



2009

MERDEKA AWARD
2009



The Merdeka Award aims to promote thought leadership and innovation, foster a culture of excellence, encourages a world view, thereby enhancing Malaysia's standing as a dynamic, competitive 21st Century Global Player in all key sectors from science and technology to the arts.

www.merdekaaward.com.my





The Merdeka Award

In conjunction with the celebration of Malaysia's 50 years of independence in 2007, the oil and gas industry came together in a spirit of unity to offer an enduring contribution to the people of Malaysia.

The Merdeka Award was thus established by its Founders, namely ExxonMobil, PETRONAS and Shell, on 27 August 2007, to recognise and reward Malaysians as well as non-Malaysians who have made outstanding and lasting contributions to the nation and the people of Malaysia in their respective fields.

The choice of name, Merdeka Award, reflects the Founding Members' aim to commemorate the true spirit of independence, which transcends the conventional definition of national sovereignty. It explores the liberation of the mind and spirit – factors which foster the realisation of human potential and the pursuit of excellence.

Each year, the annual Merdeka Award will be conferred on individuals and organisations whose excellent work and achievements have made an outstanding impact on the nation and its people in the following categories, namely Education and Community; Environment; Health, Science and Technology; Outstanding Scholastic Achievement; and Outstanding Contribution to the People of Malaysia.

The Award categories reflect focus areas that are regarded as instrumental to the overall growth and development of a nation. One award will be made for each of the five categories above. In the event that in a given year, two individuals or organisations are deemed to be equally deserving of recognition, the award will be shared. The Merdeka Award recipient will be awarded with an inscribed certificate, a trophy and prize money of RM500,000.

Nomination & Selection

The nomination and selection of Merdeka Award recipients is administered by six committees – five Nomination Committees and one Selection Committee. These committees go through a long and rigorous selection process that reflects the high ideals of the Merdeka Award.

The committee members are made up of eminent individuals from Malaysia and abroad, bringing with them a wealth of knowledge, experience and expertise to allow them to nominate and select outstanding individuals and organisations who have laboured tirelessly, with great sincerity and conviction for the good of this country and its people.

Each year, the committee members will deliberate, examine the merits and finer qualities of each individual or organisation's nomination, and in the end, identify those who have stood above and beyond the rest, in their embodiment of the Merdeka spirit.

Categories & Recipients 2009

EDUCATION AND COMMUNITY

Tun Fatimah Hashim

For outstanding contribution to the empowerment of women in Malaysia and for protecting and securing rights and economic opportunities for women through advocacy &

Dato' Lim Phaik Gan

For outstanding contribution to the empowerment of women in Malaysia and for protecting and securing rights and economic opportunities for women through advocacy

ENVIRONMENT

No Winner

HEALTH, SCIENCE AND TECHNOLOGY

Professor Dr Halimatun Hamdan

For outstanding contribution in the development and application of Maerogel as a commercially viable multi-purpose material

OUTSTANDING SCHOLASTIC ACHIEVEMENT

Professor Dato' Ir Dr Zaini Ujang

For the outstanding study and scholarly contributions in the various environmental initiatives concerning water supply, sewage, river rehabilitation and industrial ecology

OUTSTANDING CONTRIBUTION TO THE PEOPLE OF MALAYSIA

No Winner

Education & Community

Awarded to individuals and/or organisations to honour exceptional thinking and research in strengthening the educational infrastructure of Malaysia, in elevating the level of education and in benefiting the marginalised.

“Tun Fatimah is synonymous with women’s leadership and the women’s rights movement in this country.”

*Professor Datuk Dr Shamsul Amri Baharuddin
Member of the Nomination Committee,
Education and Community category*



TUN FATIMAH HASHIM



PROFILE

Tun Fatimah Hashim was born on 25th December, 1924 in Parit Kurma, Muar, Johor. She married the late Tan Sri Abdul Kadir Yusuf, and is a mother of six children. Her son, Professor Dato' Dr Khalid Kadir, was a joint recipient on the inaugural Merdeka Award 2008 in the Health, Science and Technology Category for his outstanding contribution to the study and understanding of diabetes and the relationship between hormones and stresses in various tissues.

As a girl, Tun Fatimah received her early education at a boy's school in Parit Kurma, because there weren't any schools for girls where she lived at the time. She went on to study at a Malay school in Mersing and Convent Johor Baru.

Tun Fatimah started her career in politics in 1947. She joined the United Malays National Organisation (UMNO) – the leading party in the ruling coalition – ladies movement called Kaum Ibu, the precursor to Wanita UMNO, at the Kampung Non Chik branch in Johor and went on to serve as its Treasurer. At her initiation, the women's wing was renamed to attract younger, educated women. She tirelessly worked to encourage women's participation in politics, giving them a voice in society, and play a role in shaping their future. She led Wanita UMNO for 16 years, from 1956 to 1972.

Her abilities and leadership qualities were evident when she won the Jitra-Padang Terap election in 1959 against a more established male candidate. As the Member of Parliament for her constituency for 15 years, she encouraged the development of education in the community as it mirrored her belief in education as the basis for development.

In 1962, Tun Fatimah initiated Malaysia's National Women's Day celebrations. She was also the Founder of the National Council of Women's Organisations (NCWO), and held the position of President for 24 years, advocating women's rights.



Tun Fatimah is passionate about her garden

Apart from NCWO, Tun Fatimah has also held positions in several institutions, and has received many accolades and recognition for her work such as The Most Outstanding Woman in the Fifth Women in Malaysian History Series from the National Archives and the Islamic Women's Action Organisation (PERTIWI).

Tun Fatimah is a great believer in education, and although she did not enjoy the opportunity to further her studies, she always fought for progress in that area. In 1995, she was Pro-Chancellor of University Teknologi Malaysia (UTM). In 2000, the university awarded her an honorary doctorate in Education.

Her disciplined nature and active, hands-on approach has not waned in her golden years. Although aged 85 and in a wheelchair, she still keeps herself relatively busy at home.

"I plan each day properly. If I don't schedule activities, how can I look after my home, garden and pets? I don't have a gardener, so I mentally visualise where I want to place the plants so that the job is easier. Before I was in a wheelchair, I used to grow plants myself," she says.

She also reads and writes daily, and usually starts the day keeping abreast of the news by reading the newspaper.

In 2003, she was bestowed the Seri Setia Mahkota (SSM) award which carries the title "Tun" by the Yang di-Pertuan Agong.



With Sugar, one of her eight cats

PAVING THE WAY FOR WOMEN

Tun Fatimah was the nation's first woman Cabinet Minister, holding the Welfare portfolio from 1969 to 1973. There were objections and challenges to face, and she had no examples to look to. She took all this in her stride, and set about to do her job.



Tun Fatimah writes daily in her journal

"As a pioneer for women in this regard, I accepted everything with a sincere heart. I did what I could with the ability I had. Things are more interesting when there are challenges," she says.

She wasted no time in getting the Welfare Ministry office in shape to make it look more like a proper government office.

"I didn't feel slighted, I just went about getting things fixed and putting some potted plants to make the ambience better and more conducive to working," she says.

She also showed her mettle by fighting for the ministry's professional staff to get the recognition they deserved.

Tun Fatimah has always been a champion of women's rights and used her political position to bring about change. She did not fight alone, and stresses that there were many who supported her work.

"What drove me was realisation and awareness of the plight of women. They were as qualified and educated but did not have an equal position. I could not ignore the issue and had to fight for the cause. The push to do this has to come from you. If people encourage you but you don't have the will, nothing will be achieved," she says.

Tun Fatimah played a pivotal role to ensure the rights and status of women in this country was protected. She successfully championed the abolishment of discriminatory practices such as lower pay and fewer benefits against female government employees. A policy to provide equal pay and equal benefits was implemented in 1971.

Her systematic approach to pushing through these reforms was a credit to Malaysian women, as it showed women were equally capable and effective in performing hard tasks and managing difficult situations.

"I am proud that women were granted equal pay without any bloodshed. I asked Tunku Abdul Rahman, the country's first Prime Minister, why there were no women in the senate, and that they should be given the opportunity if they are suitably qualified. I asked him diplomatically, and put forward my views methodically," she says.

The then Prime Minister agreed, which moved someone to say that he listened too much to women as there were no equivalent positions held by women in England either at the time.

"'That is their country,' was his reply. I'll never forget that," she says.

Tun Fatimah says she is honoured to receive the Merdeka Award and she aims to live up to its reputation.

Tun Fatimah (standing) as Welfare Minister, addressing a seminar on Goodwill and Solidarity organised by the Malaysian Council of Women's Institutes, 1970





Tun Fatimah (fifth from left) leading the National Women's Day committee during the celebration in Kota Bharu, Kelantan in 1973

CONCLUDING REMARKS

Tun Fatimah is synonymous with women's leadership and the women's rights movement in Malaysia.

Through NCWO, she brought together and organised women leaders from different backgrounds and circumstances to work together to improve the status and security of women at work and in society.

Her efforts to push for equal rights and equal pay has meant that Malaysian women today enjoy these rights in the workforce.

Education & Community

Awarded to individuals and/or organisations to honour exceptional thinking and research in strengthening the educational infrastructure of Malaysia, in elevating the level of education and in benefiting the marginalised.

*“Dato’ PG Lim’s achievements and courage
make her a role model for all Malaysians.”*

*Professor Datuk Dr Shamsul Amri Baharuddin
Member of the Nomination Committee,
Education and Community category*



DATO' LIM PHAIK GAN



PROFILE

Dato' Lim Phaik Gan or Dato' PG Lim as she is widely known, was born in England in 1918 and received her early education in Penang Convent School.

She furthered her education in Girton College, University of Cambridge where she read law and history and was called to the English Bar at Lincoln's Inn in 1948. She was among the first Malaysian women to have obtained their Masters in Law from Cambridge University. This set the stage for her pioneering achievements as a champion for the rights of women and the underprivileged.

She was a Member of the National Consultative Council which was set up following the suspension of the Malaysian Parliament in 1969.

She was the first Malaysian woman appointed to the United Nations in the 1970s, and Dato' PG Lim also served as the Malaysian Ambassador to the former Yugoslavia, Austria, Belgium and the European Economic Community when Prime Minister Tun Abdul Razak named her as the Deputy Permanent Representative with the rank of ambassador.

"When I first went to the UN, I found that developing countries had more representatives there than developed countries. In the 1970s, many countries had achieved independence, and they couldn't afford to discriminate against women. They took those who were efficient, and were in a position to represent the country irrespective of gender," she says.



Age has not dulled Dato' PG Lim's intellect



Dato' PG Lim in her study where she reads and writes her autobiography

Her sharp intellect and proven capabilities were evident as she was appointed to serve in several positions of importance within three months of her appointment. She was made one of the Vice-Presidents of the United Nations Economic and Social Council.

Upon her retirement from Foreign Service, she became the Director of the Kuala Lumpur Regional Centre for Arbitration (KLRC), 1982-2000.

A patron of the arts, Dato' PG Lim became the first Chairman of the Exhibitions Committee and Deputy Chairman of the Board of Trustees of the National Art Gallery from 1963 to 1971.

She is currently working on her autobiography.

LIFE OF PURPOSE

Dato' PG Lim's background influenced her greatly to contribute to society. The daughter of noted lawyer Lim Cheng Ean, her formative years were presided over by parents who believed in fighting for the underprivileged.

Dato' PG Lim (standing) at a party given in her honour by the National Council of Women's Organisations (NCWO) in conjunction with her appointment as the country's Deputy Permanent Representative to the United Nations. On the left of the photo is Tun Fatimah



"My father was legislative councillor for Penang in 1934, and there were a lot of immigrant Chinese children and children of Indian labourers without education. My father requested free education for these children, but the British said they will not provide that. So my father walked out of the council. I suppose I came from a background that was a little anti-colonial," she says.

Dato' PG Lim's mother also did a lot of public work among poor immigrants .

"We were brought up to be sympathetic to the poor and downtrodden. We grew up in an atmosphere where privileges brought with them responsibilities," she says.

Her strong work ethics was also influenced by her upbringing.

"My father didn't like waste and laziness and we had to pay for what we wanted. In my day I couldn't sort of lean on my father and say, 'you've the money, you can help me' because he'd lean away and you'd fall down," she says.

Dato' PG Lim acknowledges that unlike many, she had the opportunity to go abroad to further her education. When she began practising law, she was under a lot of pressure as she had to prove that she was as capable as any English lawyer.

"When I was in practice, I had to compete against English lawyers. You couldn't be a corporate lawyer so I went into advocacy, I was competing against British lawyers and judges and it was a hard school. They were quick to attack if cases were not presented properly," she says.

The trial of Lee Meng, a female communist guerilla apprehended in Perak for having a hand grenade in her possession is still fresh in Dato' PG Lim's mind. A junior lawyer at the time, she assisted Sir Dingle Foot, a British lawyer and later politician, in a trial that became famous in British Malaya.

"The woman guerilla had been arrested as a communist courier. She had been tried under the assessor system in the Federated Malay States which did not have trial by jury like the Straits Settlement. We lost the appeal and Lee Meng was eventually sentenced to prison," she says.

This did not dull Dato' PG Lim's innate sense of justice, and she continued to earn respect as a formidable lawyer whose intellect was matched by her wit.

"When I first started, I had to fight against colonial predators in one sense. When one of the judges gave a farewell party for the lawyers, he said to me when he left that he enjoyed my antics at the bar. So I said I wish I could have said the same of him at the bench."

Dato' PG Lim had championed the cause of women and her achievements provided an inspiration to women all over the country. She also showed that one woman could make a difference in the lives of people by doing what she believed in. In this respect, her efforts to provide legal aid to trade unions have been well documented.



Dato' PG Lim's capabilities and strength of character have stood her in good stead throughout her career



Dato' PG Lim at the 14th Australian Legal Convention in 1967

"The trade union movement was very weak in 1954. I tried to help them help themselves succeed on their own."

Among the unions she had represented and provided legal advice for were the Railwaymen's Union of Malaya, the National Union of Plantation Workers, the Transport Workers' Union and the Customs Union of Malaya.

Dato' PG Lim also took up cases for workmen's compensation, particularly for workers who died in rubber plantations without any compensation.

The trade unions did not treat her any differently because she was a woman lawyer, one of the few at the time.

"Gender or religion didn't matter then to a trade unionist who didn't have the money to hire an expensive lawyer. I was trying to help them stand up for themselves. When I came back to the country after many years, I found trade unions doing quite well, with union leaders being people of some importance," she says.

Although her impact on the development of women and society in general is irrefutable, Dato' PG Lim is modest and downplays the significance of her achievements.

"You work according to what you believe in, and if you happen to make impact, well and good because it is part of what you do. If you only work to succeed for some ulterior motive, I think it is a very wrong way to start. People have different aims now. I lived in a period where you wanted to be independent and believed that your friends, acquaintances and so on would be able to lead the country as one in those days. You worked according to your likes and not according to what you can get," she says.

Dato' PG Lim is delighted to be a joint recipient of the Merdeka Award for her outstanding contributions to the empowerment of women in Malaysia, and says it is an honour to be recognised for her work.

CONCLUDING REMARKS

Dato' PG Lim's achievements and courage endears her as a role model for all Malaysians. Her commitment to giving a voice to the voiceless and her tireless fight for the rights of women in Malaysia will continue to inspire generations to come.

Health, Science & Technology

Awarded to individuals and/or organisations to honour the creation, development, support and application of new and innovative technology that improve the lives of people everywhere.

“Prof Dr Halimaton’s Maerogel breakthrough is highly significant as it has the potential to touch the lives of millions of people around the world through its varied uses.”

*Tan Sri Datuk Dr Augustine Ong Soon Hock
Member of the Nomination Committee,
Health, Science & Technology category*

PROFESSOR DR HALIMATON HAMDAN



PROFILE

Professor Dr Halimaton Hamdan was born in 1956 as the eldest of six children. A precocious child, Professor Halimaton was a star student throughout her schooling years, excelling not only in her studies, but in the arts, where she played the recorder and was a member of the school choir. As someone who excelled in anything she put her mind to, she soon found what would be her lifelong passion, chemistry, while at school. The teachers at the boarding school she attended made the subject interesting.

Although she had no childhood ambitions to become a chemist, the scientific discipline was a perfect fit for her personality. Good with her hands, the challenging, practical and problem-solving aspects of science appealed to Professor Halimaton. Chemistry is fun, she says, and she enjoyed conducting experiments, and observing the outcome of the elements interacting with each other. Chemistry also gave her a creative outlet.

"Chemistry is a balanced science. I'm quite artistic and creative, and you need to be creative and innovative in order to be a good chemist," she says. She pursued her bachelor's and postgraduate degrees in chemistry at Indiana University and Marshall University in the US. She did her PhD in Physical Chemistry at Cambridge University, where she was in the pioneer batch of women and also the first Asian woman to be admitted to Peterhouse, the oldest college at the university. She is now a member of the Peterhouse Alumni Association.



Chemistry has enabled Professor Halimaton to express her creativity



Rice husks proved to be the perfect material for the production of Maerogel

In 1981, Professor Halimaton joined Universiti Teknologi Malaysia (UTM) as a lecturer at the Department of Chemistry. In 1997, she became a Professor of Chemistry at the university.

Professor Halimaton holds numerous professional positions and has chaired several task forces and committees including the Technical Committee, National Nanotechnology Initiatives (2006-2008) and the Scientific Advancement Grant Allocation (SAGA) (Chemical Cluster) (2005-2008). She is a Fellow of the Academy of Sciences Malaysia and the American Academy of Sciences, and is a member of the International Zeolite Association. She has been a reviewer of the Journal of Industrial Technology SIRIM (1992-1998) and Journal of Industrial & Engineering Chemistry Research, University of Texas Austin, USA (1997-present), among others.

She also has a diploma in Translation from Dewan Bahasa dan Pustaka, and translated the textbook Physical Chemistry in 1990. Professor Dr Halimaton has won numerous local and international acclaim for her work over the years. In 2008 alone, she was recognised in the Marquis Who's Who in Science & Engineering 10th Anniversary Edition and in 2000 Outstanding Scientists – International Biographical Centre, Cambridge, UK (2008/09). Her strength in research was celebrated by UTM as the university declared her Tokoh Penyelidik UTM 2008.

Professor Halimaton eschews the notion that scientists need to forsake other interests in order to be successful.

"I have a lot of interests, and I am attracted to the arts. I love to sing and dance, and I like beautiful things. In school, I used to act. That is the other side of a good scientist because a good scientist has to be creative. There is no harm in having other interests, and there is no reason to be a boring scientist!"

Professor Halimaton also enjoys sewing, and in the early years of her career, she made her own clothes.

Professor Halimaton is married to Associate Professor Mohd Nazlan Mohd Muhid, and has two sons.

BLAZING A TRAIL

Professor Halimaton's fields of specialisation are Zeolite and Nanostructured Materials technology; solid-state chemistry; solid-state NMR spectroscopy; heterogeneous catalysis and surface chemistry. She has over 15 years experience researching silica-based materials.



Professor Richard Ernst, Nobel Prize winner for Chemistry in 1991, visited Professor Halimaton at her laboratory in UTM in 2004

Aerogel was invented in 1931 by American scientist Samuel Stephens Kistler, but since its invention, the high cost of producing the lightest known solid had limited its commercial use.

Professor Halimaton's contribution to the field of science is in discovering a cost-effective way to turn discarded rice husks into Maerogel (Malaysian aerogel), which can be used for various purposes. The silica in rice husks is extracted to produce Maerogel, and her discovery cuts the cost of producing aerogel by 80 per cent making it affordable for commercial use.

Serendipity played a part in her selection of rice husks, as a chance viewing of a television documentary about the problems of getting rid of rice husks led her to study and experiment on this material.

She resolved to research rice husks after reading an article placing silica aerogel as one of the top 10 materials of the millennium, and that if only the material were cheaper, it could benefit the world. She was determined to take this challenge to make an impact, not just in the scientific community, but on the world. Professor Halimaton and her students took eight months to produce Maerogel which had the same

properties as those commercially available. From the laboratory to precommercialisation, she has been working on Maerogel for nine years. The production of Maerogel uses Green technology as it is clean (smokeless) with a minimal use of energy.

To produce 15 tonnes of Maerogel, 30 tonnes of silica is required. Professor Halimaton is confident that she will not face a shortage of raw material, as Malaysia has about 70,000 tonnes of rice husks available currently, and new developments in paddy plantations are expected to sustain the supply of rice husks in the coming years.

Success, however, did not come easy for Professor Halimaton. At the beginning of the new millennium, nanotechnology was fairly new to the country, and Professor Halimaton found it difficult to convince funding institutions and the public of the potential of Maerogel.

"There was not much awareness on nanomaterials and people tended to be more appreciative of the end product. For scientists like us who make commodity materials, it was difficult for people to appreciate what Maerogel was as it looks just like a white powder."

One teaspoon of Maerogel can fill up a football field as it is the lightest solid known today. It is like "frozen smoke" and has a large surface area. It is made up of thousands of nanopores 30nm in size, and the rest of the gel is filled with air, hence the name.

Maerogel's potential lies in coating walls of homes, which could dramatically reduce the need for heating and air conditioning.

Maerogel is now ready for its commercialisation phase and a plant is being constructed with production scheduled for early 2010. A spin-off company, Gelanggang Kencana Sdn Bhd under UTM has been formed and Professor Halimaton is one of the directors of the company. She will continue with her R&D work on applications and provide consultation to the company making the Maerogel. She is focusing on the expansion of Maerogel beyond Malaysia, but wants to see the maiden factory here up and running first.

Professor Halimaton is confident there will be no shortage of rice husks for the sustained production of Maerogel





Maerogel has all the properties of commercial aerogels

It has taken nine years to make Maerogel a reality

Professor Halimaton is optimistic about the future of science in Malaysia as the government supports and recognises the value of science as important to the development of the nation. Cultivation of interest in science among the young needs to be ongoing. Winning the Merdeka Award means a lot to Professor Halimaton as it recognises the contribution of scientists to the nation.

"After working in the lab for 20 years or so, I feel that the country has matured to the point that it is aware and appreciates science as important to the development of Malaysia, and I am happy and grateful to be a part of it. I hope I can inspire the young generation to take up science. If we don't do research, we will not come up with anything, and we will always be playing catch up," she says.

CONCLUDING REMARKS

Professor Halimaton's Maerogel breakthrough is highly significant as it has the potential to touch the lives of millions of people around the world through its varied uses. Maerogel has been hailed as an exciting breakthrough by experts and Professor Halimaton has been recognised worldwide for her research. From construction to pharmaceuticals, this discovery which is soon to be commercialised, has been hailed as true innovation, and one which will make Malaysia justifiably proud.

Outstanding Scholastic Achievement

Awarded to a student/fellow conducting or playing a major role
in academic research resulting in significant discovery at
a postgraduate level in a local or foreign university.

“Prof Dato’ Ir Dr Zaini’s study and contributions in various environmental initiatives concerning water supply, sewage, river rehabilitation and industrial ecology brings significant benefits to the people of Malaysia and the world.”

*Dato’ Dr Mikail Kavanagh
Member of the Nomination Committee,
Environment category*

PROFESSOR DATO’ IR DR ZAINI UJANG



PROFILE

Professor Dato' Ir Dr Zaini Ujang was born on 3rd March, 1965 in Negeri Sembilan. With an army father posted in different states around the country, Professor Zaini learnt to be independent from a young age, living in a student hostel for the children of army personnel in Melaka, visiting his parents during school holidays.

The country's youngest Vice Chancellor at 44 years old, Professor Zaini is currently the Vice Chancellor of Universiti Teknologi Malaysia (UTM), a position he has held since Oct 2008. He joined UTM as a permanent academic staff in 1988.

Although he is now an acknowledged water expert, Professor Zaini did not have any childhood ambitions to become a scientist.

"I was interested in arts at school, and I used to paint and won art competitions. I became a chemical engineer by accident. Scholarships were given out for subjects like medicine and engineering, so I chose chemical engineering," he says.

He credits his chemistry and biology teachers at school for awakening his interest in science.

"Science is to learn what is around you, and when you can explain something from a scientific point of view, you feel more attracted to it. As a student, I lived close to many rivers, and it was a part of my life. You learn through life's experiences."



Writing is a passion for Professor Zaini

After graduating in chemical engineering, he took inspiration from his childhood surroundings by branching out into environmental engineering. He completed his Master of Science (Environmental Engineering) at the University of Newcastle upon Tyne in the UK where he won an award for the best project in his MSc dissertation. He continued on at the university for his PhD, where he completed his doctorate in less than three years.

Professor Zaini's scholastic achievement and thought leadership in water matters were soon recognised locally and internationally. He is currently the Chairman of the Environmental Quality Council, Malaysia and is one of the Commissioners of the National Commission on Water Services. He was the Vice President of the International Water Association (IWA) from 2004-06, and serves as Deputy President of the Malaysia Water Association. Professor Zaini is a Fellow to the Institution of Chemical Engineers (UK) and the Academy of Sciences Malaysia. He has been the Senior Advisor to the Prince Khalid bin Sultan Chair on Water Research, King Saud University, Saudi Arabia since January this year and heads a team studying groundwater issues in Madinah.

Professor Zaini has received several accolades for his outstanding scientific research including the Malaysia Water Award 2004 (Research), the Outstanding Young Malaysian Award (Academic Leadership) in 2004 and the Gold Medal from the Institusi Pengajian Tinggi Am (IPTA) Expo on Research & Development in 2005.

Professor Zaini has published over 200 technical papers, 22 books, chapters, monographs and technical reports on environmental engineering. He and his co-workers have registered 21 patents and copyrights. Sought after for his expertise, he has co-edited two books with Professor Mogens Henze, an expert in environmental engineering entitled *Municipal Wastewater Management in Developing Countries* and *Environmental Biotechnology*. Professor Zaini was appointed Member of the Editorial Board, Water Science & Technology, WST Water Supply and later appointed editor of the Water and Environmental Management Series in 2003 under IWA Publishing, London. He received the highest citation for journal publications based on the Institute for Scientific Information (ISI) citation index for environmental engineering in Malaysia.

"My ambition in life is to write 100 books. I have written 22, with three in the pipeline. Even if I don't manage to write 100, I can reach 50. I hope that three or four will be my magnum opus, which I have not achieved yet," he says.

Professor Zaini is married to Datin Dr Zainah Moktar and is a father of four. Apart from his interest in art, he is a bibliophile who enjoys reading and writing, horseback riding, jungle trekking and cycling.



Growing up near rivers has given Professor Zaini an appreciation for water quality issues

SCHOLAR AND THOUGHT LEADER

Despite his numerous achievements at such a young age, Professor Zaini is not one to rest on his laurels. His thirst for knowledge and interest in learning means he continues to build his professional expertise in areas ranging from water and wastewater engineering (particularly membrane and advanced biological processes), integrated ecosystem management, and corporate environmental strategy.



Improving the water quality of Malaysian rivers is one of Professor Zaini's key pursuits

As Vice Chancellor, Professor Zaini is driving UTM to become a leading technical university in the region. As an environmental engineer, he looks into water quality, the design of water infrastructure and the important parameters of water. He cites the redefinition of wastewater as a significant milestone in his research career.

"In the group I am working with globally, we try to redefine things. What do we mean by wastewater? Waste means valueless and in some instances dangerous. By if you consider waste as resource, pollutants in so-called dirty water are mainly 99.9 percent water and 0.1 percent 'contaminants'. If they can be separated from bulk water into organic and inorganic components, then it is no longer waste. It can be a major source of specialty chemicals and biogas. Wastewater is a misnomer, as it is actually resource water. The problem is that we have not been able to challenge the conventional wisdom, and are trapped in outdated technical best practices," he says.

Professor Zaini is currently looking at various ways on how to define wastewater and stresses that this definition is very important. In the design of wastewater treatment plants for instance, there is a shift from discharging what is considered waste to recovering as many resources as possible, requiring a change in facility design.

Having achieved success at the early age of 44, Professor Zaini is constantly confronted by skepticism.

"When I became Vice President of IWA, I was 39 years old and I was the youngest in the group. The President was 60 years old, and the group comprised of people nearly twice my age at the time. What made it possible for me to reach out to the group was

my willingness to work with them, motivation, focus and strength to organise research activities and international conferences," he says.

Professor Zaini has been appointed the Congress President of the IWA Global Development Conference in 2011, the industry's second largest conference.

Professor Zaini is also not afraid to make mistakes, and says "a lot of learning comes out of it". He is committed to research, and would like to see more organisations get involved in funding research.

"Breakthrough research is very important. What is going to make Malaysia a leading nation will be breakthrough research, both fundamental and applied. We have to support this," he adds.

Professor Zaini has been involved in numerous projects as a technical consultant and corporate advisor. As Chairman of the Environmental Quality Council, he is currently working with the Malaysian government on a new environmental governance and management framework based on a new environmental performance index. His team, which is working with partners from Yale and Columbia University, was appointed by the government to develop this for the country.

He is also currently working on developing new software, methods and protocols to define wastewater, and is planning to put forward a project to improve the water quality in Malaysia's rivers, with the priority being the Klang River so that it can be a source of economic development.



Professor Zaini believes breakthrough research will take the country forward



His hands-on approach has seen Professor Zaini achieve much at a young age



Professor Zaini (fifth from left) in a gathering of the world's water experts in Bellagio, Italy in 2004

With his dual roles as a leader of one of the country's oldest university and an internationally-recognised researcher, Professor Zaini says leadership by example is his credo. He sets high targets in order to motivate his staff to achieve more than they thought they could, and makes it a point to be accessible to students and faculty alike. Despite his busy schedule, he still supervises eight PhD students, and says time management is the key. He has even written two books on time management.

Winning the Merdeka Award has given him the strength and motivation to work harder and smarter to contribute more to society. He is confident that the Merdeka Award can help him in raising awareness on initiatives that will help in the development of the country.

As a young person who has achieved much, Professor Zaini advises the young to surround themselves with high achievers, choose a subject that interests them, master it and contribute in the area that they have chosen.

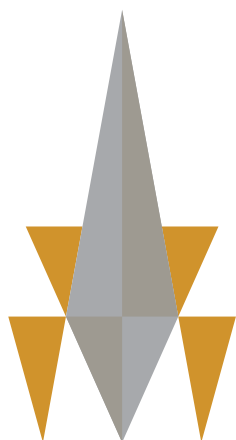
"If you encounter a lot of hurdles, find another way as there are many ways to achieve your targets. You must have determination. If want to do something, do it. Don't think small. There is nothing easy in life. What is important is your target and vision, where you want to go, looking at big milestones. Don't spend too much time working towards small milestones."

CONCLUDING REMARKS

Professor Zaini's study and contributions in various environmental initiatives concerning water supply, sewage, river rehabilitation and industrial ecology bring significant benefits to the people of Malaysia and the world. His academic research and internationally-recognised expertise adds immense value to the body of homegrown scientific research. Research into water and the environment is crucial as the country places greater importance on using natural resources sustainably.

Professor Zaini's vision to advance education through the cultivation of a culture of knowledge is a positive step towards building a society which places great value on knowledge.

Merdeka Award 2008 Recipients



MERDEKA AWARD



EDUCATION AND COMMUNITY

Royal Professor Ungku Abdul Aziz bin Ungku Abdul Hamid

For outstanding contribution to the eradication of poverty, rural economics, the development of Tabung Haji and in the field of education

Since winning the Merdeka Award in 2008, Royal Professor Ungku Aziz has been busy putting the finishing touches to a book on Malay poetry (*pantun*) for publication early next year.

He is selecting *pantun* from a collection of some 14,000 poems, some of which originate from up to 800 years ago. The *pantun* are categorised into the themes of wisdom, love, life of traders and poems about children which represent a large part of Malay life.

The book will be a valuable addition to Malay literature as it may be the first of its kind. It is the fulfillment of a dream for Royal Professor Ungku Aziz who has always been interested in Malay poetry.



ENVIRONMENT



Malaysian Nature Society (MNS)

For outstanding contribution to the Belum-Temenggor Forest Complex Conservation Initiative.

Winning the Merdeka Award has brought international and local attention to the plight of protecting the world's oldest rainforests from destructive and non-sustaining logging activities that is ongoing in the Temenggor Forest.

MNS is still actively campaigning to secure the conservation of the Temenggor Forest and is making progress in this area.



HEALTH, SCIENCE AND TECHNOLOGY

Nipah Virus Encephalitis Investigation Team from The Faculty of Medicine, University of Malaya (Joint Recipient)

For outstanding contribution to the discovery and understanding of the causes, effects and control of the Nipah encephalitis viral infection

The 15-member team has not rested on its laurels since winning the Merdeka Award as joint recipients in the Health, Science and Technology category in 2008.

The team recently published its findings on the 10-year outcome of the Nipah encephalitis patients, and the comparative pathology between the Nipah and Hendra infections.



HEALTH, SCIENCE AND TECHNOLOGY

Professor Dato' Dr Khalid Kadir (Joint Recipient)

For outstanding contribution to the study and understanding of diabetes and the relationship between hormones and stresses in various tissues

Professor Dato' Dr Khalid Kadir became unwell since winning the Merdeka Award in 2008, and went through a stem cell transplant at Hospital Universiti Kebangsaan Malaysia (HUKM). The treatment was successful and he returned to work recently, and is currently working fulltime as Professor of Medicine at Monash University, Malaysia.

In October 2009, he will speak at the International Diabetes Federation World Diabetes Congress in Montreal, Canada.



OUTSTANDING CONTRIBUTION TO THE PEOPLE OF MALAYSIA

Datuk Leslie Davidson

*For outstanding contribution in the introduction of the pollinating insects *Elaeidobius kamerunicus* from Africa to the oil palm and plantations in Malaysia, leading to the rapid development of the palm oil industry.*

Despite recurring health problems since winning the Merdeka Award for Outstanding Contribution to the People of Malaysia in 2008, Datuk Leslie Davidson supported the Malaysian Palm Oil Producers Council (MPOC) in its promotional visits to London by chairing a meeting with British and European Community Members of Parliament. He also chaired one of the Sessions at the London Conference, "World Sustainable Palm Oil".

Since winning the Merdeka Award, Datuk Davidson has given talks in London and has actively campaigned against what he sees as the negative effect of the media's biased reporting on Malaysian bio-fuels and deforestation.

On a personal note, Datuk Davidson has enrolled at the University of Sussex as a part-time student, taking a course in 19th Century Poetry.



PATRON

PRIME MINISTER OF MALAYSIA

Dato' Sri Mohd Najib bin Tun Abdul Razak

BOARD OF TRUSTEES

Tan Sri Mohd Hassan Marican *Chairman*

Hugh Thompson

Dato' Saw Choo Boon

Juniwati bt Rahmat Hussin

YM Tunku Abdul Aziz Tunku Ibrahim

Prof Emeritus Tan Sri Dato' Dr Khoo Kay Kim

SELECTION COMMITTEE

Dato' Henry Sackville Barlow

Tan Sri Khalid Ramli

Professor Kishore Mahbubani

Tan Sri Samsudin Osman

Tan Sri Dato' Seri Siti Norma Yaakob

NOMINATION COMMITTEES

Education & Community

Hijjas Kasturi

Datuk Johan Jaafar

Datuk Dr M Jegathesan

Tan Sri Ramon Navaratnam

Prof Datuk Dr Shamsul Amri Baharuddin

Environment

Engr Gurmit Singh

Dato' Dr Mikail Kavanagh

Prof Emeritus Dato' Dr Mohd Sham Mohd Sani

Health, Science & Technology

Tan Sri Datuk Dr Augustine Ong Soon Hock

Dr Oystein Berg

Tan Sri Dato' Dr Yahya Awang

Outstanding Scholastic Achievement

Tan Sri Datuk Dr Arshad Ayub

Tan Sri Datuk Dr Lal Chand Vohrah

Dato' Dr Hj Abdul Razak Mohd Ali

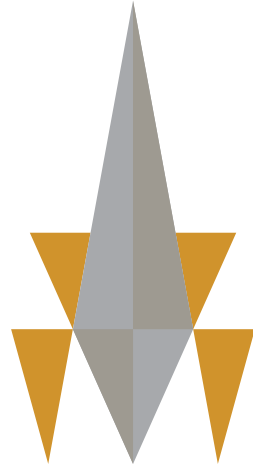
Outstanding Contribution to the People of Malaysia

Tan Sri Dato' Ernest Zulliger

Tan Sri Dato' Megat Zaharuddin Megat Mohd Nor

Tan Sri Razak Ramli

The Logo and Trophy



M E R D E K A
A W A R D



Designed by Dato' Johan Ariff, the trophy is a three dimensional version of the Merdeka Award logo. It expresses convergence and ascension, the same qualities celebrated in the achievements of the Merdeka Awards winners. The trophy also represents environmental concerns in the form of a plant shoot *Rebung*, transparency, ethics, and the glorious five decades of Malaysian independence.

An Artistic Vision of Excellence



This Latiff Mohidin sculpture incorporates the kinetic element of a rotating ball symbolising freedom. The sculpture rests on a granite base denoting strength and fortitude. The piece also incorporates the traditional elements of *Sulur Bayur* underscoring heritage and *Pucuk Rebung* signifying excellence.



An initiative of

ExxonMobil[™]

PETRONAS



