningkatan adalah sebanyak 21.63%. Enrolmen bagi program Ijazah Pertama menunjukkan penurunan sebanyak 2.2%, dan Diploma juga menunjukkan penurunan sebanyak 8.2%. Enrolmen pelajar mengikut peringkat pengajian adalah seperti di Jadual 3.

JADUAL/TABLE 3

ENROLMEN PELAJAR
STUDENT ENROLMENT

	1999	2000
Doktor Falsafah Ph.D	706	737
Sarjana Masters	3971	4830
Ijazah Pertama Bachelors	25991	25409
Diploma Diploma	2441	2241
Matrikulasi Matriculation	2154	-
Jumlah/Total	35263	33217

Nota: Tidak termasuk program PJJ, Program Luar, MGSM dan KUT
Note: Excludes PJJ, External Programmes MGSM, and KUT students

Konvokesyen

Pada tahun 2000, UPM telah mengadakan konvokesyen kali ke-24 dalam tiga sidang iaitu sidang pertama pada 19 Februari 2000, kedua antara 20-21 Julai 2000 dan ketiga antara 17 – 19 Ogos 2000. Melalui konvokesyen tersebut, seramai 139 pelajar berjaya mendapat kepujian kelas pertama, 3,359 kepujian kelas kedua tinggi, 4,553 kepujian kelas kedua rendah dan 386 pelajar ijazah kepujian kelas ketiga. UPM juga telah menganugerahkan enam Ijazah Kehormat dan satu Profesor Emeritus kepada tokoh-tokoh akademik.

Student Enrolment

For the year 2000, the student population stood at 33,217 which represents a 6.16% decline over the previous year. Ph.D. student enrolment increased by 4.39%, while for Masters there was an increase of 21.63%. Enrolment for Bachelors saw a decrease of 2.2% and Diploma decreased by 8.2%. The enrolment figures according to programmes are shown in Table 3:



Convocation

UPM's 24th Convocation in 2000 was conducted in three sessions, the first on 19 February 2000, the second from 20 – 21 July 2000, and the third from 17 – 19 August 2000. The convocation saw 139 conferred with First Class Honours, 3,359 Second Class Upper Honours, 4,553 Second Class Lower Honours and 386 Third Class Honours Degrees. This convocation also saw the conferment of six Honorary Degrees and one Professor Emeritus to renowned academicians.

PUSAT PENGAJIAN SISWAZAH

Universiti Putra Malaysia telah berjaya menarik minat pelajar daripada lebih 45 buah negara untuk mengikuti program pengajian siswazah di sini. Sehingga bulan Disember 2000, enrolmen pelajar siswazah adalah seramai 5,567 orang. Daripada jumlah tersebut, seramai 595 adalah pelajar luar negara (Jadual 4). Pecahan mengikut program pengajian (Sarjana dan Doktor Falsafah) dapat dilihat seperti di dalam Jadual 5, sementara jumlah pengambilan pelajar baru adalah seperti di Jadual 6.

JADUAL/TABLE 4

ENROLMEN PELAJAR TEMPATAN & LUAR NEGARA LOCAL AND FOREIGN STUDENT ENROLMENT

	1999	2000
Pelajar dalam negara Local students	4112	4972
Pelajar luar negara Foreign students	595	595
Jumlah/Total	4707	5567

JADUAL/TABLE 5

ENROLMEN PELAJAR SISWAZAH MENGIKUT PERINGKAT PENGAJIAN GRADUATE STUDENTS BREAKDOWN BY LEVEL OF STUDY

	1999	2000
Sarjana Masters	3971	4830
Doktor Falsafah Ph.D	736	737
Jumlah/Total	4707	5567

Dalam mempertingkatkan kualiti program pengajian siswazah pada tahun 2000, sebanyak 997 bidang pengajian di peringkat Sarjana dan Ph.D telah ditawarkan. Daripada jumlah tersebut, 162 adalah bidang baru yang kebanyakannya dalam bentuk penyelidikan. Ini menunjukkan pertambahan sebanyak 19.4% daripada tahun sebelumnya dan ia memberikan gambaran tentang pertambahan pakar serta bidang-bidang penyelidikan di UPM.

Jumlah enrolmen pada tahun 2000 menunjukkan pertambahan pelajar siswazah di UPM (Jadual 5). Program eksekutif pula terus diminati terutamanya di kalangan golongan yang bekerja. Daripada 5,567 jumlah pelajar, lebih kurang 11% adalah pelajar antarabangsa yang datang daripada 45 buah negara luar (Jadual 4). Kejayaan ini merupakan sebahagian sumbangan promosi yang dilakukan di dalam dan juga di luar negara (Jadual 7). Tambahan pula, beberapa Memorandum Persefahaman yang telah ditandatangani antara UPM dengan beberapa organisasi luar seperti Kementerian

GRADUATE STUDIES CENTRE

Universiti Putra Malaysia has been successful in drawing graduates from 45 countries for its graduate studies programmes. Up to December 2000, the graduate enrolment totalled 5,567 students. Of this, 595 were foreign students (Table 4). The breakdown according to level of programmes (Ph.D. and Masters) is shown in Table 5, while the new intake of students is shown in Table 6.

JADUAL/TABLE 6

PENGAMBILAN PELAJAR SISWAZAH GRADUATE STUDENT INTAKE

	1999	2000
Sarjana Masters	2036	1537
Doktor Falsafah Ph.D	236	176
Jumlah/Total	2272	1713

In an effort to give breadth and depth to the graduate studies programmes, a total of 997 areas of study at Masters and Ph.D levels were offered. Of this, 162 were new disciplines which were mainly research based. This is an increase of 19.4% over the previous year and is an indication of an increase in expertise and research disciplines in UPM.

The total enrolment for 2000 shows an increase in graduate students (Table 5). The executive programmes drew increased interest from working executives. Of the 5,567 postgraduate students, about 11% are foreign students drawn from over 45 countries (Table 4). The success is partly due to the promotional and marketing activities conducted overseas and locally (Table 7). In addition, a number of MoUs signed with external organisations like the Ministry of Jihad-e-Sazandegi of Iran and University of Joensuu of Finland also assisted in attracting foreign students to Universiti Putra Malaysia.

JADUAL/TABLE 7

PAMERAN YANG TELAH DISERTAI EXHIBITIONS PARTICIPATED

Nama Pameran dan Lokasi Exhibitions and Locations	Tarikh Date
Gulf Higher Education Exhibition, Muscat, Oman	29 April - 2 Mei 2000
South Africa International Education Exhibition, Galagher Estate, Midrand	28 September -1 October 2000
Pameran Pendidikan Program Pascasarjana 2000 - Jakarta, Indonesia	2 - 4 November 2000
Middle East Education Fair 2000, Dubai, UAE	15 - 17 November 2000
Pakistan International Education Exhibition 2000, Rawalpindi, Lahore, Karachi, Pakistan	19 - 23 November 2000

Jahad-e-Sazandegi dari Iran dan University of Joensuu dari Finland telah membantu menarik kemasukan pelajar luar ke UPM.

Pada tahun 2000, terdapat sejumlah 1,170 graduan pascasiswazah daripada pelbagai disiplin pengajian termasuk sains dan teknologi serta sains sosial (Jadual 8). Majoriti graduan adalah daripada peringkat pengajian Sarjana. Ini menunjukkan pertambahan sebanyak 134% berbanding tahun 1999.



INSTITUT PENDIDIKAN DAN PEMBELAJARAN JARAK JAUH (PJJ)

Pada tahun 2000, sembilan program baru diperkenalkan oleh IDEAL menjadikan jumlah yang ditawarkan ialah 22 program. Program-program tersebut ialah:

- Bacelor Sains Pembangunan Manusia
- Bacelor Sains Pembangunan Sumber Manusia
- Bacelor Pentadbiran Perniagaan
- Bacelor Sains (Kepujian) Kimia
- Bacelor Sains (Kepujian) Biologi
- Bacelor Sains (Kepujian) Pendidikan (Kimia)
- Bacelor Sains (Kepujian) Pendidikan (Biologi)
- Sarjana Sains (PBMP)
- Sarjana Sastera (Bahasa Melayu)

For the year 2000, the total number of postgraduate students enrolled in various disciplines including social science and science and technology were 1,170 (Table 8). More than a half of these students were Masters students. This constitutes a 134% increase compared to 1999.

JADUAL/TABLE 8

PECAHAN BILANGAN GRADUAN MENGIKUT PROGRAM PENGAJIAN GRADUATE STUDENTS BREAKDOWN BY PROGRAMME

	1999	2000
Doktor Falsafah Ph.D	26	59
Sarjana Sains Master in Science	324	724
Sarjana Ekonomi Master in Economics	11	30
Sarjana Sains Pertanian Master in Agricultural Science	2	10
Sarjana Sastera Master in Arts	51	124
Sarjana Alam Sekitar Master in Environmental Studies	16	34
Sarjana Pengurusan Master in Management	30	-
Sarjana Pentadbiran Perniagaan Master in Business Administration	41	169
Sarjana Senibina Landskap Master in Landscape Architecture	-	19
Diploma Lepas Ijazah Reproduksi Postgraduate Diploma in Reproduction	501	1170

Nota: Termasuk graduan PJJ dan MGSM
Notes: Includes PJJ and MGSM graduates

INSTITUTE FOR DISTANCE EDUCATION AND LEARNING (IDEAL)

In 2000, the Distance Education and Learning Institute (PJJ) offered nine new programmes bringing the total number of programmes to 22. The new programmes offered were:

- Bachelor of Science (Human Development)
- Bachelor of Science in Human Resource Development
- Bachelor of Business Administration
- Bachelor of Science (Honours) Chemistry
- Bachelor of Science (Honours) Biology
- Bachelor of Science (Honours) Education (Chemistry)
- Bachelor of Science (Honours) Education (Biology)
- Masters in Science (PBMP)
- Masters in Arts (Bahasa Melayu)

Pengambilan Pelajar

IDEAL mengikuti sistem semester yang diamalkan oleh pihak Universiti. Sesi akademik ini dibahagikan kepada sistem Semester Mei dan Semester November. Seramai 1,487 pelajar mendaftar untuk sesi kemasukan Mei 2000 dan 456 pelajar bagi sesi kemasukan November 2000. (Jadual 9) menjadikan keseluruhan pelajar IDEAL adalah seramai 10,080 orang (Jadual 10).

JADUAL/TABLE 9
PENGAMBILAN PELAJAR IDEAL
IDEAL STUDENT INTAKE

	1999	2000
Ijazah Pertama Degree	2892	1788
Sarjana Masters	141	155
Jumlah/Total	3033	1943

Siswazah

IDEAL menawarkan empat program peringkat siswazah. Program-program yang ditawarkan ialah Sarjana Sains Pembangunan Sumber Manusia, Sarjana Sains Komunikasi Korporat, Sarjana Sains (PBMP) dan Sarjana Sastera (Bahasa Melayu).

Pada sesi 2000, IDEAL telah mengambil seramai 155 pelajar peringkat siswazah yang menjadikan bilangan pelajar siswazah yang berdaftar dengan IDEAL adalah seramai 548 pelajar iaitu 5.4% daripada keseluruhan pelajar IDEAL. Program Sarjana Sains Pembangunan Sumber Manusia merupakan program yang paling ramai bilangan pelajarinya iaitu 80.5% daripada keseluruhan program peringkat siswazah yang ditawarkan oleh IDEAL.

Tempoh untuk bergraduat bagi pelajar siswazah adalah selama dua tahun. Sehingga tahun 2000, seramai 90 pelajar dari Program Sarjana Sains Pembangunan Sumber Manusia telah bergraduat. Di samping itu, IDEAL juga telah berjaya melahirkan seramai 1,587 graduan daripada program Bacelor Pendidikan (PBMP), (B&K), (TESL) dan Bacelor Sains Komputer. Pecahan bilangan pelajar mengikut program pengajian adalah seperti terdapat di Jadual 11.

Student Intake

IDEAL implemented the semester system where the academic sessions are divided into the May and November semesters. 487 students registered for the May and 456 students for the November semesters (Table 9) bringing the total enrolment to 10,080 students (Table 10).

JADUAL/TABLE 10
ENROLMEN PELAJAR IDEAL
IDEAL STUDENT ENROLMENT

	1999	2000
Ijazah Pertama Degree	7621	9532
Sarjana Masters	356	548
Jumlah/Total	7977	10080

Postgraduate

IDEAL offers four postgraduate programmes viz. Masters in Human Resources Development, Masters in Corporate Communication, Masters in Science (PBMP) and Masters in Arts (Bahasa Melayu).

The 2000 session saw 155 graduate students enrolled at IDEAL bringing the total to 548, or 5.4% of the total IDEAL students. The Masters in Science (Human Resource Development) is the most sought-after with 80.5% of the graduate population in this programme.

Graduate studies in IDEAL are conducted over a two-year period. As of 2000, 90 students have graduated with Masters in Science (Human Resource Development), 1,587 in Bachelor of Education (PBMP), (B&K), (TESL) and Bachelor of Computer Science. The breakdown of students pursuing various programmes is shown in Table 11.

JADUAL/TABLE 11
BILANGAN PELAJAR IDEAL MENGIKUT PROGRAM
NUMBER OF IDEAL STUDENTS BY PROGRAMME

Sarjana Sains Pembangunan Sumber Manusia M.Sc in Human Resource Development	90
Bacelor Pendidikan (PBMP) Bachelor in Education (PBMP)	1014
Bacelor Pendidikan (TESL) Bachelor in Education (TESL)	222
Bacelor Pendidikan (B & K) Bachelor in Education (B&K)	343
Bacelor Sains Komputer Bachelor in Computer Science	8
Jumlah/Total	1677

PUSAT PENGAJIAN SISWAZAH PENGURUSAN MALAYSIA (MGSM)

Melalui kerjasama dengan Fakulti Ekonomi dan Pengurusan UPM, MGSM menawarkan pelbagai program pascasiswazah dan Program Pembangunan Eksekutif. Pada tahun 2000, MGSM telah menerima masuk seramai 198 pelajar baru. Setakat Trimester September 2000, MGSM mempunyai seramai 604 pelajar (Jadual 12)

Aktiviti

Antara aktiviti-aktiviti yang telah dijalankan dalam tahun 2000 adalah seperti berikut:

- Kunjungan pelawat yang terdiri daripada Profesor-profesor dari Perancis ke MGSM untuk mengajar beberapa kursus yang ditawarkan bagi program MBA (Euro-Asia).
- Profesor Mohd. Zain Mohamed dilantik sebagai Profesor Pelawat di Universiti Mauritius selama tiga minggu untuk mengajar Kaedah Penyelidikan Perniagaan kepada pelajar program MBA dan Sarjana Sains.
- Encik Jean Claude Cuzzi, Setiausaha Agong dan Encik Joel Rateau, Pengarah Pembangunan daripada Yayasan Pendidikan Pengurusan Perancis (FNEGE) telah melawat MGSM untuk memilih calon bagi kemasukan kedua program MBA (Pengurusan Euro-Asia) pada bulan April dan November 2000.
- Profesor Dwight Merunka, Aix-en-Provence Graduate School of Management, Universiti Aix-Marseille, melawat MGSM untuk memilih calon bagi kemasukan kedua bagi program MBA (Pengurusan Euro-Asia) pada bulan April 2000.
- Menubuhkan Pusat E-Inovasi yang bertujuan untuk menjalankan aktiviti-aktiviti penyelidikan dan perundingan dalam bidang perdagangan elektronik dan inovasi dalam k-ekonomi. Profesor Han Chun Kwong dilantik sebagai Pengarah Pusat.
- Menganjurkan ceramah bertajuk 'Financial Markets and Banking System in China' oleh Profesor Ma Yehua dari Shanghai Jiao Tong University, Shanghai.
- Melantik Encik Mehraz Booklay sebagai Prof. Madya Pelawat dari University of Mauritius untuk mengajar kursus 'Pengurusan Pemasaran' bagi program MBA.

MALAYSIAN GRADUATE SCHOOL OF MANAGEMENT (MGSM)

MGSM in collaboration with the Faculty of Economics and Management offers several postgraduate and Executive Development Programmes. For year 2000, intake figures stood at 198 while the enrolment as of September 2000 Trimester was 604 students (Table 12).

JADUAL/TABLE 12

PENGAMBILAN DAN ENROLMEN PELAJAR MGSM (2000) MGSM STUDENT INTAKE AND ENROLMENT (2000)

Bil. No.	Kemasukan Intake	Enrolmen Enrolment
Sarjana Pentadbiran Perniagaan MBA	158	364
Sarjana Pengurusan Masters in Management	18	130
Sarjana Sains M Sc	12	46
Doktor Falsafah Ph. D	10	64
JUMLAH/TOTAL	198	604

Activities

- Visiting Professors from France taught courses offered for the MBA (Euro-Asia) programme students.
- Professor Mohd. Zain Mohamad was appointed Visiting Professor at University of Mauritius for a 3-week period to teach Business Research Methodology in the MBA and Masters in Science programmes.
- Mr Jean Claude Cuzzi, Secretary General and Mr. Joel Rateau, Director of Development, FNEGE (France) paid a visit to MGSM to select a candidate for the 2nd MBA programme (Euroasia Management) for the April and November 2000 session.
- Professor Dwight Merunka, Aix-en-Provence Graduate School of Management, University Aix-Marseille had a session for the selection of the second intake of MBA (Euro-Asia) programme students on April 2000
- The E-Innovation Centre was established with the objective of carrying out research activities and offering consultancy services in electronic trade and innovation for the K-Economy. Prof. Han Chun Kwong was appointed Director of the E-Innovation Centre.
- Organised a lecture on "Financial Markets and Banking System in China" by Prof. Ma Yehua from Shanghai Jiao Tong University, Shanghai.

- Menganjurkan ceramah eksklusif oleh bekas Naib Presiden L'Oréal, Perancis, Mr. Robert Marc Salmon, selama tiga hari di Hotel Pan Pacific, Kuala Lumpur.
- "Malam Anugerah Dekan" telah diadakan bagi meraikan 87 pelajar yang mencapai purata mata timbunan (GPA) melebihi 3.75
- Menganjurkan program Pengurusan Atasan Komanwel bertemakan "E-Perdagangan dan E-Kerajaan: Transformasi ke Arah Ekonomi Berpengetahuan" di adakan di Pulau Pinang. Seramai 19 pegawai tinggi dari 13 negara Komanwel telah menyertai program tersebut.

PUSAT PROGRAM LUAR (PPL)

Bilangan IPTS yang bekerjasama dengan UPM dan bilangan pelajar yang mengikuti program kerjasama UPM semakin bertambah. Pada tahun 2000 sebanyak 30 IPTS telah bekerjasama dengan UPM manakala sebanyak tujuh IPTS lagi telah diluluskan untuk menjalani program kerjasama. Seramai 8,843 pelajar telah berdaftar untuk pelbagai program. Program Diploma Sains Komputer mempunyai bilangan pelajar terbesar. Seramai 1,493 pelajar program kerjasama UPM telah bergraduat pada tahun 2000 dan graduan-graduan ini menyertai majlis konvokesyen yang sama untuk graduan-graduan kampus induk UPM.

Prestasi Akademik

Secara keseluruhan prestasi akademik pelajar IPTS adalah memuaskan. Statistik keputusan peperiksaan Semester Mei 2000 menunjukkan hanya sebilangan kecil pelajar (Diploma: 3.5%; Bacelor: 1.1%) mendapat status Gagal Berhenti (GB). Beberapa graduan Diploma program kerjasama telah berjaya melanjutkan pengajian di peringkat Bacelor di kampus induk UPM (Jadual 13 & 14).

JADUAL/TABLE 13

IPTS ENROLMEN PELAJAR MENGIKUT KUMPULAN ETNIK IPTS STUDENT ENROLMENT BY ETHNIC GROUP

KUMPULAN ETNIK ETHNIC GROUP	PROGRAM DIPLOMA DIPLOMA PROGRAMME (%)	PROGRAM BACELOR BACHELOR PROGRAMME (%)
Bumiputera	83.2	68.5
Bukan Bumiputera Non-Bumiputera	16.8	31.5

- Appointed Mr. Mehrz Boolaky from University of Mauritius, as Visiting Associate Professor to lecture the Marketing Management course in the MBA programme
- Organised an exclusive 3-day lecture session by former Vice-president L'oreal, France, Mr. Robert Marc Salmon, at the Pan Pacific Hotel, Kuala Lumpur.
- Organised the Dean's Award Night to honour 87 students who attained a GPA average of 3.75 and above.
- Organised the Top Commonwealth Managers programme themed "E-Commerce and E-Government: Transformation Towards K-Economy", held in Penang. Nineteen top officials from 13 Commonwealth countries participated in this event.

EXTERNAL PROGRAMME CENTRE (PPL)

The collaboration between UPM and IPTS has seen an increase in the number of students enrolled in the various academic programmes. 30 IPTS collaborated with UPM in 2000 and seven were approved to conduct collaborative programmes. A total of 8,483 students were enrolled under various franchised programmes with the Diploma in Computer Science programme having the most number of students. A total of 1,493 of these students had graduated in 2000 and attended the convocation ceremony with the main campus students at UPM.

Academic Performance

The overall academic performance of the IPTS students was satisfactory. Examination statistics for the May semester 2000 show a small number (Diploma 3.5%; Bac: 1.1%) in Fail/Dismissed (GB) category with a sizeable number of Diploma graduands continuing on to Bachelor programmes at the main UPM campus (Tables 13 & 14).

JADUAL/TABLE 14

STATISTIK PENILAIAN IPTS BAGI SEMESTER MEI DAN NOVEMBER 2000 IPTS EVALUATION STATISTICS FOR MAY AND NOVEMBER 2000 SEMESTERS

PROGRAM PROGRAMME	LULUS PASS (%)	AMARAN WARNING (%)	PERCUBAAN CONDITIONAL (%)	GAGAL/ BERHENTI FAIL/DISMISSED (%)
Semua Program Diploma All Diploma Programmes	86.0	6.3	4.2	3.5
Semua Program Bacelor All Bachelor Programmes	97.0	1.0	0.9	1.1

UNIT PERUMAHAN PELAJAR

Pada tahun 2000, Unit Perumahan Pelajar telah menyelaraskan penempatan seramai 15,629 pelajar (57%), yang melibatkan 5,376 pelajar lelaki dan 10,253 pelajar perempuan. Kesemua mereka ditempatkan di 14 kolej.

Manakala seramai 12,039 pelajar (43%) merupakan pelajar luar kampus yang tinggal di sekitar Seri Serdang, Seri Kembangan, Taman Universiti Indah dan Desa Serdang.

UNIT KEWANGAN PELAJAR

Di sepanjang tahun 2000, terdapat lebih kurang sembilan badan kerajaan dan swasta telah menyediakan bantuan kewangan dalam bentuk biasiswa dan pinjaman.

Pinjaman Tabung Pendidikan Tinggi Negara (PTPTN) merupakan penyumbang terbesar iaitu dengan peruntukan sebanyak 7,168 orang diikuti oleh Kementerian Pendidikan Malaysia (KPM) dan Jabatan Perkhidmatan Awam (JPA) masing-masing sebanyak 635 dan 34 orang. Syarikat-syarikat lain yang turut menyumbang ialah Petronas (18), Chung Hwa Picture Tubes (2), Sime Darby Plantations (3), Maybank (5), High Commission of India (5) dan Golden Hope Plantations (3).

Keseluruhan pelajar baru yang ditawarkan bantuan biasiswa dan pinjaman bagi tahun 2000 adalah sebanyak 8,153 orang.

PUSAT SUKAN

Sukan antara Universiti (SUKMAS)

Sebanyak tujuh acara sukan telah dipertandingkan. Fasa 1 telah menunjukkan keunggulan pasukan olahraga Universiti Putra Malaysia dengan kutipan pingat sebanyak 29 emas, 12 perak dan 4 gangsa.

STUDENTS ACCOMMODATION UNIT

For the year 2000, the Students Accommodation Unit coordinated the placement of 15,629 students (57%) - 5,376 male and 10,253 female students in 14 residential colleges.

Another 12,039 students (43%), were students living outside the campus around Seri Serdang, Seri Kembangan, Taman Universiti Indah and Desa Serdang.

STUDENT FINANCE UNIT

Nine government bodies and private institutions provided financial assistance either in the form of scholarships or loans. The National Higher Education Loan Board (PTPTN) is the largest loan disbursing organisation which gave out loans to 7,168 students followed by the Ministry of Education which gave loans to 635 and Public Services Department to 34 students. Other private organisations which disbursed loans were Petronas (18), Chung Hwa Picture Tubes (2), Sime Darby Plantations (3), Maybank (5), High Commission of India (5) and Golden Hope Plantations (3).

This brings the total number of new students who were awarded scholarships and financial assistance in 2000 to 8,153.

SPORTS CENTRE

Inter-Varsity Games (SUKMAS)

Seven events were contested in the games. In the first phase the UPM athletic teams showed their prowess by winning 29 gold, 12 silver and four bronze medals.

In the second phase held at University Malaya from 9 – 12 November 2000, four events were contested. Universiti Putra Malaysia again showed her superiority in swimming winning 15 gold, 6 silver and 6 bronze medals to emerge the overall champion. UPM also emerged the champions in the women's Netball and Volleyball events.

Manakala Fasa 2 pula telah diadakan pada 9-12 November 2000 bertempat di Universiti Malaya. Pada Fasa 2 ini sebanyak empat acara sukan telah dipertandingkan.

Dalam pertandingan ini, Universiti Putra Malaysia telah membuktikan kehebatannya dalam acara renang apabila pasukan Universiti Putra Malaysia berjaya mengutip 15 pingat emas, 6 perak dan 6 gangsa, sekaligus menjadi johan dalam acara tersebut. Kehebatan ini diteruskan lagi dalam acara bola jaring dan bola tampar wanita apabila sekali lagi Universiti Putra Malaysia mendapat tempat pertama.

Dalam SUKMAS Fasa 3 yang diadakan di Universiti Teknologi Malaysia (UTM), Skudai (16 - 19 November 2000) sebanyak sembilan acara sukan dipertandingkan.

Universiti Putra Malaysia sekali lagi muncul johan bagi acara memanah wanita dan bola lisut lelaki, menjadi Naib Johan bagi acara badminton wanita, sepaktakraw dan memanah lelaki. Manakala bagi acara badminton lelaki, skuasy lelaki, skuasy wanita dan bola lisut wanita hanya mampu meraih tempat ketiga.

Keseluruhan kedudukan SUKMAS 2000, Universiti Putra Malaysia hanya mampu menduduki tempat ketiga di belakang Universiti Institut Teknologi Malaysia dan Universiti Malaya.

Kejohanan Antara Kolej

Kejohanan ini melibatkan sebanyak tiga fasa apabila Fasa 1 bermula pada Jun 2000 dan berakhir dengan Fasal 3 pada penghujung bulan Ogos 2000. Sebanyak 25 acara sukan padang dan gelanggang telah dipertandingkan. Kolej Tun Dr. Ismail telah muncul sebagai johan keseluruhan.

Majlis Anugerah Sukan, Universiti Putra Malaysia Ke-19

Majlis Anugerah Sukan Unviersiti Putra Malaysia telah diadakan bagi meneruskan rasa ucapan penghargaan dan penghormatan Universiti terhadap sumbangan ahli-ahli sukan kepada universiti.

Pada kali ini, Jawatankuasa Pemilih telah memilih Noraseela binti Mohd. Khalid dari sukan olahraga sebagai Olahragawati dan Tan Koh Lim juga dari sukan olahraga sebagai Olahragawan Universiti Putra Malaysia.



The third phase of the competition was held at Universiti Teknologi Malaysia (UTM) Skudai from 16 - 19 November 2000 where nine events were contested. Here, UPM emerged the champions in women's Archery and men's Softball events, runner-up in women's badminton, and men's Sepaktakraw and Archery. In the men's badminton, squash for both men and women and women's softball, UPM won bronze medals. The University's overall position was third, behind UTM and UM.

Inter-college Games

Inter-college games were scheduled in three phases beginning with the first phase in June 2000 and with the third phase in August 2000. A total of 25 field and court events were contested and Tun Dr. Ismail College emerged the overall champion.

19th UPM's Sports Award Ceremony

This ceremony was held to honour UPM students who had excelled in sporting events. Athletes, Noraseela binti Mohd. Khalid and Tan Koh Lin, were nominated Sportswoman and Sportsman of Universiti Putra Malaysia respectively.



Kejohanan-kejohanan Terbuka

- Sukan Malaysia Kali Ke-8 di Pulau Pinang
- Kejohanan Sukan Sirkuit Pertama (MASUM)
- Kejohanan Hoki Terbuka Universiti Sains Malaysia (USM) di Pulau Pinang

Aktiviti

- Lawatan Sambil Belajar Kelab Bola Keranjang, Universiti Putra Malaysia ke Universiti Prince of Songkhla, Thailand pada 12– 14 Oktober 2000.
- Kejohanan Sepak Takraw Bakat Baru Terbuka Universiti Putra Malaysia pada 27 Ogos 2000
- Kem UPM Gemilang 2000 pada 29 Oktober hingga 3 November 2000 di kampus Universiti Putra Malaysia

UNIT PEMBANGUNAN SAHSIAH PELAJAR

Unit ini bertanggungjawab memproses segala permohonan daripada persatuan, kelab dan kumpulan pelajar bagi mengadakan kegiatan-kegiatan atau projek di dalam dan di luar negara, menyelaras pilihan raya pelajar untuk Majlis Perwakilan Pelajar, aktiviti pakaian seragam, minggu suai kenal dan sebagainya (Jadual 15).



Open Championships

- 8th Malaysia Games in Penang
- 1st Circuit Sports Championships (MASUM)
- USM Open Hockey Championships in Penang

Activities

- Study visit by Basketball Club to University of Prince of Songkhla, Thailand from 12 – 14 October 2000.
- Novices Open Sepaktakraw Championships, Universiti Putra Malaysia, 27 August 2000.
- Excellent UPM 2000 Camp from 29 October to 3 November at Universiti Putra Malaysia campus.

STUDENT DEVELOPMENT UNIT

This unit is responsible for processing all requests by societies, clubs and student groups for organising activities and projects both within and overseas, as well as coordinating student elections for the Students Representative Council, uniformed activities, orientation etc. (Table 15).

JADUAL/TABLE 15

JENIS-JENIS DAN JUMLAH AKTIVITI SEPANJANG TAHUN 2000
CATEGORY AND NUMBER OF ACTIVITIES FOR YEAR 2000

Bil. No.		Jumlah Aktiviti No. of Activities
1	Seminar/Bengkel Seminar/Workshop	50
2	Rekreasi Recreation	49
3	Pameran/Promosi Exhibition/Promotion	38
4	Lawatan Sambil Belajar Study Tour	38
5	Motivasi Motivation	37
6	Jamuan/Keraian Receptions	55
7	Kepimpinan Leadership	50
8	Kerohanian Spiritual	28
9	Khidmat Masyarakat Community Services	39
10	Sukan Sports	45
JUMLAH/TOTAL		429

Aktiviti Kokurikulum Berkredit

Aktiviti kokurikulum berkredit seperti mana yang telah diluluskan oleh Senat Universiti diteruskan dengan rancangannya. Dengan moto 'FUN CHALLENGING AND LOOKING FORWARD', maka pada tahun 2000 sebanyak 27 kursus telah ditawarkan.

UNIT KEBUDAYAAN

Unit Kebudayaan sebagai salah satu komponen di dalam Bahagian Hal Ehwal Pelajar ini, berusaha mewujudkan suasana harmonis dan perpaduan di kalangan mahasiswa melalui kegiatan kebudayaan. Usaha ini selaras dengan aspirasi Dasar Kebudayaan Kebangsaan yang ingin mewujudkan satu kebudayaan nasional berasaskan kebudayaan asli rakyat rantau ini dengan menyerapkan unsur-unsur kebudayaan lain yang sesuai dan menjadikan Agama Islam elemen terpenting dalam penglibatan kebudayaan kebangsaan.

Aktiviti penting yang berlangsung pada tahun ini adalah Program Cabaran Jalur Gemilang dan Program Selamat Pagi Malaysia.

UNIT ALUMNI

Unit Alumni (HEP) telah ditubuhkan secara rasminya pada tahun 1999 dengan tujuan mewujudkan perhubungan akrab dan berterusan antara alumni Universiti Putra Malaysia, Persatuan Alumni UPM dan organisasi tempatan dan antarabangsa. Unit ini berperanan untuk menanam semangat kecintaan dan 'frateniti' serta perasaan bangga terhadap alma mater (UPM) di kalangan pelajar dan bakal graduan melalui beberapa program yang dirancang secara tahunan. Unit juga berperanan untuk menyediakan platform bagi perkongsian pengalaman bersama alumni dalam mengadakan program yang boleh membantu kerjaya pelajar serta latihan industri dan penempatan. Satu kajian menjejaki alumni telah dimulakan bagi mengesan alumni UPM dan memperkemaskini alamat dan mengesan kejayaan dalam kerjaya masing-masing. Maklumat ini adalah asas kepada pengkalan data yang akan dibangunkan. Beberapa program telah dijalankan pada tahun 2000 adalah seperti berikut:

Publisiti dan Imej Alumni

Bagi memastikan kewujudan unit ini diketahui oleh semua warga di dalam dan di luar kampus, satu usaha publisiti dan membangunkan imej alumni telah

Co-curricular Activities with Credits

Senate approved co-curricular activities with credit points saw active participation from students. 27 courses were offered for the year 2000 with the motto 'FUN, CHALLENGING AND LOOKING FORWARD'

CULTURAL UNIT

The Cultural Unit of the Student Affairs Division attempts to build a harmonious atmosphere and unity among the student population through various activities in line with the aspirations of the National Cultural Policy, that is, a national culture with values compatible with Islamic culture. Some of the more important programmes conducted for the year were *Good Morning Malaysia Program* and *Jalur Gemilang Challenge Program*.



ALUMNI UNIT

The Alumni Unit (HEP), was established in 1999, with the primary objective of establishing a partnership and developing an ongoing relationship between UPM and Alumni Associations and local and overseas organisations. This unit is also responsible for inculcating the fraternity spirit and sense of pride for the alma mater through the programmes organized annually. Additional roles include providing a platform for alumni UPM to share experiences and develop programmes to assist students in their career pathways. A tracer study has been conducted by this office to trace UPM alumni in our efforts to update their addresses.



dilaksanakan oleh pejabat ini dengan mencetak brosur dan membuat laman web alumni. Segala berita berkaitan alumni disebar kepada komuniti kampus melalui *Tribun Putra* dan *Buletin Universiti* dan kepada pihak luar melalui lamanweb yang telah dibangunkan [Http://www.alumni.upm.edu.my](http://www.alumni.upm.edu.my)

Yayasan Pak Rashid

Yayasan Pak Rashid (YPR) ditubuhkan sebagai usaha mengenang dan mengabadikan jasa Allahyarham Tuan Haji (Dr.) Mohd. Rashid bin Ahmad atau Pak Rashid kepada pembangunan Kolej Pertanian Malaya dan Universiti Pertanian Malaysia. Penubuhan Yayasan Pak Rashid adalah bertujuan untuk menggalak dan memajukan pendidikan, penyelidikan, penyebaran ilmu dan pembangunan program dalam bidang pendidikan di UPM. Pelancaran YPR telah disempurnakan oleh Canselor UPM, Tuan Yang Terutama Tun Dato' Seri (Dr.) Hamdan Sheikh Tahir di Dewan Merak Kayangan, Balai Felda pada 17 November 2001

Program Kerjaya dan Keusahawanan

Program alumni yang dilaksanakan adalah untuk mendapatkan sumbangan perkongsian khususnya daripada alumni UPM bagi mempertingkatkan pembelajaran dan membuka laluan kerjaya serta memberi peluang graduan memantapkan diri. Antara program yang telah dilaksanakan ialah:

- Bengkel "GET THAT JOB"
- Temuduga dalam kampus
- Minggu Kerjaya

This information is part of the data base developed by this Unit. Other programmes and activities carried out by Alumni in 2000 are as follows:

Publicity and Image of Alumni

In an effort to publicize alumni within and outside the campus, the unit printed brochures and developed a website. News and activities of the alumni are communicated to the campus community through the *Putra Tribune and University Bulletin* and nationally and globally through its website: <http://www.alumni.upm.edu.my>

Pak Rashid Foundation

Universiti Putra Malaysia has established a trust known as Yayasan Pak Rashid (YPR) to honor the late Tuan Haji (Dr.) Mohd Rashid bin Ahmad (affectionately known to his students and friends as Pak Rashid) for his contribution to College of Agriculture, Malaya and for his pioneering efforts in the establishment of University Pertanian Malaysia. The primary objective of the YPR is the promotion and advancement of education, research, dissemination of knowledge and development programmes. The trust was officially launched by the UPM Chancellor Tuan Yang Terutama Tun Dato' Seri (Dr.) Hamdan Sheikh Tahir on 17 November 2000 at the Merak Kayangan Hall, Balai Felda, Kuala Lumpur.

- Bengkel Kepimpinan GE-Mc Kinsey Leadership Programme
- SIFE Seminar 2000
- Penempatan Kerjaya dalam Industri/Organisasi luar
- Mengemas kini data kerjaya graduan
- Kajian 'Tracer'

PUSAT KESIHATAN PELAJAR

Pada tahun 2000, Pusat Kesihatan Pelajar menerima kedatangan pesakit seramai 57,538 orang. Dari jumlah di atas, 50,907 kedatangan pesakit dikendalikan oleh Klinik Perubatan dan 6,631 kedatangan pesakit dikendalikan oleh Klinik Pergigian.

Kedatangan harian pesakit ke Klinik Perubatan dari hari Isnin ke hari Sabtu adalah antara 213 orang ke 384 orang, manakala di Klinik Pergigian kedatangan pesakit adalah antara 30 – 35 orang.

Di Klinik Perubatan, lima morbiditi utama kedatangan pesakit ialah:

• Penyakit sistem pernafasan	-	19,384	(43.12%)
• Penyakit kulit	-	4,859	(9.79%)
• Kecederaan	-	4,404	(9.27%)
• Penyakit sistem pemakanan	-	3,282	(7.30%)
• Penyakit berjangkit	-	2,700	(6.01%)

Klinik Perubatan juga telah melakukan 1,753 pembedahan kecil dan 'dressing'; 2,287 X-ray, 308 Elektrokardiogram, 1,985 suntikan dan pelalian, 412 sesi fisioterapi, 161 rawatan nebulizer dan 13,479 ujian makmal.

Seramai 745 pesakit telah dirujuk ke hospital dan seramai 113 pelajar dimasukkan ke hospital. Seramai 614 pesakit mendapat rawatan disebabkan kecederaan kemalangan jalan raya dan 155 orang lagi mendapat rawatan disebabkan kecederaan sukan.

Di Klinik Pergigian, lima rawatan utama ialah:

• Tampilan gigi	-	3,263	(37.47%)
• Bersih gigi (scaling)	-	2,077	(23.85%)
• Cabut gigi	-	564	(6.4%)
• Rawatan gusi bengkak	-	447	(5.13%)
• Rawatan salur akar	-	85	(0.97%)

Career and Entrepreneurship Programmes

Alumni office organized programmes to benefit current and graduating students by leveraging on the experiences of successful alumni supporting the academic and their career pathways. Among the various programmes organized and participated by students and alumni were as follows:

- 'Get That Job' workshop
- On-Campus interview
- Career week
- GE-Mckinsey Leadership Programme – Workshop
- SIFE Seminar 2000
- Career Placement in Industries/Organisations
- Graduate Career Data Update
- 'Tracer' study

STUDENT HEALTH CENTRE

The Student Health Centre received 57,538 patients in 2000. Of this, 50,907 were treated at the Health Clinic and 6,631 at the Dental Clinic. Between 213 to 384 patients visited the Health Centre, while 30 – 35 patients visited the Dental clinic daily from Monday to Saturday.

Reasons for visiting the Health Clinic fall into five main categories:

• Respiratory problems	-	19,384	(43.12%)
• Skin diseases	-	4,859	(9.79%)
• Injuries	-	4,404	(9.27%)
• Digestive system diseases	-	3,282	(7.30%)
• Contagious diseases	-	2,700	(6.01%)

The Health Clinic also carried out 1,753 minor surgeries and dressing; 2,287 X-rays; 308 electrocardiograms; 1,985 injections and vaccinations; 412 physiotherapy sessions; 161 Nebulizers treatments; and 13,479 laboratory tests.

A total number of 745 patients were referred to hospitals and 113 were admitted, while 614 were treated for road related accidents, and 155 were treated for sports-related injuries.

The Dental Clinic treated 5 major treatments:

• Fillings	-	3,263	(37.47%)
• Scaling	-	2,077	(23.85%)
• Extraction	-	564	(6.47%)
• Gum problems	-	447	(5.13%)
• Root canal treatment	-	85	(0.97%)

UNIT KAUNSELING

Sepanjang tahun 2000, seramai 352 klien telah hadir mendapatkan perkhidmatan kaunseling (Jadual 16). Kategori pengajian merupakan masalah utama pelajar yang sebahagian besarnya adalah pelajar tahun pertama pengajian.

Sesi Kaunseling

Sepanjang tahun 2000, seramai 218 pelajar telah hadir bagi mendapatkan perkhidmatan secara berkelompok, manakala seramai 253 lagi menjalani kaunseling individu. Sebahagian besar pelajar yang mendapatkan perkhidmatan ini terdiri daripada pelajar perempuan iaitu 267 orang (56.7%) dan lelaki 204 orang (43.3%).

Latihan

Pada tahun 2000, dua program latihan besar telah berjaya dilaksanakan. Program tersebut adalah:

- Bengkel Kemahiran Fasilitator pada 16 – 18 Mei 2000
- Program Induksi Khas Kepimpinan Pelajar pada 1 – 5 Oktober 2000.

COUNSELLING UNIT

Counselling services were offered to 352 clients in 2000 (Table 16). Problems related to studies were prominent while in terms of clients, most were first-year students.

Counselling Sessions

Throughout 2000, 218 students received group counselling, while 253 received individual counselling; 267 (56.7%) were female and 204 (43.3%) were male students.

Training

Two major training programmes were conducted in 2000 by the Counselling Unit. These were:

- Facilitator Enhancement Workshop, 16 – 18 May 2000
- Special Induction Programme for Student Leadership, 1 – 5 October 2000

JADUAL/TABLE 16

KATEGORI MASALAH YANG DIHADAPI PELAJAR
STUDENT PROBLEMS BY CATEGORY

KATEGORI MASALAH PROBLEM CATEGORY	JUMLAH TOTAL
Kesihatan Health	5
Kewangan Financial	12
Sosial Social	18
Peribadi Personal	59
Seks Sexual	2
Keluarga Family	25
Moral dan Keagamaan Moral/Religion	8
Pengajian Studies	196
Kerjaya Career	24
Pengajaran Teaching	3
Jumlah/Total	352

Selain daripada tugas-tugas yang telah diberikan untuk mengkoordinasi aktiviti-aktiviti Penyelidikan dan Pembangunan, Unit Penyelidikan Canseleri UPM telah memainkan peranan yang lebih penting dalam membantu Jawatankuasa Penyelidikan Universiti menyusun dan menilai laporan akhir penyelidikan IRPA dan projek jangka pendek. Tugas ini dilaksanakan bagi pihak Kementerian Sains dan Teknologi Malaysia (MOSTE). Aktiviti-aktiviti utama Unit Penyelidikan pada tahun 2000 adalah seperti yang berikut:

PAMERAN

Unit Penyelidikan Canseleri telah menganjurkan dan mengendalikan Majlis Anugerah Reka Cipta dan Penyelidikan kali ke-2 pada April 2000. Penerangan lengkap tentang pameran tersebut terdapat dalam buku "Inventions, Innovative Research and Products". Y.B. Tan Sri Musa Mohamed, Menteri Pendidikan Malaysia telah menyampaikan hadiah bagi reka cipta dan penemuan terbaik.

PENILAIAN PENYELIDIKAN

Untuk pertama kalinya, UPM telah memulakan langkah untuk menilai projek penyelidikan jangka panjang (IRPA1996, Cycle 1) bagi pihak sekretariat IRPA di MOSTE. Tujuan utama penilaian adalah untuk mengenal pasti faedah daripada projek yang dijalankan serta cadangan tindakan susulan untuk projek yang berkenaan. Penilaian dikendalikan oleh 10 panel penilai berdasarkan 218 laporan akhir projek yang diterima. Ketua bagi setiap panel dilantik oleh Timbalan Naib Canselor Akademik dan Ketua Panel akan melantik mana-mana pegawai akademik yang mempunyai rekod yang cemerlang dalam penyelidikan serta dua penilai yang dicadangkan oleh MOSTE untuk berada di dalam panel yang berkenaan.

PUSAT PENGURUSAN PENYELIDIKAN

Mesyuarat Jawatankuasa Pengurusan Universiti pada 31 Mei 2000 telah bersetuju supaya ditubuhkan Pusat Pengurusan Penyelidikan untuk menggantikan Unit Penyelidikan Canseleri. Di dalam struktur organisasi yang

Other than coordinating R & D related activities, this year the Research Management Centre played an important role in assisting the University's Research Committee in compiling and assessing the Final Report on IRPA and short term projects. This task was carried out for MOSTE. The major activities for 2000 are outlined below:

EXHIBITIONS

The Research Unit organised and coordinated the Second Invention and Research Award Ceremony on April 2000. Detailed information on the exhibition is found in the book entitled 'Inventions, Innovative Research and Products'. The Honourable Minister of Education, Tan Sri Musa Mohamad, gave away the prizes for best invention and findings.

RESEARCH ASSESSMENT

For the first time, Universiti Putra Malaysia has begun to evaluate long-term research projects (IRPA 1996, Cycle 1) for the IRPA Secretariat at MOSTE. The main aim in conducting the assessment was to identify the benefits of such projects and to suggest follow-up action. The assessment exercise was conducted by ten panels based on 218 final project reports received. The head of the panel who was appointed by the Deputy Vice Chancellor for Academic Affairs was empowered to appoint academic staff with an excellent track record in research along with two assessors nominated by MOSTE.

RESEARCH MANAGEMENT CENTRE

On 31 May 2000, the University's Management Committee meeting agreed to the establishment of the Research Management Centre in place of the Chancellory Research Unit. Under the new organisational set up, the Director of the Centre is to report to the Deputy Vice Chancellor (Academic Affairs) and his office would serve as the secretariat for the University Research Committee.

baru, seorang pengarah yang dilantik untuk Pusat Pengurusan dan Penyelidikan dan Pembangunan akan melapor perkembangan yang berlaku kepada Timbalan Naib Canselor Akademik dan pusat ini juga bertindak sebagai sekretariat untuk Jawatankuasa Penyelidikan Universiti.

AUDIT

Audit yang dijalankan ke atas projek penyelidikan adalah untuk memastikan setiap perbelanjaan yang dibuat mematuhi tatacara kewangan universiti serta peraturan-peraturan yang ditetapkan melalui Mesyuarat Jawatankuasa Penyelidikan. Perbelanjaan yang dilakukan juga hendaklah berkaitan dengan objektif penyelidikan serta untuk memastikan pengawalan peruntukan dilaksanakan.

Terdapat 14 akaun projek penyelidikan di bawah Rancangan Malaysia Ke-7 telah dipilih untuk auditan berdasarkan peruntukan yang melebihi RM1 juta dan satu projek bagi setiap fakulti/institusi.

Secara keseluruhannya, hasil auditan mendapati bahawa perbelanjaan adalah berkaitan dengan projek yang dilaksanakan dan dibelanjakan mengikut peraturan yang ditetapkan. Walau bagaimanapun, terdapat beberapa isu yang patut diambil perhatian iaitu perbezaan baki antara pihak bendahari dengan laporan ke MOSTE. Terdapat bil-bil yang dipinda jumlah tanpa justifikasi dan beberapa kesilapan lain. Pemerhatian juga mendapati pengurusan kewangan penyelidikan tidak teratur.

ASIA WEEK

UPM terus mengekalkan reputasinya dalam penyelidikan di Asia. Majalah *Asia Week* telah mengadakan tinjauan tentang "Best Multidisciplinary Universities in Asia". UPM masih mengekalkan kecemerlangan dengan berada di tangga ke-52 pada tahun 2000 berbanding di tangga 69 pada 1999 secara keseluruhan dan di tangga 49 pada tahun ini berbanding 69 pada 1999 dalam bidang penyelidikan. UPM masih mendahului universiti-universiti lain di Malaysia dalam penyelidikan.

PROJEK PENYELIDIKAN RANCANGAN MALAYSIA KE-8

Memandangkan terdapat banyak pertanyaan berkenaan permohonan peruntukan IRPA, Pusat Pengurusan



AUDIT

Research projects were audited to ascertain that expenditure complied with the financial procedures set by the University and those adopted by the Research Committee meeting. Expenditure must be in line with research objectives to ensure funding control is implemented.

14 research projects under the 7th Malaysian Plan were selected and audited based on allocation exceeding RM1 million and one project per faculty/institution. Generally, it was observed that expenses were justified and as prescribed. However, several concerns were raised such as the difference in balance reported between the Bursary and report to MOSTE, amendment of bills without justification and other errors. Financial management of some projects was not in order.

ASIA WEEK

UPM retained its position as a reputable research institution in Asia. In the *Asia Week Magazine* survey on "Best Multidisciplinary Universities in Asia," UPM emerged 52nd in 2000 compared to 69th position in 1999 in the overall category and was placed 49 in 2000 compared to 69 in 1999 for research. UPM still leads other Malaysian universities in research.

8TH MALAYSIA PLAN RESEARCH PROJECTS

Resulting from numerous enquiries on application procedures for the IRPA research allocations, the Research Management Centre provided a guideline to UPM researchers for 8th Malaysia Plan IRPA funding. The Research Management Centre also organised workshops on effective proposal paper preparation.

Penyelidikan telah membekalkan semua penyelidik UPM di fakulti/institut dengan garis panduan untuk peruntukan IRPA Rancangan Malaysia Ke-8 sebagai persediaan awal. Unit Penyelidikan juga menganjurkan bengkel untuk kertas cadangan yang lebih berkesan.

PERUNTUKAN

Pada tahun 2000, UPM telah menerima peruntukan sebanyak RM25.6 juta untuk 509 projek penyelidikan yang merangkumi projek IRPA jangka panjang dan jangka pendek. Daripada jumlah tersebut, RM3.0 juta digunakan bagi membiayai projek penyelidikan jangka pendek dan sebanyak RM21.6 juta telah dibelanjakan sepanjang tahun 2000. Projek-projek penyelidikan yang terlibat meliputi sembilan sektor dalam IRPA. Projek penyelidikan di UPM juga dibiayai oleh sumber tempatan seperti Unit Perancang Ekonomi (EPU), Kementerian Pertanian, Kementerian Pendidikan, agensi-agensi negeri serta Petronas.

Agensi-agensi antarabangsa juga menyumbang dalam belanjawan penyelidikan di UPM. Penyumbang utama adalah Commonwealth Scientific and Industrial Research Organisation (CSIRO), Food and Agriculture Organisation (FAO), International Atomic Energy Agency (IAEA), International Medical Centre of Japan, International Plant Genetic Research Institute (IPGRI), Japan International Cooperation Agency (JICA), New Zealand Milk Board, Malaysian Toray Science Foundation (MTSF), United Nations Development Programme (UNDP) and WINROCK International USA.

HASIL

UPM mempunyai kumpulan penyelidik multidisiplin dengan projek sains dan teknologi di tahap "cutting edge". Sebahagian besar projek penyelidikan mempunyai potensi besar untuk dikomersilkan, tiga projek telah dipatenkan sementara yang lain masih dalam proses. Manakala 10 produk telah dikomersilkan melalui usaha sama dengan pihak industri. Antara produk-produk yang dihasilkan ialah:

- 'Monoclonal antibody' terhadap barah payu dara
- Latexo-meter
- HRC Putra Block
- Karoten dari minyak sawit
- Teknologi Biofilter Mentah
- HO-meter (tekanan rendah)

ALLOCATION

For the year 2000, UPM received an allocation of RM25.6 million to finance 509 research projects covering both long term IRPA and short-term projects. Of this amount RM 3.0 million was to cover short-term projects and RM21.6 million was spent for year 2000. The research projects involved nine sectors in IRPA. Several other projects are financed by local grants from the Economic Planning Unit, Ministry of Agriculture, Ministry of Education, state agencies and Petronas.

International agencies also contributed research allocations to UPM. Main contributors are Commonwealth Scientific and Industrial Research Organisation (CSIRO), Food and Agriculture Organisation (FAO), International Atomic Energy Agency (IAEA), International Medical Centre of Japan, International Plant Genetic Research Institute (IPGRI), Japan International Cooperation Agency (JICA), New Zealand Milk Board, Malaysian Toray Science Foundation (MTSF), United Nations Development Programme (UNDP), and WINROCK International USA.

PRODUCTS

UPM has a multidisciplinary research group in "cutting edge" science and technology projects. A good number of these research projects have vast commercial potential. Three projects have already been patented while several others are in the process. 10 products have been commercialised through collaboration with the private sector. Among the products are:

- Monoclonal antibody against breast cancer
- Latexo-meter
- HRC Putra Block
- Carotene from crude palm oil
- Biofilter technology
- HO-Meter (small pressure)
- Marker for embryo-genesis
- Diagnostic kit for Newcastle disease
- Biomedical haruan
- Nitrogen-sulphur compound for anti-cancer
- White spot virus detection kit
- Newcastle Disease (V4 Vaccine)
- Mycorrhiza manure (VAM)
- Aujesky's Disease vaccine

- Penanda untuk embryogenesis
- Kit Diagnosis untuk penyakit Newcastle
- Haruan Biomedical
- Sebatian Nitrogen-sulfur untuk anti barah
- Kit Penentuan White Spot Virus
- Penyakit Newcastle (Vaksin V4)
- Baja Mikoriza (VAM)
- Vaksin Penyakit Aujeszky

PENERBITAN

Antara tahun 1996-2000, penyelidik-penyelidik di UPM telah menerbitkan lebih 4,700 kertas penyelidikan dengan tiga puluh peratus (30%) dalam bentuk jurnal rujukan dan separuh daripadanya adalah jurnal antarabangsa.

HADIAH DAN ANUGERAH

Pegawai Akademik UPM terus menerus berjaya memenangi hadiah dan anugerah di pameran peringkat kebangsaan dan antarabangsa. Antaranya ialah:

- Encik Husaini Omar, pensyarah di Fakulti Kejuruteraan telah memenangi hadiah dan anugerah Emas dengan Pengiktirafan Istimewa melalui reka cipta terbaik beliau iaitu 'Alat pengukur kekuatan batu lemah dan tanah keras' di Pameran Rekacipta 28 di Geneva. Beliau juga memenangi "Special Top Award from the World Intellectual Property Organization (WIPO) (2000) untuk anugerah Reka Cipta Terbaik dari Negara Membangun.
- Profesor Dr. Muhamad Awang, pakar dalam bidang alam sekitar di Fakulti Sains dan Pengajian Alam Sekitar telah menerima Anugerah Langkawi ke-9 berdasarkan kecemerlangan dan sumbangan beliau terhadap alam sekitar melalui penyelidikan saintifik dan penerbitan akademik.
- Di "International Invention, Innovation Industrial Design and Technology Exhibition (I TEX 2000)", pada 27-30 September 2000 di Pusat Dagangan Dunia Putra (PWTC), pegawai akademik UPM telah memenangi pingat emas seperti berikut:
 - Pingat Emas WIPO untuk Keseluruhan Reka Cipta Terbaik ("White Spot Virus Detection Kit") – Profesor Dr. Mohamed Shariff Mohamed Din
 - Pingat Emas ("White Spot Virus Detection Kit") – Profesor Dr. Mohamed Shariff Mohamed Din
 - Pingat Emas (Robolab) – Dr. Ishak Aris
 - Pingat Emas (Stone mastic Asphalt with Cellulose Oil Palm Fibre for Malaysian Roads) – En. Ratnasamy Muniandy.



PUBLICATIONS

Between 1996 – 2000, UPM researchers published over 4,700 research papers, of which 30% are in reference journals and half of these were international journals.

PRIZES AND AWARDS

Academic staff of UPM have won several national and international awards and prizes. They include:

- Mr. Husaini Omar, a lecturer at the Faculty of Engineering won a gold medal with special mention for best design – A Strength Measuring Device for Weak Rock and Hard Soils at the 28th Design Exhibition at Geneva. He was also accorded "Special Top Award from the World Intellectual Property Organization (WIPO) (2000) for Best Design Award" from Developing Countries.
- Professor Dr. Muhamad Awang, environment expert from the Faculty of Science and Environmental Studies, won the coveted 9th Langkawi Award for his excellence and contribution to environmental studies through his scientific research and academic publications.
- At the "International Invention, Innovation Industrial Design and Technology Exhibition (ITEX 2000)," held at Putra World Trade Centre from 27 – 30 September 2000, UPM academic staff won the following gold medals:
 - WIPO Gold medal for Overall Best Design (White Spot Virus Detection Kit) – Professor Dr. Mohamed Shariff Mohamed Din.
 - Gold Medal (White Spot Virus Detection Kit) – Prof. Dr. Mohamed Shariff Mohamed Din
 - Gold Medal (Robolab) – Dr. Ishak Aris
 - Gold Medal (Stone mastic Asphalt with Cellulose Oil Palm Fibre for Malaysian Roads) – Mr. Ratnasamy Muniandy.

SUMBER MANUSIA

Pada tahun 2000 terdapat sebanyak 3,886 jawatan di UPM. Bilangan jawatan mengikut kumpulan adalah seperti di Jadual 17. Pada tahun tersebut juga seramai 195 orang staf telah dilantik ke jawatan secara kontrak. Dari bilangan tersebut 74 orang adalah lantikan ke jawatan dalam Kumpulan Pengurusan dan Profesional, manakala 121 lagi adalah lantikan ke jawatan Kumpulan Sokongan. Perlantikan staf kontrak ini adalah meliputi pegawai-pegawai yang terdiri daripada warganegara asing dan warga tempatan. Ini adalah memastikan kelancaran perjalanan aktiviti-aktiviti akademik dan aktiviti-aktiviti yang menyokong kecemerlangan akademik universiti ini.

JADUAL/TABLE 17

PENGURUSAN SUMBER MANUSIA HUMAN RESOURCE MANAGEMENT	
Kumpulan/Group	2000
Profesor Professor	87
Prof. Madya Assoc. Professor	257
Pensyarah Lecturer	667
Prof. Madya (Perubatan) Assoc. Professor (Medical)	29
Pensyarah Perubatan Medical Lecturer	29
Pensyarah Perubatan (Pelatih) Trainee Medical Lecturer	32
Tutor Tutor	436
Guru Teacher	99
Pegawai Pentadbiran Administrative Officer	191
Pegawai Sokongan Support Staff	2059
Jumlah/Total	3886

PELANTIKAN DAN KENAIKAN PANGKAT

Pada tahun 2000 seramai 411 orang staf telah dilantik mengisi jawatan kosong. Daripada jumlah tersebut 351 orang dilantik ke jawatan Kumpulan Pengurusan dan Profesional dan 60 orang ke jawatan Kumpulan Sokongan. Perlantikan ke jawatan baru ini adalah untuk mengisi jawatan bertaraf tetap, kontrak dan sementara berdasarkan sokongan dari pusat tanggungjawab bagi menggantikan penyandang yang bersara, meletak jawatan, dinaikkan pangkat, dan dilantik semula ke jawatan baru dalam skim perkhidmatan yang lain.

Pada tahun ini juga Universiti telah melaksanakan proses kenaikan pangkat staf akademik UPM. Ini melibatkan seramai 48 orang staf akademik yang telah dinaikkan pangkat ke jawatan Profesor Madya dan Profesor. Jadual 18 menunjukkan bilangan kenaikan pangkat mengikut jawatan tersebut.

HUMAN RESOURCE

For the year 2000, there were a total of 3,886 posts in the University. Number of posts by category is reflected in Table 17. In that year a further 195 staff were appointed on contract. Of this, 74 were in the Management and Professional group while 121 were in the Support group. Both local and foreign individuals were appointed to these contract positions in an effort to ensure the smooth implementation of academic activities and other related activities in support of academic excellence.

APPOINTMENTS AND PROMOTIONS

In 2000, a total of 411 staff were appointed, 351 of whom were in the Management and Professional Group while 60 were in the Support Services Group. These appointments included permanent, temporary and contract positions that fell vacant following retirements, resignations, promotions and re-appointments to new posts under different service schemes.

The year also saw 48 academic staff promoted to Associate Professors and Professors. The breakdown of these promotions according to post is shown in Table 18.

JADUAL/TABLE 18

KENAIKAN PANGKAT PROMOTIONS		
Jawatan/Position	Kenaikan Pangkat Promotion	Bilangan No.
Pensyarah (Prof. Madya) Lecturer (Assoc. Professor)	Profesor (VK7) Professors (VK7)	10
Pensyarah Lecturer	Prof. Madya (DS1) Assoc. Professors (DSI)	38
JUMLAH/TOTAL		48

RESIGNATIONS

Some 13 UPM staff resigned to accept positions in other organizations and also due to termination of services. The breakdown of figures by group is shown in Table 19.

Under the pensionable scheme of statutory bodies and local authorities, 114 staff from various categories retired. The details of compulsory, optional and medical retirements are shown in Table 20.

PELETAKAN JAWATAN

13 orang staf UPM telah melatak jawatan. Peletakan jawatan ini adalah disebabkan mendapat tawaran di organisasi lain dan tamat tempoh perkhidmatan. Pecahan mengikut kumpulan jawatan adalah seperti pada jadual 19.

Di bawah peruntukan Pencen bagi pekerja-pekerja dalam Pihak-pihak Berkuasa Berkanun dan Tempatan, seramai 70 staf telah bersara dari perkhidmatan masing-masing. Pecahan mengikut kakitangan yang bersara wajib, pilihan dan atas sebab kesihatan adalah seperti pada Jadual 20.

CUTI BELAJAR DAN SABATIKAL

Seramai 171 orang staf telah diluluskan cuti belajar bagi melanjutkan pengajian mereka di peringkat Bachelior/Sarjana/Ph. D. 112 orang adalah di bawah Program Skim Latihan Akademik Bumiputera (SLAB), dan 15 orang diberikan cuti secara pelepasan.

ANUGERAH KHIDMAT CEMERLANG

Pengerusi lembaga pengarah UPM telah menyampaikan Anugerah Khidmat Cemerlang kepada 201 penerima anugerah. Majlis ini diadakan setiap tahun sebagai penghargaan Universiti kepada kakitangan yang telah memberi perkhidmatan yang cemerlang dalam membantu universiti dari segi pentadbiran, pendidikan dan pembangunan.

MAJLIS JASA PUTRA

Majlis Jasa Putra adalah bertujuan untuk menghargai kakitangan yang telah dan akan bersara pada tahun 2000. Seramai 47 kakitangan telah menerima cenderamata dan sijil sebagai tanda penghargaan universiti kepada perkhidmatan yang telah mereka berikan sepanjang perkhidmatan dengan Universiti.

MAJLIS SETIA PUTRA

Majlis ini diadakan sebagai penghargaan universiti kepada kakitangan yang telah berkhidmat dengan UPM bagi tempoh 20 tahun atau lebih. Tahun 2000 merupakan kali kedua majlis ini diadakan. Seramai 183 kakitangan telah menerima sijil dan cenderamata yang disampaikan oleh Tun Canselor.

JADUAL/TABLE 19

PELETAKAN JAWATAN RESIGNATIONS

Jawatan/Position	Bilangan No.
Pengurusan Tertinggi Senior Management	0
Pengurusan & Profesional Management & Professional	8
Staff Sokongan Support Staff	5
JUMLAH/TOTAL	13

JADUAL/TABLE 20

PERSARAAN RETIREMENTS

Kumpulan Group	Wajib Compulsory	Pilihan Optional	Kesihatan Medical	Kematian Deceased
Pengurusan & Profesional (Akademik) Management & Professional (Academic)	12	7		
Pengurusan & Profesional (Bukan Akademik) Management & Professional (Non-Academic)	2			
Kumpulan Sokongan Support Group	28	10	1	10
Jumlah/Total	42	17	1	10

STUDY AND SABBATICAL LEAVE

Study leave to pursue Masters and Ph.D. degrees were approved for 171 staff. Of this, 112 were under the Academic Training Scheme for Bumiputras (SLAB), 15 were given half-pay leave and 29 others were granted leave by approval.

EXCELLENT SERVICE AWARDS

The Chairman of the Board of Directors of UPM honoured 201 staff with Excellent Service Awards. This annual affair acknowledges staff who have provided excellent service in the areas of administration, education or development of the University.

JASA PUTRA CEREMONY

The 'Jasa Putra' ceremony was held to honour those who would be retiring or who had retired in 2000. A total of 47 staff were presented with souvenirs and commendation certificates for services rendered to the University.

SETIA PUTRA CEREMONY

This ceremony was held to honour staff who have served the university for more than 20 years. In this second such ceremony, the Chancellor presented souvenirs and commendation certificates to a total of 183 staff.

FAKULTI EKOLOGI MANUSIA

Aktiviti

Dalam tahun 2000 Fakulti Ekologi Manusia diterajui oleh dekan baru. Pertukaran ini telah menghasilkan beberapa perubahan ketara dalam fakulti sepanjang tahun. Walau bagaimana pun perubahan dan pembangunan yang berlaku masih berdasarkan misi dan dasar fakulti untuk mencapai kecemerlangan dan keunggulan dalam pendidikan yang menyeluruh dan bersepadu.

Bagi mencapai matlamat tersebut beberapa aktiviti dan seminar/latihan di peringkat kebangsaan dan antarabangsa telah dijalankan. Antaranya ialah:

- 'Persidangan Antarabangsa Teknologi Muzik Pertama' dianjurkan oleh Jabatan Muzik.
- Kursus jangka pendek "perancangan persaraan" telah dianjurkan oleh Jabatan Pengurusan Sumber dan Pengajian Pengguna.
- Hari Kualiti (Q) Fakulti 1999.
- Kursus pembangunan diri di kalangan wanita bekerja dianjurkan oleh Jabatan Pengurusan Sumber dan Sains Pengguna.
- Penerbitan *Buletin Penyelidikan Fakulti Ekologi Manusia*.
- Bengkel Bersama Penyediaan dan Pembentangan Proposal IRPA.
- Seminar Kebangsaan Keluarga, Komuniti dan Pembangunan: Cabaran Pemikiran Pasca Moden, dianjurkan oleh Fakulti Ekologi Manusia bertempat di Hotel Residence, UNITEN, Bangi.
- Seminar Kebangsaan "Urban Issues and Challenges: Developing Solutions for the Cities in the 21st Century" dianjurkan oleh Jabatan Sains Kemasyarakatan dan Pembangunan, bertempat di Dewan Persidangan IDEAL, UPM.
- Seminar Kebangsaan Kanak-kanak Istimewa dianjurkan oleh Jabatan Pembangunan Manusia dan Pengajian Keluarga, bertempat di Dewan Persidangan IDEAL, UPM.
- Latihan Negara Ketiga JICA, "Meningkatkan Sumbangan Ekonomi Wanita dengan membangunkan Perusahaan Mikro ke Perusahaan Kecil" yang dihadiri oleh peserta 8 negara Asia.

FACULTY OF HUMAN ECOLOGY

Activities

A change in deanship at the Faculty in the year 2000 resulted in several changes that were in line with the policy and mission of the Faculty towards achieving excellence in education.

The Faculty organised several seminars and training activities at and national and international levels:

- 1st International Music Technology Conference organised by Music Department.
- Short course on "Retirement Planning" organised by Department of Resource Management and Consumer Studies.
- Faculty Quality Day (Q) 1999.
- Course on Self-development of Working Women organised by Department of Resource Management and Consumer Studies.
- Publication of the Faculty **Research Bulletin**.
- Joint Workshop on "Preparation and Presentation of IRPA Proposals".
- National Seminar on "Family, Community and Development: Challenges of Post Modern Thoughts"- at Residence Hotel, UNITEN Bangi.
- National Seminar on "Urban Issues and Challenges: Developing Solutions for the Cities in the 21st Century" organised by Department of Social Science and Development at the IDEAL Conference Hall, UPM
- National Seminar on Special Children organised by Department of Human Development and Family Studies at the IDEAL Conference Hall, UPM.
- Third JICA Country Training Programme on Enhancing Women's Economic participation through scaling up Micro Enterprises fo Small Scale Enterprises, attended by participants from 8 Asian countries.



Penerbitan dan Penyelidikan

Ahli fakulti telah berjaya mengeluarkan 27 penerbitan: 14 artikel jurnal, 8 prosiding dan 5 judul buku. Di samping itu sebanyak 10 kertas kerja telah dibentangkan dalam persidangan atau seminar peringkat antarabangsa dan 27 lagi di peringkat kebangsaan.

Dalam bidang penyelidikan, sejumlah 21 projek penyelidikan telah dijalankan, dua daripada projek tersebut adalah tajaan IRPA dan sembilan projek dibiayai oleh peruntukan jangka pendek. Penyelidikan bersifat perundingan (*consultancy*) juga telah dijalankan apabila 10 kajian berjaya menghasilkan geran penyelidikan yang dianugerahkan oleh agensi kebangsaan dan antarabangsa.

Anugerah

Seramai lima pegawai fakulti telah menerima anugerah khidmat cemerlang dan dua orang lagi mendapat anugerah khas peringkat universiti iaitu Prof. Madya Dr. Rozumah Baharudin dan Prof. Madya Dr. Nurizan Yahya.

Kemajuan Prestasi

Pada tahun 2000, Unit Pengajian Umum telah diwujudkan di bawah Jabatan Sains Kemasyarakatan dan Pembangunan untuk menyelenggarakan kursus universiti. Dua buah pusat telah ditubuhkan iaitu Pusat Gender dan Pusat Kajian Penuaan hasil kerjasama dengan Fakulti Perubatan dan Sains kesihatan.

Satu lagi peristiwa bersejarah yang berlaku ialah kejayaan fakulti menubuhkan makmal sains sosial yang akan menjadi media utama menghubungkan menara gading dengan komuniti luar.

Pihak fakulti telah mengambil sembilan tutor baru, tiga pensyarah, dua guru sains (dari Pusat Matrikulasi) dan seorang ahli fakulti telah dinaikkan pangkat ke Profesor Madya. Tiga kakitangan akademik telah berjaya mendapat ijazah kedoktoran. Sementara itu empat pensyarah telah mengambil cuti sabbatical. Dua jawatan tambahan telah diwujudkan iaitu jawatan Timbalan Dekan Pembangunan dan Kewangan serta Penolong Pendaftar yang kedua.



Publications and Research

Of the 27 publications by academic staff, 14 were journal articles, 8 were proceedings and five were books. A further 10 papers were presented at several international conference or seminars and 27 at national seminars.

A total of 21 research projects were undertaken with two funded by IRPA while 9 others by short-term funding. Ten studies successfully attained research grants awarded by national and international agencies.

Awards

Five faculty staff received Excellent Service Awards and two others, Assoc. Prof. Dr. Rozumah Baharudin and Assoc. Prof. Dr. Nurizan Yahya, received special awards at University level.

Performance

In 2000, the General Studies Unit was established under the Social Science and Development Department to organise University courses. Two centres have been established – the Gerontology Centre with the cooperation of the Faculty of Medicine and Health Sciences and the Gender & Development Centre.

Another landmark development was the setting up of the Social Laboratory which will serve as the main channel of communication between 'ivory tower' and the outside community.

The Faculty recruited 9 tutors, 3 lecturers, two science teachers (from the Matriculation Centre) and one faculty staff was promoted to Assoc. Professor. Three academic staff have successfully completed their Ph.D., while four lecturers have gone on sabbatical leave. Two new posts were created - Deputy Dean for Development and Finance and a second Deputy Registrar.

Pada Semester November 2000, fakulti mula menawarkan program Bacelor Sains Pembangunan Manusia secara pendidikan jarak jauh di IDEAL dengan bilangan pelajar seramai 254 orang.

Dalam konvokesyen ke 24, fakulti telah berjaya melahirkan lima graduan di peringkat siswazah, 391 graduan Bacelor Pembangunan Manusia, 31 graduan Bacelor Muzik dan 294 graduan Diploma Pembangunan Manusia.

FAKULTI EKONOMI DAN PENGURUSAN

Perkembangan

Program akademik yang ditawarkan oleh Fakulti Ekonomi dan Pengurusan telah diperluaskan berikutan penubuhan sebuah jabatan baru, Jabatan Hospitaliti dan Rekreasi. Bermula pada Semester Mei 2000/2001 beberapa kursus baru dalam bidang Hospitaliti, Rekreasi dan Pelancungan ditawarkan.

Pada Semester November 2000/2001, Fakulti telah menawarkan satu program baru iaitu Diploma Pengurusan Perniagaan. Selain itu Fakulti juga menawarkan program sepenuh masa selepas waktu pejabat yang dikenali sebagai Program Bacelor untuk Eksekutif. Program ini diperluaskan melalui penawaran Program Bacelor Pengurusan Perniagaan untuk Eksekutif UPM-MAS.

Fakulti juga telah mengendalikan kursus-kursus untuk Program Diploma Analisis Pelaburan yang diintegrasikan dalam kurikulum program-program akademik Fakulti. Pelajar yang mengikuti program ini akan dikurniakan ijazah berserta Diploma Lanjutan Analisis Pelaburan, RIIAM setelah bergraduasi.

Lawatan Pegawai Luar

- 25 Jun 2000 Dr. Murugappa Chettiar Madhavan, Pengerusi, Jabatan Pengajian Asian dan Profesor Ekonomi Universiti San Diego State, bertugas di FEP tempoh selama enam bulan melalui 2000 Fulbright U.S Visiting Scholar Program.

In the November 2000 semester, the Faculty started the Bachelor of Science in Human Development through distance learning at IDEAL with 254 students.

At the 24th Convocation, the Faculty produced 5 graduands with Masters, 391 with Bachelors in Human Development, 31 with Bachelors in Music and 294 with Diploma in Human Development.

FACULTY OF ECONOMICS AND MANAGEMENT

Development

There was an expansion in courses offered by the Faculty with the establishment of the Hospitality and Recreation Department. New courses in hospitality, recreation and tourism were offered for the 2000/2001 May semester.

In the November 2001/2001 semester, a new programme, the Diploma in Business Management was offered. The Faculty currently offers a fulltime after office hours Bachelors Programme for Executives. This programme has been expanded with the introduction of the Bachelors in Business Management for UPM-MAS executives.

The FEP also offers courses to the Diploma in Investment Analysis program which is integrated in the academic curriculum of the Faculty. Students who pursue this programme are awarded the Bachelor degree together with the Advanced Diploma in Investment Analysis (RIIAM), on graduation.

Foreign Visitors

- 25 June 2000: Dr. Murugappa Chettiar Madhavan, Chairman, Department of Asian Studies and Professor of Economics, San Diego State University, was attached to the FEP for six months under the 2000 Fulbright U.S. visiting Scholar Program.

- 17-21 Mei 2000. Profesor William Page Rees, Profesor Perakaunan dan Ketua Jabatan Perakaunan dan Kewangan Universiti Glasgow melawat fakulti dan beliau telah membentangkan dua kertas kerja bertajuk "Financial Analysts and Earnings Forecasting: The European Experience".
- 27 November 2000. Mr. Prabhakar Navakar, Penasihat Kanan Presiden Nikko Securities dan bekas Timbalan Pengarah Urusan, International Monetary Funds Washington D.C. menjadi pelawat Jabatan Ekonomi. Beliau menyampaikan seminar bertajuk 'What is Happening in Asia - Some Economics and Related Aspects'.

Projek Jangka Pendek

- Fauziah Mahat. Foreign Exchange Risk Management as an Investment Diversification Strategy for Insurance Industry. Penaja: UPM RM3,225.00
- Annuar Md. Nassir dan Tey Tsun Ta. The Information Contents of Companies Switching from Second Board to Main Board. Penaja: UPM. RM 4,489.00.
- Bany Ariffin. The Effects of Malaysia Ringgit Exchange Rates Unavailability on Kuala Lumpur Stock Exchange Performance. Penaja: UPM. RM1,386.00.
- Foong Soon Yau dan Leong Lit Hei. An Empirical Study of the Evaluation of Information Technology Investment in Malaysia. Penaja: UPM. RM5,846.00.
- Loo Sin Chun. Factors Affecting Income Smoothing Among Listed Companies in Malaysia. Penaja: UPM. RM 3,966.00.
- Salmah Mohamad. Tahap Pematuhan Cukai di Kalangan Peniaga Kecil Sekitar Lembah Kelang. Penaja: UPM. RM 4,898.00.
- Nor Aishah Mohd Shawal. The Profit Sharing Concept: Its Accounting Treatment and Disclosure Practices in Malaysia. Penaja: UPM. RM1,389.00.
- Shamsher Mohamad. The Wealth Effects of Announcements of R & D Expenditure Increases. Penaja: UPM. RM4,466.00.
- Suhaila Abd Jalil dan Zahira Mohd. Ishan. Industrial Regulatory Activities: Looking at Franchising and Intellectual Properties In Malaysia.
- Ahmad Shuib. Penilaian Keutamaan Pengguna terhadap Rekreasi Pasif di Taman Negara Malaysia Menggunakan Kaedah Eksperimen Pilihan. Penaja: UPM. RM10,000.

- 17 – 21 May 2000: Professor William Page Rees (Professor of Accounting and Head, Department of Accounting and Finance, University of Glasgow) visited the Faculty and presented two working papers based on the seminar theme: 'Financial Analysts and Earnings Forecasting: The European Experience'.
- 27 November 2000: Mr. Prabhakar Navakar, Chief Advisor to President of Nikko Securities and former Deputy Managing Director for Services, International Monetary Fund Washington D.C. visited the Economics Department. He presented a seminar paper entitled 'What is Happening in Asia – Some Economics and Related Aspects'.

Short-Term Projects

- Fauziah Mahat. Foreign Exchange Risk Management as an Investment Diversification Strategy for the Insurance Industry. Sponsor: UPM, RM3,225.00
- Annuar Md. Nasir and Tey Tsun Ta. The Information Content of Companies Switching from Second Board to Main Board. Sponsor: UPM, RM4,489.00
- Bany Ariffin. The Effects of Malaysia Ringgit Exchange Rates Unavailability on Kuala Lumpur Stock Exchange Performance. Sponsor: UPM, RM1,386.00.
- Foong Soon You and Leong Lit Hei. An Empirical Study of the Evaluation of Information Technology Investment in Malaysia. Sponsor: UPM, RM5,846.00.
- Loo Sin Chun. Factors Affecting Income Smoothing Among Listed Companies in Malaysia. Sponsor: UPM, RM3,966.00.
- Salmah Mohamad. Level of Tax Abidance among Petty Traders in the Klang Valley. Sponsor: UPM, RM4,898.00
- Nor Aishah Mohd Shawal. The Profit Sharing Concept: Its Accounting Treatment and Disclosure Practices in Malaysia. Sponsor: UPM, RM1,389.00.
- Shamsher Mohamad. The Wealth Effects of Announcements of R & D Expenditure Increases. Sponsor: UPM, RM4,466.00.
- Suhaila Abd. Jalil and Zahira Mohd. Ishan. Industrial Regulatory Activities: Looking at Franchising and Intellectual Properties in Malaysia.
- Ahmad Shuib. Assesement of Users preference towards Passive Recreation at the Malaysian National Park Using Elective Experimental Methodology. Sponsor: UPM, RM10,000.00.

JADUAL/TABLE 21

ENROLMEN PELAJAR MENGIKUT PROGRAM (TAHUN 2000)

STUDENT ENROLMENT BY PROGRAMME (YEAR 2000)

Program Programme	Bil. Pelajar No. of Students
Diploma Pengurusan Perniagaan Diploma in Business Administration	93
Bachelor Perakaunan Bachelor in Accountancy	1093
Bachelor Perakaunan Pendidikan Bachelor in Educational Accountancy	435
Bachelor Pentadbiran Perniagaan Bachelor in Business Management	1446
Bachelor Ekonomi Bachelor in Economics	1186
Program Eksekutif Executive Programme	746
Sarjana Ekonomi Master in Economics	90
Sarjana Sains Master in Science	13
Doktor Falsafah Ph.D	20
JUMLAH/TOTAL	5122

FAKULTI KEJURUTERAAN

FACULTY OF ENGINEERING

Bahagian Akademik

Academic Division

Sepanjang tahun 2000 iaitu melalui dua kemasukan pada semester Mei dan November jumlah pelajar yang berdaftar ialah seramai 2,547 orang. Mereka terdiri daripada pelajar yang mengambil beberapa bidang kejuruteraan yang ditawarkan seperti di Jadual 22.

For 2000, 2,547 students were enrolled for the May and November semesters. The breakdown of figures according to courses offered is shown in Table 22.

JADUAL/TABLE 22

PENGAMBILAN PELAJAR (TAHUN 2000)

STUDENT INTAKE (YEAR 2000)

Program Programme	Jumlah Total
Bachelor Kejuruteraan (Aeroangkasa) Bachelor in Engineering (Aeronautical)	241
Bachelor Kejuruteraan (Awam) Bachelor in Engineering (Civil)	403
Bachelor Kejuruteraan (Biologi & Pertanian) Bachelor in Engineering (Biology & Agriculture)	233
Bachelor Kejuruteraan (Elektrik & Elektronik) Bachelor in Engineering (Electric & Electronics)	310
Bachelor Kejuruteraan (Kimia) Bachelor in Engineering (Chemical)	306
Bachelor Kejuruteraan (Mekanikal) Bachelor in Engineering (Mechanical)	370
Bachelor Kejuruteraan (Proses & Makanan) Bachelor in Engineering (Food & Processing)	224
Bachelor Kejuruteraan (Sistem Komputer & Komunikasi) Bachelor in Engineering (Computer Science & Communications)	392
Diploma Kejuruteraan (Kecemasan & Keselamatan) Diploma in Engineering (Emergency & Safety)	68
JUMLAH/TOTAL	2547



Aktiviti dan Penyelidikan

Fakulti Kejuruteraan telah mengadakan beberapa siri bengkel bagi menyediakan, menaip dan mengemaskini prosedur pelaksanaan ISO 9001 (Pengajaran). Pelaksanaan percubaan prosedur berkenaan menghasilkan banyak komen dan cadangan untuk memperbaiki dokumen yang lebih mantap dalam menghadapi Audit Kecukupan SIRIM. Pada 2000, Fakulti telah menghasilkan satu Kualiti Manual, 48 prosedur, 66 borang, 7 senarai semakan, 5 senarai edaran utama, 9 buah buku log, 15 garis panduan dan 6 buah senarai daftar untuk kemudahan pegawai menjalankan tugas. Di waktu yang sama beberapa siri kursus mengenai ISO 9001 turut diadakan khususnya untuk pegawai-pegawai baru. Antara kursus yang dikendalikan adalah Kursus Kesedaran Umum, Kursus Intermediate dan Kursus Audit Kualiti Dalaman.

FAKULTI PENGAJIAN PENDIDIKAN

Program yang Ditawarkan

Fakulti Pengajian Pendidikan menawarkan dua program di peringkat Bachelors and one program di peringkat Diploma. Selain itu, Fakulti menawarkan program di peringkat sarjana dan Ph.D. dalam pelbagai bidang pengajian yang berkaitan dengan pendidikan dan pembangunan sumber manusia. Seramai 4,247 pelajar telah berdaftar di Fakulti pada tahun 2000. Jumlah pelajar mengikut kategori ditunjukkan dalam jadual 23.

Activities and Research

The Faculty organised a series of workshops to prepare, typeset and update the implementation procedures for ISO 9001 (Teaching). A trial run of the procedure drew several constructive comments and suggestions to further consolidate the documents prior to the SIRIM Adequacy Audit. By November 2000, the Faculty had produced a Quality Manual, 48 procedures, 66 forms, 7 checklist, 5 major distribution lists, 9 log books, 15 guide books and 6 registration lists to facilitate carrying out of duties by officers of the faculty. At the same time several courses on ISO 9001 were organized particularly for new officers. Among the courses were (i) General Awareness, (ii) Intermediate Course, and (iii) Internal Quality Audit Course.



FACULTY OF EDUCATIONAL STUDIES

Programmes Offered

The Faculty of Educational Studies offers two Bachelor programmes, and one Diploma programme. In addition, the Faculty also offers Masters and Ph.D programmes related to education and Human Resource Development. 4,247 students registered for various courses in 2000. The breakdown of student intake by category is shown in Table 23

JADUAL/TABLE 23**PENGAMBILAN PELAJAR (TAHUN 2000)****STUDENT INTAKE (YEAR 2000)**

Program Programme	Bilangan Pelajar Total
Doktor Falsafah Ph.D	155
Sarjana Masters	1185
Program Eksekutif Executive Programme	106
Bachelor Pendidikan Bachelor of Education	2422
Bachelor Sains (Pembangunan Sumber Manusia) Bachelor in Science (Human Resource Development)	332
Diploma Belia dalam Kerja Pembangunan Diploma in Youth Development Services	47
JUMLAH/TOTAL	4247

Perlantikan Jawatan

Pada tahun 2000, dua Profesor dan dua Prof. Madya telah dilantik. Selain itu, dua orang Profesor 'adjunct', seorang daripadanya merupakan bekas Ketua Pengarah Pendidikan Malaysia, dan seorang lagi dari New Zealand, telah dilantik.

Jubli Perak

Pada tahun 2000, Fakulti Pengajian Pendidikan telah menyambut Jubli Perak. Perasmian telah dilakukan oleh Y.B. Menteri Pendidikan Malaysia, Tan Sri Dato Musa Mohamad pada 30 Jun 2000. Pelbagai aktiviti telah dijalankan untuk memeriahkan sambutan tersebut.

Antaranya ialah:

- Malam Bersama Dahlan Zainudin
- Gerai Pelajar
- Sukaneka
- Pertandingan Melukis
- Pertandingan Kereta Tercantik
- Sukan
- Pertandingan Nasyid

Persidangan/Seminar/Forum/Kursus

Sepanjang tahun 2000, Fakulti telah menjayakan persidangan, seminar dan kursus-kursus seperti berikut:

- Persidangan Antarabangsa MICELT
- Persidangan Antarabangsa ICT
- Persidangan Antarabangsa ASAIHL 2000
- Seminar Isu Pendidikan Sains Rumahtangga: Wargatua di Alaf Baru
- Seminar Pembangunan
- Seminar Pendidikan Prasekolah
- Seminar Pascasiswazah (GREduc)
- Seminar Pendidikan Bahasa Melayu
- Forum Gangguan Seksual
- Forum Pendidikan SRT: Penderaan Kanak-Kanak

Appointment

In 2000, two Professors, two Associate Professors and two Adjunct Professors one of whom was a former Malaysian Director of Education, and the other from New Zealand, were appointed.

Silver Jubilee

The Silver Jubilee celebrations of the Faculty were officiated by the Honourable Minister of Education, Tan Sri Dato' Musa Mohamad, on 30 June 2000. Several activities were organised for the celebrations:

- Nite with Dahlan Zainudin
- Students' stalls
- Sports carnival
- Art competition
- Best Looking Car Competition
- Sports
- 'Nasyid' competition

Conferences/Seminars/Forums/Courses

Throughout 2000, FPP successfully organized several conferences, seminars and courses:

- International MICELT Conference
- International Conference on ICT
- ASAIHL International Convention 2000
- Seminar on Issues in Home Economics Education: The Elderly in the New Millennium
- Seminar on Development
- Seminar on Pre-School Education
- Postgraduate Seminar (GREduc)
- Seminar on Bahasa Melayu Teaching
- Forum on Sexual Harassment
- Forum on Home Economics Education: Child Abuse

FAKULTI PERTANIAN

Di sepanjang tahun 2000, Fakulti Pertanian meneruskan aktiviti menawarkan program yang berkaitan dengan disiplin-disiplin pertanian di peringkat Ijazah Lanjutan (M.S dan PhD); Ijazah Pertama dan peringkat Diploma.

Mulai Semester Mei 2000/2001, Fakulti telah menambah satu lagi program Diploma. Program tersebut ialah Diploma Pengurusan Perladangan Makanan (DPPM). Pada peringkat awal penawaran, Fakulti telah mengambil seramai 45 orang pelajar lepasan SPM dan Sijil Institut Pertanian.

JADUAL/TABLE 24

STATISTIK BILANGAN PELAJAR (TAHUN 2000)

STATISTIC OF STUDENTS (YEAR 2000)

Program Programme	Pengambilan / Intake	Bergraduat Graduated
Diploma Pertanian Diploma of Agriculture	229	189
Diploma Kesihatan Haiwan & Peternakan Diploma in Animal Health & Production	61	23
Diploma Pengurusan Perladangan Makanan (DPPM) Diploma in Food Estate Management	45	-
Bachelor Sains Bioindustri Bachelor Science of Bioindustry	181	115
Bachelor Sains (Perniagaantani) Bachelor Science of Agribusiness	74	25
JUMLAH/TOTAL	590	352

JADUAL/TABLE 25

RINGKASAN MAKLUMAT SETIAP JABATAN DI FAKULTI /

BRIEF INFORMATION ON EACH DEPARTMENT IN FACULTY

Jabatan / Department	Penyelidikan IRPA / IRPA Research	Penyelidikan Jangka Pendek / Short-term Research	Penerbitan / Publication
Jabatan Sains Haiwan Department of Animal Science	10	1	18
Jabatan Sains Tanaman Department of Crop Science	39	12	23
Jabatan Perlindungan Tumbuhan Department of Plant Protection	30	4	59
Jabatan Pengurusan Tanah Department of Land Management	39	21	21
Jabatan Perniagaantani & Sistem Maklumat Department of Agribusiness & Information Systems	1	3	3
Jabatan Teknologi Pertanian Department of Agriculture Technology	8	2	7
JUMLAH / TOTAL	127	43	131

FACULTY OF AGRICULTURE

Through out the year 2000, the Faculty of Agriculture continued to offer academic programmes in the agriculture discipline at various levels consisting of Graduate degrees (M.S and PhD); First Degree and Diploma.

In the semester May 2000/2001, the Faculty started to offer another Diploma Programme. The programme is known as Diploma in Food Estate Management. For the initial intake the programme was offered to 45 students with SPM and Certificate from the Agriculture Institute.



JADUAL/TABLE 26

PELAWAT LUAR NEGERI /

OVERSEA VISITORS

Negara / Country	Bil. / No.
Japan	10
Indonesia	2
Iran	4
United Kingdom	6
Belgium	1
Philippines	1
Pakistan	2
Maldives	3
JUMLAH / TOTAL	29

JADUAL/TABLE 27

AKTIVITI TAHUN 2000

YEAR 2000 ACTIVITIES

Aktiviti Fakulti / Faculty Activity	Bil. / No.
Seminar Peringkat Jabatan-Jabatan Department Seminar	5
Seminar Peringkat Antarabangsa International Seminar	3
Aktiviti Perundingan Consultant Activity	17
JUMLAH / TOTAL	25

FAKULTI PERHUTANAN

Akademik

Fakulti dalam peringkat akhir menggubal dua program baru pada peringkat Bachelor. Kedua-dua program itu ialah Bachelor Sains dan Teknologi Kayu dan Bachelor Sains Taman dan Rekreasi yang akan ditawarkan mulai semester Mei 2002/2003. Selain itu, Fakulti juga sedang menyusun semula program yang sedia ada iaitu Bachelor Sains Perhutanan. Pada peringkat yang lebih tinggi, Fakulti juga merancang untuk menawarkan program Sarjana Sains (Pengurusan Hutan Bandar).



Aktiviti yang Dilaksanakan

Fakulti telah berjaya menganjurkan beberapa seminar dan aktiviti pengembangan pada tahun 2000 seperti berikut:

- Seminar Pengurusan dan Kepelbagaian Biologi Taman Negeri Wang Kelian, Perlis
- Workshop IRPA dalam Sektor Berasaskan Kayu
- Klinik Kedua Applied Research Outreach (ARO)
- Seminar Kedua Pengurusan dan Ekologi Hutan Simpan Ayer Hitam, Puchong
- Pertandingan Kuiz Sains dan Alam Semula Jadi 2000

Selain itu, Fakulti juga telah memberikan sumbangan besar dalam menjayakan Persidangan Kesatuan Organisasi Penyelidikan Perhutanan Antarabangsa (IUFRO) 2000 yang telah diadakan di Kuala Lumpur pada tahun ini. Penganjur utama persidangan ini ialah Institut Penyelidikan Perhutanan, Malaysia.

FACULTY OF FORESTRY

Academic

The Faculty has scheduled two new programmes for the May 2002/03 semester. These are the Bachelor of Wood Science and Technology and Bachelor of Park and Recreational Science. The Faculty is also restructuring the current Bachelor of Forestry Science programme. At the higher degree level, the Faculty plans to offer Masters in Science (Management of Urban Forest).



Activities Conducted

The faculty has successfully organised several seminars and extension activities for year 2000.

- Seminar on Management and Biological Diversity of Wang Kelian State Forest Park, Perlis
- IRPA Workshop on the Wood-based Sector
- 2nd Clinic on Applied Research Outreach (ARO)
- 2nd Seminar on Management and Ecology of Ayer Hitam Forest Reserve, Puchong
- Science and Nature Quiz Competition 2000.

Besides these activities, the Faculty rendered its services to organizing the International Union of Forestry Research Organizations (IUFRO) 2000 Conference in Kuala Lumpur. The Forestry Research Institute Malaysia was the major organiser of the conference.

Penyebaran Maklumat Penyelidikan

Dari segi penyebaran hasil penyelidikan, Fakulti telah berjaya menghasilkan sebanyak 32 penerbitan yang meliputi jurnal dan prosiding. Selain itu staf Fakulti juga telah membentang sebanyak 45 kertas kerja di persidangan pada peringkat antarabangsa dan tempatan, dan 17 artikel dan kertas poster.

Penilai Luar

Profesor Dr. Fred W. Cabbage pemeriksa dan penilai luar telah melawat Fakulti untuk membuat pemeriksaan dan penilaian. Lawatan beliau bertepatan dengan waktunya kerana Fakulti sedang menyusun semula program di samping menggubal program baru.

Pelawat

Mac

21-30 Dr. Mark Hughes, Pusat Bio-Composite, Universiti Wales, Bangor.

22 Profesor Dr. Ume Muuss, Dekan, Fakulti Perhutanan Tropika, Universiti Geottingen, Germany.

April

16-20 Profesor Dr. Miyan Rukunuddin Ahmad, Pengarah, Institut Perhutanan dan Sains Alam Sekitar, Universiti Chittagong, Bangladesh.

Julai

3 Dr. Nana Supriana, Pusat Penelitian Hasil Hutan, Bogor, Indonesia.

24 Rombongan Sekolah Antarabangsa Australia Malaysia.

24 & 25 Mr. Toshiteru Kanazuki dan Mr. Koji Soda dari Yayasan Tanabe South East Asian Friendship, Japan.

Ogos

9 Mr. Soukkongseng Saignaiuth, Timbalan Dekan, Fakulti Pertanian dan Perhutanan, Universiti Kebangsaan Laos.

September

12 Rombongan Institut Sains dan Teknologi, Fujian, China

19 Rombongan Indian Council of Forestry Research & Education.

Oktober

4 Profesor J. Farhoudi, Kementerian Kebudayaan & Pelajaran Tinggi, Republik Islam Iran.

Dissemination of Research Information

Faculty staff published 32 articles in journals and proceedings, presented 45 papers at conferences locally and internationally, and 17 articles and poster presentations.

External Examiner

Prof. Dr. Fred W. Cabbage who is the external examiner and curriculum assessor visited the faculty. His visit was timely as the Faculty was restructuring its program and formulating new ones.

Visitors

March

21-30 Dr. Mark Hughes, Bio-Composite Centre, University of Wales, Bangor.

22 Prof. Dr. Ume Muuss, Dean, Faculty of Tropical Forestry, University Geottingen, Germany.

April

16-20 Prof. Dr. Miyan Rukunuddin Ahmad, Director, Institute of Forestry and Environmental Sciences, Chittagong University, Bangladesh.

July

3 Dr. Nana Supriana, Forest Products Monitoring Centre, Bogor, Indonesia.

24 Delegation from Australian International School, Malaysia.

24 & 25 Mr. Toshiteru Kanazuki and Mr. Koji Soda from the Tanabe South East Asian Friendship Foundation, Japan.

August

9 Mr. Soukkongseng Saignaiuth, Deputy Dean, Faculty of Agriculture and Forestry, National University Laos.

September

12 Delegation from Institute of Science & Technology, Fujian, China.

19 Delegation from Indian Council of Forestry Research & Education

October

4 Prof. J. Farhoudi, Ministry of Culture and Higher Education, Islamic Republic of Iran.

FAKULTI PERUBATAN VETERINAR

Tahun 2000 merupakan mercu tanda bagi Fakulti ini kerana pada bulan Jun ia telah berjaya mendapat pengiktirafan piawaian mutu sijil ISO 9001 skop Pengajaran, Penyelidikan dan Perkhidmatan Profesional. Majlis Penyampaian Sijil ISO 9001 telah diadakan pada 15 Disember 2000 dan disempurnakan oleh YAB Perdana Menteri Malaysia.

Fakulti Perubatan Veterinar terus aktif dalam bidang penyelidikan. Ia berjaya menghasilkan 36 penerbitan dalam bidang teras penyelidikan Fakulti. Sebuah buku yang memuatkan abstrak penerbitan pegawai akademik Fakulti ini bagi tempoh 1990-2000 dengan tajuk "A Decade of Research" juga diterbitkan.

Beberapa penyelidik di Fakulti ini terus menempa kejayaan dengan satu anugerah pada peringkat antarabangsa, satu peringkat kebangsaan dan dua anugerah pada peringkat Universiti. Profesor Dr. Mohamed Shariff Mohamed Din memenangi anugerah "World Intellectual Property Organisation 2000" atas kejayaannya merekacipta White Spot Syndrome Virus (WSSV) Detection Kit. Penciptaan alat tersebut juga mendapat penghargaan hadiah Kandiah Award 2000 dan memenangi hadiah Malaysia Invention and Design Society. Ia juga memenangi hadiah – Hadiah Reka Cipta UPM 2000.

Selain Profesor Dr. Mohamed Shariff Mohamed Din, Dr. Mohd. Azmi Mohd. Lila juga memenangi hadiah peringkat Universiti untuk penyelidikannya "Broad Spectrum anti Tumor DNA Vaccine Therapy for Animal and Human Cancerous Cells."

FACULTY OF VETERINARY MEDICINE

Year 2000 was a landmark for the Faculty as it was awarded in June the ISO 9001 certificate for recognition of quality standardisation under the scope of "provision of education (undergraduates and postgraduates), research, veterinary hospital, consultancy, continuing education and support services". The Certificate presentation ceremony, held on 15 December 2000, was officiated by the Honorable Prime Minister of Malaysia.

Continuing with active research, the Faculty succeeded in producing 36 publications in the thrust areas of research. A book of abstracts contributed by academic staff for the period 1990 – 2000 entitled "A Decade of Research" was also published.

Faculty staff received several awards for research excellence – one international, one national and two at university level. Prof. Dr. Mohamed Shariff Mohamed Din won the World Intellectual Property Organisation 2000" Award for the invention of the "White Spot Syndrome Virus (WSSV) Detection Kit". This kit was also acknowledged by receiving the Kandiah Award 2000. It also won the "Malaysian Invention and Design Society Award" and the "UPM 2000 Invention Award".

Besides Prof. Dr. Mohamed Shariff Mohamed Din, Dr. Mohd Azmi Mohd. Lila won a University level award for his research on "Broad Spectrum Anti-Tumour DNA Vaccine Therapy for Animal and Human Cancerous Cells".

In terms of administrative changes, Assoc. Prof. Dr. Abdul Aziz Saharee was appointed Director of the External Programme Centre and Dr. Bashir Ahmad Fateh Mohamed as the Deputy Dean for Finance and Development.



Dari segi pentadbiran, beberapa pelantikan telah dibuat iaitu Prof. Madya Dr. Abdul Aziz Saharee dilantik sebagai Pengarah Pusat Program Luar dan Dr. Bashir Ahmad Fateh Mohamed sebagai Timbalan Dekan, Kewangan dan Pembangunan.

Sepanjang tahun 2000, Fakulti Perubatan Veterinar telah menganjurkan Seminar/ Bengkel/Kursus seperti berikut:

Mac

- 6 Seminar on Gumboro Disease : Past, Present and Future di Fakulti Perubatan Veterinar, UPM
- 27 Bengkel "Cattle Productivity" di Fakulti Perubatan Veterinar, UPM

Jun

- 25 Productive Practice Management di Kuala Lumpur.

Julai

- 8 Simposium mengenai 'Poultry Mycoplasmosis' di Fakulti Perubatan Veterinar, UPM.

September

- 9 Kursus 'Poultry Refresher' di Fakulti Perubatan Veterinar, UPM.

FAKULTI SAINS DAN PENGAJIAN ALAM SEKITAR

Kejayaan Kakitangan

Pegawai-pegawai Fakulti yang telah mendapat anugerah, pingat dan pengiktirafan adalah seperti berikut: Profesor Dr. Muhamad Awang menerima Anugerah Langkawi, Profesor Dr. Kaida Khalid dan Prof. Madya Dr. Salihan Siais dianugerahkan Pingat Kesatria Mangku Negara (KMN), En. Mohd Radzi Mokhtar dianugerahkan Pingat Pangkuan Negara, Profesor Dr. Abdul Halim Shaari mendapat tempat Ke-2 dan Profesor Dr. Kaida Khalid mendapat tempat Ke-3 Anugerah Rekacipta dan Penyelidikan UPM, dan Prof. Madya Dr. Mat Rofa Ismail dipilih mewakili negara menyertai Kem Pemilihan dan Latihan di IMO (International Mathematical Olympiad 2000, Washington DC).

For the year 2000, the Faculty organized the following seminars, workshops and courses:

March

- 6 Seminar on "Gumboro Disease: Past, Present and Future" at the Faculty in UPM.
- 27 Workshop on "Cattle Productivity" at the Faculty in UPM.

June

- 25 "Productive Practice Management" in Kuala Lumpur.

July

- 8 Symposium on "Poultry Mycoplasmosis" at the Faculty in UPM.

September

- 9 "Poultry Refresher Course" at the Faculty in UPM.

FACULTY OF SCIENCE AND ENVIRONMENTAL STUDIES

Staff Achievement

Faculty staff who received awards, medals and recognition were as follows: Prof. Dr. Muhamad Awang received the Langkawi Award; Prof. Dr. Kaida Khalid and Prof. Madya Dr. Salihan Siais were awarded the Kesatria Mangku Negara (KMN); Encik Mohd. Radzi, Mokhtar was awarded the Pingat Pangkuan Negara (PPN), Prof. Dr. Abdul Halim Shaari was placed second and Prof. Dr. Kaida Khalid third in the "Research and Design Award" organized by UPM. Assoc. Prof. Dr. Mat Rofa Ismail was selected as country representative to participate in the International Mathematical Olympiad (IMO) 2000 selection and training camp in Washington DC.

Penerbitan

Sepanjang tahun 2000, Fakulti telah menghasilkan sebanyak 123 artikel jurnal, 227 kertas prosiding dan dua monograf.

Aktiviti Penyelidikan dan Pembangunan

Bidang penyelidikan yang diterokai oleh fakulti ialah produk-produk semulajadi, bahan-bahan termaju, bioteknologi dan pencemaran alam sekitar. Pada tahun 2000, Fakulti telah mendapat peruntukan IRPA yang berjumlah RM2.3 juta untuk 15 projek dan peruntukan jangka pendek sebanyak RM325,000 untuk 33 projek. Pembangunan sumber manusia telah menghasilkan seramai 30 pelajar yang bergraduat dalam Master Sains dan Ph.D. Bagi 'Anugerah Rekacipta dan Penyelidikan (UPM)', dua pencalonan telah memenangi tempat kedua dan ketiga manakala lima pencalonan telah memenangi hadiah saguhati. Fakulti juga telah mengambil inisiatif untuk menerbitkan 'extended abstracts' secara bersiri. Maklumat yang terkandung di dalam abstrak tersebut akan menggalakkan komuniti saintifik dan industri dengan jalinan melalui kerjasama penyelidikan dan hubungan strategik.

Seminar

Januari

27 Seminar oleh Dr. Zulkifly Abbas

Mac

22 Seminar oleh Dr. Ionel Valeriu Grozescu
23 Seminar Kimia Industri VII

Mei

22 Seminar oleh Prof. Madya Dr. Shaharin Ibrahim

Julai

19 Seminar Pascasiswazah Jabatan Fizik

Ogos

9 Seminar oleh Profesor Dr. Shaharir Mohamad Zain, Jabatan Matematik, UKM

September

6 Seminar oleh Profesor Kozo Osamura, Kyoto University, Japan
6-7 Seminar Kimia Analisis
23 Seminar oleh Dr. Samad Solbai (Profesor Adjung, Jabatan Fizik)

Publications

For the year 2000, the Faculty published 123 journal articles, 227 papers in proceedings and two monographs.

Research and Development Activities

Faculty research is focused on natural products, advanced materials, biotechnology and environmental pollution. The Faculty obtained RM2.3 million for 15 IRPA research projects and RM325,000 for 33 short-term projects. In terms of human resource development, 30 students graduated with Masters in Science and Ph.D. In the UPM organised "Design & Research Award," two staff won second and third placings while five others won consolation prizes. The Faculty has taken the initiative to publish a series of extended abstracts. The information contained in these abstracts is expected to encourage joint research and establishment of strategic links between the scientific and industrial communities.

Seminars

January

27 Seminar by Dr. Zulkifly Abbas

March

22 Seminar by Dr. Ionel Valeriu Grozescu
23 Chemical Industrial Seminar VII

May

22 Seminar by Assoc. Prof. Dr. Shaharin Ibrahim

July

19 Post-graduate Seminar by Department of Physics

August

9 Seminar by Profesor Dr. Shaharir Mohamad Zain, Department of Mathematics, UKM

September

6 Seminar by Prof. Kozo Osamura, Kyoto University Japan
6-7 Chemical Analysis Seminar
23 Seminar by Prof. Dr. Samad Solbai (Adjunct Professor, Physics Dept.)

Oktober

- 10 Seminar Prospek dan Cabaran Penukaran Buangan Pepejal Ke Tenaga
- 18 Seminar Bulanan oleh Profesor Dr. Shaharir Mohamad Zain
- 24-25 The 16th National Seminar on Natural Products

Disember

- 20 Seminar IRPA dalam Rancangan Malaysia ke 8 oleh Profesor Dr. Samad Solbai

Bengkel

April

- 3 Bengkel E-Pejabat
- 24-28 Bengkel Kedua Teknik Pencilan, Mengenalpasti dan Pengawetan Bakteria

Mei

- 17-19 Bengkel Hala Tuju Strategik Fakulti

Oktober

- 9 Bengkel MATLAB oleh Techsource Systems Sdn Bhd.
- 19 Bengkel Kesedaran ISO 9000
- 25 Bengkel Ni Days Asia-Pasific
- 30 Okt. - 3 November Bengkel Multimedia

FAKULTI SAINS KOMPUTER DAN TEKNOLOGI MAKLUMAT

Pembangunan

Fakulti Sains Komputer dan Teknologi Maklumat telah mengubah suai program Bachelo Sains Komputer daripada 120 kredit kepada 100 kredit untuk bergraduat. Penyesuaian kredit ini adalah selaras dengan pembaharuan yang diminta oleh pihak kementerian sesuai dengan kehendak pasaran dan kemajuan semasa.

Bagi program Diploma Sains Komputer pula, beberapa pindaan telah dibuat meliputi tahun pengajian daripada dua tahun (4 semester) kepada tiga tahun (6 semester) serta memperkenalkan 22 kursus baru. Pembaharuan ini adalah untuk mengukuhkan program dan keupayaan bersaing dalam menghadapi perkembangan teknologi maklumat terkini. Program-Program pengajian di fakulti juga telah mendapat status MSC.

Oktober

- 10 Seminar on Future Prospects and Challenges of Converting Solid Wastes to Energy
- 18 Monthly Seminar by Prof. Dr. Shaharir Mohamad Zain
- 24-25 The 16th National Seminar on Natural Products

December

- 20 Seminar IRPA in the 8th Malaysia Plan by Prof. Dr. Samad Solbai

Workshops

April

- 3 E-Office Workshop
- 24-28 The Second Workshop on Techniques in Bacterial Isolation, Identification & Preservation

May

- 17-19 Workshop: Strategic Direction of the Faculty

October

- 9 MATLAB Workshop by Techsource Systems Sdn Bhd.
- 19 ISO 9000 Awareness Workshop
- 25 Ni Days Asia-Pacific Workshop
- 30 Oct. - 3 November Multimedia Workshop

FACULTY OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

Development

The Faculty restructured its Bachelor of Computer Science programme from 120 credits to a graduation requirement of 100 credits. This modification is parallel to the change required by the Ministry of Education in line with market needs and current progress.

The Diploma in Computer Science Programme was also restructured from a two-year (four semesters) to a three-year (six semesters) programme with the introduction of 22 new courses. These changes were carried out to strengthen the program and its competitiveness to meet the latest development in information technology. Programmes offered by the Faculty have attained MSC status.



Program Kerjasama

Fakulti telah menjalankan program kerjasama akademik dengan sejumlah 28 institut pengajian tinggi swasta bagi mengendalikan program Diplom Sains Komputer. Di samping itu dua buah IPTS daripada 28 IPTS tersebut juga menjalankan kerjasama menawarkan program Bachelo Sains Komputer.

Kenaikan Pangkat

Dalam tahun 2000, dua orang kakitangan akademik fakulti telah dinaikkan pangkat ke Prof. Madya iaitu Dr. Ali Mamat dan Dr. Md. Yazid Mohd Saman.

Penyelidikan dan Penerbitan

Sejumlah 11 projek jangka pendek telah diluluskan kepada kakitangan akademik fakulti dengan jumlah geran peruntukan RM105,200.00. Sejumlah RM204,864.00 peruntukan geran penyelidikan IRPA telah dilulus kepada Prof. Madya Hj. Mohd Hasan Selamat dengan projek bertajuk "*Strategic Information System Planning (SISP) Practices in Malaysia.*"

Sebanyak 13 modul pengajaran telah dihasilkan untuk program Diploma Sains Komputer dan 23 modul untuk Bachelo Sains Komputer Pendidikan Jarak Jauh.

Di samping itu kakitangan akademik fakulti juga menghasilkan 15 artikel yang diterbitkan dalam jurnal dan 35 artikel yang diterbitkan dalam prosiding bengkel atau persidangan sama ada di peringkat kebangsaan atau antarabangsa.

Collaborative Programme

The Faculty has established collaborative academic programmes with 28 private institutions of higher learning to offer the Diploma in Computer Science. Of the 28 IPTS, two are collaborating to offer the Bachelor in Computer Science program.

Promotions

During the year 2000, two faculty academic staff, Dr. Ali Mamat dan Dr. Md. Yazid Mohd. Saman, were promoted to Associate Professor.

Research and Publications

A total of 11 short-term projects valued at RM105,200.00 were approved for academic staff. An IRPA grant of RM204,864.00 has been approved for a research project entitled "*Strategic Information System Planning (SISP) Practices in Malaysia*" to be undertaken by Assoc. Prof. Hj. Mohd Hasan Selamat.

Thirteen modules have been produced for the Diploma in Computer Science Programme while 23 other modules were prepared for the Bachelor of Educational Computer Science offered in distance learning mode.

In terms of publications, Faculty staff have published 15 articles in journals and 35 articles in workshop and conference proceedings at national and international levels.

JADUAL/TABLE 24

PERSIDANGAN/KURSUS/BENGKEL/AKTIVITI ANJURAN FAKULTI (2000)
CONFERENCES/COURSES/WORKSHOPS/ACTIVITIES ORGANISED BY FACULTY (2000)

1. Bengkel Penasihat Akademik
Academic Advisory Workshop
2. Seminar "Multimedia Authoring Tool: Asymetrix Toolbook II Ver 7.1"
Multimedia Authoring Tool: Asymetrix Toolbook II Ver 7.1 Seminar
3. Seminar "The Future of Software and Software Engineering" oleh Dr. Nor Adnan Yahya, Telekom R&D
"The Future of Software and Software Engineering"
Seminar by Dr. Nor Adnan Yahya, Telekom R&D
4. Bengkel Khas Diploma Sains Komputer
Special Workshop on Diploma in Computer Science
5. Bengkel Pengajaran IPTS
IPTS Teaching Workshop
6. Seminar "Image Compression Techniques" oleh Dr. Wayne Brown, Kansas State University
"Image Compression Techniques" Seminar by Dr. Wayne Brown, Kansas State University
7. INTEC 2000 (Kolokium Teknologi Maklumat)
INTEC 2000 (Information Technology Colloquium)
8. Bengkel Teknik Pengajaran
Teaching Techniques Workshop
9. Kursus Linux anjuran bersama Institut
Pembangunan Perisian
Linux Courses co-organised with Software Development Institute
10. Penyampaian Hadiah Fakulti
Faculty Prize Presentation
11. Hari Penerangan Fakulti
Faculty Information Day

FAKULTI REKABENTUK DAN SENIBINA

Fakulti Rekabentuk dan Senibina memasuki tahun kelima penubuhannya pada bulan Jun 1996. Fakulti ini sedang berkembang dengan pesatnya dari segi bilangan tenaga akademik dan juga pelajar. Pada tahun 2000 bilangan tenaga pengajar telah meningkat kepada 33 orang. Mereka ini meliputi bidang seni bina, seni bina landskap, reka bentuk industri, reka bentuk dalaman, reka bentuk grafik dan multimedia serta seni halus.

Pada masa yang sama bilangan pelajarinya juga telah meningkat kepada 290 orang di peringkat Bachelo dan 37 orang di peringkat siswazah (Struktur A dan Struktur C). Fakulti akan menawarkan satu lagi program pengajian baru iaitu program Bachelo Rekabentuk (Senibina) dengan pengambilan pertamanya seramai 46 orang pada tahun 2000. Bilangan ini kemudiannya meningkat kepada 66 orang pada semester November 2000. Setakat ini sebuah lagi program yang sedang diproses untuk kelulusan Jabatan Pengajian Tinggi, Kementerian Pendidikan ialah program Bachelo Rekabentuk Perindustrian. Ia dijangka akan ditawarkan pada semester Mei 2002.

Pada tahun ini fakulti melahirkan kumpulan pertama graduannya dalam bidang Bachelo Seni Bina Landskap (BLA) iaitu seramai 31 orang. Kesemua graduan program profesional ini telah mendapat pekerjaan dan menyumbang kepada pembangunan landskap negara ini. Pada tahun ini juga Fakulti telah berjaya menghasilkan graduan sulung Ph.Dnya dalam bidang reka bentuk tekstil.

Persidangan/Penyelidikan/Kursus

Fakulti telah berjaya menganjurkan satu seminar iaitu Seminar Kualiti Udara Dalam di peringkat kebangsaan. Persidangan Landskap Antarabangsa 2000 (INCOL 2000) telah dihadiri oleh lebih daripada 200 peserta daripada pelbagai negara.

Di samping itu fakulti juga telah berjaya mengendalikan lima bengkel dan 10 kursus pendek dalam bidang pelandskap kepada mereka yang terlibat dalam bidang tersebut dibuat hasil daripada pakatan bistari dengan syarikat New Straits Times Sdn. Bhd. Kursus dan bengkel berkenaan dikendalikan oleh tenaga profesional fakulti di bawah unit perkhidmatn fakulti iaitu Profesional Training Centre (PTC) dan makmal Pengurusan dan Teknologi Landskap (MPTL).

FACULTY OF DESIGN AND ARCHITECTURE

The Faculty, which is in its fifth year in June 1996, has seen rapid expansion in academic staff and student population. Staff numbers have increased to 33 in 2000. Staff expertise is in the fields of Architecture, Landscape Architecture, Industrial Design, Interior Design, Graphic and Multimedia Design, and Fine Arts.

The student population too has seen growth, with increased enrolment to 290 at undergraduate level and 37 post graduate students (for research and taught courses). A new programme, the Bachelor of Design (Architecture), with a first intake of 46 students, was offered in year 2000. This figure increased to 66 students for the November 2000 semester. Meanwhile, another new programme is awaiting approval by the Department of Tertiary Education of the Ministry of Education. This is the Bachelor of Industrial Design which is expected to be offered in the May 2002 semester.

Year 2000 saw the Faculty's first batch of 31 Bachelor of Landscape Architecture students graduating. All the graduates have been employed and are contributing towards the nation's landscape development. A Ph.D. student has also graduated in the field of textiles design.

Conferences/Research/Courses

The Faculty has successfully organised an international conference and a national seminar on Quality of Internal Air. The international conference on Landscape 2000 (INCOL 2000) was attended by about 200 participants from all over the world.

The Faculty successfully conducted five workshops and 10 short courses on landscaping in smart partnership with the New Straits Times Sdn. Bhd. This course was conducted by the staff of the Faculty's Professional Training Centre (PTC) and the Management and Landscape Technology Laboratory (MPTL).



Dalam tahun yang sama fakulti telah berjaya mendapat dua peruntukan jangka pendek untuk proses penyelidikannya di samping penerusan pembiayaan projek IRPA tahun lepas. Di samping itu sebanyak 11 kertas kerja telah dihasilkan oleh ahli-ahli akademik fakulti dalam tahun ini. Fakulti juga bercadang untuk membukukan kertas kerja yang dibentangkan dalam persidangan INCOL 2000 baru-baru ini. Pada masa yang sama bilangan kedua buletin fakulti iaitu Alam Cipta telah berjaya dihasilkan.

Dari segi prasarananya pula, bangunan tetap Fasa 1 fakulti telahpun ditenderkan dan kerja pembinaan dijangka bermula awal 2001 dan siap pada awal 2002. Di samping bangunan yang akan menempatkan ruang pentadbiran, bilik-bilik pegawai dan studio serta makmal komputer, kerja-kerja menaik taraf Makmal Pengurusan dan Teknologi Landskap juga sedang giat dijalankan. Makmal ini akan memberi peluang kepada para pelajar fakulti ini menimba pengalaman dalam hal ehwal pelaksanaan dan pengurusan landskap di samping membolehkan tenaga akademik fakulti menjalankan penyelidikan dalam bidang landskap.

FAKULTI SAINS MAKANAN DAN BIOTEKNOLOGI

Program Pengajian Bachelor

- Jumlah pelajar bagi sesi pengajian 2000/2001 ialah seramai 1,059 orang .
- Jumlah kemasukan pada sesi 2000/2001 ialah seramai 307 dengan 105 telah mendaftar untuk mengikuti program Bachelor Sains Teknologi Makanan, 90 untuk Bachelor Sains Bioteknologi dan seramai 112 untuk Bachelor Sains Pengajian Makanan.
- Pada Majlis Konvokesyen tahun 2000 seramai 275 pelajar telah bergraduasi iaitu 90 pelajar dari Program Bachelor Sains & Teknologi Makanan, 121 pelajar dari program Bachelor Sains Pengajian Makanan dan 64 pelajar Program Bachelor Sains Bioteknologi. Pada Majlis Konvokesyen itu juga seramai 20 pelajar telah mendapat kepujian kelas pertama, 170 pelajar mendapat kepujian kelas kedua tinggi, 89 pelajar telah mendapat kepujian kelas kedua rendah dan seramai dua pelajar mendapat kelas ketiga.



In terms of research allocation, the Faculty received two allocations for short-term research projects, while previous year IRPA funded projects are ongoing. Faculty staff have published 11 working papers, and preparations are underway to publish the proceedings of the INCOL 2000 conference. Meanwhile the second issue of the Faculty's bulletin *Alam Cipta* was published recently.

In terms of infrastructure, phase I of permanent faculty building has been tendered and work on the phase will begin in early 2001 and is expected to be completed in early 2002. Apart from buildings to accommodate the administration block, staff rooms, studio and computer laboratories work to upgrade the Management and Landscape Technology laboratory is actively ongoing. The upgrading of the laboratories is important as it provides students with the opportunity to gain experience in implementation and management of landscape while providing academic staff with facilities to conduct research in landscaping.

FACULTY OF FOOD SCIENCE AND BIOTECHNOLOGY

Bachelor Degree Programmes

- Total student enrolment for 2000/2001 session was 1,059
- The total intake for the 2000/2001 session was 307; 105 of this total registered for the Bachelor of Science in Food Technology, 90 for Bachelor of Science in Biotechnology and 112 for Bachelor of Science in Food Studies.
- In the 2000 convocation ceremony, 275 graduated - 90 with Bachelor of Science in Food Technology, 121 with Bachelor of Science in Food Studies and 64 with Bachelor of Science in Biotechnology degrees. Twenty students attained First Class Honours, 170 Second Class Upper Honours, 89 Second Class Lower and two obtained Third Class .

Program Pengajian Siswazah

Jumlah pelajar siswazah yang mendaftar di fakulti tahun 2000 adalah seramai 174 orang dengan 71% (123 orang) adalah pelajar Sarjana dan bakinya (51 orang) pelajar Ph.D. Daripada jumlah ini, 21% merupakan pelajar asing dari negara seperti Indonesia, Iraq, Jordan dan Thailand (Jadual 25). Bilangan pelajar baru ialah 28 orang, sementara yang bergraduat pula adalah 16 pelajar sarjana dan tiga pelajar Ph.D.

JADUAL/TABLE 25

TABURAN PELAJAR SISWAZAH MENGIKUT NEGARA (2000)
FOREIGN GRADUATE STUDENTS BY COUNTRY (2000)

Negara Country	Bilangan No.	Peratus Percentage
Malaysia	139	79.9
Indonesia	11	6.3
Iran	5	2.9
Thailand	4	2.3
Sudan	4	2.3
Jordan	3	1.7
India	2	1.1
China	2	1.1
Bangladesh	1	0.6
Nigeria	1	0.6
Iraq	1	0.6
Sri Lanka	1	0.6
Jumlah/Total	174	

Kemajuan yang Dicapai

- Fakulti telah menubuhkan Unit Perundingan bagi mamantau dan meningkatkan aktiviti perundingan pensyarah-pensyarah Fakulti.
- Mengadakan penstrukturan semula pentadbiran Fakulti dan melantik seorang lagi Timbalan Dekan bagi mengendalikan urusan akademik dan Hal- Ehwal Pelajar.

Penerbitan

Pensyarah Fakulti telah menghasilkan penerbitan seperti artikel dalam makalah teknikal, prosiding/seminar/persidangan/bengkel, buku, bab dalam buku atau artikel dalam makalah lain seperti ensiklopedia. Jadual 26 menunjukkan bilangan penerbitan yang dibuat mengikut jenis penerbitan. Sembilan puluh sembilan peratus daripada jumlah artikel adalah diterbitkan dalam makalah teknikal bertaraf antarabangsa.

Postgraduate Programme

The postgraduate student enrolment in 2000 was 174, of which 123 (71%) were enrolled for the Masters, and 51 others the Ph.D programmes. Of the total, 21% were foreign students from countries such as Indonesia, Iraq, Jordan and Thailand (Table 25). New student intake was 28, while 16 Masters and three Ph.D. students graduated.

Progress Achieved

- The faculty established a Consultancy Unit to monitor and upgrade the consultancy activities of the lecturers at the Faculty.
- The administration of the Faculty was restructured and a Deputy Dean for academic and student affairs was appointed.

Publications

Academic staff have published articles in technical bulletins, proceedings of seminars/conferences/workshops, books, chapters in books or encyclopedia. Table 26 shows the various publications. 99% of the articles have been published in reputable international publications.

JADUAL/TABLE 26

PENERBITAN FAKULTI
FACULTY PUBLICATIONS

Jenis Penerbitan Type of Publication	Jumlah Total
Makalah Teknikal (jurnal) Technical Bulletins (journals)	
• Telah diterbitkan Published	49
• Sedang diterbitkan In Press	28
• Diterima Accepted	12
Jumlah/Total	89
Dalam Prosiding/Dibentangkan In Proceedings/Presented	120
Buku/Bab dalam buku/Artikel dalam majalah am Books/Chapter in Books/Articles in General Magazines	21
Jumlah Besar/Grand Total	230

Anugerah Penyelidikan

Beberapa anugerah untuk penyelidikan yang dijalankan telah diperolehi beberapa orang pensyarah di fakulti. Jadual 27 menyenaraikan nama penyelidik serta anugerah yang diterima.

Research Awards

Faculty members have won several research awards as shown in Table 27.

JADUAL/TABLE 27

**ANUGERAH PENYELIDIKAN
RESEARCH AWARDS**

Bil. Nama Penyelidik No. Researcher	Anugerah yang diterima Award/Received
1. Profesor Dr. Yaakob Che Man dan ahli kumpulan penyelidik Professor Dr. Yaacob Che Man and members of Research Group	Tempat pertama Anugerah 'UPM Research and Invention Award 2000', 8 April 2000 1st prize in 'UPM Research & Invention Award 2000', 8 April 2000 Dua projek lain disenarai pendek untuk kategori anugerah yang sama di atas Two other projects were shortlisted in the same Award category Menerima anugerah 'Outstanding Paper Presentation Award 2000' dari AOCS, USA pada 26 April 2000 Received 'Outstanding Paper Presentation Award 2000', from AOCS, USA on 26 April 2000
2. Prof. Madya Dr. Mohd Ali Hassan dan ahli kumpulan penyelidik Assoc. Prof. Dr. Mohd Ali Hassan and members of Research Group	'Silver Medal at the International Invention and Design Competition (ITEX 2000)' 'Silver Medal at the International Invention & Design Competition (ITEX 2000)' Satu projek disenarai pendek untuk 'UPM research and Invention Award 2000', 8 April 2000 One project shortlisted for the 'UPM Research & Invention Award 2000', 8 April 2000
3. Puan Fatimah Abu Bakar dan ahli kumpulan penyelidik Ms Fatimah Abu Bakar and members of Research Group	Menerima 'Best Poster Presentation at Malaysian Science and Technology Congress (MSTC) 2000, Symposium', A-Promenade Hotel, Kota Kinabalu. 15-18 Oktober 2000. Awarded the 'Best Poster Presentation at Malaysian Science & Technology Congress (MSTC) 2000, Symposium', A-Promenade Hotel, Kota Kinabalu. 15 - 18 October 2000.

JADUAL/TABLE 28

**AKTIVITI YANG DIJALANKAN SEPANJANG TAHUN 2000
ACTIVITIES CARRIED OUT IN YEAR 2000**

Tarikh Date	Aktiviti Activity	Tempat Place
6/6/2000	Majlis menandatangani MoU antara HOS dengan UPM MoU Signing Ceremony between HOS and UPM	Bangunan Pentadbiran UPM UPM Administrative Building
4/10/2000	Majlis Penyampaian Hadiah Fakulti Faculty Prize Giving Ceremony	FSMB
4/10/2000	Hari Pengenalan Produk Baru (FST 4805) New Product Introduction Day (FST 4805)	FSMB
4/10/2000	Majlis Pelancaran Buku 'Koleksi Idea Baru Produk Makanan' 1993-1999 Book Launching Ceremony 'Collection of New Ideas for Food Products' 1993-1999	FSMB
5/11/2000	Hari Keluarga Fakulti Faculty Family Day	Port Dickson

FAKULTI PENGAJIAN BAHASA MODEN DAN KOMUNIKASI

Jabatan Bahasa Melayu

Bengkel dan Seminar

- Seminar Kesusasteraan dan Disiplin Pelengkap, anjuran Mahasiswa Pascasiswazah pada 26 Februari 2000.
- Bengkel Penyediaan Modul Bahasa Melayu Intensif pada 10 – 13 April 2000 di Hotel Seri Malaysia, Genting Highlands.
- Bengkel Penggubalan Kurikulum M.A. Pada 19 – 21 April 2000 di Hotel Awana, Genting Highlands.
- Seminar Kesusasteraan Lama dan Baru pada 16 September 2000.

Persembahan Pentas

- Pementasan drama 'Alahai Menantu' pada 23 Februari 2000.
- Pementasan Malam Tradisi Sastera Rakyat (MTSR) Ke-16 pada 24 Ogos 2000.

Jabatan Komunikasi

Aktiviti Pelajar

- Ceramah "PR, Publicity and Corporate Advertising," 17 Februari 2000 anjuran Kursus KOM 5323 – Principles of Advertising
- Amali Fotografi Asas, 18 – 20 Februari 2000 anjuran Kursus KOM 3006 - Asas Kewartawanan Foto di Pulau Pangkor, Perak
- Projek MALINDO – Lawatan ke Indonesia, 8 – 12 April 2000. Pelajar-pelajar Kursus KOM 5217 – Strategi Komunikasi.
- Ceramah Kerjaya, "Wacana Komunikasi bersama Pengamal Komunikasi," 12 Ogos 2000 anjuran Alumni Komunikasi Korporat, UPM
- Wacana Intelek bersama Ketua Polis Negara, Tan Sri Norian Mai, 29 Ogos 2000 anjuran pelajar-pelajar Kursus KOM 4108 – Teknik Perundingan
- Acara "Award Nite 2000," iaitu malam penyampaian anugerah untuk penghasilan iklan terbaik. 16 September 2000, anjuran pelajar-pelajar KOM 4106 – Proses Kreativiti dalam Pengiklanan di Dewan Makan, UPM

FACULTY OF MODERN LANGUAGE STUDIES AND COMMUNICATION

Bahasa Melayu Department

Courses and Seminars

- Seminar on "Literature and Associated Disciplines", organised by postgraduate students on 26 February 2000.
- Workshop on "Intensive Bahasa Melayu Module" from 10 – 13 April 2000 at Hotel Sri Malaysia, Genting Highlands.
- Workshop on "Restructuring the Masters Curriculum" from 19 – 21 April 2000, at Hotel Awana, Genting Highlands.
- Seminar on 'Old and New Literature' on 16 September 2000

Stage Presentation

- Staging of a drama "Alahai Menantu" on 23 February 2000.
- "Sixteenth Traditional Folk Literature Nite (MTSR) on 24 August 2000.

Communications Department

Student Activities

- Lecture on "PR, Publicity and Corporate Advertising" on 17 February 2000, organised by Comm Course 5323 – Principles of Advertising.
- Practical on Basic Photography from 18 – 20 February 2000, organised by Comm Course 3006, Basic Photo Journalism at Pangkor Island, Perak.
- MALINDO Project – Visit to Indonesia from 8 – 12 April 2000, Students of Comm Course 5217 – Communication Strategy.
- Career Talk: Communication Dialogue with Communication Practitioners, 12 August 2000, organised by Corporate Communication Alumni UPM.
- Intellectual Discourse with the Chief of Police, Tan Sri Norian Mai, 29 August 2000, organised by Comm Course 4108 – Negotiation Techniques.
- Award Nite 2000, a night of presentation of awards for best advertisement presentations, 16 September 2000 organised by Comm. Course 4106 – "The Creative Process in Advertising", IDEAL Dining Hall UPM.

Jabatan Bahasa Asing

Peristiwa Penting

- Pertandingan Kaligrafi Cina untuk pelajar Universiti Putra Malaysia. Anjuran Unit Bahasa Mandarin pada 23 Ogos 2000.
- Bengkel Persediaan Bahasa Arab PMR 2000. Anjuran Unit Bahasa Arab, 3 September 2000.
- Rombongan promosi dan menyediakan risalah untuk mempromosikan empat program baru fakulti ke sekolah seluruh Semenanjung Malaysia, Oktober 2000.
- Seminar Jabatan Bahasa Asing 'From Bintan to Bromo' oleh Dr. Paul Mettler. Bilik Mesyuarat I, FBMK. 22 November 2000.
- Minggu Sastera dan Seni Cina 2000. Antara aktiviti yang dijalankan ialah:
 1. Pameran Buku : 18 - 22 Disember 2000
 2. Pameran Kaligrafi : 18 - 22 Disember 2000
 3. Ceramah (Cerita 'Chuanqi pada zaman Tang') disampaikan oleh En. Lim Wan Long : 18 Disember 2000
 4. Ceramah (Sastera Cina dan Komputer) : 19 Disember 2000
 5. Tayangan gambar : 20 Disember 2000
 6. Kuiz : 21 Disember 2000
- Pertandingan Esei tentang Korea. 2000 Anjuran Kedutaan Republik Korea dan Berita Harian dengan kerjasama Fakulti Sastera dan Sains Sosial, Universiti Malaya, Disember 2000.

Jabatan Bahasa Inggeris

Kolokium/Seminar

- *Language Alternation: A Global Perspective* oleh Prof. (Emeritus) Rodolfo Jacobson, Universiti of Texas, San Antonio, U.S.A., di FBMK, UPM, 20 Januari 2000.
- *Caribbean Literature in English* oleh Profesor E.A. Markham, Universiti Sheffield-Hallam, U.K., di FBMK, UPM, 28 Januari 2000.
- *Ethnicity and Malaysian Literature in English* oleh Dr Lily Rose Tope, Universiti Filipina, di FBMK, UPM, 22 November 2000.

Foreign Languages Department

Important Events

- Chinese Calligraphy Competition for UPM students organised by the Mandarin Language Unit – 23 August 2000.
- Workshop on Arab Language Preparation for PMR Organised by Arab Language Unit, 3 September 2000.
- Road show & preparation of brochures to promote four new faculty courses to schools in Peninsular Malaysia – October 2000
- Seminar on 'From Bintan to Bromo' by Dr. Paul Mettler at Conference Room I, FBMK, 22 November 2000.
- Chinese Literature and Art Week 2000. Among the activities were:
 1. Book Exhibition: 18 – 22 December 2000
 2. Calligraphy Exhibition: 18 – 22 December 2000
 3. Lecture on Chuanqui in Tang Period by Mr. Lim Wan Long : 18 December 2000
 4. Lecture on Chinese Literature & Computers: 19 December 2000
 5. Film show: 20 December 2000
 6. Quiz: 21 December 2000
- Essay Writing Contest – 'Korea 2000', organised by the Korean Embassy, Berita Harian in collaboration with the Faculty of Literature and Social Science, University Malaya, December 2000.

English Language Department

Colloquium/Seminar

- *Language Alternation: A Global Perspective* by Prof. (Emeritus) Rodolfo Jacobson, University of Texas, San Antonio, U.S.A. at FBMK, UPM, 20 January 2000.
- *Caribbean Literature in English* by Profesor E.A. Markham, Sheffield Hallam University, U.K. at FBMK, UPM, 28 January 2000.
- *Ethnicity and Malaysian Literature in English* by Dr Lily Rose Tope, University of the Philippines at FBMK, UPM, 22 November 2000.

Pembangunan Profesional

- *Kursus Kemahiran Penulisan dan Komunikasi* untuk kakitangan Institut Pembangunan Luar Bandar (INFRA), Bangi, Mei 2000.
- *Kursus Kemahiran Asas Bahasa Inggeris* untuk kakitangan Dewan Bandaraya Kuala Lumpur di Pusat Belia Antarabangsa, Kuala Lumpur, Oktober 2000.
- *Kursus Bahasa Inggeris Intensif* untuk pelajar pasca siswazah UPM, di FBMK, UPM, Mei and November 2000.

Bengkel

- Bengkel *Listening and Speaking* anjuran Jabatan Pendidikan Negeri Melaka bagi guru-guru bukan opsyen Bahasa Inggeris di Sekolah Menengah, 11 Julai 2000.

FAKULTI PERUBATAN DAN SAINS KESIHATAN

Perkembangan

Bangunan baru Fakulti Perubatan yang berharga RM5 juta dijangka siap pada tahun 2001 dan akan menempatkan dewan kuliah tambahan, makmal-makmal penyelidikan dan ruang pejabat.

Aktiviti

- Pihak fakulti buat pertama kalinya telah menganjurkan aktiviti Outward Bound School untuk kesemua pelajar baru di Kem Wira Waja, Janda Baik, Pahang.
- Hari Hadiah Fakulti
- Hari Q
- Program Pemeriksaan Payudara
- Bengkel Metodologi Penyelidikan

Penyelidikan dan Penerbitan

- Sebanyak 39 projek telah diluluskan berjumlah RM383,400 dan ini merupakan peruntukan tertinggi yang diberikan oleh Universiti dalam tahun 2000.
- Empat geran penyelidikan IRPA diperolehi dengan jumlah RM790,000
- 50 artikel telah diterbitkan dalam jurnal tempatan dan antarabangsa.

Professional Development

- *Writing and Communication Skills Course* for Institute for Rural Advancement, Malaysia, (INFRA), Bangi, May 2000.
- *Basic English Language Skills Course* for Kuala Lumpur City Hall staff at International Youth Centre, Kuala Lumpur, October 2000.
- *Tertiary Intensive English Course* for UPM postgraduate students at FBMK, UPM, May and November 2000.

Workshop

- *Listening and Speaking Workshop* organised by Malacca Education Department, for teachers who are non-English optionists in Secondary Schools, 11 July 2000.

FACULTY OF MEDICINE AND HEALTH SCIENCES

Development

Build at a cost of RM5 million, the new faculty building is expected to be ready by May 2001. This building houses additional lecture halls, research laboratories, and office space.

Activities

- For the first time, the OBS programme was organised for new students at Wira Waja Camp, Janda Baik, Pahang.
- Faculty Prize Giving Day
- 'Q' Day
- Breast Examination Programme
- Workshop on Research Methodology

Research and Publications

- 39 projects with an allocation of RM383,400 were approved and constitutes the highest funding given by the University in 2000.
- Four IRPA grants worth RM790,000 were received.
- 50 articles were published in national and international journals.



BAHAGIAN PEMBANGUNAN

Bahagian Pembangunan dipertanggungjawabkan untuk menyelenggara dan membangun prasarana dan kampus UPM. Sehingga tahun 2000, Bahagian Pembangunan telah menerima peruntukan berjumlah hampir RM152 juta di bawah peruntukan Pembangunan Rancangan Malaysia Ke-7 (1996-2000).

Dalam tahun 2000, melalui pelbagai sumber pembiayaan seperti Peruntukan Pembangunan RMK 7, Kumpulan Wang Pelaburan, Belanja Mengurus 'One-off' dan Tabung-tabung Akaun Amanah, Bahagian Pembangunan telah mengurus dan melaksanakan projek-projek berikut:

Projek-projek yang telah Siap

- Bangunan Tambahan Fakulti Ekonomi dan Pengurusan
- Stadium UPM (dewan serbaguna, trek sintetik dan padang bola sepak)
- Bangunan Fakulti Sains Gunaan dan Teknologi Kolej Universiti Trengganu (KUT)
- Makmal Sains Komputer KUT
- Dewan Kuliah, Fakulti Pengajian Pendidikan
- Bangunan Penerbit UPM
- Bangunan tandas dan bilik persalinan Masjid UPM.
- Menaik taraf tandas Bangunan Pentadbiran
- Membaik pulih bumbung Masjid UPM
- Paip air dari Ladang 5 ke Kolej kediaman 10 dan 11 dan Stadium Mini UPM.

DEVELOPMENT DIVISION

This division is responsible for physical infrastructural development and maintenance of the University campus. For year 2000, the Division received RM152 million under the Seventh Malaysia Plan (1996 – 2000).

Utilising funds from various sources such as RMK7, Investment Funds Group, 'One-off' Allocations and Other Trust Funds, the Division managed and implemented several projects as follows.

Completed Projects

- Annex to the Faculty of Economics and Management.
- UPM's Mini Stadium (Multipurpose Hall, Synthetic Track and Football Field)
- Faculty of Applied Science and Technology, KUT
- Computer Science Laboratory, KUT
- Lecture Hall, Faculty of Educational Studies
- Universiti Putra Malaysia Press Building
- Toilets and Changing Rooms for UPM Mosque
- Upgrading of toilet facilities for the Administration Building
- Roof repairs to UPM Mosque
- Laying of water mains from Field 5 to College 10, and 11 and UPM Mini Stadium.
- Upgrading of water supply facilities to College Muhammad Rashid
- Renovations to Faculty of Science and Environmental Studies
- Upgrading Block B, Putra Infoport for conversion into the Fermentation Technology Laboratory

- Menaik taraf bekalan air di Kolej Kediaman Muhammad Rashid
- Ubah suai Fakulti Sains dan Pengajian Alam Sekitar
- Menaik taraf bangunan Blok B Putra Infoport untuk Makmal Teknologi Fermentasi.
- Tempat letak kenderaan di Kolej Kediaman Muhammad Rashid, Kolej Kediaman Tun Perak dan bersebelahan gelanggang tenis
- Tempat letak kenderaan berpusat
- Tempat letak kenderaan di Dewan Kuliah Putra
- Ubah suai dan naik taraf tempat letak kereta dijadikan bilik penginapan Rumah Tetamu
- Pemasangan lampu jalan masuk utama ke UPM
- Menaik taraf bumbung Kolej Kediaman Canselor
- Pembinaan tembok pagar di kawasan UPM

Projek-projek dalam Pembinaan

- Kompleks Kejuruteraan dan Teknologi
- Kompleks Akademik Pusat
- Bangunan Fakulti Sains Komputer dan Teknologi Maklumat
- Bangunan tambahan Fakulti Perubatan dan Sains Kesihatan
- Naik taraf kabel Elektrik 11 kV
- Naik taraf perkakasan Elektrik 11kV
- Sistem bekalan elektrik Pukal 33 kV

Projek-projek dalam Peringkat Tender dan Perancangan

- Kompleks Fakulti Perubatan dan Sains Kesihatan
- Bangunan tambahan Fakulti Rekabentuk dan Senibina
- Bangunan Makmal Penyelidikan Pusat (R&D)
- Bangunan Kompleks Sains Sosial
- Tangki Air Kolej Universiti Trengganu (KUT)
- Kompleks Dewan Kuliah KUT

- Car park bays for College Muhammad Rashid, College Tun Perak and adjacent to Tennis Courts
- Central Parking Bay
- Car park bays for the Putra Lecture Hall
- Renovation and upgrading to the Guesthouse car park for conversion into guest rooms
- Lighting of the main entrance road to UPM
- Upgrading roof of College Chancellor
- Construction of wall fencing at UPM

Projects under Construction

- Engineering and Technology Complex
- Central Academic Complex
- The Faculty of Computer Science & Information Technology Building
- Additional building for the Faculty of Medicine & Health Sciences
- Upgrading of 11kV electric cables
- Upgrading of 11kV electric equipment
- 33kV electric supply system

Projects at Tender and Planning Stage

- Faculty of Medicine and Health Science Complex
- Additional building for Faculty of Design and Architecture
- Central Research Laboratory (R&D)
- Social Science Complex
- Water tank for KUT
- Lecture Theatre Complex for KUT
- Upgrading of Lebuhr Silikon and Jalan Maklumat
- Upgrading of Jalan Pongamia and Persiaran Tulang Daing
- Upgrading of several car park bays
- Upgrading of Eco2 Building, Faculty of Human Ecology



- Naik taraf Lebuh Silikon dan Jalan Maklumat
- Naik taraf Jalan Pongamia dan Persiaran Tulang Daing
- Naik taraf tempat-tempat letak kereta
- Naik taraf Bangunan Eco 2, Fakulti Ekologi Manusia
- Naik taraf siling dan lampu bangunan pentadbiran
- Naik taraf bangunan PALAPES
- Naik taraf sistem perparitan utama
- Pembinaan Tembok Pagar (Fasa 2)
- Mengecat Masjid UPM
- Sistem pencegahan kebakaran Kolej Kediaman 2, 5 dan 6
- Pembinaan Hospital Pengajaran Veterinar, Fakulti Perubatan Veterinar
- Sistem Zon untuk Kolej Kediaman
- Pembentungan berpusat utama berhadapan Kolej Muhammad Rashid

PERPUSTAKAAN

Sebagai usaha untuk membudayakan teknologi komunikasi dan maklumat (ICT) dalam segala aspek operasi/perkhidmatan, Perpustakaan terus mengorak langkah ke arah pewujudan Perpustakaan Elektronik. Langganan kepada pangkalan data dan jurnal dalam talian melalui Internet telah ditambah, dan kini meliputi *Dissertation Abstracts*, *EbscoHost on the World Wide Web*, *EbscoHost Online*, *Emerald Intelligence and Full Text Electronic Library*, *Institute of Physics Electronic Journal*, *Journals of the American Physiological Society*, *LINK Information Service (Springer Online Journals)*, *Oxford Journals*, *ProQuest Medical Library*, *Sciences of Soils*, *Wiley Journals Online*, *IEE Complete Online*, *Mediline*, *Evidence-based Medical Reviews*, *ACM Digital Library* dan *OVID* (15 tajuk jurnal perubatan). Semua pangkalan data dan jurnal elektronik tersebut boleh diakses terus melalui Laman Web Perpustakaan. Di samping itu kemudahan mengakses beberapa bahan rujukan elektronik percuma melalui Internet terus disediakan melalui Free Online Journals/Magazines/Newsletters dan Indexes and Abstracts yang dihubungkan ke Laman Web Perpustakaan. Beberapa tapak web dan sumber maklumat dalam dan luar negara, telah dihubungkan ke Laman Web Perpustakaan sebagai langkah meningkatkan akses kepada sumber maklumat elektronik bagi pengguna Perpustakaan atau sesiapa sahaja yang melawat Laman Web Perpustakaan.

Dalam pada itu Perpustakaan Fakulti Perubatan dan Sains Kesihatan telah memperolehi sistem kawalan elektronik untuk bahan-bahan dalam koleksi perpustakaan berkenaan.

- Upgrading of the ceiling and lighting of Administration Building
- Upgrading of the PALAPES Building
- Upgrading of the main drainage system
- Wall fencing construction (Phase 2)
- Painting of UPM Mosque
- Fire Safety System for Residential Colleges 2, 5 and 6
- Veterinary Teaching Hospital construction for Faculty of Veterinary Medicine
- Zoning system for Residential Colleges.
- Upgrading of the main drainage system adjoining College Muhammad Rashid.

LIBRARY

In tandem with efforts to inculcate the ICT culture in all aspects of its operation/service, the Library is progressing steadily towards becoming an Electronic Library. Subscription to online databases and journals through the Internet has increased to include *Dissertation Abstracts*, *EbscoHost on World Wide Web*, *EbscoHost Online*, *Institute of Physics Electronic Journals*, *Journal of the American Physiological Society*, *LINK Information Service (Springer Online Journals)*, *Oxford Journals*, *Proquest Medical Library*, *Sciences of Soils*, *Wiley Journals Online*, *EE Complete Online*, *Mediline*, *Evidence-based Medical Reviews*, *ACM Digital Library* and *OVID* (for 15 medical journals). All these databases and electronic journals are accessible directly through the Library Website. Users now also have free access, through the Internet, to various databases and electronic journals linked to the Library website, such as the *Free Online Journals/Magazines/Newsletters* and *Indexes and Abstracts*. The Library website has been linked to several other foreign and local websites as a means to enhance information retrieval.

To enhance the security of its materials, the Library at the Faculty of Medicine and Health Sciences has acquired an electronic security system.



Perkembangan Koleksi

Sehingga November 2000, Perpustakaan mempunyai koleksi buku dan jurnal berjilid berjumlah 386,276 naskah dan koleksi bahan pandang dengar berjumlah 67,485 unit. Sebanyak lima langganan jurnal dalam talian telah dibuat, 18 jurnal dibatal, dan 12, 688 keluaran jurnal diterima dan direkod. Kebanyakan pembatalan jurnal adalah ekoran daripada langganan jurnal dalam talian tersebut di atas.

Kedua-dua perpustakaan fakulti terus berkembang dengan Perpustakaan Fakulti Perubatan dan Sains Kesihatan kini mempunyai sejumlah 10,816 naskah buku, sementara Perpustakaan Fakulti Perubatan Veterinar mempunyai sejumlah 2,660 naskah buku.

Perkhidmatan Pinjaman

Sebanyak 441,275 transaksi pinjaman untuk buku dan jurnal kebelakangan telah dilaksanakan, sementara untuk bahan pandang dengar ialah sebanyak 92,684 yang meliputi 89,520 untuk bahan dan 3,164 untuk peralatan.

Keahlian perpustakaan sehingga November 2000 ialah 51,046, peningkatan sebanyak 11.53% daripada tahun lepas. Bilangan pengguna perpustakaan juga meningkat sepanjang tempoh ini kepada 1,024,622.

Pangkalan Data Elektronik

Pangkalan Data Dalaman yang diwujudkan dengan menggunakan perisian MINISIS berkembang maju dengan penambahan 10,065 rekod dan keseluruhannya kini berjumlah 92,918 rekod. Sehingga November 2000, jumlah rekod bagi setiap pangkalan data ialah: AGRIMAL (21,021), MAKMAL (54,194), MUWIC (6,706), FAMILY (3,889), HOUSING (4,764), SMI (2,344). Kesemua pangkalan data dalaman tersebut boleh diakses melalui Internet dengan peningkatan MINISIS ke sistem klien/pelayan dan wujudnya satu program antara muka web bagi MINISIS.

Penggunaan pangkalan data CD-ROM yang diperolehi terus meningkat; begitu juga dengan akses kepada pangkalan data elektronik dalam negeri seperti SIRIMLINK, PALMOILIS dan NSTP E-Media (dahulunya NSTP Online).

Program Pendidikan Pengguna

Program Orientasi Perpustakaan untuk para pelajar baru diteruskan bagi pelajar Ijazah dan Diploma bagi sesi Mei dan juga November, merangkumi 121 sesi ceramah dan tunjuk ajar keseluruhannya. Orientasi perpustakaan bagi

Growth in Collection

As of November 2000, the bound journal and book collection totalled 386,276 volumes while while AVA materials totalled 67,485 units. This year saw five new online journal subscriptions while 12,688 journal issues were received. 18 journal titles were discontinued; most of them are now available on-line.

The two faculty libraries continued to see growth in collection. The library at the Faculty of Medicine and Health Sciences has a collection of 10,816 books while the library at the Faculty of Veterinary Medicine has 2,660 books in its collection.

Loan Service

A total of 441,275 loan transactions for books and journals were carried out while for AVA the figures were 92,684, of which 89,520 were materials and 3,164 were for equipment.

Library membership as of November 2000 had increased by 11.53% to 51,046 in November. Number of library users for the year increased to 1,024,622.

Electronic Databases

The Electronic Database using MINISIS has expanded to include 10,065 records bringing the total to 92,918. As of November 2000, the total number of records for each database is as follows: AGRIMAL, 21,021; MAKMAL, 54,194; MUWIC, 6,706; FAMILY, 3,889; HOUSING, 4,764; SMI, 2,344. All these internal databases can be accessed through the Internet as a result of the upgrading of MINISIS to a client/user system resulting in a website interface for MINISIS.

CD-ROM databases and Malaysia-based databases like SIRIMLINK, PALMOILIS and NSTP E-Media (formerly NSTP Online) saw increased usage.

User Education Programme

The Library organizes an orientation programme each year for the Diploma and Bachelor students for the May/November sessions; 121 sessions were held. A similar programme for distance learning students (6 sessions) and for postgraduate students (7 sessions) were also organized. The Distance Learning programme sessions were not only held in the main campus but also in Sabah and Sarawak. The Ongoing User Education Programme for all UPM student is aimed at providing users the

pelajar program pendidikan jarak jauh juga telah diadakan sebanyak enam sesi, sementara tujuh sesi diadakan untuk program pascasiswazah. Bagi pelajar program jarak jauh, orientasi perpustakaan bukan sahaja diadakan di UPM, Serdang, bahkan juga di Sabah dan Sarawak untuk pelajar-pelajar di sana.

Program Pendidikan Pengguna Berterusan bertujuan untuk memberi pengguna kemahiran pencarian maklumat dalam bentuk bercetak dan elektronik diteruskan sepanjang tahun 2000.

Kursus Pengenalan Perpustakaan bagi pelajar francais UPM diadakan atas permintaan. Dalam tahun 2000, kursus diadakan untuk pelajar dari Pusat Teknologi dan Pengurusan Lanjutan, International City Institute of Technology dan Institut Teknologi Cybernatics pada 3 April 2000 untuk seramai 108 pelajar mereka.

Pameran

Sebanyak empat pameran khas telah diadakan sepanjang tahun 2000, selain daripada pameran sepanjang tahun untuk buku-buku baru yang ditambah ke koleksi perpustakaan. Pameran tersebut ialah:

- Pameran "Mesra Pengguna" sepanjang bulan Mei 2000.
- Pameran "Reka Cipta" sepanjang bulan Jun 2000.
- Pameran "Sejarah UPM" sepanjang bulan Julai 2000.
- Pameran "Hari Q Perpustakaan" sepanjang bulan Oktober 2000.

Ceramah/Kursus

Kursus-kursus berikut telah diadakan oleh Perpustakaan:

- Kursus WordPro untuk kumpulan sokongan Perpustakaan, pada 10 dan 17 Mei 2000.
- Kursus Penggunaan "Online Journals" untuk kumpulan sokongan Perpustakaan pada 11 dan 19 Mei 2000.
- Kursus Perkhidmatan Kaunter Berkesan untuk kumpulan sokongan berkaitan pada 17 dan 18 Oktober 2000.
- Ceramah Prof. Madya Dr. Azahari Ismail, Pengarah IDEAL bertajuk "Amalan Terbaik dalam Pengurusan Hari Ini: Peranan Pekerja dalam Usaha Membangunkan Organisasi yang Dinamik dan Berdaya Saing" sempena sambutan Hari Q Perpustakaan pada 28 Oktober 2000.
- Program Kecemerlangan Diri Perpustakaan UPM 2000 pada 30 Oktober – 2 November 2000.

knowledge to retrieve information from printed and electronic media.

Similar courses for students from the franchised colleges have been conducted based on request. On 3 April 2000, 108 students from Pusat Teknologi dan Pengurusan Lanjutan, International City Institute of Technology and Institut Teknologi Cybernatics were involved in this programme.

Exhibition

Four special exhibitions were held throughout 2000, apart from the usual ongoing exhibitions of selected new books. The exhibitions were:

- User Services, May 2000
- Design, June 2000
- History of UPM, July 2000
- Library 'Q' Day Exhibition, October 2000.

Lectures/Courses

The following courses were conducted by the Library:

- Wordpro course for support staff of the Library, 10 and 17 May 2000.
- Course on Accessing Online Journals for support staff on 11 and 18 May 2000.
- Course on Effective Counter Service Course for related support staff of the Library, 17 and 18 October 2000
- Talk by Assoc. Prof. Dr. Azahari Ismail, Director of IDEAL, entitled "Best Practices in Management Today: The Role of Workers in Developing a Dynamic and Competitive Organization", on Library Q-Day, 28 October 2000.
- Individual Excellence Programme 2000, UPM Library 30 October – 2 November 2000.



UNIT PERANCANGAN KORPORAT

Kejayaan Fakulti Perubatan Veterinar mendapat Sijil MS ISO 9001 dengan skop "Provision of education (undergraduate & postgraduate), research, veterinary hospital, consultancy, continuing education and support services" dari SIRIM merupakan kejayaan pertama UPM dalam usahanya membangunkan Sistem Penjaminan Kualiti UPM. Pusat Tanggungjawab yang lain akan berusaha mendapatkan sijil yang sama mengikut kemampuan mereka. Contohnya, Fakulti Kejuruteraan telah berjaya melepasi "Adequacy Audit" yang dijalankan oleh SIRIM dan dijangka menghadapi "Compliance Audit" menjelang bulan Jun 2001 (Jadual 29).

Cabaran utama Sistem Penjaminan Kualiti UPM bagi tahun 2001 adalah menjadikan Sistem Penjaminan Kualiti UPM setaraf dengan "Quality Assessment" yang dijalankan oleh Quality Assurance Agency for Higher Education di United Kingdom.

CORPORATE PLANNING UNIT

The success of the Faculty of Veterinary Medicine in achieving MS ISO 9001 Certification with the scope "Provision of education (undergraduate and postgraduate), research, veterinary hospital, consultancy, continuing education and support services" from SIRIM is a clear reflection of UPM's first success in developing a Quality Assurance System for the university. Other centres and faculties are also extending efforts towards ISO Certification, for example the Faculty of Engineering has passed the 'Adequacy Audit' conducted by SIRIM and is working towards the 'Compliance Audit' for June 2001 (Table 29).

The major challenge of the Quality Assurance System in UPM for year 2001 is to benchmark our system against that of the 'Quality Assessment' conducted by the Quality Assurance Agency for Higher Education in the United Kingdom.

JADUAL/TABLE 29

AKTIVITI TAHUN 2000

YEAR 2000 ACTIVITIES

Bil. No.	Nama Program/Aktiviti Programme/Activities	Tarikh Date	Tempat Place
1.	Bengkel Teambuilding, Fakulti Ekologi Manusia Kumpulan Pengurusan Workshop on Teambuilding, for Management Group, Faculty of Human Ecology	19-21 Mac 2000	Admiral Leisure, Port Dickson, Negeri Sembilan
2.	Program Gerak Putra Kumpulan Sokongan Gerak Putra Programme Support Group	23-26 Mac 2000	Hutan Simpanan Ayer Hitam, Puchong Ayer Hitam Forest Reserve Puchong
3.	Program Gerak Putra, Kumpulan Pengurusan dan Profesional Gerak Putra Programme, Management and Professional Group	28 Jun-1 Julai 2000	Hutan Simpanan Ayer Hitam, Puchong Ayer Hitam Forest Reserve Puchong
4.	Program Teambuilding dan Gerak Putra, Fakulti Kejuruteraan Teambuilding Programme and Gerak Putra, Faculty of Engineering	14-16 Julai 2000	Ayer Keroh, Melaka
5.	Bengkel Hala Tuju dan Perancangan Strategik UPM UPM Direction and Strategic Plan Workshop	28-31 Julai 2000	Hotel Equatorial, Melaka
6.	Program Teambuilding dan Gerak Putra, Fakulti Kejuruteraan Teambuilding Programme and Gerak Putra, Faculty of Engineering	28-30 Julai 2000	Ayer Keroh, Melaka
7.	Program Teambuilding dan Gerak Putra, Fakulti Kejuruteraan Teambuilding Programme and Gerak Putra, Faculty of Engineering	25-27 Ogos 2000	Ayer Keroh, Melaka
8.	Program Teambuilding dan Gerak Putra, Jabatan Bendahari Teambuilding Programme and Gerak Putra, Bursary Department	29 Sept-1 Okt 2000	Ayer Keroh, Melaka
9.	Program Teambuilding dan Gerak Putra, Perpustakaan Teambuilding Programme and Gerak Putra, Library	10-12 Nov 2000	Ayer Keroh, Melaka

PUSAT PEMBANGUNAN PERNIAGAAN UNIVERSITI (UBC)

Secara keseluruhannya aktiviti yang dijalankan oleh Pusat Pembangunan Perniagaan Universiti (UBC) sepanjang tahun 2000 adalah berdasarkan aktiviti unit-unit di UBC iaitu:

Unit Pembangunan Perniagaan

Unit ini berfungsi untuk menal pasti peluang-peluang perniagaan untuk universiti, menyediakan pelan perniagaan untuk projek-projek dan mempromosikan peluang perniagaan daripada kumpulan sasaran yang dikenal pasti. Antara aktiviti yang telah dijalankan oleh unit ini adalah:

Menyelaras perkhidmatan pengangkutan bas di kampus UPM

- Perkhidmatan pengangkutan bas di kampus UPM telah dimulakan pada awal November 2000. perkhidmatan ini telah dijalankan oleh Syarikat Auriman Sdn. Bhd. Bagi menggunakan pengangkutan ini setiap pelajar akan dikenakan bayaran bulanan sebanyak RM12.50. Walau bagaimanapun perkhidmatan ini masih tidak berjalan dengan baik disebabkan kurang sambutan dari pelajar. Masalah ini timbul kerana penguatkuasaan tempat letak kenderaan bagi pelajar masih belum dilaksanakan.

Menyelaras operasi kafe siber

- Kafe siber telah beroperasi di kolej-kolej kediaman UPM sejak pertengahan tahun 1999. Pada masa ini terdapat enam syarikat telah membuka kafe siber di UPM iaitu

Netskop Sdn. Bhd.	-	Kolej 10 dan 11
Abad Minda Sdn. Bhd.	-	Kolej Pendita Zaaba
Marzuki Ismaun & Anak Sdn. Bhd.	-	Kolej Tun Perak
Mega Star Sdn. Bhd.	-	Kolej Kelima
Multi Talent Sdn. Bhd.	-	Kolej Kedua
Uni Jaya Sdn. Bhd.	-	Kolej Matrik

Menyelaras operasi Desasiswa Catering Services Sdn. Bhd.

- Sepanjang tahun 2000 UBC telah membantu syarikat ini memperkemas operasi syarikat seperti terlibat dalam memilih syarikat yang menjalankan operasi penjualan makanan di UPM dan membantu menyelesaikan masalah-masalah semasa.

UNIVERSITY BUSINESS CENTRE (UBC)

The overall activities of UBC in year 2000 can be classified according to it's units as follows:

Business Development Unit

This unit identifies business opportunities for UPM, prepares business plans for commercialization of projects and promotes business opportunities with identified target groups. Among activities of this unit in 2000 were:

Coordinating the campus bus services

- This service was started in early November 2000 and by the company named Auriman Sdn. Bhd. To use this transportation, each student is charged a monthly sum of RM12.50. However, the service is still not in order due to lack of response by students. The problem arose since the parking bay for students is still not properly implemented.

Coordinating the operation of cyber cafe

- Cyber cafes were operated since middle of year 1999 by 6 companies at 6 UPM's colleges as follows :
- | | | |
|-----------------------|---|-----------------------|
| Netskop Sdn.Bhd | - | College 10 and 11 |
| Abad Minda Sdn. Bhd | - | Pendita Zaaba College |
| Marzuki Ismaun & Sons | - | Tun Perak College |
| Mega Star Sdn. Bhd | - | Fifth College |
| Multi Talent Sdn. Bhd | - | Second College |
| Uni Jaya Sdn. Bhd | - | Matric College |

Coordinating the operation of Desasiswa Catering Services Sdn. Bhd

- Through out 2000, UBC assisted this company to smoothen its operations such as the selection of companies operating the sale of food at UPM and overcoming their current problems.

Unit Komersialisasi Teknologi

Unit ini menghubungkan UPM dengan sektor kerajaan dan swasta bagi mempercepat komersialisasi hasil penyelidikan, mempromosi penyelidikan kontrak dan membuka peluang untuk pemasaran produk. Sepanjang tahun 2000 Unit Komersialisasi Teknologi telah menjalankan dua aktiviti utama iaitu:

Pengkomersialan Hasil penyelidikan UPM

Pada tahun 2000, dua hasil penyelidikan UPM telah berjaya dikomersialkan iaitu:

- ***Baja Vita Grow***
Hasil penyelidikan bersama Dr. Syed Omar Syed Rastan dan Dr. Ahmad Husni Mohd. Hanif, pensyarah di Jabatan Pengurusan Tanah, Fakulti Pertanian. Baja ini telah dikomersialkan secara pelesenan kepada syarikat Diversatech (M) Sdn. Bhd.
- ***Agar Gred Makanan dari rumpai tempatan***
Hasil penyelidikan Dr. Sharifah Kharidah Syed Muhammad dan Encik Zulkifli Mat Hashim, Fakulti Sains Makanan dan Bioteknologi. Produk ini telah dilesenkan kepada syarikat Agartech (M) Sdn. Bhd.

Selain itu, beberapa produk juga dalam proses akhir untuk dikomersialkan dan menunggu kelulusan UPM iaitu:

- ***Magnetic Soft Ferrite***
Hasil penyelidikan Prof. Madya Dr. Mansor Hashim, Jabatan Fizik, Fakulti Sains dan Pengajian Alam Sekitar. Produk ini akan dikomersialkan kepada syarikat J.O. Associate, Sdn. Bhd.
- ***Minuman Bercuka***
Hasil penyelidikan Prof. Madya Dr. Salmah Yusoff, Fakulti Sains Makanan dan Bioteknologi. Produk ini akan dikomersialkan secara pelesenan kepada syarikat Jesprint Sdn. Bhd.
- ***Immobilizer and Pager System for Motorcycle and Heavy Vehicles***
Hasil penyelidikan Dr. Ishak Aris pensyarah dari Fakulti Kejuruteraan. Akan dibangunkan secara usaha sama UPM dengan syarikat Advance Interconnection Technologies Sdn. Bhd.
- ***Herba Jinjau***
Hasil penyelidikan Dr. Rozita dari Fakulti Perubatan. Produk ini akan dikomersialkan kepada syarikat Anjung Korporat Sdn. Bhd.

Technology Commercialization Unit

This unit links UPM with government and private sectors to accelerate the commercialization of research findings, promotes contract research and creates opportunities for marketing of products. In year 2000 this unit has implemented two main activities:

Commercialization of UPM research funding

In year 2000, 2 UPM's research findings were successfully commercialised. The products were:

- ***Vita-grow-foliar fertiliser.***
Research done by Dr.Syed Omar Syed Rastan and Dr. Ahmad Husni Mohd. Hanif, lecturers from Department of Land management, Faculty of Agriculture Commercialised through licensing to the company named Diversatech (M) Sdn. Bhd
- ***Food Grade Agar from Local Seaweed***
Research work of Dr.Sharifah Kharidah Syed Muhammad and Encik Zulkifli Mat Hashim, from the Faculty of Food Science and Biotechnology Commercialized through licensing to the company named Agartech (M) Sdn. Bhd

Other products which were in the last stages of commercialisation and awaiting UPM approval include:

- ***Magnetic Soft Ferrite***
This research was done by Assoc. Prof. Dr.Mansor Hashim from Physic Department, Faculty of Science and Environmental Studies. To be commercialized to JO Associate Sdn. Bhd
- ***Vinegar Drink***
The research project of Assoc. Prof. Dr. Salmah Yusoff from the Faculty of Food Science and Biotechnology. To be commercialized by licensing to Jesprint Sdn. Bhd
- ***Immobiliser and Pager System for Motorcycle and Heavy vehicles***
This research was done by Dr. Ishak Aris, lecturer from the Faculty of Engineering. This system will be developed through the Joint Venture project between UPM and Advance Interconnection Technologies Sdn Bhd.
- ***Herba Jinjau***
The research of Dr. Rozita from the Faculty of Medicine. The product will be commercialized to Anjung Corporate Sdn. Bhd

I-TEX 2000

Unit ini juga telah bekerjasama dengan Unit Penyelidikan UPM menyelaraskan ITEX 2000 (International Invention, Innovation Industrial Design and Technology) pada 29-30 September 2000 di Dewan Tun Razak, PWTC Kuala Lumpur.

UPM telah menghantar 10 penyertaan dalam pertandingan tersebut dan berjaya merangkul lapan pingat dalam kategori reka cipta iaitu:

Pemenang Pingat Emas (Keseluruhan WIPO)

- *White Spot Virus Detection Kit*
Penyelidik: Prof. Dr. Mohamed Sharif Mohamed Din

Pemenang Pingat Emas

- *Robolab*
Penyelidikan: Dr. Ishak Aris
- *Stone mastic asphalt with cellulose oil palm fiber for Malaysian Roads*
Penyelidik: Encik Ratnasamy, Husaini Omar, Prof. Radin Umar, dan Jeyan Vasudevan
- *White sport virus detection kit*
Penyelidik: Prof. Dr. Mohamed Shariff Mohamed Din

Pemenang Pingat Perak

- *Production of bioplastic from palm oil mill effluent*
Penyelidik: Dr. Mohd. Ali Hassan
- *Smart pile testing devices*
Penyelidik: Dr. Rosely Abd. Malik

Pingat Gangsa

- *Distribution client/server architecture with dynamic middle tier*
Penyelidik: Dr. Burhanuddin

Anugerah P. Kandiah

- *White spot virus detection kit*
Penyelidik: Prof. Dr. Mohamed Sharif Mohamed Din

Unit Perundingan

Unit perundingan berperanan menyelaraskan segala aktiviti perundingan yang dijalankan di UPM. Di samping mengenal pasti peluang perundingan, unit ini juga dapat mempertingkatkan kepakaran pegawai akademik UPM bagi membolehkan mereka mempraktikkan ilmu yang dimiliki.

Sepanjang tahun 2000 Unit perundingan telah berjaya menyelaraskan 33 projek perundingan dengan nilai berjumlah RM5,117,600. kebanyakan projek tersebut masih aktif dijalankan.

I-TEX 2000

The Unit jointly coordinated with The Research Unit of UPM I-TEX 2000 which was held on 29-30 September 2000 at Dewan Tun Razak, PWTC, Kuala Lumpur.

10 participants from UPM were involved in this event, and successfully won 8 medals in the following categories:

Gold Medal (Overall – WIPO)

- *White Spot Virus Detection Kit*
Researcher: Prof. Dr. Mohamed Sharif Mohamed Din

Gold Medal

- *Robolab*
Researcher: Dr. Ishak Aris
- *Stone Mastic Asphalt with cellulose Oil Palm fiber for Malaysian Roads*
Researcher: Mr. Ratnasamy Muniandi, Husaini Omar, Prof. Radin Umar and Jeyan Vasudevan
- *White Spot Virus Detection Kit*
Researcher: Prof. Dr. Mohamed Sharif Mohamed Din

Silver Medal

- *Production of bioplastic from palm oil mill effluent*
Researcher: Dr. Mohd. Ali Hassan
- *Smart pile testing devices*
Researcher: Dr. Rosely Abd. Malik

Bronze Medal

- *Distribution client/server architecture with dynamic middle tier*
Researcher: Dr. Burhanuddin

P.Kandiah Award

- *White Spot Virus Detection Kit*
Researcher: Prof. Dr. Mohamed Sharif Mohamed Din

Consultancy Unit

This unit seeks potential clients to increase consultancy services for UPM's academic, packages multidisciplinary consultancy teams from within and outside UPM, coordinates teams and evaluates consultancy projects.

In year 2000 this unit has coordinated 33 consultancy projects with the total value of RM5,117,600.

INSTITUT BIOSAINS

Semenjak penubuhannya, Institut Biosains telah membangun dengan pesatnya. Setakat ini, 12 pusat telah ditubuhkan dan penyelidikan yang dijalankan di pusat-pusat tersebut adalah bersifat multidisiplinari dan berpacuan pasaran yang berdasarkan bidang-bidang keutamaan. Ianya merangkumi penyelidikan dalam bidang makanan, tanaman, kesihatan, akuakultur, sumber dan pemuliharaan genetik, produk semulajadi dan biofarmaseutikal iaitu bidang-bidang penyelidikan yang berupaya membantu meningkatkan ekonomi dan taraf hidup kita. Ijazah Bachelo, Sarjana dan Ph.D juga ditawarkan bagi bidang-bidang tersebut.

Selain daripada menjadi sebuah pusat penyelidikan, Institut juga menjadi pusat mengurus dan menyediakan perkhidmatan yang unggul dalam mikroskopi elektron, "DNA sequencing" dan "fingerprinting", "DNA arraying" dan "DNA chip analysis", teknologi fermentasi serta kejuruteraan bioproses.

Program dan Aktiviti

- Penubuhan Pusat Teknologi Fermentasi ialah untuk menyediakan kemudahan penyelidikan bertaraf dunia dalam bidang teknologi fermentasi di UPM. Pusat ini juga menyediakan kemudahan untuk peningkatan skala proses fermentasi untuk penghasilan produk-produk bioteknologi yang berpotensi untuk dikomersilkan. Pusat ini juga telah dipilih sebagai pusat kecemerlangan untuk "Japanese Society for the Promotion of Science Programme (Biotechnology)".

THE BIOSCIENCE INSTITUTE

Since its inception, the Bioscience Institute has seen rapid growth. To date, 12 multidisciplinary research centres have been set up with the objective of promoting research in prioritized fields. Research focus is in the fields of food, crop, health, aquaculture, genetic resource and conservation, natural products and biopharmaceuticals i.e research directed at improving the economy and living standards of the nation. Degrees at Bachelor, Masters and Ph.D levels are offered in these fields.

Apart from being a research centre, the Institute also functions as a centre for the management and provision of excellent electron microscopic services, DNA sequencing and finger printing, DNA arraying and DNA chip analysis, fermentation technology and bioprocess engineering.

Programmes and Activities

- The establishment of the Fermentation Technology Centre is to provide research facilities of international standing in the field of fermentation technology at UPM. The Centre is expected to expedite the process of fermentation in producing biotechnological products with the potential for commercialisation. This Centre has been selected as a Centre of Excellence for the Japanese Society for the Promotion of Science Programme (Biotechnology)



- Pusat Genom telah ditubuhkan untuk menampung penyelidikan terkini yang bertaraf antarabangsa dalam bidang pertanian dan kesihatan di Malaysia. Pencapaian penyelidikan ini dapat dilaksanakan melalui perkhidmatan penjujukan DNA dan "DNA Microarraying" yang disediakan kepada para penyelidik dari dalam dan luar universiti.
- Pusat Mikroskop Elektron dan Sistem Imejan telah ditubuhkan untuk memberi kemudahan penyelidikan dan latihan mikroskop elektron kepada pengguna-pengguna universiti dan industri. Pusat tersebut mempunyai empat mikroskop elektron (dua mikroskop elektron pembias dan dua mikroskop elektron pancaran) dan sebuah mikroskop konfokal (yang pertama di Malaysia). Kini, pusat ini dalam proses memperoleh tiga buah lagi mikroskop elektron (dua mikroskop elektron pembias dan satu mikroskop elektron pancaran) dan sebuah mikroskop fluoresen. Dengan pemerolehan alatan tersebut, Pusat ini akan berupaya memenuhi keperluan para pelajar dan penyelidik bukan sahaja dari dalam universiti malah juga dari institusi serta industri lain. Pusat ini juga giat mengendalikan bengkel-bengkel dan kursus dalam bidang mikroskop elektron dan mikroskop konfokal.
- Ekstrak metanol dan metilena klorida bagi 13 spesies *Alpinia*, *Costus* dan *Zingiber* telah berjaya dicerakin keaktifan biologi sebagai antioksidan oleh kumpulan penyelidik dari Pusat Produk Semulajadi dan Analitikal. Kesemua ekstrak menunjukkan aktiviti antioksidan yang lebih tinggi daripada α -tokoferol yang digunakan sebagai piawai. Penyelidik dari Pusat ini telah dapat memisah, menulen dan mengenal pasti struktur-struktur dalam ekstrak *Alphna nutans*. Satu sebatian baru, β -hydroxychalcone telah juga dikenal pasti.
- Pusat Teknologi Biokomposit telah berjaya menghasilkan satu bahan "*fibre reinforced plastic composite*" yang berguna dalam bidang automotif, bahan pembinaan, pembuatan "crate" dan komponen perabot.
- Probiotik yang dihasilkan oleh kumpulan penyelidik dari Pusat Mikrobiologi Penghadaman terdiri daripada campuran 12 strain *Lactobacillus* yang berasal dari saluran penghadaman ayam tempatan.
- The Genome Centre was established to undertake research of international standing in the fields of agriculture and health in Malaysia. This has been achieved through the provision of services such as DNA sequencing and DNA microarraying to researchers within and outside the University
- The Microscopic Electron and Imaging System Centre was established to provide research facilities and microscopic electron training for both users from industry and the University. The Centre possesses four electron microscopes (two scanning electron microscopes and two transmission electron microscopes and a confocal microscope (the first of its kind in Malaysia). The Centre is in the process of acquiring a further three electron microscopes (two scanning and one transmission) and a fluorescent microscope. With the acquisition of the new equipment, the Centre will be equipped to meet the needs of not only the students but also researchers within the University and the industrial sector. The Centre has been actively involved in organizing courses and workshops on electron microscopy and confocal microscopes.
- Methanol and methylene chloride extracts from 13 species of *Alpinia*, *Costus* and *Zingiber* have been successfully bioassayed as antioxidants by a research group from the Natural Products and Analytical Centre. All extracts show a high level of antioxidant activity compared to α -tocopherol which was used as a standard. These researchers have isolated, purified and identified the structure of *Alphna nutans*. Another compound, β -hydroxy chalcone has also been identified.
- The Biocomposite Technology Centre has successfully produced the 'fibre reinforced' plastic composite which is widely used in automotive, building material, crate making and furniture components.
- Probiotics produced by a group of researchers from the Digestive Microbiology Centre, consists of 12 combined strains of *Lactobacillus* originating from the digestive channel of local poultry. All strains possessed the ability to attach themselves to the epithelia cell of the small intestine and exhibited tolerance to acid and alkaline juices. The results of this experiments and trials show that poultry fed with the probiotics grew faster, required less feed intake, and had lower cholesterol levels, with lower mortality rates, less fatty layers, compared to those not on probiotics.

Kesemua strain tersebut mempunyai sifat-sifat seperti berupaya untuk melekat pada sel epitelia usus kecil serta bertoleransi kepada keadaan asid dan jus hempedu. Probiotik tersebut diberikan kepada ayam sebagai makanan tambahan. Hasil dari eksperimen dan percubaan awal menunjukkan ayam yang diberi makan probiotik membesar dengan cepat, kurang pengambilan makanan, kadar mortaliti yang rendah, kurang lapisan lemak dan mempunyai paras kolestrol yang rendah berbanding ayam yang tidak diberi probiotik.

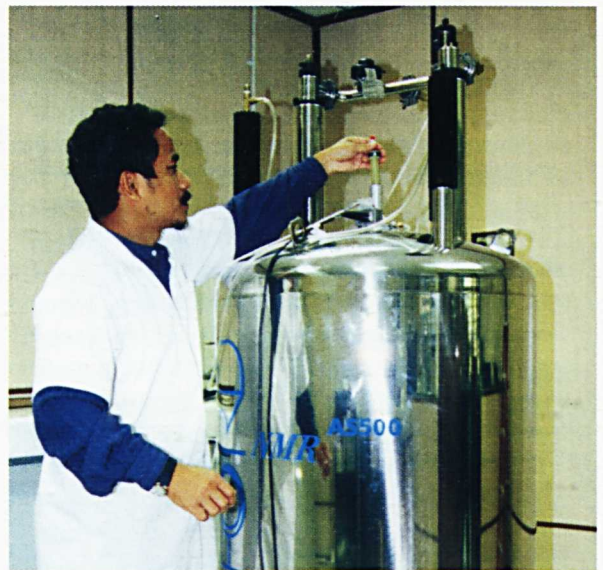
- Pusat Pertanian Tepat dan Remote Sensing Biosumber. Aktiviti dalam bidang pertanian tepat yang telahpun dijalankan ialah (i) pemetaan nutrien tanah, nutrien dalam daun dan hasil buah segar pokok kelapa sawit menggunakan kaedah Sistem Informasi Geografi (GIS/GPS) di Dusun Durian Estet, Golden Hope Plantations Bhd. Banting, Selangor dan (ii) pemetaan nutrien tanah dan hasil ladang padi menggunakan kaedah Sistem Informasi Geografi (GIS/GPS) di MADA dan KADA. Aktiviti dalam bidang biosumber yang telahpun dijalankan ialah (iii) pemetaan kawasan pencerobohan hutan menggunakan kaedah Remote Sensing dan Sistem Informasi Geografi (GIS/GPS) di Gua Musang Kelantan; (iv) pemetaan peralihan peruntukan penggunaan tanah menggunakan kaedah Remote Sensing dan Sistem Informasi Geografi (GIS/GPS) di Hutan Simpan Kekal; (v) pemetaan pembangunan kawasan Hutan Simpan Air Hitam menggunakan kaedah Remote Sensing/ GIS; dan (vi) pemetaan kawasan hutan bakau menggunakan kaedah Remote Sensing dan Sistem Informasi Geografi (GIS/GPS) di daerah Kuala Trong, Taiping.

INSTITUT MULTIMEDIA (IMM)

Academik

Dijangka program akademik ditawarkan oleh IMM (kini IMP) pada tahun 2002 ialah program bidang Bersilang yang tidak ditawarkan oleh fakulti. Sepanjang tahun 2000, aktiviti akademik hanya tertumpu kepada pengambilan pelajar latihan industri/latihan praktikal. Seramai 92 pelajar dari institut-institut pengajian tinggi seperti UPM, UKM, UUM, UiTM, Institut Pembangunan Sumber Manusia dan Politeknik Ungku Omar telah mengikuti latihan industri di IMM. (Rajah 1 dan 2).

- Centre for Precision Agriculture and Bioresources Remote Sensing. Precision agriculture R & D activities for year 2000 were: (i) soil nutrient mapping, leaf tissue nutrient and fresh fruit Bunch using GIS/RS/GPS in Dusun Durian Estate, Golden Hope Plantations Bhd. Banting, Selangor; (ii) soil nutrient and paddy yield mapping using GIS/RS/GPS in MADA/KADA. R & D activities in Bioresource management include: (iii) mapping of deforestations using RS/GIS in Gua Musang, Kelantan; (iv) mapping of land use change using GIS/GPS in Permanent Forest Reserve; (v) mapping and monitoring of Air Hitam Forest Reserve development using RS/GIS; and (vi) mangrove mapping and management of Kuala Trong, Taiping.



MULTIMEDIA INSTITUTE (MMI)

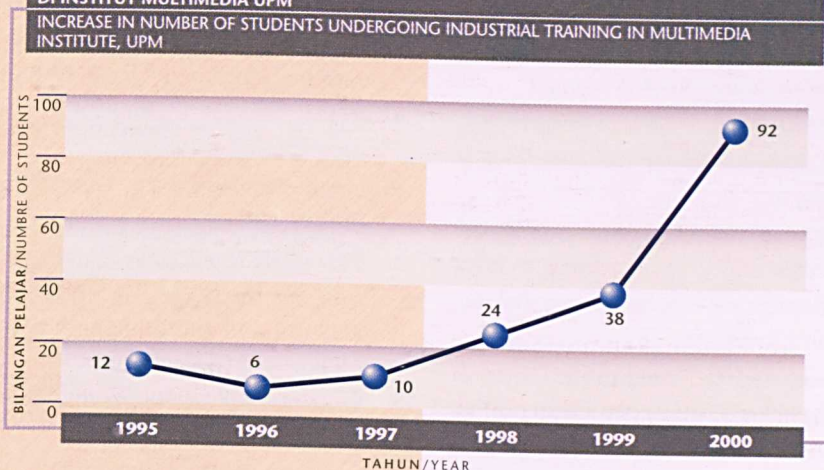
Academic

Cross-disciplinary academic programmes not offered by the faculties are expected to be offered by MMI (IMP) in year 2002. For 2000, academic activity focused on student recruitment for industrial practical training. A total of 92 students from the institutes of higher learning of UPM, UKM, UUM, UiTM, Human Resources Development Institute and Ungku Omar Polytechnic have been undergoing industrial training at MMI (Figures 1 and 2).

RAJAH/FIGURE 1

PENINGKATAN BILANGAN PELAJAR YANG MENGIKUTI LATIHAN INDUSTRI DI INSTITUT MULTIMEDIA UPM

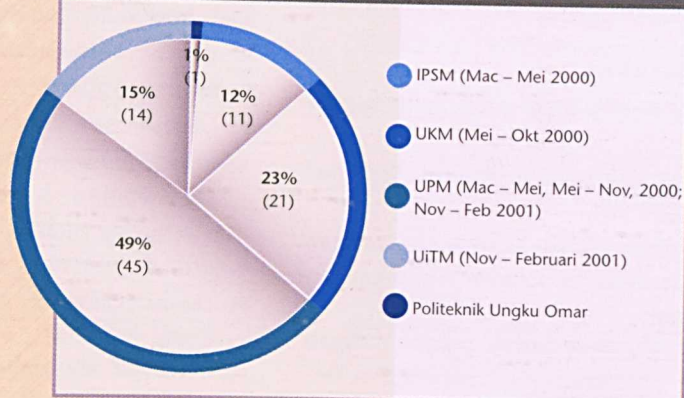
INCREASE IN NUMBER OF STUDENTS UNDERGOING INDUSTRIAL TRAINING IN MULTIMEDIA INSTITUTE, UPM



RAJAH/FIGURE 2

BILANGAN PELAJAR MENJALANI LATIHAN INDUSTRI DI INSTITUT MULTIMEDIA UPM

NUMBER OF STUDENTS UNDERGOING INDUSTRIAL TRAINING IN MULTIMEDIA INSTITUTE, UPM



Penyelidikan

- Digital Rainforest
- Inovasi Kad Pintar bagi Penguatan Sistem E-Pengajaran Interaktif Rangkaian Internet (Projek Penyelidikan Jangka Pendek 2000)
- E-repositori dan Modul E-Pengajaran Virologi Tumbuhan (Projek Penyelidikan Jangka Pendek 2000)

Pembangunan Projek Multimedia

- Pembikinan animasi 3D untuk rancangan TV - Biopirates of Pangaea
- Pembikinan klip video animasi "Maafkan Kami"
- Kemas kini KOSWER INTERAKTIF MULTIMEDIA dan membuat Kulit CD.

Research

- Digital Rainforest
- Smartcard Innovation to strengthen E-Education through an Interactive Internet (Short-term Research Project for 2000)
- E-Repository and E-Education module for plant virology (Short-term research project for 2000).

Development of Multimedia Projects

- 3D animation production for a TV programme - Biopirates of Pangaea
- Production of video clip animation 'Maafkan Kami'
- Updating KOSWER INTERACTIVE MULTIMEDIA and production of CD cover

- Persembahan Multimedia untuk Pengarah bagi kegunaan promosi/persidangan/proposal.
- Persembahan multimedia interaktif sempena lawatan DYMM Yang DiPertua Agong ke Zoo Negara
- Persembahan multimedia linear GITN untuk promosi.
- Persembahan multimedia linear sempena majlis makan malam Kolej 5.
- Persembahan multimedia interaktif untuk pelancaran Anugerah Reka Cipta.
- Laman Web dan brosur (4 jenis) untuk Fakulti Perubatan dan Sains Kesihatan.
- Pembikinan klip video animasi "Maafkan kami" Versi 2.
- Pembangunan kandungan kursus-kursus UPM (*Kenegaraan Malaysia, Tamadun Islam, Tamadun Asia Online*).
- Pembangunan dan penyelenggaraan Laman Web UPM.
- Reka bentuk dan pembangunan fasa pertama Internet Radio UPM.
- Persembahan multimedia linear IDEAL.
- Persembahan multimedia linear untuk Fakulti Kejuruteraan
- Laman Web Alumni UPM.
- Persembahan multimedia linear untuk Konvokesyen UPM
- Persembahan multimedia interaktif Seminar Pentadbiran dan IPT
- Persembahan multimedia linear sempena lawatan Ketua Menteri Sarawak ke Golden Hope Lavang Plantation, Sarawak
- Persembahan multimedia untuk pembentangan Agroinformatics
- Laman Web ASAIHL
- Golden Hope Convention:
 - penyalinan CD
 - Label CD
- Yayasan Pak Rashid
- Pelancaran multimedia Animasi 3D Linear YPEIM
- Persembahan multimedia interaktif sempena lawatan PM ke UPM (Fakulti Veterinar) untuk penyampaian Sijil ISO 9001
- Multimedia interaktif kiosk Kementerian Perusahaan Utama
- Multimedia presentation used for proposal, conference and promotion for Directors
- Interactive multimedia presentation in conjunction with the King's visit to the National Zoo
- GITN linear multimedia presentation for promotional purposes
- Linear multimedia presentation at 5th College Annual Dinner
- Interactive multimedia presentation in conjunction with the launch of the Design Award Ceremony
- Website and pamphlets (4 types) for Faculty of Medicine and Health Science
- Production of video clip animation 'Maafkan Kami', second version
- Course content development for UPM (*Malaysian Politics and Government, Islamic Civilization and Asian Civilization Online*)
- Development and operation of UPM's Website
- Design & development of the first phase of UPM's Internet Radio
- Linear multimedia presentation for IDEAL
- Linear multimedia presentation for Faculty of Engineering
- UPM Alumni Website
- Linear multimedia presentation for UPM's Convocation
- Interactive multimedia presentation for "Seminar on Administration and IPTs"
- Linear multimedia presentation during the Sarawak Chief Minister's visit to Golden Hope Lavang Plantation in Sarawak
- Multimedia presentation for Agroinformatics
- ASAIHL Website
- Golden Hope Convention:
 - CD copying
 - CD labeling
- Pak Rashid Foundation
- 3-D Animation Linear multimedia launch for YPEIM
- Interactive multimedia presentation during PM's visit to UPM (Veterinary Faculty) for ISO 9001 Certificate Presentation.
- Interactive multimedia for Primary Industry Ministry kiosk

Penerbitan

Lima manual kursus multimedia iaitu:

- "Reka Bentuk dan Pembangunan Multimedia"
- Integrasi Laman Web
- CGI-Perl

Publications

Five multimedia course manuals viz:

- Design & Development of Multimedia
- Website Intergration
- CGI-Perl

- Director 7
- Photoshop 5.0
- E- Monograf Universiti Digital

Peristiwa Penting/Kursus/Seminar/ Persidangan

Berikut merupakan senarai kursus multimedia yang telah dikendalikan oleh IMM sepanjang tahun 2000:

- Kursus Reka Bentuk dan Penerbitan Multimedia
- Kursus 3D dan Laman Web
- Mereka bentuk Laman Web
- Seminar Internet dalam Proses Pembelajaran
- Kursus CGI Perl
- Director 7
- Adobe Photoshop
- Persidangan Antarabangsa dan Pameran Ke Arah Universiti Digital di IDEAL, UPM
- Bengkel Intranet Class
- Bengkel 1 Pelan Strategik ke Arah E-Universiti di Desa Utara, Pedu Lake Resort, Kedah
- Bengkel 2 Pelan Strategik ke Arah E-Universiti di IDEAL, UPM
- Bengkel Sistem Kursus Online di Bilik Persidangan, Fakulti Pengajian Pendidikan

E-UNIVERSITI

Projek E-universiti yang bermula pada Tahun 2000 melambangkan tindak balas UPM kepada aspirasi kebangsaan untuk mewujudkan "Knowledge Economy" di Malaysia. Ia merupakan satu perubahan kritikal yang bermatlamat untuk mentransformasikan dan mereka sediakan Universiti supaya UPM dapat menjadi sebuah badan utama dalam masyarakat antarabangsa yang berilmu. Dalam jangka masa lima tahun hadapan, UPM akan mereka sediakan pendekatan baru dalam aktiviti-aktiviti asas iaitu pengajaran, penyelidikan, dan perkhidmatan perundingan. Ini akan menyiapkan sediakan UPM sebagai tempat penjana pengetahuan pada masa depan dengan pengwujudan pengetahuan yang baru yang boleh digunakan untuk menghasilkan kekayaan (wealth) dalam semua aktiviti.

Projek e-universiti adalah berdasarkan pendekatan dua cabang untuk meningkatkan ketrampilan ICT, iaitu:

- Untuk mengurus secara strategik, ICT akan digunakan dan diperbaharui untuk fungsi-fungsi utama dalam pembelajaran, pengajaran dan pentadbiran universiti. Ini akan meningkatkan

- Director 7
- Photoshop 5.0
- E-Monograph on Digital University

Important Events/Courses/Seminars/ Conferences

The following multimedia courses were conducted by MMI in 2000:

- Course on design & publishing in multimedia
- 3D and Website
- Website design
- Seminar on "Internet in the Learning Process"
- CGI Perl course
- Director 7
- Adobe Photoshop
- International Conference & Exhibition on "Towards a Digital University" at IDEAL UPM.
- Intranet class workshop
- Workshop 1 on "Strategic Plan for E-University" at Desa Utara, Pedu Lake Resort, Kedah
- Workshop 2 on "Strategic Plan for E-University" at IDEAL, UPM
- Workshop on "Online Course System", Conference Room, Faculty of Educational Studies

E-UNIVERSITY

The E-University project, initiated in 2000, is UPM's response to the national aspiration to establish a Knowledge Economy for the nation. It is a critical change with the objective of transforming and restructuring UPM to be one of the premier international institutions of learning. In the next five years, UPM will redesign a new approach to its basic activities in teaching, research, and consultancy services. This would place UPM at the forefront of knowledge creation and the new knowledge created will be used to generate wealth in all its activities.

The E-University will be based on a two-pronged approach to enhance ICT skills:

- For strategic management, ICT will be used and renewed for the major functions of the University i.e. teaching, learning and administration. This is expected to improve productivity and introduce excellence in our service to our clients. An important output of this process is a pool of competent knowledgeable workers who are ready to steer, contribute and further develop the economy of a knowledgeable society.

produktiviti dan menyediakan perkhidmatan yang cemerlang kepada pelanggan UPM. Salah satu hasil penting dari proses ini adalah kelompok pekerja yang mempunyai kemahiran pengetahuan dan sedia untuk membawa, menyumbang dan membangunkan lagi ekonomi sebuah masyarakat yang berpengetahuan.

- Untuk meningkatkan ketrampilan ICT secara keseluruhan dalam proses penyelidikan dan pembangunan dan melaksanakan penyelidikan dan pembangunan yang serba maju ke atas ICT. Ini akan menghasilkan produk "niche" baru dan perkhidmatan yang berhalakan ekonomi masyarakat ilmu dan seterusnya menjana kekayaan untuk UPM sepanjang proses tersebut.

Faedah

Hasil usaha projek e-universiti adalah perhubungan erat UPM dengan 'stakeholders'nya dalam beberapa cara. Pelajar akan lebih fleksibel dalam pembelajaran dan pembelajaran sendiri (self learning) dan dapat dikembangkan secara meluas. Proses pembelajaran akan beralih dari pencarian ilmu tulen ke pemeliharaan inovasi. Pegawai akademik akan dapat memfokus pada penyelidikan masing-masing supaya lebih produktif. Mereka turut boleh menjalin rangkaian dengan pegawai-pegawai setara (peers) dalam komuniti akademik antarabangsa dan dapat mengakses dan berkongsi penyelidikan, serta, mengemaskini bahan-bahan pengajaran dan penyelidikan. Pentadbiran UPM akan dapat menyungkit sistem rangkaian kampus bagi pengurusan yang berkesan dan memfokus kepada pewujudan persekitaran yang dinamik supaya menarik dan mengekal golongan intelek yang masyhur. Projek E-Universiti akan mewujudkan infrastruktur ICT bertaraf antarabangsa dan mempercepatkan pembinaan pusat bagi tenaga kerja yang berkaliber. Dengan ini, UPM akan menjana satu pengaruh kuat kepada masyarakat dan industri yang memerlukan sumber penyelidikan dan pembangunan dan pekerja mahir dalam k-ekonomi.

BAHAGIAN TEKNOLOGI MAKLUMAT

Selaras dengan perkembangan teknologi maklumat semasa, Bahagian Teknologi Maklumat telah mengadakan beberapa perkhidmatan antaranya:

- Rangkaian Komputer Kampus
- Konsolidasi Server
- Aplikasi sistem komputer yang dibangunkan dan diselenggara untuk menyokong pentadbiran

- To improve overall ICT efficiency in R & D processes and undertake sophisticated R & D on ICT. This would result in 'niche' products and services directed to economics of a knowledge society which in turn will lead to wealth creation to UPM during the process.

Advantages

The ultimate advantage of the E-University Project is the building up of a close relationship between UPM and its stakeholders. Students would have more flexibility in learning and self-learning and this will be vastly expanded. The process will see a learning change from pure knowledge seeking to nurturing of innovation. Productivity will improve as academic staff can now focus more on research. They can network with their academic peers internationally and be able to access and share research information as well as be updated on teaching aids and research. UPM will be a networked campus with a more effective administration and focus in building a dynamic environment so as to attract and conserve renown intellectual scholars in the campus. The E-University project is expected to put in place ICT infrastructure of international standard and hasten the creation of a centre for workers of calibre. Through this project, UPM is expected to exert a strong influence on society and industry in terms of R & D resources and provision of skilled workers for the k-economy.

INFORMATION TECHNOLOGY DIVISION

In line with the current information technology developments, the Division is offering several services. These are:

- Campus computer network
- Server consolidation
- Among the computer system applications which have been developed and are maintained to support

Universiti adalah seperti berikut:

- Sistem Maklumat Pengurusan Kewangan (SMPK)
- Sistem Maklumat Pelajar (SMP)
- Sistem Pengurusan Sumber Manusia Berintegrasikan (IHRMS)
- Automasi Pejabat (Lotus Notes)
- Perkhidmatan dan kemudahan lain yang disediakan di BTM:
 - 'Web E-Mail' untuk pelajar dan pegawai UPM
 - Makmal Komputer Pelajar
 - Optical Mark Reader (OMR) untuk peperiksaan pelajar

BENDAHARI

Program Perbelanjaan

Belanja Mengurus yang telah dikhaskan untuk Universiti Putra Malaysia pada tahun 2000 berjumlah RM282.2 juta dengan peningkatan 42.46% berbanding peruntukan tahun 1999. Strategi-strategi perbelanjaan untuk tahun 2000 telah memberi keutamaan untuk memantapkan semula program-program akademik yang sedia ada supaya sesuai dengan keperluan semasa dan pada masa akan datang, serta mengukuhkan perancangan keperluan tenaga pengajar melalui latihan jangka pendek dan jangka panjang. Strategi ini juga mengubah suai dan menaik taraf ruang-ruang yang sedia ada serta membina ruang-ruang baru untuk aktiviti akademik dan kokurikulum serta meningkatkan bilangan kursus-kursus latihan staf pentadbiran.

Pengurusan Kewangan

Masalah Y2K

Menjelang tahun 2000, Jabatan Bendahari telah dapat menguji dan memastikan aplikasi pentadbiran kewangan dan operasi, terutamanya Sistem Maklumat Pengurusan Kewangan (SMPK) dan sistem gaji memenuhi pematuhan tahun 2000 dan tidak terjejas dengan pepijat alaf.

Sistem Gaji Baru

Mulai bulan Februari 2000, Jabatan Bendahari telah melaksanakan proses bayaran gaji secara selari dengan aplikasi yang baru dan akur pada tahun 2000 iaitu Integrated Human Resource Management System (IHRMS). Proses integrasi dengan keperluan Bahagian Sumber Manusia, Jabatan Pendaftar juga telah dimulakan pada bulan Jun. Proses ini serta pembangunan sistem masih berterusan sepanjang tahun.

the university's administration are:

- Financial Management Information System (SMPK)
- Student Information System (SMP)
- Integrated Human Resource Management System (IHRMS)
- Office Automation (Lotus Notes)
- Other services and facilities provided by ITD are
 - Web E-mail for students and staff of UPM
 - Student computer laboratory
 - Optical Mark Reader (OMR) for student examinations

BURSARY

Expenditure Programme

Operational allocation for UPM for the year 2000 totalled RM282.2 million, a 42.46% increase over the 1999 allocation. The expenditure strategy for 2000 was to focus on upgrading the existing academic programmes so as to meet current and future needs, to strengthen academic staff requirement planning through short and long-term training, to upgrade and renovate the existing facilities as well as build new facilities for academic and co-curricular activities, and to increase the number of training courses for administrative staff.

Financial Management

Y2K Problem

For the year 2000, the Bursary was able to test and ensure that the application of especially the Financial Management Information System (SMPK) and the year 2000 salary system were not affected by the millennium bug.

New Salary System

Beginning February 2000, the Bursary implemented the process of salary payment parallel with the new application of Integrated Human Resource Management System (IHRMS) in 2000. This integration process with the Human Resource Division of the Registry began in June and is being further developed.

Zon Kewangan ●

Bagi memenuhi permintaan semasa dan memperkukuh lagi pengurusan kewangan di peringkat Pusat Tanggungjawab (PTJ), Jabatan Bendahari telah memperluaskan struktur dan skop perkhidmatannya dengan melaksanakan pembukaan tiga Zon Kewangan pada bulan April dan Mei bertempat di Fakulti Sains dan Pengajian Alam Sekitar, Fakulti Sains Perubatan dan Kesihatan dan juga IDEAL. Di bawah konsep ini, tiga atau empat fakulti, jabatan, institut, pusat atau bahagian akan digabungkan untuk diselia oleh seorang Pengurus Kewangan. Zon-zon tersebut bertanggungjawab untuk menjalankan fungsi kewangan Bendahari, memberi perkhidmatan sokongan dan khidmat nasihat profesional dalam semua urusan kewangan yang melibatkan PTJ.

Peraturan Baru ●

Beberapa peraturan baru telah dirangka dan dilaksanakan oleh Jabatan Bendahari untuk mempertingkatkan lagi penurunan kuasa kepada Ketua PTJ seperti pertambahan kuasa untuk meluluskan perolehan dan pelupusan aset. Peraturan-peraturan baru mengenai Pengurusan Kewangan Aktiviti Penyelidikan, kadar-kadar bayaran syarahan sambilan dan bayaran-bayaran lain yang berkaitan dengan program akademik, serta prosedur pengurusan kenderaan rasmi juga telah digubal dan diterima pakai oleh Universiti. Selain itu, usaha-usaha untuk menggubal Peraturan Kewangan dan Perakaunan yang lengkap dan baru untuk Universiti juga telah diteruskan oleh pihak Jabatan sepanjang tahun dengan tujuan pelaksanaan pada tahun 2001.

ISO 9000 ●

Pihak pengurusan telah menetapkan Jabatan Bendahari sebagai salah satu fakulti atau jabatan di Universiti untuk mendapat pengiktirafan ISO 9000 pada akhir tahun 2001. Selaras dengan keputusan berkenaan, jabatan telah mempergiatkan lagi usaha dan aktiviti ke arah pencapaian ISO 9000 sepanjang tahun 2000. Oleh itu, beberapa program latihan untuk staf jabatan telah dianjurkan bagi mempertingkatkan lagi kesedaran terhadap unsur-unsur kualiti dan semangat berpasukan.

Akauntabiliti ●

Konsep akauntabiliti dan kesedaran terhadapnya telah menjadi tumpuan utama program-program latihan yang telah dianjurkan oleh Jabatan Bendahari pada tahun 2000 untuk Ketua-ketua PTJ, Pegawai-pegawai Tadbir, Penyelidik serta staf sokongan yang mengendalikan urusan kewangan di peringkat PTJ. Objektif-objektif lain program adalah untuk meningkatkan tahap pengurusan kewangan di kalangan pengurus-pengurus supaya menggunakan sumber kewangan yang telah diagihkan kepada PTJ mereka dengan cekap, berkesan dan penuh tanggungjawab.

Financial Zone ●

To fulfill current needs and to further strengthen financial management at Responsibility Centres (PTJ), the Bursary has expanded the structure and scope of its services by instituting three Financial Zones in April and May at the Faculty of Science and Environmental Studies, Faculty of Medicine and Health Science and IDEAL. Under this zonal system, three or four faculties, departments, institutes, centres or divisions will be combined under one Financial Manager. These zones are responsible for carrying out the financial duties of the Bursary, providing support service and professional advice on all financial matters involving the PTJ.

New Regulations ●

Several new regulations have been planned and implemented by Bursary for more effective delegation of powers to the PTJ such as to approve purchases and write-off assets. New regulations for Financial Management of Research Activities, new rates for part-time lectures and other payments relating to academic programmes together with the new management procedures for official cars have been restructured and enforced by the University. Further efforts to formulate new Financial and Accounting Procedures for the University are ongoing for implementation in 2001.

ISO 9000 ●

The management has identified the Bursary as a department that should work towards ISO 9000 certification by the end of 2001. Towards this move, the Bursary has been actively planning and organising activities to achieve ISO 9000 certification throughout 2000. As an initial step, several courses have been organized for Bursary staff to enhance the elements of quality and teamwork awareness.

Accountability ●

The concepts of accountability and its awareness have been the focus of the courses conducted by the Bursary in 2000 for PTJ heads, administrative and research officers and support staff handling finance at PTJ level. The other objective of these courses is to enhance financial management among managers to ensure that financial allocations are managed more efficiently, effectively, and with greater responsibility.

Kemudahan Pinjaman

Pada tahun 2000, Jabatan Bendahari telah meluluskan sebanyak RM3.4 juta untuk pinjaman kenderaan dengan bilangan 166 peminjam serta RM665,300 dengan bilangan 141 pinjaman komputer untuk kemudahan staf Universiti.

INSTITUT TEKNOLOGI MAJU

Pendahuluan

Institut Teknologi Maju (ITMA) mula beroperasi pada 1 Januari 2000. Fungsi utama ITMA adalah sebagai sebuah institut penyelidikan dan pembangunan (R&D) dalam pelbagai bidang teknologi tinggi serta menjalankan pengajian siswazah di peringkat Sarjana Sains (MS) dan Doktor Falsafah (PhD). Kakitangan akademik ITMA sehingga akhir tahun 2000 terdiri daripada dua Profesor, tiga Prof. Madya, enam pensyarah, 20 Felo dan 10 tutor/guru sains.

Pusat-pusat Penyelidikan

Terdapat empat pusat penyelidikan di bawah ITMA dan masing-masing diterajui oleh seorang Ketua Pusat:

- Pusat Penyelidikan Bahan Maju
- Pusat Penyelidikan Pemodenan Berangka
- Pusat Penyelidikan Robotik
- Pusat Penyelidikan Teknologi Pembinaan Maju

Kegiatan Institut Tahun 2000

- Sekretariat, Malaysia Association for Numerical Methods in Engineering.
- Ahli Jawatankuasa Penganjur, Advanced Materials and Design Symposium, 29-31 Mei 2000, Orlando, USA.
- Lawatan Teknikal ke Institut Teknologi Bandung 21-24 Ogos 2000.
- "IRPA R&D and Commercialization Workshop", 29 Ogos 2000, Bangi, Selangor.
- Malaysian Construction Industry, R&D Achievement Seminar, 12 September 2000, Kuala Lumpur.
- Seminar "Enhancing Productivity in Construction Industry", 14 September 2000, Kuala Lumpur.
- Bengkel Tahunan Biasiswa Penyelidikan National Science Fellowship, 16-18, Oktober 2000, Kuala Lumpur.
- The Asia Pacific Higher Education Institutions Multi Lateral Research Network, 6-7 November 2000, Bangkok Thailand.

Loan Facilities

For the year 2000, the Bursary approved RM3.4 million in disbursements for 166 car loan and RM665,300 for 141 computer loan applications from University staff.

INSTITUTE FOR ADVANCED TECHNOLOGY

Introduction

The Institute for Advanced Technology (ITMA) came into operation on 1 January 2000. ITMA functions as a research and development institute in various areas involving high technology as well as conducts research at Masters and Ph.D. levels. Academic staff strength as of 2000 consisted of two Professors, three Associate Professors, six lecturers, 20 Fellows and 10 tutors/teachers of science.

Research Centres

There are four research centres under ITMA, each steered by a head:

- Advanced Materials Research Centre
- Numerical Modelling Research Centre
- Robotics Research Centre
- Advanced Construction Technology Research Centre

ITMA Activities for Year 2000

- Served as secretariat for the Malaysian Association for Numerical Methods in Engineering
- Member of the Organising Committee, "Advanced Materials & Design Symposium" 29 – 31 May 2000, Orlando, USA.
- Technical Visit to Bandung Technology Institute, 21 – 24 August 2000.
- IRPA R & D and Commercialization Workshop, 29 August 2000, Bangi, Selangor.
- "Malaysian Construction Industry, R&D Achievement Seminar", 12 September 2000, Kuala Lumpur.
- Seminar on Enhancing Productivity in Construction Industry, 14 September 2000, Kuala Lumpur.
- Annual Research Scholarship Workshop of the National Science Fellowship, 16 – 18 October 2000, Kuala Lumpur.
- The Asia Pacific Higher Education Institutions Multi-Lateral Research Network, 6 – 7 November, Bangkok Thailand.

- Penganjur International Advanced Technology Forum, 7-8 November, Shah Alam.
- Patent Drafting Workshop in the Field of Engineering.

Kerjasama dan Talian Antarabangsa

- The International Association of Computational Mechanics (IACM), USA
- American Academy of Mechanics (AAM)
- EMDL, University of Toronto
- Purdue University, USA
- University of Roorke, India
- British Research Establishment (BRE), UK

TAMAN PENYELIDIKAN UNIVERSITI

Taman Penyelidikan Universiti (URP) telah ditubuhkan pada bulan Mei 1998 dan bertujuan untuk menyediakan keperluan asas untuk pemindahan teknologi dan perkhidmatan dalam penyelidikan di ladang. URP juga bertujuan membantu UPM dalam pembangunan dan infrastruktur terutamanya dalam bidang agroteknologi.

Pada tahun 2000, Taman Penyelidikan Universiti telah berjaya menarik 16 kumpulan penyelidikan dari dalam kampus dan institusi penyelidikan negara untuk menjalankan penyelidikan di kawasan penyelidikan di URP. URP telah juga berjaya mengumpul inventori tanaman yang ada dan mengekalkan spesies-spesies buah-buahan, sayur-sayuran, herba dan sediaan di Serdang dan juga ladang Puchong.

Tiga puluh lapan buah syarikat kecil dan sederhana yang terlibat dalam teknologi maklumat berjaya ditempatkan di dua inkubator UPM iaitu UPM-MTDC dan Putra Infoport. Lapan daripada syarikat tersebut telah memperoleh status MSC dan enam syarikat telah mendapat perkhidmatan penyelidik UPM untuk membantu dalam aktiviti R & D. Sebahagian daripada penyelidikan yang dijalankan oleh syarikat termasuk:

- Teknologi suis
- Rangkaian dan sekuriti akses
- Pembangunan web dan aplikasi
- Simulasi perfileman dan pergerakan
- Artificial intelligence dan permainan 3D
- Multimedia



- Organised the "International Advanced Technology Forum", 7 – 8 November Shah Alam.
- Patent Drafting Workshop in the Field of Engineering

International Cooperation and Linkages

- The International Association of Computational Mechanics (IACM) USA
- American Academy of Mechanics (AAM)
- EMDL, University of Toronto
- Purdue University, USA
- University of Roorke, India
- British Research Establishment (BRE), UK

UNIVERSITY RESEARCH PARK

University Research Park (URP) was established in May 1998 to serve as a platform for technology transfer and services for field research. It also assists UPM in technology and infrastructure development especially in the area of agro-technology.

In 2000, URP attracted sixteen research groups both from within campus and national research institutions to carry out research in its experimental farm. URP has undertaken an inventory of plants available and to conserve many different species of fruits, vegetables, herbs and nurseries both in Serdang and Puchong.

Thirty-eight small and medium scale companies involved in IT-related activities are housed in two UPM incubators i.e. UPM-MTDC and Putra Infoport. Eight of these companies have been conferred MSC status and six companies obtained services from UPM researchers to assist in R & D activities. Research carried out by these companies include:

- Switch technology
- Network and access security,
- Web development & application
- Motion-based simulation movies
- Artificial intelligence and 3D games
- Multi-media

- Mikroelektronik, rangkaian dan komunikasi Internet telefoni
- R & D thumb drive
- Teknologi dye dalam CD-R
- Pembangunan perisian dan pakej teknologi Internet

Sehubungan dengan itu, Universiti telah menubuhkan Jawatankuasa Liason Industri (ILC) dengan MTDC yang dipengerusikan oleh Timbalan Naib Canselor (Pembangunan). Ia ditubuhkan untuk membincangkan polisi, perancangan dan aktiviti dengan syarikat inkubator. URP telah juga membantu beberapa buah fakulti untuk menyediakan tempat pelajar dalam latihan praktik dengan syarikat di inkubator serta sebahagiannya di kawasan ladang URP. URP juga menyediakan peralatan seperti jentera dan implemen untuk tujuan penyelidikan dan penyelenggaraan kawasan. Untuk rekreasi, Bukit Ekspo telah diguna dan disewa oleh beberapa syarikat dan jabatan kerajaan terutamanya untuk kegunaan pelajar dalam aktiviti kokurikulum dan hari keluarga. Kawasan kolam TPU telah menarik minat penyelidikan di bidang ikan air tawar serta pemancing dari dalam dan luar UPM. Sebahagian besar dari peruntukan kewangan universiti yang diperolehi TPU telah digunakan untuk penyelenggaraan dan pembangunan infrastruktur untuk kegunaan penyelidikan dan pelajar.

PENERBIT UPM

Penerbitan Buku-buku Ilmiah/Jurnal

Penerbit Universiti Putra Malaysia berjaya menerbitkan buku-buku dan jurnal ilmiah yang dihasilkan oleh pensyarah-pensyarah dari Universiti Putra Malaysia dan pensyarah dari universiti lain. Antara bahan utama yang telah diterbitkan oleh Penerbit UPM sepanjang tahun 2000 adalah buku dan jurnal.

Judul Buku

- Aljabar Linear Permulaan
- Bahan Komposit Berasaskan Polimer
- Bahasa Cina untuk Warga Malaysia
- Keberkesanan Sekolah: Satu Perspektif Sosiologi
- Masalah Pengajaran Kanak-kanak Berkeperluan Khas
- Smoke: A Collection of Poems
- Tatanama Kimia Organik
- Teras Penyelidikan
- Mekanik dan Gelombang
- Media Pengajaran: Penghasilan Bahan Pengajaran Berkesan

- Microelectronic, network and Internet telephony communication
- Thumb-drive R & D
- Dye technology in CD-R
- Software development and packaging Internet technologies.

The University has set-up an Industry Liaison Committee with MTDC chaired by the Deputy Vice-Chancellor (Development) to discuss policy, planning and activities of the incubators. URP has assisted various faculties to place students for practical training in these incubator companies and also in the farm. URP has also provided field machinery services for research purposes and maintenance of the URP. In the field of recreation, Bukit Ekspo has been utilized by many companies and government departments, especially for family day occasions and by UPM students for their co-curricular activities. The ponds at URP have attracted both researchers on freshwater fish and anglers from within and outside the campus. Much of the University financial support was used for maintenance and building infrastructure for use by researchers and students.

UPM PRESS

Books and Journal Publication

UPM Press succeeded in publishing books and journals originating from within the university as well as other universities. The following major books and journals were published during the year 2000:

Book Titles

- Aljabar Linear Permulaan
- Bahan Komposit Berasaskan Polimer
- Bahasa Cina untuk Warga Malaysia
- Keberkesanan Sekolah: Satu Perspektif Sosiologi
- Masalah Pengajaran Kanak-kanak Berkeperluan Khas
- Smoke: A Collection of Poems
- Tatanama Kimia Organik
- Teras Penyelidikan
- Mekanik dan Gelombang
- Media Pengajaran: Penghasilan Bahan Pengajaran Berkesan

- Pengajaran-Pembelajaran: Perdagangan, Keusahawan dan Ekonomi Asas
- The East Asian Crisis
- Elementary Mandarin Vol II
- Amali Geologi Kejuruteraan
- Prosiding Pembangunan Usahawan Wanita Luar Bandar: Ke Arah Pembasmian Kemiskinan
- Intec 2000 Information Technology Colloquium
- Prinsip Psikoterapi dan Pengurusan dalam Kaunseling
- Bahasa Arab I
- Psikologi Sosial

Jurnal •

- *Pertanika Journal of Science and Technology*
 - Vol 8/1 (8 artikel)
 - Vol 8/2 (8 artikel)
- *Pertanika Journal of Social Science and Humanities*
 - Vol 7/1 (6 artikel)
 - Vol 7/2 (6 artikel)
- *Pertanika Journal of Tropical Agricultural Science*
 - Vol 23/1 (7 artikel)
 - Vol 23/2 (6 artikel)
- *Asia Pacific Journal of Molecular Biology and Biotechnology*
 - Vol 8/1 (11 artikel)
 - Vol 8/2 (9 artikel)

Di samping menerbitkan buku dan jurnal, Penerbit UPM aktif dalam perekaan dan mencetak brosur, buku program seminar dan buku panduan pelajar yang diperlukan oleh fakulti-fakulti di dalam kampus. Diantara penerbitan untuk Fakulti dan institusi lain adalah:

- 12 isu majalah *Tribun Putra*, surat khabar rasmi Universiti.
- 4 isu majalah *Era Hijau* untuk Kementerian Sains, Teknologi dan Alam Sekitar.
- 6 isu *The Company Secretary* untuk The Malaysian Institute of Chartered Secretaries and Administrators

Penerbit UPM telah berpindah ke pejabat baru pada 9 Oktober 2000. Bangunan yang bernilai hampir RM750,000.00 ini memuatkan pejabat kakitangan, studio grafik, bilik cetak dan stor buku terbitan Penerbit UPM. Penerbit UPM telah berjaya meningkatkan pendapatan kasar berjumlah RM1,200,000.00 untuk tahun 2000. Pendapatan tersebut dicapai melalui penjualan buku yang diterbitkan oleh Penerbit dan melalui penjualan perkhidmatan penerbitan profesional.

- Pengajaran-Pembelajaran:Perdagangan, Keusahawan dan Ekonomi Asas
- The East Asian Crisis
- Elementary Mandarin Vol II
- Amali Geologi Kejuruteraan
- Prosiding Pembangunan Usahawan Wanita Luar Bandar: Ke Arah Pembasmian Kemiskinan
- Intec 2000 Information Technology Colloquium
- Prinsip Psikoterapi dan Pengurusan dalam Kaunseling
- Bahasa Arab I
- Psikologi Sosial

Journals •

- *Pertanika Journal of Science and Technology*
 - Vol 8/1 (8 articles)
 - Vol 8/2 (8 articles)
- *Pertanika Journal of Social Science and Humanities*
 - Vol 7/1 (6 articles)
 - Vol 7/2 (6 articles)
- *Pertanika Journal of Tropical Agricultural Science*
 - Vol 23/1 (7 articles)
 - Vol 23/2 (6 articles)
- *Asia Pacific Journal of Molecular Biology and Biotechnology*
 - Vol 8/1 (11 articles)
 - Vol 8/2 (9 articles)

Besides publishing books and journals, UPM Press is also active in designing and printing brochures, seminar program books and student guide books required by faculties in campus. Among the publications published for other faculties and institutions are:

- 12 issues of the *Tribun Putra*, the official newspaper of the Universiti.
- 4 issues of *Era Hijau* for the Ministry of Science, Technology and the Environment
- 6 issues of *The Company Secretary* for the Malaysian Institute of Chartered Secretaries and Administrators

The Press shifted to its new premises on 9 October 2000. Built at a cost of RM750,000.00, the building houses the offices of the staff, the store, a printing room and a graphic studio. Earned income for the year 2000 stood at RM 1,200,000.00. The income was from two sources – sale of books and sale of professional publication services.



Sesuai dengan objektif UPM iaitu untuk mengadakan pakatan-pakatan strategik dengan institusi-institusi awam dan swasta di dalam dan luar negara untuk mempromosi serta menawarkan program-program untuk pasaran antarabangsa, UPM telah menerima kunjungan lawatan ramai pelawat dari dalam dan luar negara yang mewakili institusi pendidikan dan organisasi kerajaan dari seluruh dunia untuk mencapai objektif tersebut sepanjang tahun 2000. Bahagian Perhubungan Antarabangsa UPM bertanggungjawab terhadap sambutan tetamu asing dan koordinasi lawatan berkenaan. Berikut merupakan rumusan kunjungan delegasi antarabangsa ke Universiti Putra Malaysia.

In line with UPM's objective of strengthening strategic alliances with public and private institutions, both local

and international, so as to promote and offer courses for the international market, UPM received visits by local as well as foreign delegations the world over, representing various institutions of learning and government agencies throughout 2000. The International Relations Division at UPM is responsible for receiving and coordinating such visits. A brief summary of the visits by international delegates to UPM is given below:

PELAWAT LUAR NEGARA

FOREIGN DELEGATIONS

Januari / January

- 17-20 Profesor Leena Aho, Dean, Faculty of Education & Prof. Marja-Liisa Julkunen, Head, Department of Applied Education, University of Joensuu, Finland.
- 18 Mr. Thevi Patner, Student Exchange Program Coordinator.

Februari / February

- 17 Profesor Emeritus Bjorn Berland, Mr. Peter Oettle, Pro Vice-Chancellor & Mr. Jeremy Callaghan, Assistant Vice-Chancellor, University of Waikato, New Zealand

Mac / March

- 8 Dr. Yoshida & Mr. Yuhei Watanabe, Japan Atomic Energy Research Institute (JAERI).
- 11 Delegasi seramai enam orang, Vietnam National University, Hanoi
- 14 Dr. Frank Wood, Vice Chancellor, Lincoln University, New Zealand
- 16 President Wu ZhongFu, Chongqing University, China
- 23 H.E. Profesor Dr. Yahya Muhamad al-Shwaibi, Minister of Education, Ministry of Education, Yemen
- 27 Profesor Stephanie Lawson Hargan, Professor in International Relations, University of Norwich, United Kingdom
- 28 Mr. Kamiyama, Manager Academic Affairs and Prof. Umezawa, English Division, URAWA Junior College, Japan.
- 29 Mr. Prapan Wisetratsakam, Delegasi seramai 18 orang, Prince of Songkla University, Thailand



April

10 Dr. Ches Skinner, Dean, Faculty of Fine Arts, University of Lethbridge, Canada.

29 Delegasi pelajar-pelajar Sandokan Study Tour 2000, University of Twente, Netherland

Mei/May

16 H.E. Dr. Michael Wood, Minister of Education and Science, Mr. Bob McDonagh, Ambassador Designate, Mr. John Dennehy, Secretary General, Department of Education, Mr. Keith McMullen, Private Secretary & Mr. Anthony Courtney, Enterprise Ireland, Ministry of Education and Science, Ireland.

17 Dr. John Hinchcliff, President & Vice-Chancellor, Dr. David Brooks, Vice-President & Deputy Vice-Chancellor, Ms. Linda O-Neil, Assoc. Deans (Academic) Faculty of Arts dan Ms Fauziah Mohamed Shariff, Education manager, New Zealand Education Centre, Malaysia.

20-23 Prof. Mary O’Kane, Vice-chancellor, University of Adelaide, Australia

Jun/June

2 Mrs. Yeong Boon Yee, Executive Director, International Life Science Institute (ILSI) Southeast Asia, Singapore

14 Wakil-wakil International Plant Genetic Resources Institute (IPGRI) seramai 70 orang, International Plant Genetic Resources Institute (IPGRI)

Julai/July

20-23 Seramai lima orang dari Kyushu University, Japan diketuai oleh Assoc. Prof. Yuri Shimuzu. Delegasi terdiri daripada Assoc. Prof. Chieko Kano, Tsukuba University, Assoc. Prof. Horoko Yabe, Tokyo Gakugei University, Ms. Eriko Ishi, Researcher dan Ms Yuriko Hirakata, Tsukuba University, Japan.

31 Seramai tujuh pelajar diketuai oleh Mr. Tomishige Hideaki dan Mr Miyoshi Ryoichi. MIIKE Agriculture High School, Japan.

Ogos/August

1 Delegasi seramai 36 orang dari TEDA Foreign Service Vocational School, China.

15 Soka Gakkai International, seramai tiga orang diketuai oleh Mr. Kenji Yoshigo, Vice-President, SGI, Japan.

28 Delegasi seramai lapan orang dari Universitas Gadjah Mada, Indonesia

30 Profesor Kinnosuke Komuro, President, Soka University, Japan

30 Delegasi seramai 20 orang dari Fakultas Pertanian, Universitas Riau, Indonesia

September

27 Sept. - 1Okt. Delegasi Study Tour seramai sembilan orang dari SEAMEO SEARCA

28 Sept. - 8 Okt. Profesor Dr. J. Farhoudi, Scientific Counsellor, Ministry of Cultural & Higher Education, Islamic Republic of Iran

28 H.E. Dr. Hassan Risheh, Minister of Education, Ministry of Education, Syrian Arab Republic

● **Oktober/October**

18 Dr. David Brook, Deputy Vice-Chancellor (Academic) & delegasi dari Auckland University of Technology, New Zealand

● **November**

16 Mr. Dawood Auleear, President, ALIF Society, Mauritius

19-20 Profesor Pornchai Matangka-somsbut, President, Mahidol University, Thailand

● **Disember/December**

16-20 Dr. Shan-da Liu, President, National Pingtung University of Science & Technology, Taiwan

● **PELAWAT DALAM NEGERI**

LOCAL DELEGATIONS

● **Februari/February**

26 Pelawat dari Universiti Teknologi Malaysia, Skudai

29 Pusat Persediaan Pendidikan UiTM, Shah Alam, Selangor

● **Mac/March**

11 Sekolah Menengah Kebangsaan Air Hitam, Muar, Johor

25 Institut Bukit Mertajam, Bukit Mertajam, Pulau Pinang

25 Perpustakaan Sekolah Sri Bestari, Lang Education Sdn. Bhd. Bandar Sri Damansara, Kuala Lumpur

27 Garden International School, Kuala Lumpur

29 Sekolah Menengah Kebangsaan Tinggi, Batu Pahat, Johor

● **April**

4 - 5 Sekolah Sri Garden, Taman Maluri, Kuala Lumpur

7 Politeknik Ungku Omar Ipoh, Perak

8 Sekolah Menengah Kebangsaan Labis, Johor

8 Sekolah Agama Menengah Bestari Jais, Subang Jaya, Selangor

8 Kolej Radiografi dan Radioterapi, Hospital Kuala Lumpur

8 Majlis Perbandaran, Petaling Jaya, Selangor

8 Kementerian Penerangan Malaysia, Bahagian Perkhidmatan dan Perjawatan, Angkasapuri, Kuala Lumpur

19 Sekolah Menengah Sains, Taiping, Perak

22 Tadika Cerdik, UEP Subang Jaya, Selangor

22 Sekolah Menengah Kebangsaan (F), Bandar Baru Serting, Negeri Sembilan

22 Sekolah Menengah Kebangsaan Bukit Saujana, Port Dickson, Negeri Sembilan

25 Sekolah Rendah Islam Hira' Klang, Selangor



2011

Mei/May

- 1 Sekolah Menengah Kebangsaan Tok Muda Abdul Aziz, Sungai Siput (U), Perak
- 1 Kolej Tunku Kurshiah, Seremban, Negeri Sembilan
- 6 Sekolah Menengah Kebangsaan Dato' Bentara Dalam, Segamat, Johor
- 13 Sekolah Menengah Kebangsaan Sri Sentosa, Jalan Kuchai Lama, Kuala Lumpur
- 21 Ma'had Al-Ummah, Chemor, Perak
- 24 Sekolah Menengah Notre Dame, Jalan Gajah Berang, Melaka
- 24 Sekolah Menengah Kebangsaan Dato' Bentara Dalam, Segamat, Johor
- 25 Sekolah Menengah Kebangsaan Labu, Negeri Sembilan
- 26 Sekolah Menengah Kebangsaan Ceneh Baru, Kemaman, Terengganu
- 27 Sekolah Menengah Kebangsaan Agama Bandar Penawar Kota Tinggi, Johor
- 29 Sekolah Menengah Kebangsaan Kubang Kerian (2), Kota Bharu, Kelantan
- 29 Sekolah Menengah Kebangsaan Sulaiman, Bentong, Pahang
- 29 Sekolah Menengah Kebangsaan Paloh Hinai, Pekan, Pahang
- 29 Sekolah Menengah Kebangsaan Kubur Panjang, Kubur Panjang, Kedah
- 29 Sekolah Menengah Kebangsaan Tinggi, Batu Pahat, Johor
- 30 Sekolah Menengah Kebangsaan Kubang Kerian (2), Kota Bharu, Kelantan
- 30 Sekolah Menengah Kebangsaan Bachok, Kelantan
- 31 Sekolah Menengah Kebangsaan Yong Peng, Johor
- 31 Jabatan Pendidikan Wilayah Persekutuan, Bangunan Anjung Felda, Jalan Semarak, Kuala Lumpur
- 31 Sekolah Menengah Kebangsaan Kamil, Pasir Putih, Kelantan

Jun/June

- 2 Sekolah Menengah Jenis Kebangsaan Nan Hwa, Setiawan, Perak
- 13 Sekolah Rendah Islam Hira' Klang, Selangor
- 24 Sekolah Menengah Kebangsaan Dato' Bentara Dalam, Segamat Johor
- 24 Sekolah Menengah Kebangsaan Notre Dame, Jalan Gajah Berang, Melaka
- 24 Sekolah Menengah Kebangsaan Teknik, Segamat, Johor

Julai/July

- 7 Sekolah Menengah Kebangsaan Laki-Laki Bukit Bintang, Petaling Jaya
- 12 Sekolah Menengah Kebangsaan Alam Megah, Shah Alam, Selangor
- 13 Sekolah Menengah Kebangsaan Labu, Negeri Sembilan
- 19 Penolong Pegawai Pembangunan Masyarakat, Felda Palong 14, Gemas, Negeri Sembilan
- 21 Pertubuhan Peladang Kuala Sungai Kawasan I-II MADA Alor Setar, Kedah
- 22 Institut Pengurusan Malaysia, Management House Jalan Ampang, Kuala Lumpur
- 22 Montessori Playhouse, Taman Bukit Maluri Kepong, Kuala Lumpur
- 22 Felda Wilayah Temerloh, Pahang
- 26 Sekolah Menengah Teknik (Pertanian), Rembau, Negeri Sembilan
- 29 Sekolah Menengah Kebangsaan Taman Seraya, Ampang, Selangor

● Ogos/August

- 11 Taska Children's World, Seri Petaling, Kuala Lumpur
- 12 Sekolah Menengah Kebangsaan Alam Megah, Shah Alam, Selangor
- 12 Sekolah Menengah Kebangsaan Tenggara A, Mersing, Johor
- 12 Sekolah Menengah Kebangsaan Datuk Bahaman, Lanchang, Pahang
- 12 Athfaal Tadika Indah Murni, Taman Seri Keramat, Kuala Lumpur
- 19 Sekolah Menengah Teknik Muadzam Shah, Bandar Muadzam Shah, Pahang
- 26 Sekolah Menengah Kebangsaan Undang Rembau, Negeri Sembilan
- 29 Sekolah Menengah Kebangsaan Jelai, Bahau, Negeri Sembilan
- 29 Politeknik Sultan Haji Ahmad Shah, Semambu, Kuantan, Pahang

● September

- 1 Sekolah Menengah Kebangsaan Tenang, Segamat, Johor
- 4 Kompleks Pendidikan Yayasan Terengganu, Kuala Berang, Hulu Terengganu
- 5 Sekolah Menengah Dato Haji Hussein, Selama, Perak
- 5 Sekolah Menengah Kebangsaan Dato' Ahmad Maher, Kota Bharu, Kelantan
- 5 Sekolah Menengah Kebangsaan Dato' Mohd. Taha, Gemencheh, Negeri Sembilan
- 5 Sekolah Menengah Damansara Utama, Petaling Jaya, Selangor
- 7 Sekolah Menengah Kebangsaan To' Uban, Pasir Mas, Kelantan
- 12 Universiti Malaysia Sarawak, Kota Samarahan, Sarawak
- 15 Sekolah Menengah Kebangsaan Syed Hassan, Kangar, Perlis
- 16 Sekolah Menengah Kebangsaan (A) Sharifah Radziah, Telok Mas, Melaka
- 20 Maktab Perguruan Batu Pahat, Johor

● Oktober/October

- 21 Tadika Emmanuel, Petaling Jaya, Selangor
- 23 Dewan Perniagaan Melayu Malaysia, Cawangan Negeri Sembilan, Seremban, Negeri Sembilan
- 23 Sekolah Menengah Kebangsaan Bukit Merbau, Pasir Putih, Kelantan
- 25 Sekolah Menengah Kebangsaan Saint Paul, Seremban, Negeri Sembilan
- 27 Sekolah Menengah Kebangsaan Demit, Kota Bharu, Kelantan
- 28 Sekolah Kebangsaan (LKTP), Sungai Nerek, Temerloh, Pahang

● November

- 8 Sekolah Jenis Kebangsaan (C) Serdang Baru (2), Seri Kembangan, Selangor
- 8 Jabatan Pertanian, Kementerian Pertanian, Kuala Lumpur
- 8 Sekolah Menengah Teknik Kemaman, Terengganu
- 8 Universiti Utara Malaysia, Sintok, Kedah
- 11 Sekolah Agama Taman Johor Jaya, Johor Bahru, Johor
- 13 Sekolah Menengah Kebangsaan Agama Tangok, Bachok, Kelantan
- 14 Sekolah Menengah Kebangsaan Raban, Lenggong, Perak
- 14 Sekolah Menengah Kebangsaan Jit Siu, Seberang Perai Tengah, Pulau Pinang
- 14 Sekolah Menengah St. Theresa, Muar, Johor
- 16 Kumpulan Marhaban dan Yasin Dinulhuda
- 20 Universiti Malaysia Sarawak, Kota Samarahan, Sarawak
- 20 Alafjana Management Consultants Sdn. Bhd., Kuching, Sarawak

MEMORANDUM PERSEFAHAMAN DAN PERJANJIAN

Memorandum of Understanding and Agreements

- **Mac/March**
 - 15 Kyoto University, Japan
- **April**
 - 5 AccTrak21 Sdn. Bhd. Sponsorship
 - 29 Lembaga Perindustrian Kayu Malaysia (MTIB)
- **Mei/May**
 - 8 AccTrak21 Sdn. Bhd.
- **Jun/June**
 - 16 Integrated Hos (M) Sdn. Bhd. (IHOS)
 - 16 University of Gergen, Norway (UG)
 - 23 Kuala Lumpur Stock Exchange (KLSE)
- **Julai/July**
 - 14 Bangladesh Council of Scientific and Industrial Research (BCSIR)
 - 24 National Pingtung University of Science and Technology, China (NPUST)
- **Ogos/August**
 - 7 Sistem Penerbangan Malaysia (MAS)
 - 15 Urawa Junior College, Japan (UJC)
- **September**
 - 4 Pusat Tenaga Malaysia (PTM)
 - 6 The Institute of Economics, Yangon, Myanmar (IEY)
 - 6 University of Yangon, Myanmar (UYM)
- **Oktober/October**
 - 5 Lembaga Pemasaran Pertanian Persekutuan (FAMA)
 - 12 Royal Agricultural College (RAC)
 - 12 GeniurSoft Sdn. Bhd.





● **Januari / January**

22 Pameran dan Taklimat Akademik Kolej Yayasan Pelajaran Mara, Bandar Baru Bangi, Selangor

● **Mac/March**

9-12 Pameran Akademik Sempena Festival UiTM Universiti Teknologi MARA Cawangan Pahang, Pusat Jengka, Pahang

24-26 The STAR Education Fair 2000, Putra World Trade Centre, Kuala Lumpur

28-30 Pameran 'Venture Capital Europe-Asia 2000, Putra World Trade Centre, Kuala Lumpur

● **April**

7 Pameran dan Ceramah Pendidikan 2000 Kolej Matrikulasi Negeri Sembilan, Kuala Pilah

8-10 Pameran Anugerah Reka Bentuk dan Penyelidikan Universiti Putra Malaysia, Serdang, Selangor

19 Pameran Pendidikan, Sekolah Menengah Kebangsaan, Shah Alam, Selangor

22 Pameran Institut Pengajian Tinggi Awam/Swasta, Sekolah Menengah Kebangsaan Banting, Selangor

27 Pameran Kerjaya, Sekolah Menengah Kebangsaan, Shah Alam, Selangor

● **Mei/May**

15 Pameran dan Ceramah Pendidikan 2000, Kolej SAL, Kuala Lumpur

17 Pameran dan Ceramah Pendidikan 2000, Kolej Premier Yayasan Perak, Ipoh, Perak

19-20 Karnival/Expo dan Prospektus Akademik Institut Teknologi Tun Abdul Razak (ITTAR), Cawangan Langkawi, Kedah

21 Pameran dan Ceramah Pendidikan 2000, Kolej Lagenda, Langkawi, Kedah

23 Pameran dan Ceramah Pendidikan 2000, Institut Kemajuan Ikhtisas Pahang 3 (IKIP 3), Kuantan, Pahang

24 Pameran dan Ceramah Pendidikan 2000, Kolej Shahputra, Pekan, Pahang

27-29 Pameran dan Ceramah Pendidikan 2000, Kolej Yayasan Pelajaran MARA, Kota Bharu, Kelantan

● **Jun/June**

- 1-3 Pameran Pendidikan Tinggi Kolej Matrikulasi Melaka, Londang, Melaka
- 6 Pameran dan Taklimat Akademik Kolej Yayasan Pelajaran Mara, Bandar Baru Bangi, Selangor
- 17-18 SibU Education Fair 2000, Dewan Suarah, SibU, Sarawak
- 25 Pameran dan Ceramah Pendidikan 2000, Kolej Teras Timur, Dungun, Terengganu

● **Julai/July**

- 3 Pameran dan Ceramah Pendidikan 2000, Serting, Negeri Sembilan
- 10 Pameran dan Ceramah Pendidikan 2000, Kolej Matrikulasi Pulau Pinang, Ponsu Seribu, Pulau Pinang
- 12 Pameran dan Ceramah Pendidikan 2000, Pusat Teknologi dan Pengurusan Lanjutan (PTPL) Shah Alam, Selangor
- 14-15 Pameran dan Ceramah Pendidikan 2000, Institut Mazsigar, Rawang, Selangor
- 22 Pameran dan Ceramah Pendidikan 2000, Kolej TAJ, Sungkai, Perak
- 24 Pameran dan Ceramah Pendidikan 2000, Kolej Chermai Jaya, Kuching, Sarawak
- 26 Pameran dan Ceramah Pendidikan 2000, Kolej Ibukota Labuan, Wilayah Persekutuan Labuan
- 27 Pameran dan Ceramah Pendidikan 2000, Kolej Matrikulasi Labuan, Wilayah Persekutuan Labuan

● **Ogos/August**

- 1 Pameran dan Ceramah Pendidikan 2000, Kolej Teknologi Timur, Dengkil, Selangor
- 11-13 Pameran dan Ceramah Pendidikan 2000, Kolej Kurniawan, Cheras, Selangor
- 26 Pameran dan Ceramah Pendidikan 2000, Kolej Matrikulasi Perlis, Arau, Perlis

● **Oktober/October**

- 5 Pameran Hari Kerjaya Projek Kalsom VII, Sekolah Menengah Teknik Perdagangan, Johor Bharu, Johor
- 14 Pameran Hari Pendidikan Kerjaya Sekolah Seri Puteri, Kuala Lumpur

● **November**

- 2-4 Pameran Program Penggalakan Sains, Dewan Balai Islam, Lundang, Kota Bharu, Kelantan
- 9-11 Pameran Program Penggalakan Sains, Klang Parade, Selangor
- 26 Pameran Pengajian Universiti Kolej Matrikulasi Melaka, Londang, Melaka



PERBELANJAAN MENGURUS

Pada tahun kewangan yang berakhir pada 31 Disember 2000, jumlah pendapatan mengurus Universiti ialah RM282.2 juta, meningkat sebanyak 42.46% dari tahun 1999 yang berjumlah RM198.1 juta (Jadual 30).

Daripada jumlah pendapatan ini, sebanyak RM236.4 juta atau 83.78% adalah pemberian Kerajaan dan bakinya, RM45.8 juta atau 16.22% adalah daripada sumber pelbagai seperti yuran pengajian, sewa dan pelbagai pendapatan lain (Rajah 3).

JADUAL/TABLE 30

PENDAPATAN MENGURUS					
OPERATING INCOME					
	Tahun/Year 2000		Tahun/Year 1999		
	(RM juta)	(%)	(RM juta)	(%)	
Pemberian Kerajaan Government Grants	236.4	83.78	158.4	79.97	
Yuran Pelbagai Misc. Fees	42.8	15.15	38.3	19.35	
Pendapatan Lain Other Income	3.0	1.07	1.4	0.68	
Jumlah/Total	282.2		198.1		

JADUAL/TABLE 31

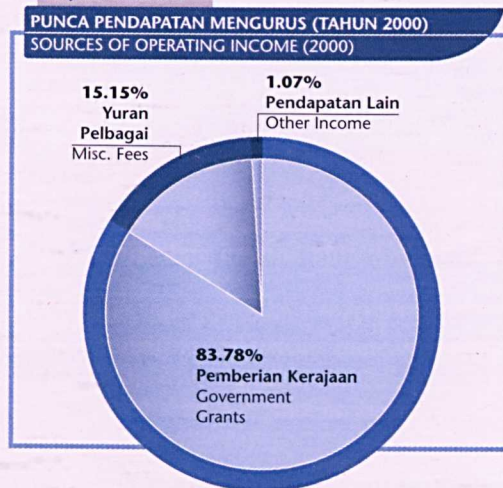
PERBELANJAAN MENGURUS					
OPERATING EXPENDITURE					
	Tahun/Year 2000		Tahun/Year 1999		
	(RM juta)	(%)	(RM juta)	(%)	
Emolumen Emolument	150.5	59.58	124.0	62.62	
Perbelanjaan lain Other expenditure	102.0	40.42	74.0	37.38	
Jumlah/Total	252.5		198.0		

OPERATING EXPENDITURE

For the financial year ending 31 December 2000, the total allocation for operating expenditure saw an increase of 42.46%, from RM 198.1 million in 1999 to RM 282.2 million for 2000 (Table 30).

Of this , RM 236.4 million or 83.78% represented government grants while the balance of RM 45.8 million or 16.22% was from other sources such as tuition fees, rentals and other income sources (Figure 3).

RAJAH/FIGURE 3



Perbelanjaan Mengurus

Perbelanjaan mengurus Universiti meningkat sebanyak 27.52% daripada RM198.0 juta pada tahun 1999, kepada RM252.5 juta pada tahun 2000 (Jadual 31). Pembayaran emolumen merupakan perbelanjaan yang paling tinggi iaitu atas kadar 59.58% dari keseluruhan perbelanjaan untuk tahun 2000. Perbelanjaan emolumen telah meningkat sebanyak 21.32% berbanding tahun 1999 dan bagi, perbelanjaan lain telah meningkat pada kadar 37.89% (Jadual 32 dan Rajah 5 & 6).

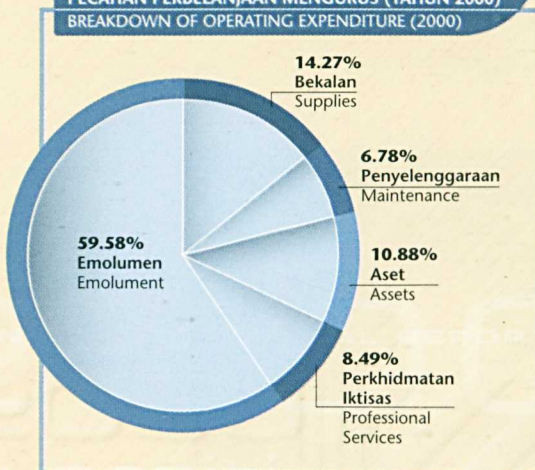
JADUAL/TABLE 32

PECAHAN PERBELANJAAN MENGURUS BREAKDOWN OF OPERATING EXPENDITURE

	Tahun/Year 2000		Tahun/Year 1999	
	(RM juta/million)	(%)	(RM juta/million)	(%)
Emolumen Emolument	150.5	59.58	124.0	62.62
Bekalan & Bahan-bahan Equipment & Supplies	36.0	14.27	29.1	14.71
Penyelenggaraan & Pembaikan Maintenance & Repairs	17.1	6.78	10.4	5.26
Perkhidmatan Iktis & Lain-lain Professional & other Services	21.4	8.49	14.9	7.52
Aset Tetap Fixed Assets	27.5	10.88	19.6	9.89
Jumlah/Total	252.5		198.0	

RAJAH/FIGURE 5

PECAHAN PERBELANJAAN MENGURUS (TAHUN 2000) BREAKDOWN OF OPERATING EXPENDITURE (2000)

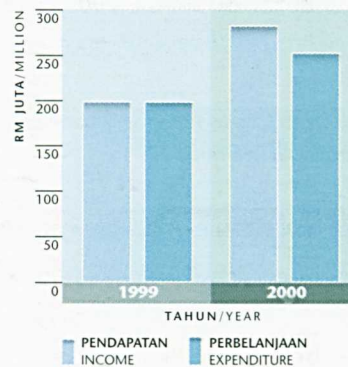


Operating Expenditure

Operating expenditure saw a 27.52% increase, that is, from RM 198.0 million in 1999 to RM 252.5 million in 2000 (Table 31). Emolument disbursements constituted the largest component of operating expenditure constituting 59.58% of the total for the year 2000. There was a 21.32% increase in emolument payments compared to 1999, while other expenditure showed a 37.89% increase (Table 32, Figures 5 & 6).

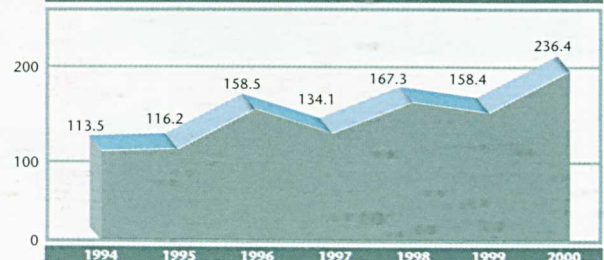
RAJAH/FIGURE 4

PERBANDINGAN PENDAPATAN DAN PERBELANJAAN AKAUN MENGURUS COMPARISON BETWEEN INCOME AND EXPENDITURE OPERATING ACCOUNTS



RAJAH/FIGURE 6

PEMBERIAN KERAJAAN BAGI AKAUN MENGURUS 1994-2000 GOVERNMENT GRANTS FOR OPERATING ACCOUNT 1994-2000



PERBELANJAAN PEMBANGUNAN

Jumlah yang diterima untuk Perbelanjaan Pembangunan bagi tahun 2000 adalah sebanyak RM24.9 juta dengan sejumlah 98.34 % adalah untuk membiayai projek-projek baru RMK-7 dan 1.66% % adalah untuk meneruskan projek-projek sambungan RMK-6 (Jadual 33).

Pemberian daripada Kerajaan merupakan peratusan terbesar iaitu 96.86% daripada keseluruhan pendapatan untuk tahun 2000.

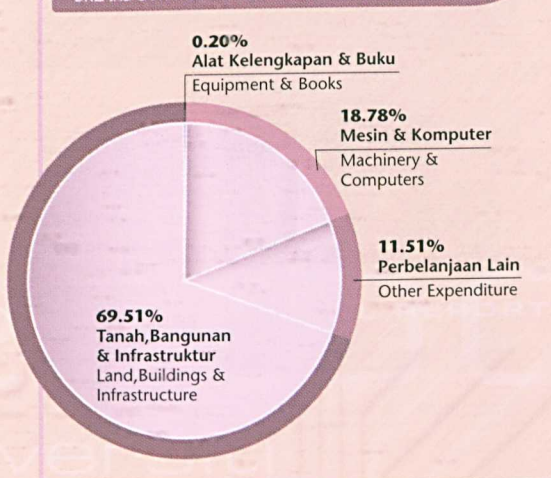
JADUAL/TABLE 33

PENDAPATAN PEMBANGUNAN DEVELOPMENT INCOME				
	Tahun/Year 2000		Tahun/Year 1999	
	(RM juta)	(%)	(RM juta)	(%)
Pemberian Kerajaan Government Grants	24.1	96.86	18.6	98.94
Pendapatan Lain Other Income	0.8	3.14	0.2	1.06
Jumlah/Total	24.9		18.8	

Daripada jumlah perbelanjaan Pembangunan, perbelanjaan untuk tanah, bangunan dan kemudahan merupakan perbelanjaan tertinggi iaitu sebanyak RM36.2 juta atau 69.51% (Jadual 34 dan Rajah 7).

RAJAH/FIGURE 7

PECAHAN PERBELANJAAN PEMBANGUNAN (2000)
BREAKDOWN OF DEVELOPMENT EXPENDITURE (2000)



DEVELOPMENT EXPENDITURE

In 2000, the total grant received for development expenditure was RM 24.9 million, of which 98.34% was for financing new projects under the 7th Malaysia Plan while 1.66% was to finance projects initiated under the 6th Malaysian Plan period (Table 33).

Government allocation for development expenditure constituted 96.86% of the grant received for 2000.

JADUAL/TABLE 34

PERBELANJAAN PEMBANGUNAN DEVELOPMENT EXPENDITURE				
	Tahun/Year 2000		Tahun/Year 1999	
	(RM juta/million)	(%)	(RM juta/million)	(%)
Tanah, Bangunan & Kemudahan Land, Buildings & Infrastructure	36.2	69.51	22.4	80.00
Alat Kelengkapan & Buku Equipment & Books	0.1	0.20	0.1	0.36
Mesin & Komputer Machinery & Computers	9.8	18.78	1.6	5.71
Perbelanjaan-perbelanjaan Lain Other Expenditure	6.0	11.51	3.9	13.93
Jumlah/Total	52.1		28.0	

Of the expenditure for development, the major expense items were land, buildings and infrastructure accounting for RM 36.2 million or 69.51 % of the total (Table 34 and Figure 7).

PERBELANJAAN PENYELIDIKAN IRPA (INTENSIFICATION OF RESEARCH IN PRIORITY AREAS)

Jumlah pemberian Kerajaan bagi Perbelanjaan Penyelidikan IRPA pada tahun 2000 adalah sebanyak RM25.6 juta yang mana RM3.0 juta telah diperuntukkan untuk membiayai projek-projek jangka pendek.

JADUAL/TABLE 35
PENDAPATAN PENYELIDIKAN IRPA
IRPA RESEARCH GRANTS

	Tahun/Year 2000		Tahun/Year 1999	
	(RM juta)	(%)	(RM juta)	(%)
Pemberian Kerajaan Government Grants	25.6	99.06	15.1	83.09
Pendapatan Lain Other Income	0.2	0.94	3.0	16.91
Jumlah/Total	25.8		18.1	

Pemberian Kerajaan merupakan sumbangan tertinggi iaitu sebanyak 99.06% daripada keseluruhan jumlah pendapatan dan sebanyak 0.94% adalah pelbagai pendapatan lain.

Jumlah perbelanjaan Penyelidikan IRPA untuk tahun 2000 telah merosot sebanyak 12.66%, iaitu RM21.6 juta berbanding dengan RM24.7 juta pada tahun 1999 (Jadual 36 dan Rajah 8 dan 9).

JADUAL/TABLE 36
PERBELANJAAN PENYELIDIKAN IRPA
IRPA RESEARCH EXPENDITURE

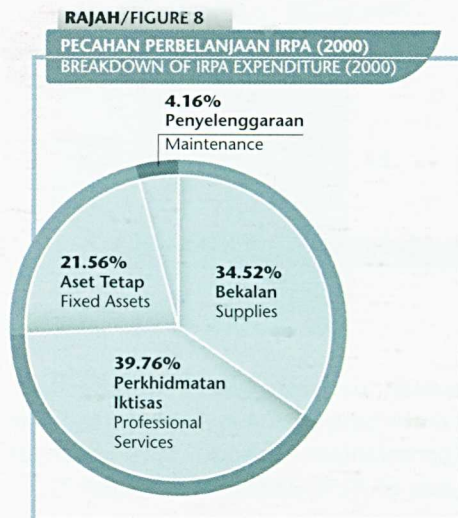
	Tahun/Year 2000		Tahun/Year 1999	
	(RM juta)	(%)	(RM juta)	(%)
Bekalan & Bahan-bahan Supplies & Materials	7.4	34.52	9.5	38.24
Penyelenggaraan & Pembaikan Maintenance & Repairs	0.9	4.16	1.0	4.15
Perkhidmatan Iktisas & Lain-lain Professional & Other Services	8.6	39.76	8.5	34.50
Aset Tetap Fixed Assets	4.7	21.56	5.7	23.11
Jumlah/Total	21.6		24.7	

IRPA RESEARCH EXPENDITURE (INTENSIFICATION OF RESEARCH IN PRIORITY AREAS)

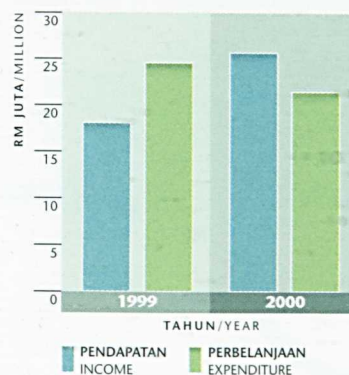
For the year 2000, total government allocation for IRPA research was RM25.6 million of which RM3 million was reserved for short-term projects.

The government was the major contributor towards IRPA, accounting for 99.06% of the total allocation. Only 0.94% was from other sources.

The total expenditure incurred under IRPA for 2000 saw a 12.66% decrease, from 24.7 million in 1999 to RM21.6 million in 2000 (Table 36 and Figures 8 and 9).



RAJAH/FIGURE 9
PERBANDINGAN PENDAPATAN DAN PERBELANJAAN IRPA
COMPARISON BETWEEN IRPA INCOME AND EXPENDITURE



PERBELANJAAN KOLEJ KEDIAMAN

Sumber utama pendapatan Kolej Kediaman adalah daripada yuran penginapan kolej kediaman dan selebihnya hasil dari pelbagai pendapatan. Pada tahun 2000, hasil kutipan yuran telah merosot kepada RM9.2 juta atau 28.81% berbanding RM13.0 juta pada tahun 1999 (Jadual 37). Kemerosotan ini disebabkan oleh lebih kurang 7,000 pelajar telah berpindah ke kolej-kolej kediaman swasta yang dibina dengan sistem Bina, Kendali dan Pindah.

JADUAL/TABLE 37

PENDAPATAN KOLEJ KEDIAMAN INCOME OF RESIDENTIAL COLLEGES				
	Tahun/Year 2000		Tahun/Year 1999	
	(RM juta/million)	(%)	(RM juta/million)	(%)
Yuran Kolej Kediaman Hostel Fees	9.2	78.97	13.0	82.97
Yuran Pelbagai Misc. Fees	1.3	11.02	1.1	7.21
Pendapatan Lain Other Income	1.2	10.01	1.5	9.82
Jumlah/Total	11.7		15.6	

Jumlah perbelanjaan mengurus Kolej Kediaman bagi tahun 2000 adalah sebanyak RM13.3 juta atau 14.91% lebih daripada jumlah perbelanjaan bagi tahun 1999, iaitu sebanyak RM11.6 juta (Jadual 38). Perbelanjaan tersebut tidak termasuk emolument yang dibiayai oleh belanja mengurus universiti. Peningkatan perbelanjaan adalah disebabkan oleh perbelanjaan menyelenggara dan menaik taraf kemudahan-kemudahan pelajar.

JADUAL/TABLE 38

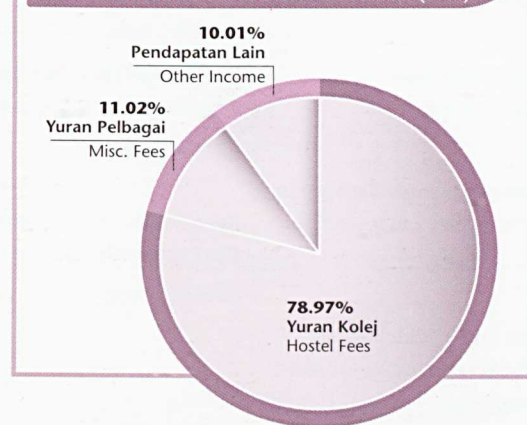
PERBELANJAAN KOLEJ KEDIAMAN EXPENDITURE OF RESIDENTIAL COLLEGES				
	Tahun/Year 2000		Tahun/Year 1999	
	(RM juta)	(%)	(RM juta)	(%)
Bekalan & Peralatan Supplies & Equipment	5.8	43.83	5.4	47.03
Penyelenggaraan & Pembaikan Maintenance & Repairs	4.6	34.20	4.0	34.55
Perkhidmatan Iktisas & Lain-lain Professional & Other Services	2.4	17.95	1.8	15.18
Aset Tetap Fixed Assets	0.5	4.02	0.4	3.24
Jumlah/Total	13.3		11.6	

EXPENDITURE OF RESIDENTIAL COLLEGES

Hostel fees was the major source of income for the Residential Colleges with the balance coming from other sources. Hostel fees collection decreased by 28.81% from RM 13.0 million in 1999 to RM 9.2 million in year 2000 (Table 37). The decrease can be attributed to the 7,000 students transferred to private colleges build under the Built, Operate and Transfer (BOT) system.

RAJAH/FIGURE 10

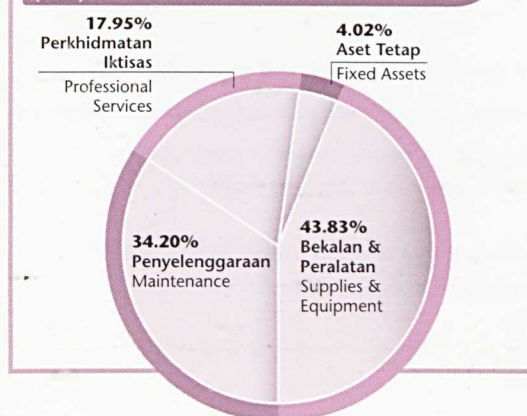
SUMBER PENDAPATAN KOLEJ KEDIAMAN (2000)
SOURCE OF INCOME OF RESIDENTIAL COLLEGES (2000)



The total operating expenditure for Residential Colleges for 2000 amounted to RM 13.3 million, an increase of 14.91% over the 1999 total of RM 11.6 million (Table 38). This expenditure does not include emoluments through the management expenditure of the University. This increase in expenditure was attributed to the costs involved in maintenance and upgrading of student facilities.

JADUAL/FIGURE 11

PECAHAN PERBELANJAAN KOLEJ KEDIAMAN (TAHUN 2000)
BREAKDOWN OF EXPENDITURE OF RESIDENTIAL COLLEGES (2000)



RINGKASAN KEDUDUKAN KEWANGAN DAN PRESTASI TAHUN 2000 (SETELAH DIAUDIT)

A Brief Overview of Financial Status and Performance for the Year 2000 (Audited)

Nama Agensi / Name of Agency: Universiti Putra Malaysia

Perangkaan Penting Kewangan / Important Financial Details

		2000 (RM)	1999 (RM)	Perbezaan (%) Difference (%)
		+ (-)		
I	Pendapatan / Income			
	- Pengurusan / Operation	282,249,418	198,128,640	42.46
	- Pembangunan / Development	24,915,244	18,799,778	32.53
	- Jumlah / Total	307,164,662	216,928,418	41.60
II	Perbelanjaan (a) / Expenditure (a)			
	- Pengurusan / Operation	252,547,840	198,051,796	27.52
	- Pembangunan / Development	52,048,931	27,976,166	86.05
	- Jumlah / Total	304,596,771	226,027,962	34.76
III	Lebihan/Kurangan: / Excess/Deficit:			
	- Pengurusan (b) / Operation (b)	29,701,578	76,844	38,551.79
	- Pembangunan (c) / Development (c)	(27,133,687)	(9,176,388)	195.69
	- Jumlah / Total	2,567,891	(9,099,544)	(128.22)
IV	Lebihan/KuranganTerkumpul: / Cumulative Excess/Deficit:			
	- Pengurusan (d) / Operation (d)	304,045,123	248,762,698	22.22
	- Pembangunan (e) / Development (e)	79,263,629	67,807,837	16.89
	- Jumlah / Total	383,308,752	316,570,535	21.08
V	Harta Tetap / Fixed Assets	295,435,975	231,566,118	27.58
VI	Harta Semasa / Current Assets	431,997,162	384,529,945	12.34
VII	Tanggungan Semasa / Current Liabilities	49,418,990	38,501,836	28.35
VIII	Tanggungan Jangka Panjang / Long Term Liabilities	-	-	-
IX	Harta Bersih / Net Assets	382,578,172	346,028,109	10.56
X	Nisbah Kewangan: / Financial Ratio:			
	- Harta Semasa/Tanggungan Semasa / Current Assets/Current Liabilities	8.74	9.99	
	- Harta Mudah Cair/Tanggungan Semasa / Liquid Assets/Current Liabilities	7.38	8.63	
	- Jumlah Hutang/Jumlah Harta / Total Debts/Total Assets	0.09	0.08	
	- Modal Digunakan/Jumlah Tanggungan / Used-up Capital/Total Liabilities	-	-	
	- Modal Digunakan/Harta Tetap / Used-up Capital/Fixed Assets	-	-	

Nota: / Notes:

(a) Perbelanjaan meliputi bayaran untuk: / Expenditure includes payment for:

	Pengurusan Operation	Pembangunan Development
(i) Aset dan Inventori / Assets and Inventories		
Barangan dan aset tidak dimodalkan / Goods and Assets not Capitalised	12,715,363	2,609,651
Aset yang dipermodalkan untuk tahun 2000 / Assets Capitalised for the Year 2000	27,253,955	15,116,168
(ii) Perbelanjaan peruntukan one-off bagi tahun: / Expenditure on one-off Allocation for Year:		
1996	259,100	
1998	3,024,368	
1999	12,181,615	
Jumlah / Total	15,465,083	

(b) Peruntukan one-off dari tahun 1998 hingga tahun 2000 masih di peringkat pelaksanaan sebanyak RM34,072,172. /
One-off allocation of RM34,072,172 for the year 1998 till 2000 is at various stages of implementation.

(c) Kekurangan sebanyak RM27,133,687 ditampung oleh Kumpulan Wang Pembangunan. /
Deficit of RM27,133,687 was covered by Development Funds.

(d) Lebihan/Kurangan Terkumpul terdiri daripada: /
Surplus/Deficit Accumulated Consisting of:

	(RM)	(RM)
Pengurusan / Operation		
Aset Tetap / Final Assets		220,164,013
Pembinaan dalam Kemajuan / Works in Progress		5,384,481
Aset Semasa / Current Assets		
- Pelbagai Siberhutang / Sundry Debtors	29,939,225	
- Simpanan Tetap / Fixed Deposits	71,016,246	
- Wang di Tangan dan di Bank / Cash in Hand and Bank	27,054,116	128,009,587
		<u>353,558,081</u>
Tolak: Pemiutang / Less: Creditors	47,718,142	
Pemberian Modal / Capital Grants	1,794,816	49,512,958
		<u>304,045,123</u>

(e) Pembangunan / Development

Pembinaan dalam Kemajuan / Works in Progress		56,600,642
Aset Semasa / Current Assets		
- Pelbagai Siberhutang / Sundry Debtors	19,676,439	
- Simpanan Tetap / Fixed Deposits	7,130,234	26,806,673
		<u>83,407,315</u>
Tolak: Pemiutang / Less: Creditors	15,727	
Pemberian Modal / Capital Grants	4,127,959	4,143,686
		<u>79,263,629</u>

KANDUNGAN**Contents**

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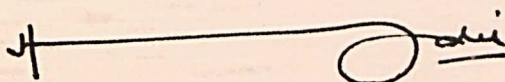
**SIJIL KETUA AUDIT NEGARA MENGENAI
AKAUN UNIVERSITI PUTRA MALAYSIA BAGI
TAHUN BERAKHIR 31 DISEMBER 2000**

**Auditor General's Certificate of Universiti Putra
Malaysia Accounts for the Year Ended
31 December 2000**

Kunci Kira-kira Univeristi Putra Malaysia seperti pada 31 Disember 2000, penyata pendapatan dan perbelanjaan serta penyata aliran tunai bagi tahun tersebut telah diperiksa oleh Tetuan Sahir & Co., Akauntan Awam, di bawah arahan saya. Pihak pengurusan Universiti Putra Malaysia bertanggungjawab terhadap penyata kewangan ini. Tanggungjawab saya adalah untuk memberi pendapat terhadap penyata kewangan tersebut berdasarkan pengauditan yang dijalankan.

2. Pengauditan telah dilaksanakan mengikut Akta Audit 1957 dan berpandukan Piawaian Pengauditan Antarabangsa. Piawaian-piawaian tersebut menghendaki Pengauditan dirancang dan dilaksanakan untuk mendapat kepastian yang munasabah sama ada penyata kewangan Universiti Putra Malaysia adalah bebas daripada sebarang kesilapan atau ketinggalan yang ketara. Pengauditan itu termasuk memeriksa rekod-rekod secara semak uji, menyemak bukti-bukti yang menyokong angka-angka dan memastikan penzahiran yang mencukupi dalam penyata kewangan. Penilaian juga dibuat terhadap prinsip-prinsip perakaunan yang digunakan dan penyampaian penyata kewangan secara keseluruhan.

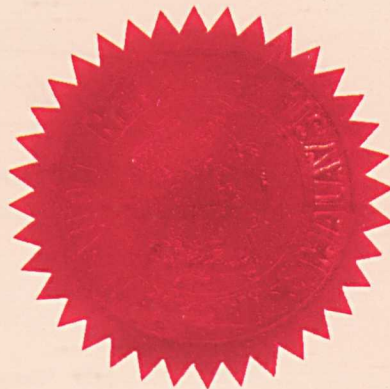
3. Pada pendapat saya, penyata kewangan ini memberi gambaran yang benar dan saksama terhadap kedudukan kewangan Universiti Putra Malaysia pada 31 Disember 2000, hasil operasi serta aliran tunainya untuk tahun tersebut.



(DATUK DR. HADENAN BIN ABDUL JALIL)
Ketua Audit Negara

Putrajaya

17 September 2001



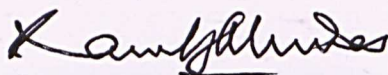
PENYATA LEMBAGA PENGARAH

Board of Director's Statement

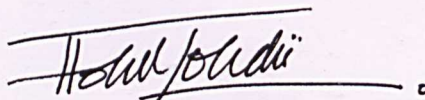
Kami, **DATUK RAMLY BIN AHMAD** dan **PROFESOR DATO' DR. IR. MOHD. ZOHADIE BIN BARDAIE** yang merupakan Pengerusi dan salah seorang Ahli Lembaga Pengarah UNIVERSITI PUTRA MALAYSIA, dengan ini menyatakan bahawa, pada pendapat Lembaga Pengarah, Kunci Kira-Kira, Penyata Pendapatan dan Perbelanjaan dan penyata Aliran Tunai yang berikut ini berserta nota-nota yang mengiringinya adalah disediakan untuk menunjukkan pandangan yang benar dan saksama berkenaan kedudukan UNIVERSITI PUTRA MALAYSIA pada 31 Disember 2000 dan hasil kendaliannya serta aliran tunai bagi tahun berakhir pada tarikh tersebut.

We, **DATUK RAMLY BIN AHMAD** and **PROFESSOR DATO' DR. IR. MOHD. ZOHADIE BIN BARDAIE** as Chairman and a Member of the Board of Directors respectively, of UNIVERSITI PUTRA MALAYSIA, hereby state that in the view of the Board of Directors, the Balance Sheet, the Statement of Income and Expenditure and Statement of Cash Flow taken together with the Notes represent a true and fair view of the financial position of UNIVERSITI PUTRA MALAYSIA as at 31 December 2000 and reflect the changes in cash flow for the year ending on the date stated.

Bagi pihak Lembaga Pengarah /
On behalf of the Board of Directors



(**DATUK RAMLY BIN AHMAD**)
Pengerusi Lembaga Pengarah /
Chairman, Board of Directors



(**PROFESOR DATO' MOHD. ZOHADIE BARDAIE, Ph.D., P.Eng.**)
Naib Canselor / Vice-Chancellor

UPM Serdang

Tarikh/Date: 10 September 2001

AKUAN BERKANUN
Statutory Declaration

Saya, **NOORMAH BT. HAJI MOHAMED**, pegawai utama yang bertanggungjawab ke atas pengurusan kewangan UNIVERSITI PUTRA MALAYSIA, dengan ikhlasnya mengakui bahawa Kunci Kira-Kira, Penyata Pendapatan dan Perbelanjaan dan Penyata Aliran Tunai yang berikut ini berserta dengan nota-nota yang mengiringi, mengikut sebaik-baik pengetahuan dan kepercayaan saya, adalah betul dan saya membuat ikrar ini dengan sebenarnya mempercayai bahawa ianya itu adalah benar dan atas kehendak-kehendak Akta Akuan Berkanun, 1960.

I, **NOORMAH BT HAJI MOHAMED**, the principal officer responsible for the financial management of UNIVERSITI PUTRA MALAYSIA, sincerely declare that the Balance Sheet, Statement of Income and Expenditure and Cash Flow Statement that are presented here as well as the Notes included, to the best of my knowledge and belief, are accurate and I make this declaration in the belief that it is true and in accordance with the requirements of the Statutory Declaration Act 1960.

Sebenar dan sesungguhnya)
diakui oleh penama di atas)
di Bangi pada 10 September 2001)

Truly and solemnly)
declared by the above)
mentioned person at Bangi)
on 10 September 2001)



NOORMAH BT. HAJI MOHAMED
Bendahari

Di hadapan saya:



KUNCI KIRA-KIRA PADA 31 DISEMBER 2000

Balance Sheet as at 31 December 2000

	NOTA / NOTE	2000 RM	1999 RM
ASET TETAP / FIXED ASSETS	1(e),2	221,199,880	190,699,942
PEMBINAAN DALAM KEMAJUAN / WORKS IN PROGRESS	1(f),3	62,821,861	31,061,612
PELABURAN / INVESTMENTS	1(g),4	11,414,234	9,804,564
ASET SEMASA / CURRENT ASSETS			
Pelbagai Penghutang / Sundry Debtors	5	67,073,502	52,298,882
Simpanan Tetap / Fixed Deposits	6	334,600,000	323,500,000
Wang di Tangan dan di Bank / Cash in Hand and Bank	7	30,323,660	8,731,063
		431,997,162	384,529,945
LIABILITI SEMASA / CURRENT LIABILITIES			
Pelbagai Pemiutang / Sundry Creditors	8	49,418,990	38,501,836
		49,418,990	38,501,836
ASET SEMASA BERSIH / NET CURRENT ASSETS		382,578,172	346,028,109
		678,014,147	577,594,227
Dibiayai oleh: / Financed by:			
Kumpulanwang Am Terkumpul / General Accumulated Fund	9	304,045,123	248,762,698
Kumpulanwang Kolej Kediaman / Residential College Fund	10	17,692,826	18,918,136
Kumpulanwang Pembangunan / Development Fund	11	79,263,629	67,807,837
Kumpulanwang Tabung Penyelidikan / Research Fund	12	43,189,411	39,372,329
Kumpulanwang Tabung Pusingan / Revolving Fund	13	4,568,660	5,161,623
Kumpulanwang Amanah Lain / Other Trust Fund	14	79,506,645	58,600,157
Kumpulanwang Penginapan & Rekreasi / Accommodation & Recreation Fund	15	2,448,860	5,539,203
Kumpulanwang Pelaburan / Investment Fund	16	84,571,247	81,899,551
Kumpulanwang Kursus, Seminar, Konferensi & Lawatan Sambil Belajar / Course, Seminar, Conference and Study Visit Fund	17	41,804,971	36,532,693
Kumpulanwang Pinjaman Komputer dan Pinjaman Kenderaan / Computer and Vehicle Loan Fund	18	15,000,000	15,000,000
		672,091,372	577,594,227
Pemberian Modal / Capital Grants	1(h),19	5,922,775	0
		678,014,147	577,594,227

Sila lihat nota-nota yang mengiringi akaun-akaun ini /
The Accounts are to be read with accompanying Notes

**PENYATA PENDAPATAN DAN PERBELANJAAN
BAGI TAHUN BERAKHIR 31 DISEMBER 2000**

**Statement of Income and Expenditure for
the Year Ended 31 December 2000**

	NOTA / NOTE	2000 RM	1999 RM
PENDAPATAN / INCOME			
Pemberian Kerajaan / Government Grants	20	290,980,218	200,162,978
Yuran Pelbagai / Fees		89,864,389	101,674,219
Sumbangan Luar / External Contributions		14,497,467	13,937,983
Pemberian Modal Direalisasi / Realisation of Capital Grants		1,455,500	0
Faedah dan Keuntungan Saham / Interest & Share Proceeds		16,403,042	23,259,348
Jualan Aset Tetap / Sale of Fixed Assets		71,749	82,446
Pampasan Tanah / Land Compensations	21	20,306,976	16,548,321
Pengurangan Peruntukan Rosotnilai Saham / Less Provision for Diminution of Shares		0	2,840,328
Sewa Pelbagai / Sundry Rentals		1,001,697	737,746
Pendapatan Lain / Other Incomes	22	22,975,323	25,608,139
		<u>457,556,361</u>	<u>384,851,508</u>
Tolak: PERBELANJAAN / Less: EXPENDITURE			
Emolumen / Emoluments		150,580,751	124,091,000
Bekalan dan Bahan-Bahan / Supplies & Materials		63,452,495	51,306,260
Penyelenggaraan dan Pembaikan / Maintenance & Repair		24,400,286	17,841,049
Perkhidmatan Iktisas dan Hospitaliti / Professional & Hospitality Services		75,860,585	60,598,850
Susutnilai / Depreciation	2	29,145,546	25,547,051
Pelunasan Tanah / Amortization of Land	2	87,498	92,130
Pelupusan Aset Tetap / Fixed Assets Written-off		374,702	67,276
Hutang Lapuk / Bad Debts	5.1	12,481,492	10,763,477
Rosotnilai Saham / Provision for Diminution of Shares		2,288,946	0
		<u>358,672,301</u>	<u>290,307,093</u>
LEBIHAN PENDAPATAN / SURPLUS INCOME			
KUMPULANWANG TERKUMPUL DIBAWA KE HADAPAN / ACCUMULATED FUNDS BROUGHT FORWARD		98,884,060	94,544,415
- Seperti yang Dinyatakan Terdahulu / As Previously Stated		577,594,227	483,944,256
- Pelarasan Tahun Lalu / Prior Year Adjustment	1(h),23	(4,386,915)	(894,444)
		<u>573,207,312</u>	<u>483,049,812</u>
- Seperti yang Dinyatakan Semula / As Re-stated			
KUMPULANWANG TERKUMPUL DIHANTAR KE HADAPAN / ACCUMULATED FUNDS CARRIED FORWARD		<u>672,091,372</u>	<u>577,594,227</u>

Sila lihat nota-nota mengiringi akaun-akaun ini /
See accompanying Notes

**PENYATA ALIRAN TUNAI BAGI
TAHUN BERAKHIR 31 DISEMBER 2000**

**Cash Flow Statement for
the Year Ended 31 December 2000**

	NOTA / NOTE	2000 RM	1999 RM
TUNAI DARI AKTIVITI OPERASI / CASH GENERATED FROM OPERATING ACTIVITIES			
Lebihan Pendapatan / Surplus Income	ms/pg 106	98,884,060	94,544,415
Pelarasan ke Atas: / Adjustments to:			
Susutnilai / Depreciation	2	29,145,546	25,547,051
Pelunasan Tanah / Amortization	2	87,498	92,130
Untung Atas Jualan Aset Tetap / Profits Incurred from Sale of Fixed Assets		(11,277)	(70,741)
Untung Atas Pampasan Tanah / Profits from Land Compensations		(19,992,746)	(16,492,750)
Untung Atas Jualan Saham / Profit Incurred from Sale of Shares		(1,726,375)	(150,078)
Peruntukan Rosotnilai Saham / Provision for Diminution in Value of Shares		2,288,946	(2,840,328)
Lebihan Pendapatan Sebelum Perubahan Modal Kerja / Operating Profits Prior to Working Capital Adjustments		108,675,652	100,629,699
Penambahan Penghutang / Increase in Debtors		(14,774,620)	(3,789,588)
Penambahan/(Pengurangan) Pemiutang / Increase/(Decrease) in Creditors		10,917,154	(26,627,256)
Pelarasan Akaun / Adjustment to Accounts	1(h),20	(4,386,915)	(894,444)
Pemberian Modal / Capital Grants	1(h),19	5,922,775	0
Tunai Bersih Dihasilkan dari Aktiviti Operasi / Cash Generated from Operating Activities		106,354,046	69,318,411
TUNAI DARI AKTIVITI PELABURAN / CASH GENERATED FROM INVESTMENT ACTIVITIES			
Pembelian Aset Tetap / Purchase of Fixed Assets	2	(60,107,685)	(31,260,086)
Pembinaan dalam Kemajuan / Works in Progress		(31,760,249)	(19,913,323)
Jualan Aset Tetap / Sale of Fixed Assets		71,749	82,446
Pampasan Tanah / Land Compensations		20,306,976	16,548,321
Jualan Saham / Sale of Shares		6,993,704	6,219,388
Pembelian Saham / Purchase of Shares		(7,350,166)	(6,422,883)
Simpanan Dengan Pengurus Portfolio / Deposits with Portfolio Managers	4	(1,815,778)	0
Tunai Bersih Dihasilkan dari Aktiviti Pelaburan / Cash Generated from Investment Activities		(73,661,449)	(34,746,137)
Penambahan Bersih dalam Jumlah Tunai dan Kesetaraan Tunai / Net Increase in Cash and Cash Equivalents		32,692,597	34,572,274
Jumlah Tunai dan Kesetaraan Pada Awal Tahun / Cash and Cash Equivalents at Beginning of Year		332,231,063	297,658,789
Jumlah Tunai dan Kesetaraan pada Akhir Tahun / Cash and Cash Equivalents at End of Year		364,923,660	332,231,063
Tunai dan Kesetaraan Tunai Diwakili Oleh: / Cash and Cash Equivalents Represented by:			
Simpanan Tetap / Fixed Deposit	6	334,600,000	323,500,000
Wang di Tangan dan di Bank / Cash in Hand and Bank	7	30,323,660	8,731,063
		364,923,660	332,231,063

Sila lihat nota-nota yang mengiringi akaun-akaun ini /
See accompanying Notes

1. DASAR-DASAR PERAKAUNAN PENTING / ACCOUNTING POLICY

(a) Am / General

Semua dasar perakaunan adalah bersamaan dengan dasar-dasar yang digunakan pada tahun lalu. /
All accounting policies are similar to those used in previous years.

(b) Asas Perakaunan / Basis of Accounting

Penyediaan akaun-akaun adalah mengikut konvensyen kos sejarah. /
The accounts were prepared according to the historical cost convention.

(c) Pengiktirafan Pendapatan / Recognition of Income

Pendapatan diiktiraf atas dasar akruan. /
Income is recognised on an accrual basis.

(d) Hutang Lapuk dan Hutang Ragu / Bad Debts & Doubtful Debts

Peruntukan dibuat bagi hutang lapuk yang dikenali berdasarkan kepada penyemakan akhir tahun ke atas hutang yang belum dapat dipungut. /
Provision is made for bad debts based on a year-end appraisal of debts that have not been recovered.

(e) Aset Tetap dan Susutnilai / Fixed Assets and Depreciation

Aset tetap dinyatakan pada kos setelah ditolak susutnilai dan didefinisikan sebagai barang-barang takluak yang mempunyai tempoh penggunaan ekonomik yang lebih daripada 12 bulan yang bernilai RM3,000 atau lebih setiap satu. /

Fixed assets are stated at cost after deduction of depreciation and are defined as tangible assets that have an economic usage of more than 12 months, and are valued at or more than RM3,000 each.

Tanah dipermodalkan mulai tahun 1993. Susutnilai tidak diperuntukkan bagi tanah milik bebas manakala tanah pajakan dilunaskan mengikut jangka masa pajakan. /

Land has been capitalised from the year 1993. Depreciation is not allocated for freehold land whereas leasehold is amortized according to the mortgaged period.

Bagi kesemua aset yang lain, susutnilai dikira berasaskan kaedah garis lurus ke atas anggaran hayat kegunaan aset berkenaan. Kadar susut nilai tahunan utama adalah seperti berikut: /

For all other assets, depreciation is calculated based on straight line method over their estimated useful lives. The annual depreciation rates are as follows:

	(%)
Bangunan / Buildings	2
Bangunan tidak kekal / Temporary Buildings	10
Infrastruktur dan kemudahan / Infrastructure and Facilities	5
Kenderaan dan jentera / Vehicles & Machinery	20
Perabot dan kelengkapan / Furniture & Fittings	20
Mesin dan komputer / Machinery & Computers	20

(f) Pembinaan dalam Kemajuan / Works in Progress

Pembinaan dalam kemajuan seperti bangunan yang sedang dibina dinilai mengikut kos dan susut nilai tidak diperuntukkan. Apabila siap, kos pembinaan dipindahkan ke aset tetap yang berkenaan. /

In the case of buildings under construction, they are valued at cost and no provision is made for depreciation. On completion, the cost of construction is transferred to the relevant fixed asset.

(g) Pelaburan / Investment

Pelaburan dinyatakan pada kos ditolak rosotan nilai pelaburan berkenaan yang kekal. /

Investment is stated at cost less the depreciation value of a permanent investment.

(h) Pemberian Kerajaan dan Sumbangan Luar / Government Grants and External Contributions

Sebelum tahun kewangan 2000, pemberian kerajaan dan sumbangan luar diiktiraf sebagai pendapatan apabila pemberian dan sumbangan tersebut diterima. /

Prior to year 2000, government grants and external contributions have been recognised as income on realisation of such grants and contributions.

Selaras dengan kehendak piawaian perakaunan yang diluluskan, pemberian dan sumbangan yang berbentuk modal dibawa ke hadapan dan direalisasikan sepanjang hayat ekonomi aset untuk dipadankan dengan susut nilai yang dikenakan sepanjang hayat ekonomi aset tersebut. / In compliance with approved accounting standards grants and contributions in the form of capital are carried forward and realised throughout the economic life of the asset and is depreciated throughout the economic life of the said asset.

Polisi ini akan digunakan sepenuhnya mulai tahun kewangan 2001. /

This policy will be in force for the financial year beginning 2001.

(i) Pertukaran Mata Wang Asing / Foreign Currency Exchange

Urusniaga dalam mata wang asing sepanjang tahun ditukar kepada Ringgit Malaysia pada kadar pertukaran yang berkuat kuasa pada tarikh urusniaga tersebut. /

Transactions in foreign currency throughout the year have been converted into Ringgit Malaysia at the exchange rate that prevailed on the date of the transaction.

2. ASET TETAP / FIXED ASSETS

	Pada awal tahun Beginnning of Year RM	Pindahan/ tambahan Transfers/ Increase RM	Penjualan/ pelupusan Sales/ Write-off RM	Pada akhir tahun Year- end RM
2000				
KOS/ COST				
Tanah Pajakan / Leased Land	8,664,081	0	(432,066)	8,232,015
Tanah Milik Kekal / Freehold Land	8,962,151	0	0	8,962,151
Bangunan / Buildings	131,316,572	6,189,344	0	137,505,916
Infrastruktur & Kemudahan / Infrastructure & Facilities	19,404,226	14,321,101	0	33,725,327
Kenderaan & Jentera / Vehicles & Machinery	13,724,132	883,421	(776,362)	13,831,191
Perabot & Kelengkapan / Furniture & Fittings	8,722,511	3,078,979	(15,355)	11,786,135
Mesin & Komputer / Machinery & Computers	187,524,133	35,634,840	(210,989)	222,947,984
	<u>378,317,806</u>	<u>60,107,685</u>	<u>(1,434,772)</u>	<u>436,990,719</u>

	Pada awal Tahun Beginnning of Year RM	Pindahan/ Tambahan Transfers/ Increase RM	Penjualan/ Pelupusan Sales/ Write-off RM	Pada akhir Tahun Year- end RM	Nilai Buku Bersih Net Book Value RM
SUSUTNILAI TERKUMPUL / ACCUMULATED DEPRECIATION					
Tanah Pajakan / Leased Land	2,206,989	87,498	(117,836)	2,176,651	6,055,364
Tanah Milik Kekal / Freehold Land	0	0	0	0	8,962,151
Bangunan / Buildings	15,572,357	2,959,252	0	18,531,609	118,974,307
Infrastruktur & Kemudahan / Infrastructure & Facilities	4,792,860	1,999,941	0	6,792,801	26,932,526
Kenderaan & Jentera / Vehicles & Machinery	10,209,574	1,099,301	(776,354)	10,532,521	3,298,670
Perabot & Kelengkapan / Furniture & Fittings	5,944,834	1,579,217	(15,353)	7,508,698	4,277,437
Mesin & Komputer / Machinery & Computers	148,891,250	21,507,835	(150,526)	170,248,559	52,699,425
	<u>187,617,864</u>	<u>29,233,044</u>	<u>(1,060,069)</u>	<u>215,790,839</u>	<u>221,199,880</u>

Termasuk di dalam tambahan harta tetap adalah sejumlah RM21,800,231 (1999: RM1,411,911) yang merupakan pindahan dari pembinaan dalam kemajuan yang telah siap dalam tahun semasa. /

Included are the increase in fixed assets totaling RM21,800,231 (1999: RM2,411,911) which represent transfers from completed Works in Progress during the current year.

1999	Pada awal tahun Beginning of Year RM	Pindahan/ tambahan Transfers/ Increase RM	Penjualan/ pelupusan Sales/ Write-off RM	Pada akhir tahun Year-end RM
KOS/ COST				
Tanah Pajakan / Leased Land	8,739,246	0	(75,165)	8,664,081
Tanah Milik Kekal / Freehold Land	8,962,151	0	0	8,962,151
Bangunan / Buildings	129,658,316	1,673,256	(15,000)	131,316,572
Infrastruktur & Kemudahan / Infrastructure & Facilities	18,990,906	413,320	0	19,404,226
Kenderaan & Jentera / Vehicles & Machinery	11,536,683	2,555,861	(368,412)	13,724,132
Perabot & Kelengkapan / Furniture & Fittings	7,282,109	1,440,402	0	8,722,511
Mesin & Komputer / Machinery & Computers	162,346,886	25,177,247	0	187,524,133
	347,516,297	31,260,086	(458,577)	378,317,806

	Pada awal tahun Beginning of Year RM	Pindahan/ tambahan Transfers/ Increase RM	Penjualan/ pelupusan Sales/ Write-off RM	Pada akhir tahun Year-end RM	Nilai Buku Bersih Net Book Value RM
SUSUT NILAI TERKUMPUL / ACCUMULATED DEPRECIATION					
Tanah Pajakan / Leased Land	2,134,452	92,130	(19,593)	2,206,989	6,457,092
Tanah Milik Kekal / Freehold Land	0	0	0	0	8,962,151
Bangunan / Buildings	12,816,237	2,759,420	(3,300)	15,572,357	115,744,215
Infrastruktur & Kemudahan / Infrastructure & Facilities	3,514,901	1,277,959	0	4,792,860	14,611,366
Kenderaan & Jentera / Vehicles & Machinery	9,308,564	1,269,417	(368,407)	10,209,574	3,514,558
Perabot & Kelengkapan / Furniture & Fittings	4,947,363	997,471	0	5,944,834	2,777,677
Mesin & Komputer / Machinery & Computers	129,648,466	19,242,784	0	148,891,250	38,632,883
	162,369,983	25,639,181	(391,300)	187,617,864	190,699,942

3. PEMBINAAN DALAM KEMAJUAN / WORK IN PROGRESS

	Pada awal Tahun Beginning of Year RM	Tambahan Increase RM	Pindahan Transfers RM	Pada akhir tahun Year end RM
2000				
Bangunan / Buildings	15,888,967	36,886,391	4,533,286	48,242,072
Kemudahan Riadah / Recreation Facilities	12,716,131	15,912,122	14,048,464	14,579,789
Perabot dan Kelengkapan Lain / Other Furniture & Fittings	2,456,514	761,967	3,218,481	0
	31,061,612	53,560,480	21,800,231	62,821,861

1999

Bangunan / Buildings	1,529,635	15,447,834	1,411,911	15,565,558
Kemudahan Riadah / Recreation Facilities	7,780,817	1,260,200	0	9,041,017
Perabot dan Kelengkapan Lain / Other Furniture & Fittings	1,837,837	4,617,200	0	6,455,037
	11,148,289	21,325,234	1,411,911	31,061,612

Pada tahun semasa pembinaan dalam kemajuan sebanyak RM21,800,231 (RM1,411,911) telah dipindahkan ke aset tetap .
In current year Work in Progress totaling RM21,800,231 (RM1,411,911) was transferred to Fixed Assets.

4. PELABURAN / INVESTMENTS

	2000 RM	1999 RM
Pelaburan Tersiarharga - di Malaysia, pada kos / Quoted Price of Investment - in Malaysia, at Cost	12,825,826	10,942,988
Tolak: Peruntukan Rosotnilai Pelaburan / Less: Provision for Diminution of Investment	(3,727,370)	(1,438,424)
Nilai Pasaran Pelaburan Tersiarharga - di Malaysia / Market Value of Quoted Price of Investment - in Malaysia	9,098,456	9,504,564
Campur: Pelaburan Tidak Tersiarharga - di Malaysia / Plus: Non-quoted Price of Investment - in Malaysia	500,000	300,000
Simpanan dengan Pengurus Portfolio / Deposits with Portfolio Manager	1,815,778	0
	<u>11,414,234</u>	<u>9,804,564</u>

4.1 Peruntukan Rosotnilai Pelaburan / Provision for Diminution of Investment

	2000 RM	1999 RM
Pada 1 Januari 2000/1 Januari 1999 / From January 2000/1 January 1999	1,438,424	4,278,752
Peruntukan Dalam Tahun / Provision Within the Year	2,288,946	0
Peruntukan Tidak Diperlukan Lagi / No Provision Required	0	(2,840,328)
	<u>3,727,370</u>	<u>1,438,424</u>

5. PELBAGAI PENGHUTANG / SUNDRY DEBTORS

Perkara / Item	Am General	Komputer Computer	Kenderaan Vehicle	Pelaburan Investment	Pem- angunan Develop- ment	Tabung Pusingan Revolving Funds	Akaun Amanah Trust Accounts	Projek Rekreasi Accomm./ Recreation	Penginapan / Seminar Project	Kursus/ Kediaman Course/ Seminar	Kolej Total Residential College	Jumlah Total 2000	Jumlah 1999
	(RM)	(RM)	(RM)	(RM)	(RM)	(RM)	(RM)	(RM)	(RM)	(RM)	(RM)	(RM)	(RM)
Siberhutang /Debtors	6,823,882	1,295,648	11,200,080	0	0	0	0	0	0	0	227,856	19,547,466	17,658,670
Yuran Tertunggak / Fee Arrears	7,321,602	0	0	0	0	0	1,596,920	0	0	21,984,782	1,372,948	32,276,252	27,184,200
Faedah Simpanan Tetap Terakru / Interest on Fixed Deposits Accrued	5,326,997	0	0	0	0	0	0	0	0	0	381,660	5,708,657	6,811,317
Pelbagai Pendapatan Terakru / Misc. Accrued Income	12,261,050	0	0	0	19,000,000	0	0	0	0	0	0	31,261,050	3,481,900
Bantuan Pendahuluan Projek (Pembangunan) / Advances to Project (Development)	0	0	0	0	656,439	0	0	0	0	0	0	656,439	5,524,934
Pengurus Portfolio / Portfolio Manager	0	0	0	7,405	0	0	0	0	0	0	0	7,405	1,753,186
Pendahuluan Pegawai UPM / Advances to UPM Officers	225,491	0	0	0	0	76,590	169,414	486,257	234	202,086	19,922	1,179,994	1,205,660
Cagaran / Deposit	290,871	0	0	0	20,000	0	1,000	29,448	0	0	105,080	446,399	427,101
Pelbagai / Miscellaneous	219,418	0	0	0	0	0	0	0	0	0	0	219,418	0
Jumlah / Total	32,469,311	1,295,648	11,200,080	7,405	19,676,439	76,590	1,767,334	515,705	234	22,186,868	2,107,466	91,303,080	64,046,968
Tolak: / Less:													
Peruntukan Hutang Lapuk / Provision for Bad Debts	4,506,176	0	0	0	0	0	393,397	0	0	18,834,427	495,578	24,229,578	11,748,086
	27,963,135	1,295,648	11,200,080	7,405	19,676,439	76,590	1,373,937	515,705	234	3,352,441	1,611,888	67,073,502	52,298,882

Jumlah pelbagai penghutang tidak termasuk hutang denda pecah kontrak perkhidmatan UPM. Sehingga 31 Disember 2000, jumlah denda tersebut adalah RM1,662,539 (RM1,688,439). Angka-angka pelbagai penghutang adalah nilai bersih setelah diselaraskan dalam proses penyatuan item-item kontra antara akaun-akaun penghutang dan pemiutang. /

Total Sundry Debts does not include fines imposed on breach of contracts. For year ending 31 December 2000 such fines totalled RM 1,662,539 (RM1,688,439).

Figures for Sundry Debtors represent net values adjusted for reconciliation of contra items between creditor and debtor accounts.

5.1 HUTANG LAPUK / BAD DEBTS		
	2000 RM	1999 RM
Baki pada Awal Tahun / Balance Beginning of Year	11,748,086	991,161
Tambahan Akhir Tahun / Addition at Year-end	12,481,492	10,756,925
	24,229,578	11,748,086
6. SIMPANAN TETAP / FIXED DEPOSITS		
	2000 RM	1999 RM
Simpanan dengan Institusi Kewangan Berlesen: / Deposits with Licensed Financial Institutions:		
Bank / Bank	261,600,000	221,900,000
Syarikat Kewangan / Financial Institutions	73,000,000	101,600,000
	334,600,000	323,500,000
7. WANG DI TANGAN, DI BANK DAN DALAM PERJALANAN / CASH IN HAND, BANK & TRANSIT		
	2000 RM	1999 RM
Wang di Tangan: / Cash in Hand:		
Kumpulanwang Am / General Fund	63,319	63,806
Kumpulanwang Kolej Kediaman / Residential College Fund	5,034	8,057
	68,353	71,863
Wang di Bank: / Cash at Bank:		
Kumpulanwang Am / General Fund	26,821,440	6,490,540
Kumpulanwang Kolej Kediaman / Residential College Fund	2,932,285	1,953,566
	29,753,725	8,444,106
Wang dalam Perjalanan: / Cash in Transit		
Kumpulanwang Am / General Fund	169,357	0
Kumpulanwang Kolej Kediaman / Residential College Fund	332,225	215,094
	501,582	215,094
Jumlah Wang di Tangan dan di Bank / Cash in Hand and Bank	30,323,660	8,731,063
8. PELBAGAI PEMIUTANG / SUNDRY CREDITORS		
	2000 RM	1999 RM
Kumpulanwang Am / General Fund	46,175,099	36,752,178
Kumpulanwang Kolej Kediaman / Residential College Fund	3,243,891	1,749,658
	49,418,990	38,501,836

Angka-angka pelbagai pemiutang adalah nilai bersih setelah diselaraskan dalam proses penyatuan item-item kontra antara akaun-akaun penghutang dan pemiutang. /

The amount in sundry creditors represents the net value less adjustments to the contra items of the debtors and creditors accounts.

9. KUMPULANWANG AM / GENERAL FUND

	2000 RM	1999 RM
PENDAPATAN / INCOME		
Pemberian Kerajaan / Government Grants	236,479,200	158,435,607
Sumbangan Luar / Other Donations	11,950	0
Pemberian Modal Direalisasi / Realised Capital Grants	1,196,544	0
Yuran Pelbagai / Others Fees	42,771,315	38,337,135
Pelbagai Sewa / Sundry Rentals	242,566	278,303
Faedah dan Dividen / Interests and Dividends	24,145	0
Jualan Aset Tetap / Sales of Fixed Asset	71,316	82,446
Pendapatan Lain / Other Incomes	1,452,382	995,149
	<u>282,249,418</u>	<u>198,128,640</u>
Tolak: PERBELANJAAN / Less: EXPENDITURE		
Emolumen / Emoluments	150,470,782	124,028,022
Bekalan dan Bahan-bahan / Supplies & Materials	36,038,679	29,139,204
Penyelenggaraan dan Pembaikan / Maintenance & Repairs	17,132,563	10,425,519
Perkhidmatan Iktis dan Perbelanjaan lain / Professional Services & Other Expenses	21,430,560	14,897,034
Susutnilai / Depreciation	28,776,615	25,261,803
Pelunasan Tanah / Amortization of Land	87,498	92,130
Hutang Lapuk / Bad Debts	3,106,593	564,107
Pelupusan Aset Tetap / Fixed Assets Written-off	60,472	11,705
	<u>257,103,762</u>	<u>204,419,524</u>
(KURANGAN)/LEBIHAN PENDAPATAN / (DEFICIT)/SURPLUS INCOME	25,145,656	(6,290,884)
BAKI KUMPULANWANG DIBAWA KE HADAPAN /		
BALANCE BROUGHT FORWARD		
- Seperti yang Dinyatakan Terdahulu / As Previously Stated	248,762,698	239,292,511
- Pelarasan Tahun Lalu / Prior Year Adjustment	(400,156)	(81,871)
	<u>248,362,542</u>	<u>239,210,640</u>
- Seperti yang Dinyatakan Semula / As Re-stated		
Pindahan dari/(ke): / Transfers from/(to):		
Kumpulanwang Pembangunan / Development Fund	13,822,468	3,605,626
Kumpulanwang Penyelidikan / Research Fund	5,225,541	6,071,699
Kumpulanwang Tabung Pusingan / Revolving Fund	292,208	69,431
Kumpulanwang Amanah Lain / Other Funds	2,468,016	1,291,641
Kumpulanwang Penginapan dan Rekreasi / Accommodation & Recreation Funds	3,325,670	47,900
Kumpulanwang Kursus, Seminar, Konferensi / Course, Seminar & Conference Fund	2,559,018	484,145
Kumpulanwang Pelaburan / Investment Fund	2,784,557	4,772,500
Kumpulanwang Kolej Kediaman / Residential College Fund	59,447	(500,000)
	<u>304,045,123</u>	<u>248,762,698</u>
BAKI KUMPULANWANG DIHANTAR KE HADAPAN /		
BALANCE CARRIED FORWARD		

**10. KUMPULANWANG KOLEJ KEDIAMAN /
RESIDENTIAL COLLEGE FUND**

	2000 RM	1999 RM
PENDAPATAN / INCOME		
Yuran Kolej Kediaman / Residential Fees	9,259,024	13,006,098
Yuran-yuran Lain / Miscellaneous Fees	2,526,350	2,592,434
Faedah / Interests	523,086	822,187
Sewa / Rentals	107,239	65,526
Pendapatan Lain / Other Incomes	544,636	651,329
	<u>12,960,335</u>	<u>17,137,574</u>
Tolak: PERBELANJAAN / Less: EXPENDITURE		
Bekalan dan Bahan-bahan / Supplies & Materials	6,169,121	5,393,578
Penyelenggaraan dan Pembaikan / Maintenance & Repairs	4,661,852	4,286,004
Perkhidmatan Iktisas dan Perbelanjaan Lain / Professional Services & Other Expenses	2,720,762	1,986,910
Susutnilai / Depreciation	368,931	285,248
Hutang Lapuk / Bad Debts	205,532	140,913
	<u>14,126,198</u>	<u>12,092,653</u>
(KURANGAN) / LEBIHAN PENDAPATAN / (DEFICIT)/SURPLUS INCOME	(1,165,863)	5,044,921
BAKI KUMPULANWANG DIBAWA KE HADAPAN / BALANCE BROUGHT FORWARD		
- Seperti yang Dinyatakan Terdahulu / As Previously Stated	18,918,136	13,304,465
- Pelarasan Tahun Lalu / Prior Year Adjustment	0	68,750
- Seperti yang Dinyatakan Semula / As Re-stated	<u>18,918,136</u>	<u>13,373,215</u>
Pindahan dari/(ke): / Transfers from/(to):		
Kumpulanwang Am / General Fund	(59,447)	500,000
BAKI KUMPULANWANG DIHANTAR KE HADAPAN / BALANCE CARRIED FORWARD	<u>17,692,826</u>	<u>18,918,136</u>

11. KUMPULANWANG PEMBANGUNAN / DEVELOPMENT FUND

	2000 RM	1999 RM
PENDAPATAN / INCOME		
Pemberian Kerajaan / Government Grants	24,131,800	18,649,400
Pemberian Modal Direalisasi / Realised Capital Grants	258,956	0
Sumbangan Luar / Other Donations	16,513	141,728
Pendapatan Lain / Other Incomes	507,975	8,650
	<hr/> 24,915,244	<hr/> 18,799,778
Tolak: PERBELANJAAN / Less: EXPENDITURE		
Emolumen / Emoluments	183,698	46,917
Bekalan dan Bahan-bahan / Supplies & Materials	2,965,379	140,187
Penyelenggaraan dan Pembaikan / Maintenance & Repairs	276,691	577,691
Perkhidmatan Iktisas dan Perbelanjaan Lain / Professional Services & Other Expenses	2,562,509	3,100,153
	<hr/> 5,988,277	<hr/> 3,864,948
LEBIHAN PENDAPATAN / SURPLUS INCOME	18,926,967	14,934,830
BAKI KUMPULANWANG DIBAWA KE HADAPAN / BALANCE BROUGHT FORWARD		
- Seperti yang Dinyatakan Terdahulu / As Previously Stated	67,807,837	49,978,633
- Pelarasan Tahun Lalu / Prior Year Adjustment	(4,209,750)	0
	<hr/> 63,598,087	<hr/> 49,978,633
- Seperti yang Dinyatakan Semula / As Re-stated		
Pindahan dari/(ke): / Transfers from/(to):		
Kumpulanwang Am / General Fund	(13,822,468)	(3,605,626)
Kumpulanwang Kursus, Seminar, Konferensi & Lawatan Sambil Belajar / Course, Seminar, Conference and Study Visit Fund	5,152,743	0
Kumpulanwang Pelaburan / Investment Fund	5,408,300	6,500,000
	<hr/> 79,263,629	<hr/> 67,807,837
BAKI KUMPULANWANG DIHANTAR KE HADAPAN / BALANCE CARRIED FORWARD		

12. KUMPULANWANG TABUNG PENYELIDIKAN / RESEARCH FUND

	2000 RM	1999 RM
PENDAPATAN / INCOME		
Pemberian Kerajaan / Government Grants	25,619,218	15,069,971
Yuran Pelbagai / Miscellaneous Fees	434,394	44,822
Sumbangan / Other Donations	6,242,080	8,735,525
Sumbangan Universiti / Contributions from University	140,000	140,000
Faedah Simpanan Tetap / Interest from Fixed Deposits	3,564	4,380
Sewa Pelbagai / Sundry Rentals	46,181	19,976
Pendapatan Lain / Other Incomes	3,557,377	2,016,071
	36,042,814	26,030,745
Tolak: PERBELANJAAN / Less: EXPENDITURE		
Emolumen / Emoluments	8,520	1,707
Bekalan dan Bahan-bahan / Supplies & Materials	11,644,282	11,424,834
Penyelenggaraan dan Pembaikan / Maintenance & Repairs	1,195,343	1,147,859
Perkhidmatan Iktisas dan Perbelanjaan Lain / Professional Services & Other Expenses	16,297,039	12,568,537
	29,145,184	25,142,937
LEBIHAN PENDAPATAN / SURPLUS INCOME		
BAKI KUMPULANWANG DIBAWA KE HADAPAN / BALANCE BROUGHT FORWARD	6,897,630	887,808
- Seperti yang Dinyatakan Terdahulu / As Previously Stated	39,372,329	44,541,140
- Pelarasan Tahun Lalu / Prior Year Adjustment	144,993	6,000
	39,517,322	44,547,140
- Seperti yang Dinyatakan Semula / As Re-stated		
Pindahan dari/(ke): / Transfers from/(to):		
Kumpulanwang Am / General Fund	(5,225,541)	(6,016,402)
Kumpulanwang Pelaburan / Investment Fund	2,000,000	0
Kumpulanwang Amanah Lain / Other Trust Fund	0	(17,720)
Kumpulanwang Seminar & Persidangan / Seminar & Conference Fund	0	(28,497)
	43,189,411	39,372,329
BAKI KUMPULANWANG DIHANTAR KE HADAPAN / BALANCE CARRIED FORWARD		

13. KUMPULANWANG TABUNG PUSINGAN / REVOLVING FUND

	2000 RM	1999 RM
PENDAPATAN / INCOME		
Yuran Pelbagai / Miscellaneous Fees	124,317	176,450
Sumbangan Luar / Other Donations	123,128	35,733
Sumbangan Universiti / Contributions from University	30,000	0
Faedah Simpanan Tetap / Interest from Fixed Deposits	152,467	207,298
Sewa Pelbagai / Sundry Rentals	4,461	0
Pendapatan Lain / Other Incomes	194,831	323,189
	629,204	742,670
Tolak: PERBELANJAAN / Less: EXPENDITURE		
Bekalan dan Bahan-bahan / Supplies & Materials	150,375	165,358
Penyelenggaraan dan Pembaikan / Maintenance & Repairs	61,618	56,111
Perkhidmatan Iktisas dan Hospitaliti / Professional & Hospitality Services	717,966	896,511
	929,959	1,117,980
KURANGAN PENDAPATAN / DEFICIT IN INCOME	(300,755)	(375,310)
BAKI KUMPULANWANG DIBAWA KE HADAPAN / BALANCE BROUGHT FORWARD	5,161,623	4,773,359
Pindah dari/(ke): / Transfers from/(to):		
Kumpulanwang Am / General Fund	(292,208)	(69,431)
Kumpulanwang Pelaburan / Investment Fund	0	833,005
	4,568,660	5,161,623
BAKI KUMPULANWANG DIHANTAR KE HADAPAN / BALANCE CARRIED FORWARD		

14. KUMPULANWANG AMANAH LAIN / OTHER TRUST FUNDS

	2000 RM	1999 RM
PENDAPATAN / INCOME		
Pemberian Kerajaan / Government Grants	4,750,000	8,008,000
Yuran Pelbagai / Miscellaneous Fees	9,844,606	10,672,931
Sumbangan / Donations	6,671,451	3,283,042
Faedah Simpanan Tetap / Interest from Fixed Deposits	107,432	381,186
Sewa Pelbagai / Sundry Rentals	31,553	72,291
Pampasan Tanah / Land Compensations	20,306,976	16,548,321
Pendapatan Lain / Other Incomes	11,874,503	15,686,000
	53,586,521	54,651,771
Tolak: PERBELANJAAN / Less: EXPENDITURE		
Emolumen / Emoluments	800	7,112
Bekalan dan Bahan-bahan / Supplies & Materials	2,986,493	1,844,717
Penyelenggaraan dan Pembaikan / Maintenance & Repairs	311,606	399,268
Perkhidmatan Iktisas dan Hospitaliti / Professional & Hospitality Services	21,259,631	15,685,204
Hutang Lapuk / Bad Debts	320,945	72,452
Pelupusan Tanah / Land Written-off	314,230	55,571
Pindahan Peruntukan antara Kumpulanwang / Transfers Between Funds	0	96,000
	25,193,705	18,160,324
LEBIHAN PENDAPATAN / SURPLUS INCOME	28,392,816	36,491,447
BAKI KUMPULANWANG DIBAWA KE HADAPAN / BALANCE BROUGHT FORWARD		
- Seperti yang Dinyatakan Terdahulu / As Previously Stated	58,600,157	23,261,316
- Pelarasan Tahun Lalu / Prior Year Adjustment	59,431	121,315
	58,659,588	23,382,631
- Seperti yang Dinyatakan Semula / As Re-stated		
Pindahan Dari/(Ke): / Transfers from/(to):		
Kumpulanwang Am / General Fund	(2,468,016)	(1,291,641)
Kumpulanwang Penyelidikan / Research Fund	0	17,720
Kumpulanwang Pelaburan / Investment Fund	75,000	0
Kumpulanwang Pembangunan / Development Fund	(5,152,743)	0
	79,506,645	58,600,157
BAKI KUMPULANWANG DIHANTAR KE HADAPAN / BALANCE CARRIED FORWARD		

**15. KUMPULANWANG PENGINAPAN DAN REKREASI /
ACCOMMODATION & RECREATION FUND**

	2000 RM	1999 RM
PENDAPATAN / INCOME		
Sumbangan / Contributions	5,725	5,630
Sumbangan Universiti / Contributions from University	0	25,000
Pelbagai Sewa / Rental & Sundry	60,364	104,649
Pendapatan Lain / Other Incomes	1,075,426	1,473,312
	<hr/> 1,141,515	<hr/> 1,608,591
Tolak: PERBELANJAAN / Less: EXPENDITURE		
Emolumen / Emoluments	(395)	4,669
Bekalan dan Bahan-bahan / Supplies & Materials	488,432	491,356
Penyelenggaraan dan Pembaikan / Maintenance & Repairs	423,939	681,307
Perkhidmatan iktisas dan Hospitality / Professional & Hospitality Services	174,732	649,392
	<hr/> 1,086,708	<hr/> 1,826,724
(KURANGAN)/LEBIHAN PENDAPATAN / (DEFICIT)/SURPLUS INCOME	54,807	(218,133)
BAKI KUMPULANWANG DIBAWA KE HADAPAN / BALANCE BROUGHT FORWARD		
- Seperti yang Dinyatakan Terdahulu / As Previously Stated	5,539,203	5,805,236
- Pelarasan Tahun Lalu / Prior Year Adjustment	520	0
	<hr/> 5,539,723	<hr/> 5,805,236
- Seperti yang Dinyatakan Semula / As Re-stated		
Pindahan (Ke) : / Transfers (to):		
Kumpulanwang Am / General Fund	(3,325,670)	(47,900)
Kumpulanwang Pelaburan / Investment Fund	180,000	0
	<hr/> 2,448,860	<hr/> 5,539,203
BAKI KUMPULANWANG DIHANTAR KE HADAPAN / BALANCE CARRIED FORWARD		

16. KUMPULANWANG PELABURAN / INVESTMENT FUND

	2000 RM	1999 RM
PENDAPATAN / INCOME		
Faedah, Dividen dan Keuntungan Saham / Interest, Dividends and Profits from Shares	15,212,348	21,571,311
Pengurangan Peruntukan Rosotnilai Saham / Less Provision for Diminution in Value of Shares	0	2,840,328
Pendapatan Lain / Other Incomes	222,754	1,128,148
	<u>15,435,102</u>	<u>25,539,787</u>
Tolak: PERBELANJAAN / Less: INCOME		
Perkhidmatan Iktis dan Hospitaliti / Professional & Hospitality Services	13,439	25,208
Perbelanjaan Lain / Other Expenditures	13,164	0
Rosotnilai Saham / Provision for Diminution in Value of Shares	2,288,946	0
	<u>2,315,549</u>	<u>25,208</u>
LEBIHAN PENDAPATAN / SURPLUS INCOME	13,119,553	25,514,579
BAKI KUMPULANWANG DIBAWA KE HADAPAN / BALANCE BROUGHT FORWARD		
- Seperti yang Dinyatakan Terdahulu / As Previously Stated	81,899,551	67,181,456
- Pelarasan Tahun Lalu / Prior Year Adjustment	0	(66,609)
	<u>81,899,551</u>	<u>67,114,847</u>
- Seperti yang Dinyatakan Semula / As Re-stated		
Pindah Dari/(Ke): / Transfers From/(to):		
Kumpulanwang Am / General Fund	(2,784,557)	(4,772,500)
Kumpulanwang Pembangunan / Development Fund	(5,408,300)	(6,500,000)
Kumpulanwang Penyelidikan / Research Fund	(2,000,000)	0
Kumpulanwang Penginapan & Rekreasi / Recreation Funds	(180,000)	0
Kumpulanwang Seminar dan Konferensi / Seminar & Conference Fund	0	1,375,630
Kumpulanwang Amanah Lain / Other Trust Funds	(75,000)	0
Kumpulanwang Tabung Pusingan / Revolving Fund	0	(833,005)
	<u>84,571,247</u>	<u>81,899,551</u>
BAKI KUMPULANWANG DIHANTAR KE HADAPAN / BALANCE CARRIED FORWARD	84,571,247	81,899,551

**17. KUMPULANWANG KURSUS, SEMINAR, KONFERENSI DAN
LAWATAN SAMBIL BELAJAR /
COURSE, SEMINAR, CONFERENCE & STUDY VISIT FUNDS**

	2000 RM	1999 RM
PENDAPATAN / INCOME		
Yuran Pelbagai / Miscellaneous Fees	24,904,383	36,844,349
Sumbangan Luar / Contributions	1,426,620	1,736,325
Sumbangan Universiti / Contributions from University	50,000	0
Faedah Simpanan Tetap / Interest from Fixed Deposits	380,000	272,986
Sewa Pelbagai / Rentals Sundry	509,333	197,001
Jualan Aset Tetap / Sale of Fixed Assets	433	0
Pendapatan Lain / Other Incomes	3,325,439	3,257,291
	<hr/> 30,596,208	<hr/> 42,307,952
Tolak: PERBELANJAAN / Less: EXPENDITURE		
Emolumen / Emoluments	(82,654)	2,573
Bekalan dan Bahan-bahan / Supplies & Materials	3,009,734	2,707,026
Penyelenggaraan dan Pembaikan / Maintenance & Repairs	336,674	267,290
Perkhidmatan Iktisas dan Hospitaliti / Professional & Hospitality Services	10,670,783	10,845,198
Hutang Lapuk / Bad Debts	8,848,422	9,986,005
	<hr/> 22,782,959	<hr/> 23,808,092
LEBIHAN PENDAPATAN / SURPLUS INCOME	7,813,249	18,499,860
BAKI KUMPULANWANG DIBAWA KE HADAPAN / BALANCE BROUGHT FORWARD		
- Seperti yang Dinyatakan Terdahulu / As Previously Stated	36,532,693	20,806,140
- Pelarasan Tahun Lalu / Prior Year Adjustment	18,047	(942,029)
	<hr/> 36,550,740	<hr/> 19,864,111
- Seperti yang Dinyatakan Semula / As Re-stated		
Pindahan Dari/(Ke): / Transfers from/(to):		
Kumpulanwang Am / General Fund	(2,559,018)	(484,145)
Kumpulanwang Pelaburan / Investment Account	0	(1,375,630)
Kumpulanwang Penyelidikan / Research Trust Fund	0	28,497
	<hr/> 41,804,971	<hr/> 36,532,693
BAKI KUMPULANWANG DIHANTAR KE HADAPAN / BALANCE CARRIED FORWARD		

18. KUMPULANWANG PINJAMAN KENDERAAN DAN PINJAMAN KOMPUTER / VEHICLE & COMPUTER LOAN FUNDS

	2000 RM	1999 RM
Kumpulanwang Pinjaman Kenderaan / Vehicle Loan Funds		
BAKI KUMPULANWANG DIBAWA DAN DIHANTAR KE HADAPAN / BALANCE BROUGHT FORWARD	13,000,000	13,000,000
Kumpulanwang Pinjaman Komputer / Computer Loan Fund		
BAKI KUMPULANWANG DIBAWA DAN DIHANTAR KE HADAPAN / BALANCE BROUGHT FORWARD	2,000,000	2,000,000
JUMLAH BAKI KUMPULANWANG DIHANTAR KE HADAPAN / TOTAL BALANCE CARRIED FORWARD	15,000,000	15,000,000

19. PEMBERIAN MODAL / CAPITAL GRANTS

	2000 RM	1999 RM
(i) Bangunan Asrama Atlit / Athlete's Hostel	4,386,915	0
Tolak : Susutnilai Tahunan / Less: Yearly Depreciation	(258,956)	0
	<u>4,127,959</u>	<u>0</u>
(ii) Komputer Y2K / Y2K Computer	2,991,360	0
Tolak : Susutnilai Tahunan / Less: Yearly Depreciation	(1,196,544)	0
	<u>1,794,816</u>	<u>0</u>
Baki pada 31 Disember 2000 / Balance at 31 December 2000	<u>5,922,775</u>	<u>0</u>

Universiti telah menerima sumbangan dari Majlis Sukan Negara bagi membiayai projek pembinaan Asrama Atlit UPM berjumlah RM4,386,915 dan pemberian 820 buah komputer Y2K bernilai RM2,991,360 dari MAMPU yang telah direalisasikan kepada harta modal dan pendapatan sepanjang hayat ekonomi harta tersebut, mengikut kadar susutnilai tahunan yang telah ditetapkan. /

The University received a contribution of RM4,386,915 from the National Sports Council for the construction of the Athlete's Hostel and a grant of 820 Y2K computers worth RM2,991,360 from MAMPU which have been realised as capital and income throughout its economic life based on a set rate of yearly depreciation.

20. PEMBERIAN KERAJAAN / GOVERNMENT GRANTS

	2000 RM	1999 RM
Pemberian adalah untuk belanja berikut : / Grant were for the following expenses:		
Pembangunan / Development	24,131,800	18,649,400
Mengurus / Management	132,552,300	114,104,100
Dasar Baru / New Policy	53,262,900	13,174,300
One-off / One-off	50,664,000	30,032,500
Skim Latihan Akademik dan Biasiswa / Academic Training & Scholarship Scheme	2,750,000	8,008,000
Skim Pasca Siswazah / Postgraduate Scheme	2,000,000	0
IRPA / IRPA	25,619,218	15,069,971
Komputer Y2K / Y2K Computer	0	700,000
Pakej Perakaunan (SAGA) / Accounting Package (SAGA)	0	424,707
	<u>290,980,218</u>	<u>200,162,978</u>

21. PAMPASAN TANAH / LAND COMPENSATIONS

	2000 RM	1999 RM
Universiti telah menerima wang pampasan atas pengambilan tanah dari: / The University received compensation for take-over of land from:		
(i) Perbadanan Putra Jaya / Putra Jaya Corporation	0	7,455,450
(ii) Kementerian Pengangkutan Malaysia / Ministry of Transport	0	9,077,871
(iii) Lembaga Lebuhraya Malaysia / Malaysian Highway Board	20,120,676	15,000
(iv) MARDI (tuntutan ganti Rugi projek ERL) / MARDI (Compensation Claim for the ERL Project)	186,300	0
	<u>20,306,976</u>	<u>16,548,321</u>

22. PENDAPATAN LAIN / OTHER INCOMES

	2000 RM	1999 RM
Sumbangan Universiti / University Donations	220,000	165,000
Rawatan Haiwan / Animal Clinic	612,115	675,467
Pusat Kesihatan / Health Centre	203,825	189,242
Penerbit / Press	1,279,958	967,960
Hasil Borang Permohonan / Income from Application Forms	226,235	109,815
Tabung Kebajikan & Aktiviti Pelajar / Student Welfare & Activity Funds	259,805	360,912
Hasil Ladang / Income from Estate	499,320	292,319
Pendapatan Mengikut Klasifikasi Kumpulanwang:		
(i) Tabung Pusingan / Revolving Fund	194,831	323,189
(ii) Akaun Amanah Lain / Other Accounts	9,292,565	13,382,604
(iii) Akaun Penyelidikan / Research Account	3,557,377	2,016,071
(iv) Akaun Kursus, Seminar, Konferensi & Lawatan / Courses, Seminar, Conference & Study Visit Account	2,826,119	2,868,972
(v) Akaun Pelaburan dan Pembangunan / Investment & Development Account	730,729	1,136,798
(vi) Akaun Penginapan dan Rekreasi / Accommodation & Recreation Account	1,075,426	1,473,312
(vii) Akaun Am / General Account	1,452,382	995,149
(viii) Akaun Kolej Kediaman / Residential College Account	544,636	651,329
	<u>22,975,323</u>	<u>25,608,139</u>

23. PELARASAN TAHUN LALU / PRIOR YEAR ADJUSTMENT

	2000 RM	1999 RM
Bayaran Balik Pinjaman antara Kumpulanwang / Reimbursements between Funds	0	206,415
	<u>0</u>	<u>206,415</u>
Tolak :		
Sumbangan Majlis Sukan Negara untuk Pembinaan Asrama Atlit Diakaunkan Semula ke Akaun Pemberian Modal / Contribution from National Sports Council for Athlete's Hostel Re-accounted for in Capital Grants Account	4,386,915	0
Faedah Simpanan Tetap Terakru Terlebih Diambil Kira / Surplus Interest Accrued from Fixed Deposits Accounted for	0	76,959
Selaras Transaksi Salah Caj / Adjustements to Wrongly Charged Transactions	0	1,023,900
	<u>4,386,915</u>	<u>1,100,859</u>
Baki pada 31 Disember 2000 / 31 Disember 1999 Balance at 31 December 2000 / 31 December 1999	<u>4,386,915</u>	<u>(894,444)</u>

24. PENGLIBATAN MODAL / CAPITAL INVOLVEMENT

	2000 RM	1999 RM
Perbelanjaan Modal Diluluskan Tetapi Tidak Diperuntukkan di Dalam Akaun: / Approved but not provided for in the Accounts:		
- Dikontrakkan / Contracted	69,504,418 139,100,000	58,642,815 95,244,103
- Tidak dikontrakkan / Not Contracted	<u>208,604,418</u>	<u>153,886,918</u>

Peningkatan jumlah penglibatan modal dari RM153,886,918 kepada RM208,604,418 adalah kerana pertambahan kelulusan bagi projek-projek Bangunan Pusat Penyelidikan R & D, Kompleks Fakulti Perubatan & Sains Kesihatan (Fasa 2), Kompleks Hal Ehwal Pelajar dan Naik Taraf Lebuh Silikon. /

The increase in value of capital involvement from RM153,886,918 to RM208,604,418 was due to an additional approval for construction of the R&D Building, the Faculty of Medicine & Health Sciences Complex (Phase 2), Student Affairs Complex and the upgrading of Lebuh Silikon.

25. LIABILITI KONTINGENSI / CONTINGENCY LIABILITIES

	2000 RM	1999 RM
(i) Tindakan undang-undang diambil oleh Syarikat Juta Yakin terhadap UPM dengan mengemukakan tuntutan saman berkaitan Projek Membina dan Menyiapkan Bangunan Markas Palapes. / Legal Action Taken by Syarikat Juta Yakin against UPM with a Summons Claim Related to the Construction of Palapes Headquarters.	240,000	240,000
(ii) Letter of Demand IBM melalui peguam, menuntut bayaran bagi projek Satu Pelajar Satu Komputer. / Legal Letter of Demand by IBM for payment of the 'One Student One Computer Project'.	2,178,899	0
(iii) Bayaran terakhir Projek Pembinaan Lubang Kedua Padang Golf, UPM tertangguh sehingga mendapat keputusan mahkamah tinggi. / Final payment for Construction of Second Nine-Hole of UPM Golf Course Deferred Pending High Court Decision.	631,679	0
(iv) Syarikat May Teknik telah mengemukakan saman berkaitan penginapan pelajar di Vintage Point Condominium, Desa Petaling. / A summons by Syarikat May Teknik in Relation to Student Accommodation at Vintage Point Condominium, Desa Petaling.	0	120,000
	<u>3,050,578</u>	<u>360,000</u>

26. ANGKA-ANGKA PERBANDINGAN / COMPARATIVE FIGURES

Sebahagian dari angka-angka bandingan tahun lalu telah dipinda untuk disesuaikan dengan persembahan tahun ini. /
A portion of prior year comparative figures have been reclassified for adjustment to this year's presentation.

