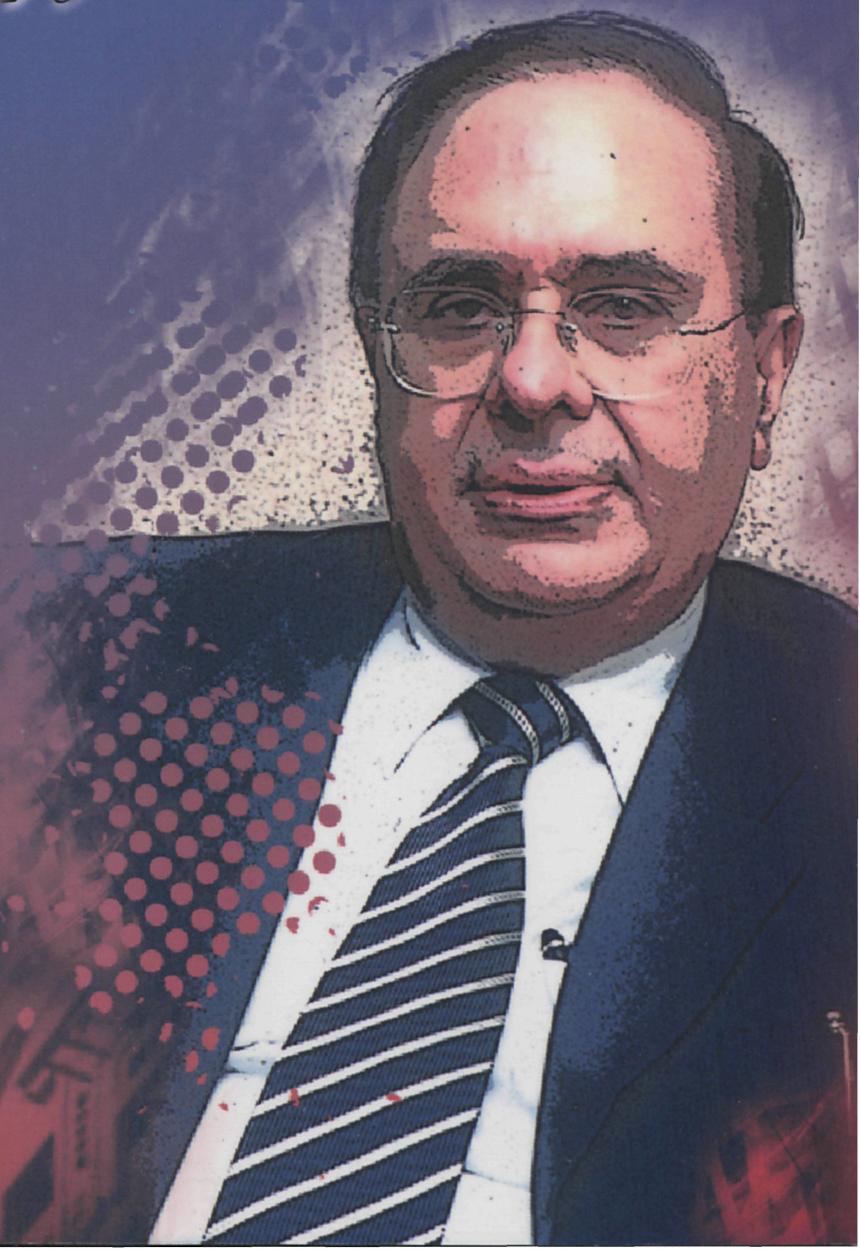
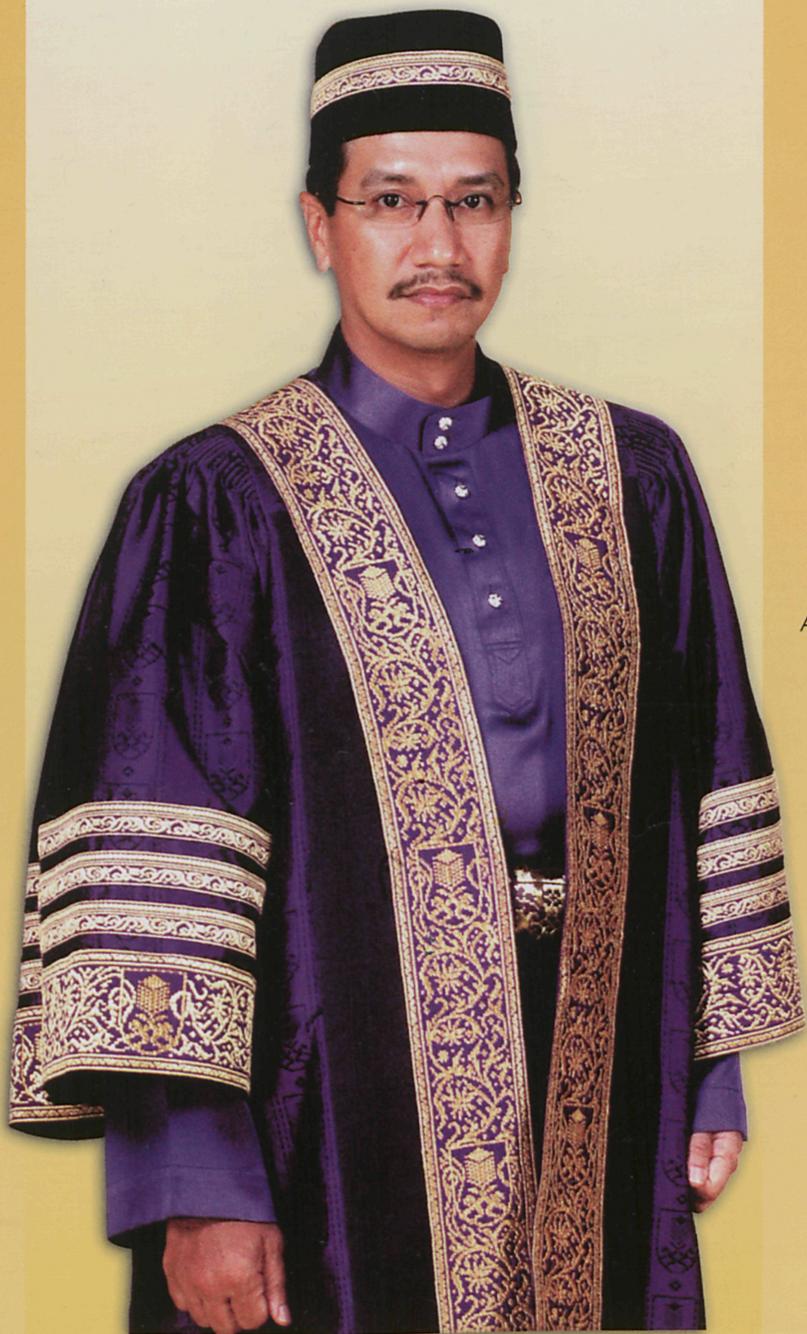


Special Edition

To Commemorate
the Conferment of
Honorary Doctor of Science
to
Prof. Atta-ur-Rahman, FRS
in conjunction with

UiTM's 75th Convocation
Dewan Agong Tuanku Canselor
20 October 2011





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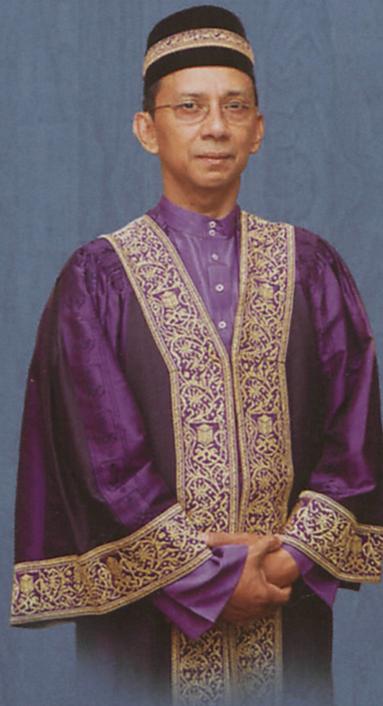
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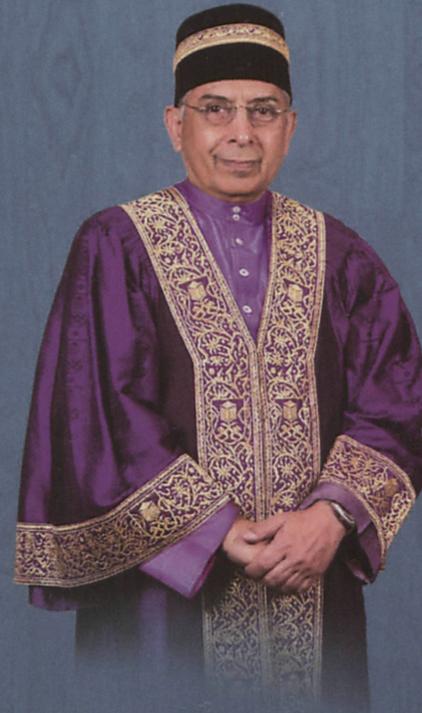
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Alumni Network (ICAN)



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YBhg. Prof. Emeritus
Datuk Dr. Shad Saleem Faruqi
Legal Advisor

FOREWORD BY THE VICE CHANCELLOR

Bismillahir Rahmaniir Rahim

It is with great pleasure that I welcome our guests, parents and relatives of graduands, to this momentous occasion of UiTM's 75th Convocation Ceremony. I am sure that such a pleasure is shared by all of our 189,000 students and our 17,000-strong working fraternity. Congratulations are also in order to all graduating students, in Shah Alam and four state campuses. It is my wish that this convocation will strengthen our will to sustain a life of peace and harmony in our beloved Malaysia. To all graduating students: You have all done us proud for having successfully overcome every trial and tribulation throughout this journey, in your quest for knowledge in UiTM.

For so long, Dewan Sri Budiman had been witness to hundreds of convocation ceremonies which saw thousands of students walking up the aisle to the stage to receive their scroll. Last year, for the first time, this historical event was repeated in the four state campuses of UiTM Perlis, Perak, Terengganu and Sarawak, along with the main ceremony taking place in Shah Alam. This year, the convocation in Shah Alam is held in our new Dewan Agong Tuanku Canselor (DATC), named in honour of our Royal Chancellor, the Yang di-Pertuan Agong.

This has all been made possible thanks to the commitment of our support staff, who have worked hard to ensure that we can finally organise the event in a more conducive ambience. Hence, it is only fitting that I commend those who have been instrumental in ensuring the smooth running of the 75th Convocation in this august hall.

On a different note, we are aware that UiTM bears the burden of responsibility to enhance the number of bumiputera graduates in the country; and we have consistently been on track in fulfilling such critical responsibility bestowed on us. Inevitably, the boost in student number requires that we have in place well-planned strategies, one of which is the strengthening of our branch campuses. To facilitate such effort, UiTM had earlier in 2011 granted autonomy to four of its branch campuses. Insya-Allah, the rest will follow suit in the near future – all in the name of better and more structured accessibility to higher education for young bumiputera.

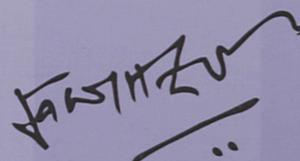
Since 1958, a total of 450,000 graduates have passed through the UiTM system. Not only have these graduates excelled in their respective careers, but many among them have also assumed leadership positions in the country's key economic sector. Indeed, what UiTM has done is

to provide the impetus to transform the indigenous, thus changing the destiny of the people. This is the manifestation of our nation's independence. It is because of UiTM that we are here in this august hall, and it is for UiTM that we shall continue to work together and instil a sense of independence in the minds and the hearts of young bumiputera.

I believe we can attain more if we share the same vision and work towards the same goal. The recent recognition given to UiTM by QS (Quacquarelli Symonds) World University Ranking is proof of our ability to showcase our best. For an entity which has been in the ranks of universities for only a decade and two years, being ranked 600th out of 35,000 universities in the world is indeed an accomplishment to be proud of. Indeed, the past one year of initiatives and efforts to put UiTM on the world map has begun to show results. But this is just the beginning, and more will have to be done to ensure that we remain among the better ones in the world.

It is thus my fervent hope that UiTM perpetuates its mission to lead the indigenous young towards a better future through learning of both worldly knowledge and knowledge of the hereafter, as it is through such learning that we are able to play a collective role and to subsequently partake in the wealth and wellness of our nation. We must never abandon the cause of our young who are still in need of help to make it in life. Our achievement here in UiTM is not solely ours alone, but also that of the young and the children among our people.

May all graduands be endowed with the wisdom and sense of obligation to pay homage to your alma mater one day, through whatever means and measures. Let us be together and persevere in our quest to advance the cause of this special entity UiTM, borne of the need to sustain the future of our religion, our people and our country. Let us hope that this convocation will lead us towards a more peaceful and prosperous life in our beloved Malaysia. Let us forever have UiTM in our hearts... UiTM Sentiasa Di Hatiku.



Dato' Prof. Ir. Dr. Sahol Hamid Abu Bakar, FASc
Vice-Chancellor



UiTM'S PHILOSOPHY

A belief that every individual has the ability to attain excellence through the transfer of knowledge and the assimilation of moral values so as to become professional graduates capable of developing knowledge, self, society and nation.

UiTM'S VISION

To establish UiTM as a premier university of outstanding scholarship and academic excellence capable of providing leadership to bumiputeras' dynamic involvement in all professional fields of world-class standards in order to produce globally competitive graduates of sound ethical standing.

UiTM'S MISSION

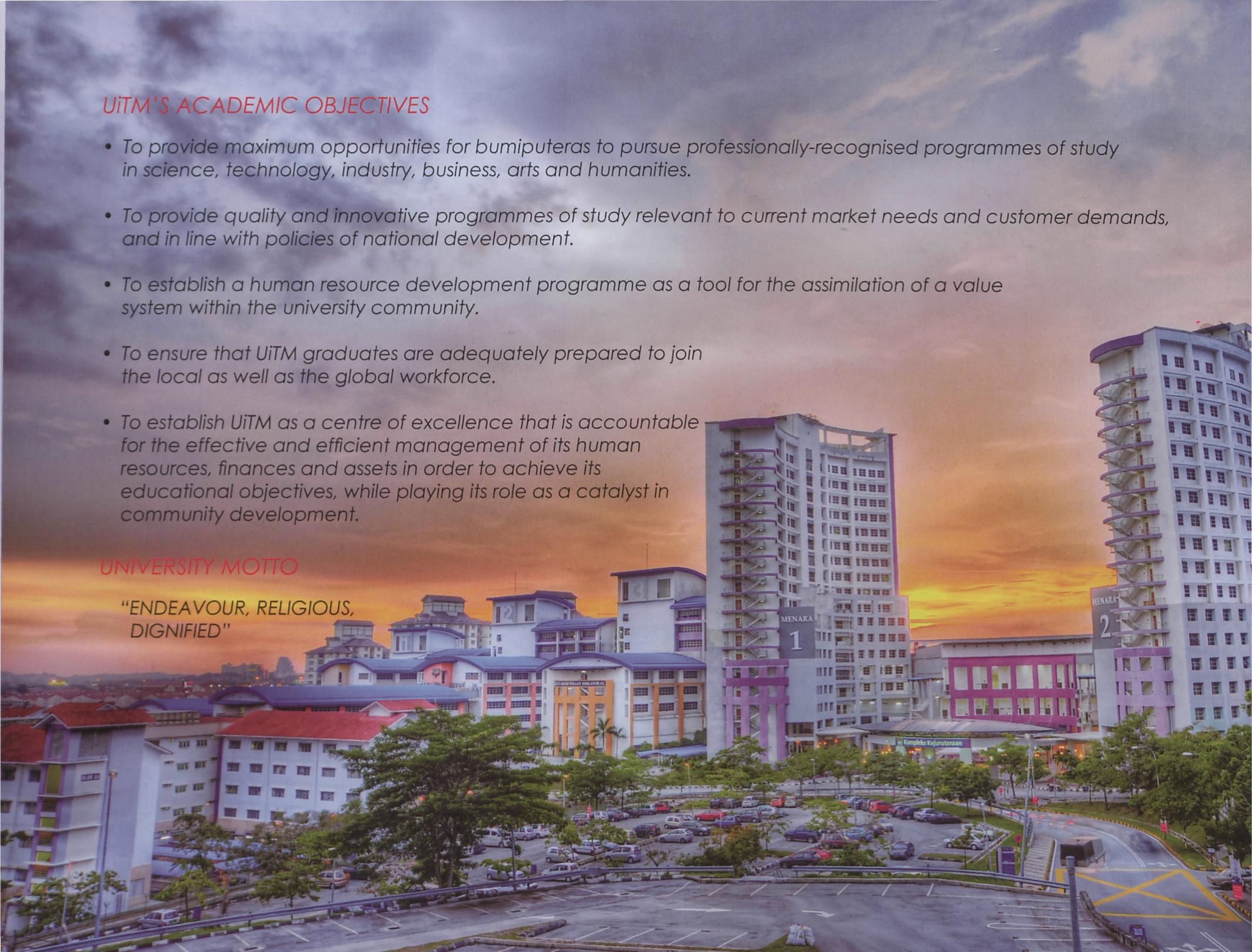
To enhance the knowledge and expertise of bumiputeras in all fields of study through professional programmes, research work and community service based on moral values and professional ethics.

UiTM'S ACADEMIC OBJECTIVES

- To provide maximum opportunities for bumiputeras to pursue professionally-recognised programmes of study in science, technology, industry, business, arts and humanities.
- To provide quality and innovative programmes of study relevant to current market needs and customer demands, and in line with policies of national development.
- To establish a human resource development programme as a tool for the assimilation of a value system within the university community.
- To ensure that UiTM graduates are adequately prepared to join the local as well as the global workforce.
- To establish UiTM as a centre of excellence that is accountable for the effective and efficient management of its human resources, finances and assets in order to achieve its educational objectives, while playing its role as a catalyst in community development.

UNIVERSITY MOTTO

"ENDEAVOUR, RELIGIOUS,
DIGNIFIED"



THE UNIVERSITY LOGO

The diamond shape at the top of five books symbolises the quality education obtained from studying in Universiti Teknologi MARA.

Five shapes which represent elevated books symbolise the varied areas and the varied levels of study offered which are, **Certificate, Diploma, Bachelor's Degree, Master's Degree and Doctoral degree**

The five shapes also symbolise the five Pillars of Islam which become the thrust of student development.

The image of books placed on a book-rest (rihal) becomes the basis of the design of the Universiti Teknologi MARA logo. Books symbolise the source of knowledge.

As an institution of higher learning, the core of all knowledge including the field of science and technology disseminated to the students is based on knowledge in the Al-Quran and As-Sunnah.

The book-rest symbolises the university as the platform to disseminate knowledge.

Two crossed kerises symbolise the sovereignty of the Malay kings and the struggle of the Malays to uphold the excellence and sovereignty of the nation.



اَوْنِيُوْزِ سِيْتِيْ بِاْتِيْكَوْلُوْجِيْ مَارَا
UNIVERSITI
TEKNOLOGI
MARA



COLOUR OF THE LOGO

Dark Blue

Dark Blue shows the maturity of an institution of higher learning which offers different levels of study.

Purple

Purple symbolises excellence in global knowledge.

Yellow

Yellow represents the sovereignty of the Malay kings and the struggle of the Malays in an effort to take the national education towards excellence.

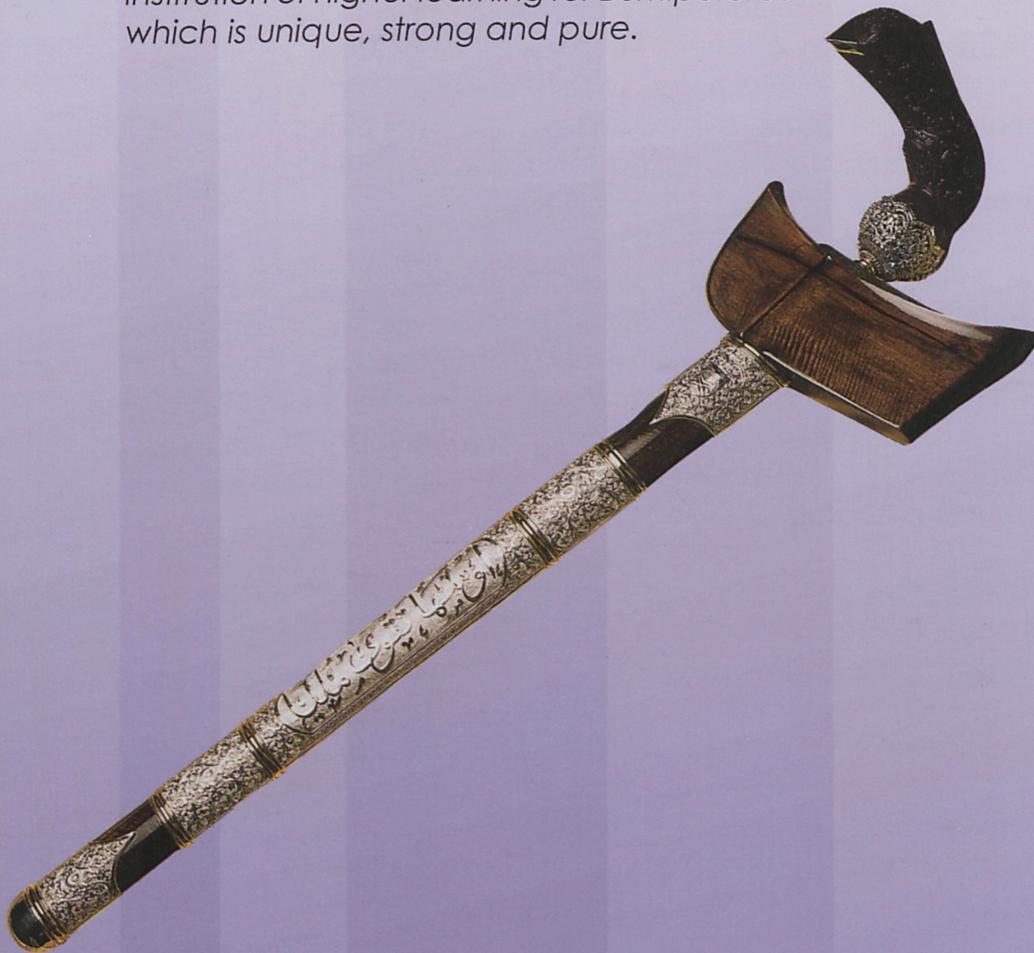
White

White symbolises the sacred and pure knowledge offered to the students.

The overall shape of the logo maintains the original shape in order to retain the identity of UiTM as the fountain of knowledge.

THE MACE

The Mace of Universiti Teknologi MARA is in the form of a Malay keris (dagger) known as the Keris Agung and accompanied by a pair of long lances known as the Tombak Agung. Both items symbolise UiTM as an institution of higher learning for Bumiputeras which is unique, strong and pure.



THE KERIS AGUNG

A sheathed Keris Agung symbolises the strength and the wholeness of the Malays. The motif on the Keris Agung is apt for the meaning and the aim of its creation. The motif represents the King, Seri Peduka Baginda Yang di-Pertuan Agung as the Chancellor of UiTM at the same time representing UiTM as a unique Bumiputera institution of higher learning.

The natural and genuine characteristics of a Malay keris in the Keris Agung represent the philosophy behind the establishment of Universiti Teknologi MARA. These were adapted from the creation of a keris known as Keris Potong Barat.

The motif on the hilt of Keris Agung is a yellow gourd flower, the hilt ring has a bamboo shoot motif and the sheath is covered with Bunga Tanjung (Mimusops Elengi).

The yellow gourd flower represents the royal colour which signifies the Malay Sultanate. The bamboo shoot motif represents the educational process in moulding students into professional graduates. The Bunga Tanjung on the sheath represents the State of Selangor where the main UiTM campus is located.

The UiTM logo which is engraved on a silver design at the top of the sheath symbolises authority. The middle part of the sheath is covered in silver inscribed with the UiTM motto *Usaha Taqwa Mulia* (Endeavour Religious Dignified) in Arabic calligraphy.



THE TOMBAK AGUNG

The Tombak Agung consists of a pair of long lances, one with a bamboo leaf-shaped blade, another with a five-curved blade which represent religious, knowledge and personality values as well as the sovereignty of the Malay society and the nation. The overall motif on the shaft of the spear is adapted from a design of a dome to symbolise UiTM as a fountain of knowledge which creates the good and banishes the evil based on religious teachings particularly among the undergraduates, all for the religion, the race and the nation.

The blade with five curves represents the five Pillars of Islam while the bamboo leaf-shaped blade symbolises the rich traditional Malay art. The decoration on the shaft starts with a traditional silver head-dress which symbolises the responsibility of the Malay kings towards matters pertaining Islam as well as the pinnacle of the Malay civilisation.

Below the head-dress is a silver inscription of UiTM motto *Usaha Taqwa Mulia* and UiTM logo in Arabic calligraphy followed by a silver engraving of Bunga Tanjung. The logo and the motto represent UiTM as a premier institution of higher learning which has been established based on the aspiration to produce Bumiputera graduates who are knowledgeable and technologically advanced.



Universiti Teknologi MARA

OUR ROUTE TO THE PRESENT

The history of UiTM started in 1956 with the establishment of Dewan Latehan RIDA (RIDA Training Centre). RIDA is the acronym for Rural and Industrial Development Authority which was responsible for the training centre.

DEWAN LATEHAN RIDA (1956-1965)

Dewan Latehan RIDA was set up based on the result of a study visit of Ceylon's (now Sri Lanka) rural development programme in 1951. A working paper of the visit outlined the establishment of RIDA and its objectives of rebuilding the rural society, as well as improving its economy.

There were two centres under the auspices of the Rural and Industrial Development Authority: Taman Asuhan RIDA (Kuala Lumpur) and Dewan Latehan RIDA (Petaling Jaya). Dewan Latehan RIDA began operations in November 1956 and was officially opened by the then Minister of Trade and Industry on 14 October 1957. Several external professional courses offered by established international bodies such as the London Chamber of Commerce, the Australian Chartered Secretaryship, the Australian Society of Accountants and the British Institute of Management were conducted at the Dewan Latehan.

In 1964, Dewan Latehan RIDA held its first convocation and 50 graduates were awarded certificates by Tun Abdul Razak, the then Deputy Prime Minister of Malaysia.

MARA COLLEGE (1965-1967)

The name of Dewan Latehan RIDA was changed to Maktab MARA or MARA College in June 1965. According to Tun Abdul Razak, this change was aimed to breathe new life and aspirations to the training centre. The name change also meant that the college no longer operated under RIDA and instead became the most important unit of the MARA Training Division.

MARA, which is short for 'Majlis Amanah Rakyat' or the Council of Trust for the Indigenous People took over and strengthened the role and responsibilities of RIDA. In 1966, when the British Institute of Management ceased holding external examinations, MARA college began running its own Diploma in Business Studies. International recognition for the course came from Ealing Technical College of London, which also became its external examiner.

MARA INSTITUTE OF TECHNOLOGY (1967-1999)

A Manpower Survey conducted by the government with the assistance of the United Nations in 1965 indicated that there was a shortage of trained manpower at the professional and semi-professional level among the Bumiputeras. To overcome this problem, a 300-acre piece of land in Shah Alam was approved as the site for a new campus for MARA College. On 14 October 1967, the foundation stone for the new campus was laid by Tun Abdul Razak and MARA College was officially renamed Institut Teknologi MARA.

ITM's rapid development during those years came about with the expansion of its educational programmes, which was in line with the requirements of an increasingly demanding job market. Many courses were internationally affiliated and the Institute offered advanced diploma courses, which were equivalent to a degree.

ITM's development is best seen in three phases that span a period of 32 years in total. The first phase (1967-1976) came with the declaration of the institute as an autonomous body with its own 300-acre campus in Shah Alam and was placed under the Ministry of Rural Development.

The second phase (1976-1996) saw ITM rapidly harnessing its potential as an institution of higher learning. It led to the passing of the ITM Act of 1976 that placed the institute directly under the Ministry of Education.

The third phase (1996-1999) came about as a result of an amendment of the 1976 Act that put ITM on a par with all other universities in the country. For functional purposes, ITM was given all the powers of a university but retained its historical name until 1999. The main areas of change were as follows:

1. The governing body of ITM, the Council, was converted into the Board of Directors with a larger private sector representation that before;
2. The Board of Directors was given the power to enact for the institute;
3. A Senate was instituted;
4. Many principal officers of ITM were re-designated. The Director was renamed Rector, the Principal was Provost, while Principal and Senior Lecturers were re-designated as Professors and Associate Professors;
5. Each School was re-designated a Faculty;

6. *ITM was given the power to confer degrees to PhD level;*
7. *ITM was given the unique power to establish courses and campuses abroad with the permission of the Ministry of Education;*
8. *The Institute was conferred additional powers to enable it to conduct business, invest in shares, set up companies and indulge in commercial research;*
9. *Disciplinary powers over staff were transferred from the Minister to the Board;*
10. *To improve staff accountability, the Institute was given the power to impose a surcharge;*
11. *The procedural rights of students in disciplinary proceedings were strengthened. At this point, ITM had established a branch in every state of the country. The first branch campus was established in Sabah in 1973 and the last campus was in Kuala Pilah, Negeri Sembilan in June 1999. Almost all these branch campuses started on temporary premises but their establishment had been strategised and well planned. All have now moved on to more permanent sites, except for the Kuala Pilah campus.*

UNIVERSITI TEKNOLOGI MARA (26 August, 1999)

On 26 August 1999, the then Prime Minister of Malaysia, Dato' Seri Dr. Mahathir Mohamad announced the change of name of ITM to Universiti Teknologi MARA (UiTM). With this acknowledgement from the government, a major restructuring exercise was carried out in order to consolidate the university's resources for optimum productivity.

UiTM aspires to be world-class in all its endeavours and forges ahead in a direction that is in tandem with the latest developments in the worlds. As UiTM moves forward, it remains focused on academic excellence, innovativeness, socio-economic goals, worldwide accreditation, globalisation and new technologies, contributing to the industry and to national development.

On 5 August 2004, UiTM was awarded the ISO 9001:2000 Certificate by Lloyd's Register Quality Assurance (LRQA) for all aspects of teaching and learning as well as for the corporate management and support services. With this certification, UiTM is well on its way to achieve its aspirations.

In tandem with the UiTM's bold beginning and philosophy, the University focuses on nurturing and educating students from impoverished or rural backgrounds by providing them with a place that inspires them to dream beyond what their life had previously shown them and to let them experience what the world has to offer.

The Mengubah Destini Anak Bangsa Programme is part of this vision and has been responsible for identifying such students so that they may create a better future for themselves and act as leaders in their families, communities and the nation.

The programme embodies the UiTM philosophy that every individual has the ability to attain excellence if given the opportunity.

Recipients of UiTM's Honorary Doctorate Degrees

1st Commemorative Convocation Ceremony (1997)

1. Allahyarham Tun Haji (Dr.) Abdul Razak Hussein
Doctor of Law

2nd Commemorative Convocation (1998)

2. YBhg. Tan Sri (Dr.) Mohd. Ghazali Shafie
Doctor of Law

3rd Commemorative Convocation (1998)

3. Allahyarham Dato' (Dr.) Mansor Othman
Doctor of Education

4th Commemorative Convocation (2000)

4. YABhg. Tun (Dr.) Abdul Ghafar Baba
Doctor of Political Science
5. Allahyarham Raja Tan Sri Zainal Raja Sulaiman
Doctor of Electrical Engineering

52nd Convocation Ceremony (2000)

6. YBhg. Tan Sri Datuk
Amar (Dr.) Sulaiman Haji Daud
Doctor of Health Science
7. YBhg. Tan Sri Datuk (Dr.) Haji Arshad Ayub
Doctor of Business Management

5th Commemorative Convocation Ceremony (2001)

8. DYMM Tengku Idris Shah Ibni
Sultan Salahuddin Abdul Aziz Shah Alhaj
Doctor of Public Administration

53rd Convocation Ceremony (2001)

9. YBhg. Tan Sri Datuk (Dr.) Abdullah Mohd. Salleh
Doctor of Letters

54th Convocation Ceremony (2001)

10. YBhg. Tan Sri Dato' (Dr.) Abdullah Ayub
Doctor of Letters

55th Convocation Ceremony (2002)

11. YABhg. Tun Dr. Siti Hasmah Mohd Ali
Doctor of Health Science

57th Convocation Ceremony (2003)

12. YBhg. Tan Sri (Dr.) Mohd. Saleh Sulong
Doctor of Business Management

13. YBhg. Tan Sri Dato' Seri (Dr.) Abdullah Ahmad
Doctor of Journalism

58th Convocation Ceremony (2003)

14. YBhg. Tan Sri Datuk
Wira (Dr.) Abdul Rahman Arshad
Doctor of Education Management

6th Commemorative Convocation Ceremony (2004)

15. YABhg. Tun Dr. Mahathir Mohamad
Doctor of Government & Politics

62nd Convocation Ceremony (2005)

16. YB Senator Datuk (Dr.) Mohamad Jin Shamsudin
Doctor of Performing Arts

65th Convocation Ceremony (2006)

17. (Dr.) Nelson Rolihlahla Mandela
Doctor of Government & Politics
18. YBhg. Tan Sri Dato' Sri (Dr.) Mohd Hassan Marican
Doctor of Corporate Governance

66th Convocation Ceremony (2007)

19. YAA Tun Dato' Sri
(Dr.) Ahmad Fairuz Sheikh Abdul Halim
Doctor of Law
20. YBhg. Tan Sri Dato' (Dr.) Muhammad Ali Hashim
Doctor of Entrepreneurship

68th Convocation Ceremony (2008)

21. YBhg. Datin Paduka (Dr.)
Hajah Sharifah Mazlina Syed Abdul Kadir
Doctor of Sports Science

7th Commemorative Convocation Ceremony (2009)

22. YABhg. Datin Paduka Seri (Dr.) Rosmah Mansor
Doctor of Education (Child Education)

71st Convocation Ceremony (2009)

23. YABhg. Tun (Dr) Musa Hitam
Doctor of Government and Politics

24. En. Hassan Mutalib
Honorary Master of Creative Technology

72nd Convocation Ceremony (2010)

25. YABhg. Tun (Dr) Abdullah Hj. Ahmad Badawi
Doctor of Human Capital Development

73rd Convocation Ceremony (2010)

26. YBhg. Dato' Dr Mohd Mansor Haji Salleh
Doctor of Mechanical Engineering
27. YBhg. Datuk Ir (Dr) Ahmad Zaidee Laidin
Doctor of Electrical Engineering



To Commemorate
the Conferment of

Honorary Doctor of Science

Prof. Dr. Atta-ur-Rahman, FRS

UiTM's 75th Convocation

Dewan Agong Tuanku Canselor

DEWAN AGONG
TUANKU CANSELOR





INTRODUCTION

Professor Atta-ur-Rahman is a leading scientist whose immense contributions in the field of natural product chemistry have spanned over more than three decades, and have been internationally recognised by established organisations the world over. Prof. Atta-ur-Rahman is the first scientist from the Muslim world to have ever won the prestigious UNESCO Prize which was conferred to him in 1999 by the Director-General of UNESCO. He has also won numerous other international accolades which include the Third World Academy of Sciences Medal (Italy), ISESCO Prize, the Khwarazmi Award, ECO Prize and the Kuwait Foundation for Advancement of Science Award.

Prof. Atta-ur-Rahman has over 844 research publications in top international journals, 18 patents and 103 books written or edited, published and circulated internationally. He is also the Editor-in-Chief of many European science journals. His research interests include synthesis of natural products, chemistry of bioactive secondary metabolites, development and the use of modern NMR spectroscopic methods, search for new enzyme inhibitors and anti-oxidants, as well as biotransformation of bioactive compounds.

Prof. Atta-ur-Rahman is scientist extraordinaire in his mastery of his field of expertise, and in his ability to translate logical thoughts into resounding solutions to some extremely complex structures of natural products. Such impeccable mental storage he is bestowed with that he is capable of retaining enormous amount of factual information not unlike that of a computer memory system. To the late Prof. Salimuzzaman Siddiqui – another renowned scientist from Pakistan – Prof. Atta-ur-Rahman, who had been a colleague and one-time protégé, was his greatest discovery. Within the country's scientific fraternity, Prof. Atta-ur-Rahman has always been part of the solution to life's seemingly unsolvable problems.

Prof. Atta-ur-Rahman is well-known to many through his expansive contributions in the field of chemical sciences, and in the establishment of the internationally-renowned Karachi-based Husein Ebrahim Jamal (H.E.J.) Research Institute of Chemistry. He is also known for his unparalleled national service to Pakistan in the promotion of IT and Science and Technology in the country. The transformation of the H.E.J. Research Institute of Chemistry from a little known institution to the finest research institute in the developing world was the result of the visionary leadership and untiring efforts of Prof. Atta-ur-Rahman. The H.E.J. Research Institute of Chemistry is now the largest academic research institution in Pakistan with over 280 Ph.D. students from every corner of Pakistan and many other countries, working on frontier aspects of chemistry and biochemistry. The institute is now regarded as one of the finest and most well-equipped research institutions in the world in the field of natural product chemistry.

Universiti Teknologi MARA, through the Research Institute of Natural Products for Drug Discovery (RiND), is proud to be associated with the H.E.J. Research Institute of Chemistry which is now part of the International Centre for Chemical and Biological Sciences, University of Karachi, under the patronage of Prof. Atta-ur-Rahman.

Prof. Atta-ur-Rahman's contributions in the advancement of S&T education and research in Pakistan have been truly monumental. He is a born leader and a visionary who thinks ahead of his time. His interest has been both in science and people. His efforts and approach are always to serve people through science and technology.

Prof. Atta-ur-Rahman's multifaceted personality makes him unique. His untiring quest for knowledge provides him the impetus to achieve things seemingly impossible and transform these into possibilities, in the minimum possible time. His endless struggle for a better Pakistan is a reflection of his deep love for his motherland and his earnest desire to see his country become part of 21st century development through the efforts and industry of his own countrymen. At the same time, he is truly a global intellectual whose works and discoveries transcend national boundaries for the benefit of the entire humanity. He has earned an unprecedented recognition for his outstanding work. He could have rested on his laurels much earlier, but chooses not to as he believes that one has to give for as long as one lives for humanity is about making this world a better place for all.

Prof. Atta-ur-Rahman is indeed a distinguished scientist of high calibre, a true-blue and indisputable academic, a visionary of global stature, a man who works with such passion to bring nations together through scientific overtures and discoveries; a Muslim scholar par excellence. And, Universiti Teknologi MARA is proud to join those world-class universities in recognising the incessant contributions of Prof. Atta-ur-Rahman to the world by conferring him the Honorary Doctor of Science.

Congratulations to Prof. Atta-ur-Rahman. May he be blessed with a wealth of health to continue with his humanistic endeavours for the common good of mankind.

Prof. Dr Nor Hadiani Ismail

Director

Research Institute of Natural Products for Drug Discovery (RiND)

Universiti Teknologi MARA

PROFESSOR ATTA-UR-RAHMAN, FRS – A TRIBUTE

I shall not pretend that I have known Prof. Atta-ur-Rahman for a very long time. Therefore, I shall not pen other people's thoughts about him, nor shall I retell other people's accounts of being part of his life in dissimilar capacities at separate times in the past. But I must say that I find solace and I feel a sense of awe sharing their recollections of personal encounters and close associations with such an outstanding character who has accomplished so much to change the lives of so many people in so many different ways and in just as many places. And, meeting the man himself has reinforced my worldview of what a true Muslim should be – intelligent, diligent, dedicated, worldly and wise, and holding tight to basic Islamic virtues of filial piety, humility and integrity.

The numerous stages in the life of Prof. Atta-ur-Rahman, as illustrated in various writings, reminds me that "All the world's a stage" with the seven phases of life Shakespeare says man would face. But unlike the famed monologue from the play "As You Like It", the different stages in the life of Prof. Atta-ur-Rahman is far removed from the satire of human foibles and the Bard's cynicism over man's ability to serve beyond baser human needs and personal interests. Each stage in the life of Prof. Atta-ur-Rahman epitomises the defining role of a human in the eyes of the Creator, that is, to serve and not merely be served, to be magnanimous in giving and not harbouring even an iota of selfish desire, to seek knowledge and share what has been sought for the good of all.

It is not every day that we hear of Muslims the world over taking centre-stage in expounding theories and documenting discoveries in the realm of science, least of all in a world which exhibits suspicion and bias against Islamic values and old-age Asian traditions. It is even rare to read of Muslim scientists who challenge and improvise the works of Nobel Laureates, not few of whom have acquired the edge by virtue of their Western connections. So when such a person comes into the picture, it is only to be expected that UiTM, as the world's largest Muslim-dominated university, celebrates such a personality and applauds his vast contributions to mankind as a manifestation of Islamic teachings.

In conjunction with UiTM's 75th Convocation, our university takes pride in providing the stage to Prof. Atta-ur-Rahman by conferring him Honorary Doctor of Science for the vital role he plays in advancing the cause of education, and science and technology, beyond the shores of Pakistan. We are privileged to be part of the life of an exalted figure whose expanse

of knowledge, exemplary personality and innovative contributions have uplifted the lives of his fellow countrymen, while at the same time provide lessons learnt to the world's scientific fraternity.

Speaking for myself, I am most honoured to have traversed the path of such selfless, creative, caring, and most knowledgeable figure who spurs colleagues and those under his wings to attain greater heights, and inspires those many others fortunate enough to be acquainted with him. One of his greatest contributions to the development of Pakistan is driving the country's ICT revolution within two years of his appointment as a Federal Minister, through initiatives and strategies which have successfully brought Pakistan into the global loop of ICT and out of the scourge of backwardness in a world of advanced technology.

Pakistan is blessed indeed for having been given a godsend in the person of Prof. Atta-ur-Rahman. In fact, he is not only a blessing to his homeland, but also to the world of Islam and the world at large. We are most privileged to be part of this visionary whose industry, innovativeness, creativity and relentless quest for knowledge makes for a better world that wipes away the differences in colours and creeds, and brings us closer to the bigger cause for the common good of mankind.



Dato' Prof. Ir Dr Sahol Hamid Abu Bakar, FASc.

Vice-Chancellor

Universiti Teknologi MARA

Guiding principles and wise sayings – some tips from Prof. Atta-ur-Rahman, FRS

On personal development: "Hard work should be part of your personality... never take hard work for granted."

On education: "Education systems should not stifle the curiosity typical of children."

On being righteous: "We must have the ability to speak the truth with conviction and not to compromise on the basic values that we have... Integrity is a very important cornerstone of our development... These have been what our Prophet had taught us."

On political leadership: "There must be integrity, honesty and sincerity."

On nurturing young minds: "Never be afraid to face challenges and difficulties – students should be taught this..."

On seeking knowledge: "We have to constantly question everything... and not to accept everything in printed words.... (and I am not talking about religion here)..."



STUDIES IN NATURAL PRODUCTS CHEMISTRY, VOL. 11,
REGIOSELECTIVE SYNTHESIS (PART-II)
KLUWER SCIENCE PUBLISHERS, AMSTERDAM, THE NETHERLANDS

"The 22 chapters
authored by some of the best minds in the
world, and dealing with a wide range of
particular emphasis on the synthesis of
testimonial to the hard work and
endeavor."

ADVANCES IN NATURAL PRODUCTS CHEMISTRY, VOL. 11,
REGIOSELECTIVE SYNTHESIS (PART-II)
KLUWER SCIENCE PUBLISHERS, AMSTERDAM, THE NETHERLANDS

Atta-ur-Rahman has once again done an impressive job of
editing topics involving the current status of efforts directed
towards the synthesis of several classes of natural products, as well as
inviting authors to present them. It is particularly significant, of course,
that these authors have themselves been deeply involved in the
work outlined in this volume. Perhaps the most remarkable
feature of a collection such as this one is that they emphasize the
diversity of approaches, which the master builders select to reach
complex targets. This is one of the marvelous features of
this work."

PROF. GILBERT STODOLSKY
Columbia University
U.S.A.

ADVANCES IN NATURAL PRODUCTS CHEMISTRY, VOL. 11,
REGIOSELECTIVE SYNTHESIS (PART-II)
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"The H.E.J. Research Institute of Chemistry, Islamabad, Pakistan,
is the center for the study of all aspects of natural products chemistry
of its current director, Professor Atta-ur-Rahman, and his colleagues.

CHEMISTRY
THE NETHERLANDS

Karachi, through the
has become a leading
products chemistry."

MINZ G. FLORES
University of Washington



STUDIES IN NATURAL PRODUCTS CHEMISTRY, VOL. 12
STERESELECTIVE SYNTHESIS (PART-H)
ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, THE NETHERLANDS

"I Congratulate Prof. Atta-ur-Rahman, who has managed to
expert contributions and superb review articles from leading scientists
simply ranks as a most informative and interesting volume."

PROF. KOJI NAKAMURA
Columbia University
U.S.A.

PRODUCT CHEMISTRY
THE NETHERLANDS

chemistry in Karachi, through the vision
of Prof. Atta-ur-Rahman, has become a leading
products chemistry."

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BIOACTIVE NATURAL PRODUCTS (PART-H)
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THE REVIEW PUBLISHED IN JOURNAL OF
NO. 63, 2000

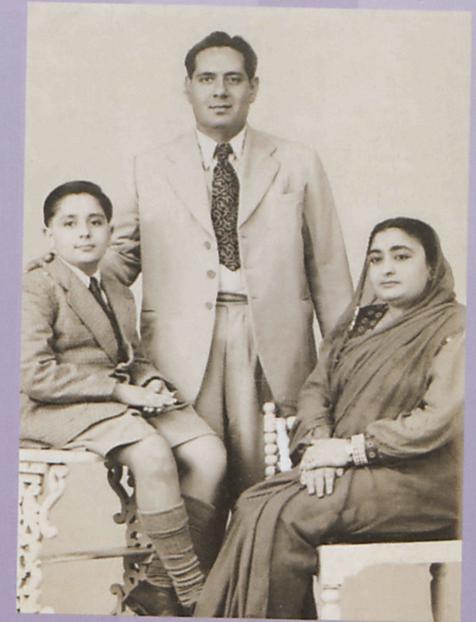
"This volume should be on the shelves of every chemist
reflects both the diversity and the significance of natural
products in this era and possibly those to come."





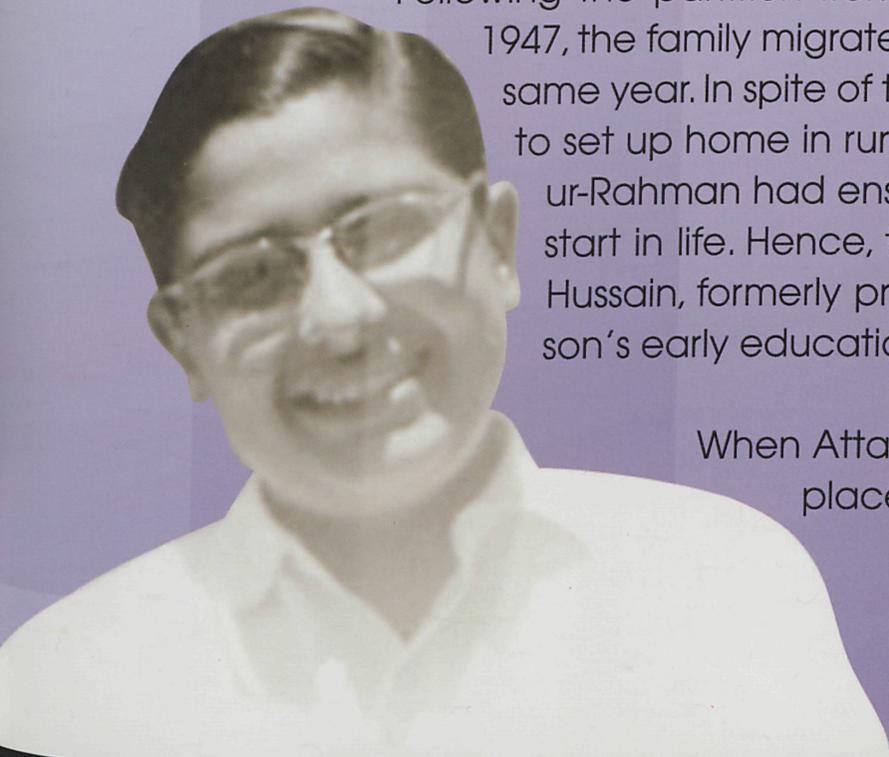
A BRIEF BACKGROUND ON PROF. ATTA-UR-RAHMAN

Professor Dr Atta-ur-Rahman is a Thursday child born to Mr Jamil-ur-Rahman and Madam Amtul Subhan Begum. He was born in Delhi, in the morning of 22nd September 1942, at a time when a large part of South Asia belonged to India, under the rule of the British Raj. Prof. Atta-ur-Rahman, who is an only child, comes from an illustrious Muslim family – learned, highly-regarded and well-respected. His grandfather, Sir Abdur Rahman, was the first Muslim to have been given the honour of being appointed Vice-Chancellor of the University of Delhi. He was also a prominent High Court Judge in Madras, India; and later served in the Supreme Court of Pakistan. Prof. Atta-ur-Rahman's father, who was a lawyer by profession, had his own cotton ginning industry.



Following the partition from India, which marked the birth of Pakistan on 14th August 1947, the family migrated to the newly independent nation on 5th September of the same year. In spite of the strain of separation, and the trial and tribulation of having to set up home in rural surroundings where good schools were wanting, Mr Jamil-ur-Rahman had ensured that the young Atta would not be deprived of a good start in life. Hence, the senior Rahman engaged the services of Syed Tajammul Hussain, formerly principal of Hyderabad Deccan Public School, to cater to his son's early education at the family home in the village of Okara.

When Atta-ur-Rahman was 10, the family once again moved to a new place, this time in the port city of Karachi, which was then the



The young Atta was enrolled in the prestigious Karachi Grammar School, ranked topmost in the country at that time. This prodigious son of Pakistan continued to shine at school, attaining top positions in all of Pakistan for his O-Level and A-Level examinations, respectively. As a school-going teenager, Atta-ur-Rahman was seen as a young man who would go out of his way to overcome complexities and face challenges, as can be seen from his decision to pursue Physics and Chemistry at A-Levels after missing an A for both subjects in his O-Levels.

At the outset of his entry into university in 1961, and following his excellent performance in the A-Levels, Atta-ur-Rahman was given several options to further his studies. Once again, he chose to study Chemistry at the University of Karachi, and graduated with a Master of Science in Organic Chemistry in 1st division and 1st position. After his stellar performance at university, his father decided that the son should be initiated into the family's cotton ginning industry. But the young Atta was passionate about being in academia, and later making it into a world-renowned university. He declined his father's offer of financial support, and returned to his alma mater in 1964 to start his career as a lecturer. At the same time, he was also offered sponsorship for further studies, and subsequently took up the Commonwealth Scholarship for his Ph.D. at the prestigious King's College, University of Cambridge, UK, in 1965. In 1968, he received his Ph.D. in Organic Chemistry, with his thesis Synthetic studies in the Indole Alkaloids field.



In 1969, Prof. Atta-ur-Rahman was elected as Fellow of King's College Cambridge. For someone who is passionate about seeking answers to human predicaments through research and scholarship, such recognition was something to look forward to as the Fellowship would allow him to engage in

independent research. It was during his stint at King's College that he made the discovery that the chemistry of harmaline reported by Nobel Laureate Sir Robert Robinson and other famous chemists including Prof. R. H. F. Manske and Prof. W. H. Perkin (J. Chem. Soc. Perkin I, 736, 1972) was incorrect. At 29, Prof. Atta-ur-Rahman published his findings in 1972, thereby revisiting the work of a famous Nobel Prize winner. Thus earning him international recognition and fame.



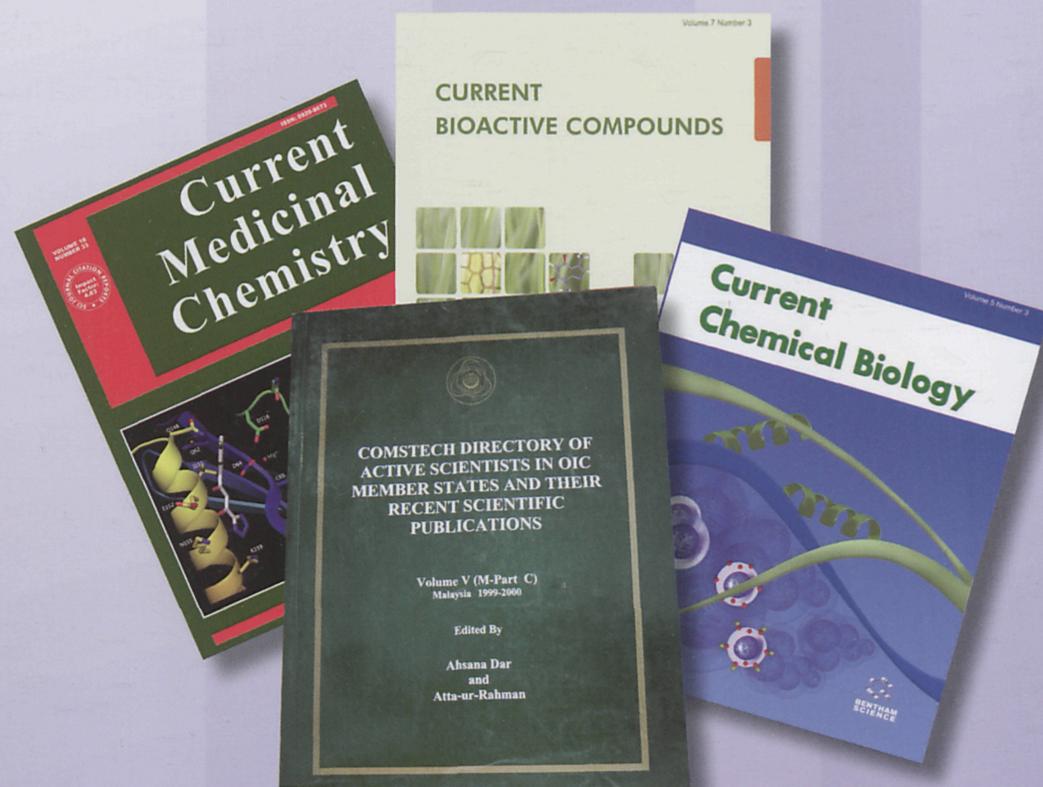
In 1972, Prof. Atta-ur-Rahman decided to return to Pakistan and serve the nation. He was attached to the University of Karachi's Postgraduate Institute of Chemistry, later renamed the Hussein Ebrahim Jamal Research Institute of Chemistry (or H.E.J.). When he left the University of Cambridge to join H.E.J., Prof. Atta-ur-Rahman also brought along an array of invaluable research equipment, which elevated H.E.J. from a modest research outfit to one considered among the best in the world. His global networking and worldwide linkages and his reputation as a scientist, have benefitted H.E.J. through the procurement of research grants and collaborations, among others. It was apparent that Prof. Atta-ur-Rahman has made a mark in transforming Pakistan's role in the realm of scientific research.

Prof. Atta-ur-Rahman has produced over 850 publications in leading international journals covering diverse





aspects in the field of organic chemistry. His repository of scholastic achievements include 663 research publications, 18 patents, 103 books and 59 book chapters undertaken by major publishers in the United States and Europe. His impressive records, notable contributions and celebrated accomplishments have certainly not gone unnoticed. He was elected as Fellow of the Royal Society in July 2006, making himself one of only four scientists from the Muslim world to have ever won the honour of being in the league of highly regarded voices in the realm of science. A year later, in 2007, he was elected as Honorary Life Fellow of King's College Cambridge. In October 2009, he was conferred the Third World Academy of Sciences Prize, or TWAS Prize, for Institution Building in Durban, South Africa. The award was in recognition of his contributions and success in bringing about revolutionary changes in Pakistan's higher education sector.



Earlier this year, Prof. Atta-ur-Rahman was chosen as recipient of the Engro Excellence Award in Science and Technology 2011, which won him a prize of Rs 5 million (US\$ 59,000). The award was given in recognition of his meritorious contributions. What follows is a reflection of an altruistic personality: all proceeds from the award were channelled to deserving students through scholarships, with an equal amount of funding coming from his own private sources – rupee-for-rupee.



Prof. Atta-ur-Rahman's visionary leadership is prevalent not only in academics and research, but also in matters that pertain to national interest and the country's development agenda. This was evident when he was entrusted with the portfolio of Minister for Science and Technology, from 2000 to 2001. Within two years of the Federal appointment, Prof. Atta-ur-Rahman had played a big role in revolutionising Pakistan's Information Technology, besides enhancing its Science and Technology sector. This was achieved by widening Internet access to include every part of the country. He put to good use his vast knowledge and expertise by developing one of the finest I.T. infrastructure, including the launching of Pakistan's first satellite, the establishment of virtual universities and educational channels.

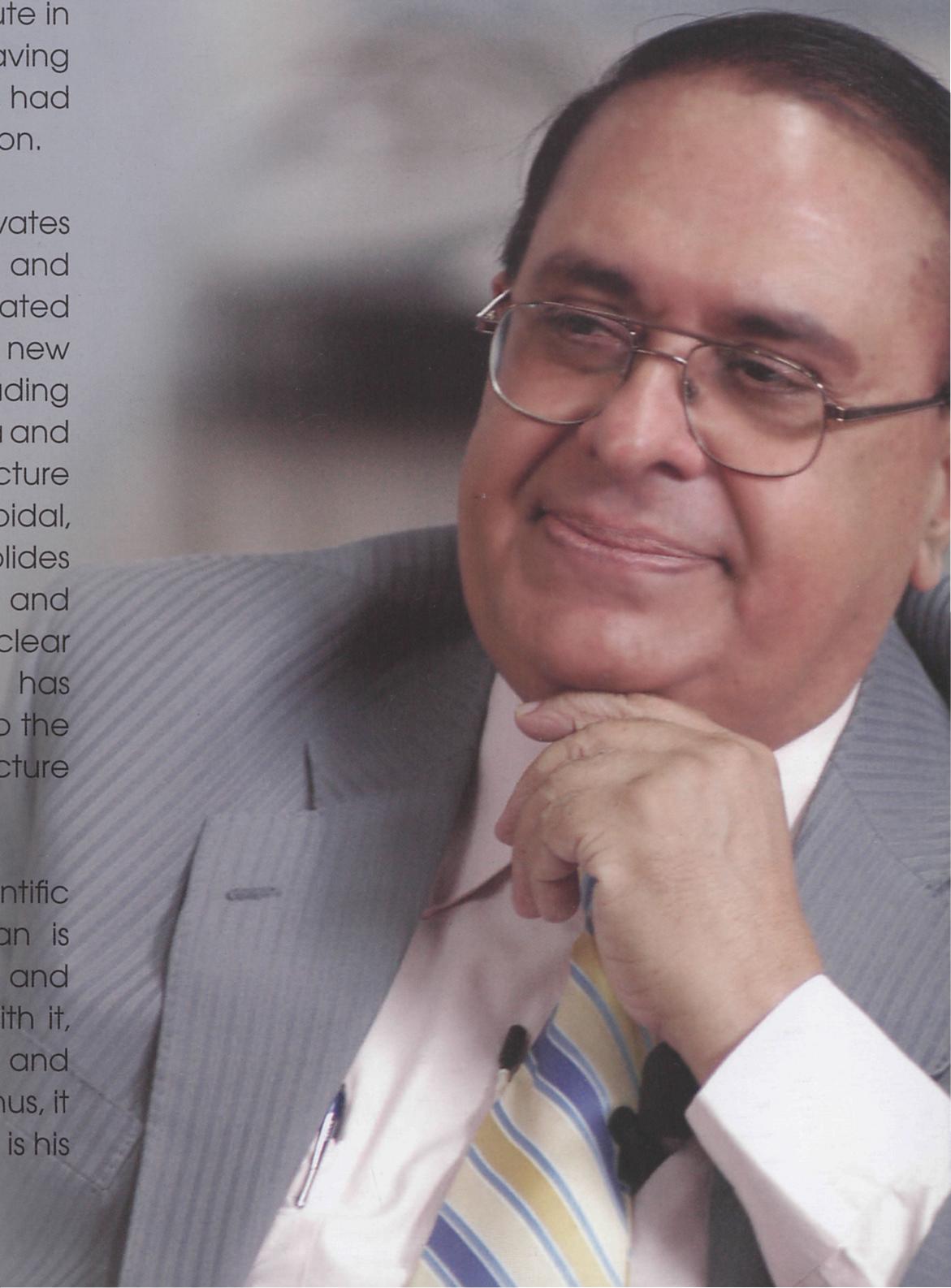
Before 1999, higher education had been much neglected in Pakistan. Under General Pervez Musharraf a series of reforms was undertaken, including the setting up of a task force for higher education in 2001 to review and recommend options for improvement to national higher education. It was discovered then that only 2.6 per cent of 17-23-year-olds were enrolled in Pakistan's institutions of higher education, with only 30 per cent of those going to universities. Total public funding of 41 public universities was a meagre Rs3.9 billion per annum, which amounted to a mere 0.1 per cent of the country's gross domestic products.

Thus, Prof. Atta-ur-Rahman's appointment as Federal Minister of Education, and Chairman of the Higher Education Commission from 2002 to 2008, saw him putting in place important S&T initiatives, including the consolidation of universities, establishment of centres of excellence, upgrading of national science libraries, development of indigenous Ph.D. programmes and the creation of endowments worth over

Rs.1 billion for engineering universities. His resolute in advancing Pakistan's higher education and having his people advance with the rest of the world, had led to significant rises in allocations for education.

As a scientist, Prof. Atta-ur-Rahman's work captivates young researchers. In the field of isolation and structural studies of natural products, he has isolated and established structures of hundreds of new natural products from a variety of sources including medicinal plants, marine invertebrates, sea alga and microorganisms. His work on the isolation, structure elucidation and biological studies of steroidal, indole and isoquinoline alkaloids, and with anolides has been widely recognised for originality and significance. His expertise in modern pulse Nuclear Magnetic Resonance (NMR) spectroscopy has resulted in several papers and books related to the applications of new NMR techniques in the structure elucidation of novel natural products.

Among his students, colleagues and the scientific fraternity he belongs to, Prof. Atta-ur-Rahman is someone deeply devoted to his profession, and passionate about things closely associated with it, in particular, education, research and, science and technology. To him, knowledge is God-given, thus, it is to be shared for the benefit of mankind. Such is his





conviction on humanity that Prof. Atta-ur-Rahman has taken in students of varied nationalities to be under his tutelage and guidance. To date, over 70 Ph.D. students have earned their scrolls under his able supervision.

One of the most important aspects of Prof. Atta-ur-Rahman's personality is his outstanding ability to teach the most difficult concept of chemical



science in the easiest possible way without compromising on quality. He generates curiosity and quest for knowledge among his students. His inspiring personality combined with his outstanding mastery of the subject makes him a perfect teacher who touches the hearts and souls of his pupils. He generates so many genuinely innovative ideas and stimulates his students to conduct original research.

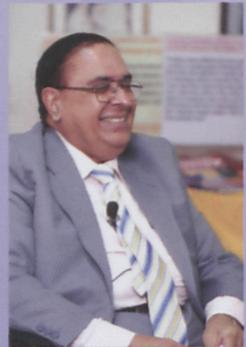
Prof. Atta-ur-Rahman currently holds significant posts in several established bodies, including: President, Network of Academies of Sciences of Islamic Countries (NASIC); and Vice-President (Central & South Asia), Third World Academy of Sciences (TWAS) Council. In January 2011, he was re-elected as President of the Pakistan Academy of Sciences. Prof. Atta-ur-Rahman is also the present Coordinator General of COMSTECH, an OIC Ministerial Committee comprising Ministers of Science & Technology from its 57 member countries.

For his inspiring and remarkable achievements and immense contributions to mankind, Prof. Atta-ur-Rahman has been accorded honorary doctoral degrees by many prestigious universities around the world, including the degree of Doctor



Prof. Atta-ur-Rahman with his extended family at home in Karachi

Pictures and Places of our Professor



of Science (Sc.D.) by the University of Cambridge, UK in 1987, and an Honorary degree of Doctor of Education by the University of Coventry, UK, in November 2007.

Prof. Atta-ur-Rahman is married to Mdm Nargis Jamal, and they are blessed with four sons Jalil-ur-Rahman, Sohail-ur-Rahman, Shakil-ur-Rahman and Obaid-ur-Rahman, all of whom are married and live with him and his wife in Karachi. His extended family includes his mother, Mdm Amtul Subhan Begum and ten grandchildren.

Prof. Atta-ur-Rahman is a kind, pleasant, modest, honest, affectionate and cheerful person. Throughout his life he has worked exceptionally hard, with total dedication, to the cause of science and education for the betterment of humanity. His life has been truly an inspiration, in Pakistan and throughout the world; to all who want to serve their nations and to all who are waging a war against illiteracy. The accolades and accomplishments which colour his life have never made him forget the virtue of humility. Our professor is a humble man, magnanimous in deeds and kind in words. All the international awards bestowed on him not only have earned him international repute, but also brought many honours to Pakistan and the Muslim ummah. To many who have been fortunate to be part of his tapestry of life, he is a man with a heart of gold. His lack of self-importance, in spite of his privileged family background, is reflected in the way he treats his students and co-workers, alike. Indeed, he is a gem of a scientist, who possesses extraordinary vision, who celebrates perseverance, courage and commitment, and who is seamless in his endeavours to strive towards making ours a world worth living, without compromising on universal values and Islamic virtues.

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PCMD LABORATORIES (EXTENSION)







THIRD WORLD CENTER
LABORATORY BUILDING
UNIVERSITY OF SAUDI ARABIA

Prof. Atta and Mrs. Atta,
King's College, Cambridge,
UK (1982)





N.I. from President- Pervez Musharraf





Delegation from Universiti Teknologi MARA with Prof. Atta-ur-Rahman, from left:
Prof. Dr. Azlinah Mohamed, Prof. Dr. Sohaimi Zakaria, Dato' Prof. Ir Dr. Sahol Hamid Abu Bakar,
Prof. Dr. Ahmad Redzuan Abd. Rahman, Mr Aizuddin Mohd Ghazali, Ms Alfina Bakar, Mr Norhilman Nordin

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