

MERDEKA
AWARD

Fostering a Culture of Excellence

2014

MERDEKA AWARD
2014

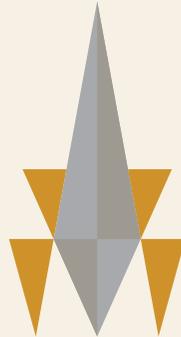
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M E R D E K A
A W A R D

The Merdeka Award aims to promote thought leadership and innovation, foster a culture of excellence, encourage 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.my





Six-Distinguished Individuals Conferred 2014 Merdeka Award

The Merdeka Award Trust, founded by PETRONAS, ExxonMobil and Shell, conferred the prestigious 2014 Merdeka Award to six distinguished individuals, in recognition of their achievements and significant contributions to Malaysia and Malaysians in their respective fields.

Selected through an extensive and stringent process, these eminent individuals stood above the rest as the most worthy candidates who embody the true *Spirit of Merdeka* and pursuit of excellence.

Demonstrating leadership and innovation, the six recipients of the 2014 Merdeka Award are recognised for their meaningful and sustained contributions to the nation.

In September 2014, the 2014 Merdeka Award recipients were announced by His Royal Highness Sultan Nazrin Muizzuddin Shah, the Sultan of Perak Darul Ridzuan and Royal Patron of the Merdeka Award Trust.



Merdeka Award Presentation 2013



7th Merdeka Award Roundtable

The 2014 Merdeka Award recipients are:

- **Education and Community: Datuk Mohd Nor Khalid (Lat)**
For outstanding contribution to the promotion and pluralism of Malaysia's cultural identity through the use of cartoons and for the promotion of understanding and respect among Malaysia's diverse ethnic communities.
- **Environment: Mohd Khan Momin Khan**
For outstanding contribution to wildlife research and conservation through the setting up of captive breeding centres as well as for pioneering and successfully managing the human-wildlife conflict in affected areas.
- **Health, Science and Technology: Datuk Dr Choo Yuen May**
For outstanding contribution to the development of novel, efficient and green processes for the palm-based industry through research and commercialisation of various technologies.
- **Outstanding Scholastic Achievement: Professor Dr Abdul Latif Ahmad (Joint Recipient)**
For outstanding contribution to the scholarly research and development of technologies in the areas of polymer science, wastewater treatment and membrane separation technology.
- **Outstanding Scholastic Achievement: Professor Dr Ahmad Fauzi Ismail (Joint Recipient)**
For outstanding contribution to the scholarly research and development of technologies for commercialisation in membrane performance for both gas separation, and water and wastewater treatment.
- **Outstanding Contribution to the People of Malaysia: Dato Sri Gathorne, Earl of Cranbrook**
For outstanding contribution in pioneering research and conservation of Malaysia's forest biodiversity and the ecology and biology of Malaysian mammals and birds, and for advocating environmental conservation.

In addition to the honour and cash award that comes with the accolade, the 2014 Merdeka Award recipients join the list of 22 individuals and two organisations in being recognised as among Malaysia's most inspiring individuals and organisations who have made lasting impact in the development of this nation.

Each year, the Merdeka Award is supported by signature initiatives, one of which is the Merdeka Award Grant for International Attachment, a short-term grant designed to make it possible for qualified Malaysians between the ages of 22 and 35 to engage in collaborative projects or programmes at selected, internationally-recognised host institutions.

The Grant, launched in 2012, creates the opportunity for recipients to establish contact and working relationships with other experts in their fields, share knowledge, and upon their return, use these relationships and expertise to build on the body of work in his or her area of research.



Merdeka Award Grant Recipients 2014 with HRH Sultan Nazrin Muizzuddin Shah, the Sultan of Perak Darul Ridzuan and Royal Patron of the Merdeka Award Trust

Two Grants are offered annually to successful candidates in select disciplines – Education and Community, Environment as well as Health, Science and Technology, mirroring the categories in which the Merdeka Award itself is accorded.

The two inaugural Grant recipients in 2013 Assistant Professor Dr Abhimanyu Veerakumarasivam, and Dr Natrah Fatin Mohd Ikhsan, have completed their respective attachments abroad in 2014. As part of his attachment Dr Abhimanyu presented his research findings at the world's biggest cancer research conference, the 105th American Association of Cancer Research Annual Scientific Meeting 2014 in San Diego,

California. He has also completed his attachment as a visiting scientist at the Institute of Genetic Medicine, Johns Hopkins School of Medicine in Maryland, USA, where he participated in research on the identification of molecular markers for the diagnosis, prognosis and therapy of bladder cancer.

Dr Natrah attended a workshop in marine microbial ecology at the Sydney Institute of Marine Science in Australia and continued her attachment at the Scripps Institution of Oceanography, University of California, San Diego, US, where she worked on marine microbial ecology and coral reefs.

After an extensive selection process, the Merdeka Award Trust selected two individuals as recipients of the Merdeka Award Grant for International Attachment for 2014.

They are Dr Kamalan Jeevaratnam, who is head of physiology at the Royal College of Surgeons Ireland-Perdana University in Malaysia; and Dr Lim Hong Ngee, Senior Lecturer at Universiti Putra Malaysia (UPM).

Dr Kamalan plans to strengthen his research in mechanistic insight for cardiac cellular therapy using stem cells and Dr Lim will continue her research on nanotechnology-based blood testing to identify breast cancer.

The call-to-entry for the 2015 Grant was launched on September 4, 2014 and the closing date is December 31, 2014. Applications can be made online at the Merdeka Award website: www.merdekaaward.my

Another signature initiative, the Merdeka Award Roundtables, which is a talk-show held in partnership with ASTRO Awani, generated strong interest from viewers with discussion focusing on a host of issues of national interest including Science as the Game Changer for Malaysia; How the Arts and the Social Sciences Can Support National Goals; and How Will the Next Generation of Malaysians Shape the Nation?

Nomination & Selection

The nomination and selection of Merdeka Award recipients are administered by the Board of Trustees and six committees – five Nomination Committees and one Selection Committee.

The Board of Trustees comprises two representatives from PETRONAS and one representative each from ExxonMobil and Shell, as well as two independent members.

The Board of Trustees and the various 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 Malaysians and non-Malaysians, bringing with them a wealth of knowledge, experience and expertise to allow them to nominate and select outstanding individuals and/or organisations that 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 nominee, and in the end, identify those who stand above and beyond the rest, in their embodiment of the *Spirit of Merdeka*.

Categories & Recipients 2014

EDUCATION AND COMMUNITY CATEGORY

Datuk Mohd Nor Khalid (Lat)

For outstanding contribution to the promotion and pluralism of Malaysia's cultural identity through the use of cartoons and for the promotion of understanding and respect among Malaysia's diverse ethnic communities.

ENVIRONMENT CATEGORY

Mohd Khan Momin Khan

For outstanding contribution to wildlife research and conservation through the setting up of captive breeding centres as well as for pioneering and successfully managing the human-wildlife conflict in affected areas.

HEALTH, SCIENCE AND TECHNOLOGY CATEGORY

Datuk Dr Choo Yuen May

For outstanding contribution to the development of novel, efficient and green processes for the palm-based industry through research and commercialisation of various technologies.

OUTSTANDING SCHOLASTIC ACHIEVEMENT CATEGORY

Professor Dr Abdul Latif Ahmad (Joint Recipient)

For outstanding contribution to the scholarly research and development of technologies in the areas of polymer science, wastewater treatment and membrane separation technology.

&

Professor Dr Ahmad Fauzi Ismail (Joint Recipient)

For outstanding contribution to scholarly research and development of technologies for commercialisation in membrane performance for both gas separation, and water and wastewater treatment.

OUTSTANDING CONTRIBUTION TO THE PEOPLE OF MALAYSIA CATEGORY

Dato Sri Gathorne, Earl of Cranbrook

For outstanding contribution in pioneering research and conservation of Malaysia's forest biodiversity and the ecology and biology of Malaysian mammals and birds, and for advocating environmental conservation.

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.



DATUK MOHD NOR KHALID (Lat)



PROFILE

Datuk Mohd Nor Khalid, more commonly known as Lat, was born in March 1951 in Kota Bharu, Perak. A Malaysian cartoonist, social commentator and cultural icon Lat was raised in a close-knit kampung or village community. Always keen on drawing, Lat's interest in cartoons began early on during his school days. As he says, "School days were when we discovered a lot of things about ourselves. The first thing I discovered was how I could have fun with drawing. Although I was drawing even before I started school, this was different. Art class was fun."



The turning point in his primary school life was in Standard Four when he passed the Special Malay Class examination and went to an English school in Pasir Putih, Ipoh. It was here where he not only discovered new friends but, where he was encouraged to draw by his teachers. “In school back then if they knew you could draw, they would ask you to draw everything.” His family, particularly his father, also played a significant role in nurturing his talent – proudly encouraging him to draw for friends and relatives alike. “My father encouraged me a lot.”

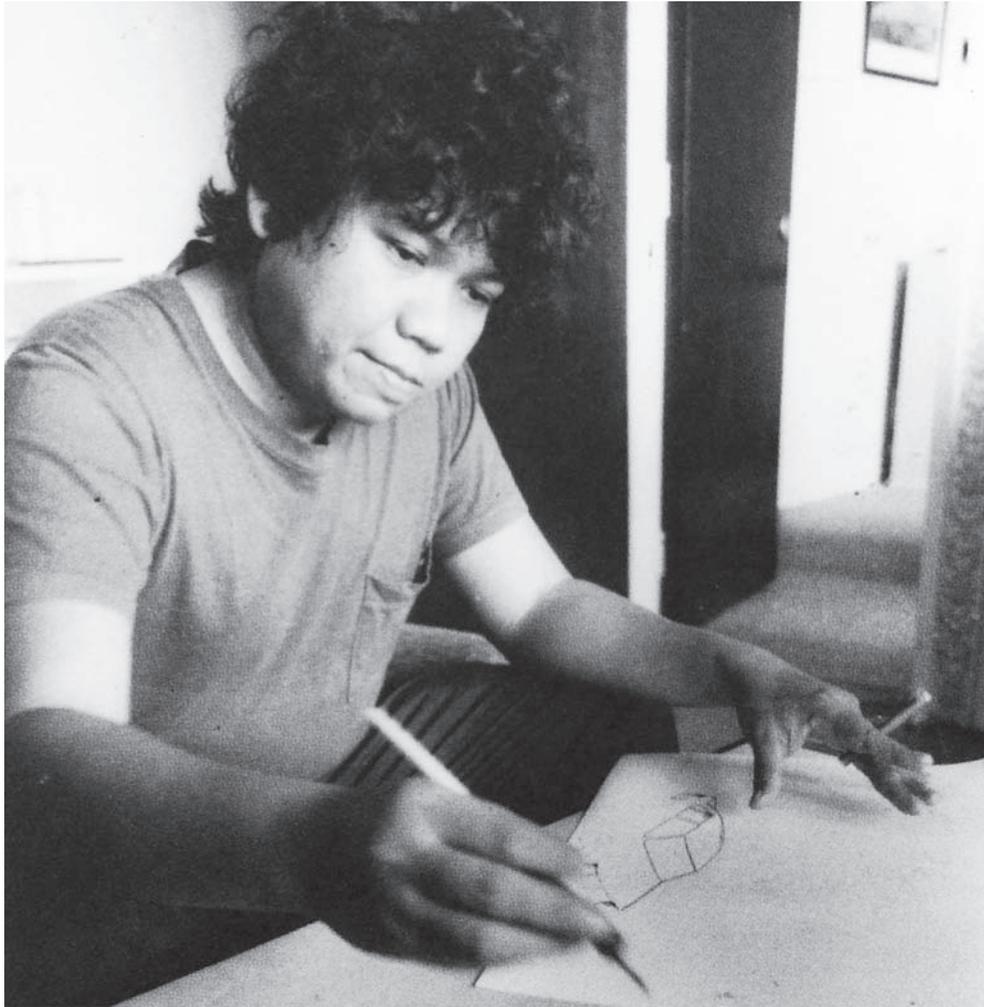
Lat’s first cartoon was printed in Majallah Filem, published by Shaw Brothers in Singapore in 1964. His big break, however, came with a comic strip called Tiga Sekawan which he sent to Sinaran Brothers in Penang. Sinaran Brothers bought the comic book for 25 Ringgit. From 1964 to 1966 Lat continued to contribute to Majallah Filem and by the end of 1965 he had a regular strip called Tua Keladi. In 1967 he began drawing for Utusan Malaysia and the following year he started drawing for Berita Minggu. In 1968 he started Keluarga Si Mamat which was also picked up by Berita Minggu. He completed his Senior Cambridge in 1970 and began work in Kuala Lumpur as a crime reporter. His primary interest remained with illustrations and drawings, however, and he eventually became a full time cartoonist at the New Straits Times beginning with a series called Scenes of Malaysian Life. In 1975 the New Straits Times sent him for a course at the St Martin’s School of Art in London. Upon his return later that same year he was



made a full time cartoonist. Lat left the New Straits Times in 1984 and began work as a freelance cartoonist.

Lat’s cartoons have become a vital part of Malaysian life. The late Malaysian artist Redza Piyadasa describes Lat’s body of work as being firmly stamped within the cultural consciousness of this nation. He has published more than 20 volumes of cartoons that illustrate Malaysia’s social and political scenes. His works have been published in newspapers, magazines, graphic novels and anything Malaysian from postage stamps to buses. Two Air

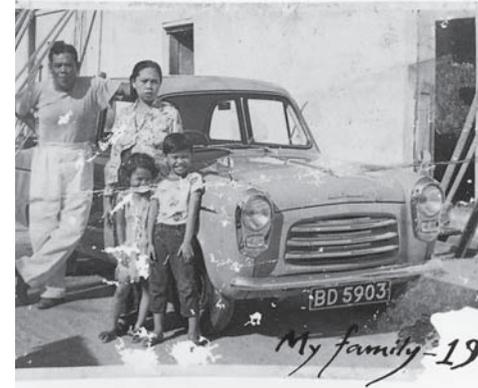
Asia aircraft 737 and an Airbus with his cartoon characters were used to promote Malaysia to the world. Lat’s best known work, The Kampung Boy, was translated into 14 languages and recognised internationally by North American cartoonist Matt Groening (creator of The Simpsons), as “one of the all-time great cartoon books.” The translations are an indication of the international recognition accorded to Lat and his widely popular cartoons. Additionally, the animated series of this work was broadcast in other countries such as Germany and Canada.



Lat working from home

Lat is among the best known and best loved cultural personality in the country, admired by old and young alike. His phenomenal popularity and acceptance by the Malaysian public may be explained by the fact that people of all races in this country can readily identify with his positive messages and values which are spiced with humour. Lat has celebrated his 50th year in cartoon this year, an indication of his sustainability and lasting impact on the nation and its people.

Recently, he has released Lat's Special: Forever Malaysia, which was published by 1Malaysia Development Bhd (1MDB) as an exclusive corporate gift for its local and international partners. It is a compilation of Lat's humour in capturing scenes of Malaysian life. The book includes some rare cartoons from Lat's early days when he published his first English book, Lots of Lat in 1977, as well as five brand new sketches specially made for the Forever Malaysia project. His due international recognition came



when he was awarded the Arts and Culture Prize of the Fukuoka Asian Culture Prizes in 2002. He was a worthy recipient based on the penetrating yet warm perspective of his works, which focus on the community, highlights many spiritual and traditional themes and provides many insights into the development of Malaysia and the region. Although retired he continues to draw and still produces a weekly cartoon for the New Straits Times. He is also working on "Rumah Lat," a replica of the Kampung home he grew up in which he is currently developing on a plot of land in Perak.

CONCLUDING REMARKS

What is remarkable about Lat is that for over five decades he has reached out to Malaysians of all backgrounds by using a popular, easily accessible and non-threatening medium of communication - cartoons. First, it was through his newspaper cartoon column, and later through his book publications, animation, theatre and more.

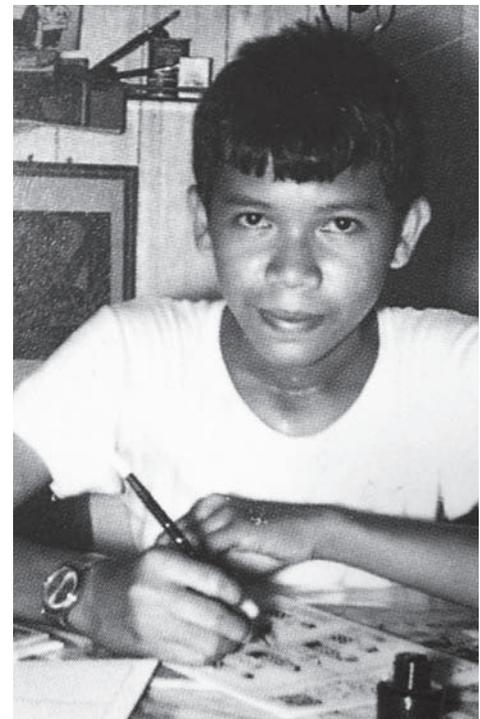
In this regard, Lat's significance within the Malaysia context lies in his ability to project an all-encompassing picture of the total Malaysian reality. His ability to draw his themes and ideas for the wide spectrum of the nation's complex and colorful multiracial milieu marks him out as an extraordinary individual and creative personality. His phenomenal popularity and acceptance by the Malaysian public may be explained by the fact that people of all races in this country can readily identify with Lat's cartoons and comic books and laugh with him. Lat's cartoons best represent Malaysia's unity in diversity through his humour, which all of us can relate to.

Lat is a pioneer in Malaysia, not just in cartoons which is his choice of platform, but in paving the way for social commentary within a conservative social and political context. When self-criticism and criticism of subjects like religion, politics and ethnicity are generally discouraged from being discussed in public, Lat, through courage and creativity has been successful in pioneering the discussion of such issues of national importance through his



Lat and his AJS motorbike, 1969

cartoons in the mainstream media such as the New Straits Times for five decades. Lat's cartoons tend not to confront or to challenge but to reinforce and build on a set of beliefs and values. His messages tend to encourage Malaysians to focus on their similarities rather than their differences. In doing so, he has successfully managed to bring together Malaysians of different gender, ages, races, religions and politics. His unique take on racial harmony and local culture personifies the *Spirit of Merdeka* which is about independence of thought, ability and nation building in a globalised environment.



Lat, 1967

Environment

Awarded to individuals and/or organisations to honour the development, research and application of new technology and practices in renewing and protecting the environment.



MOHD KHAN MOMIN KHAN



PROFILE

Mohd Khan Momin Khan, was born in 1935 in Taiping, Perak. Raised by his grandparents he displayed a keen interest in animals from an early age. Upon completing his secondary school education at King Edward VII School he applied and got a job in the Perak Game Department (now known as The Department of Wildlife and National Parks of Peninsular Malaysia – PERHILITAN). “I chose the wildlife service due to its attractive and adventurous field-work.” While elephant control dominated the field-work during his time as acting Game Warden in Perak he soon “tired of killing elephants” and began instead to work towards a more humane approach to elephant control. From 1964 to 1966 he attended a wildlife management course at University of California, Davis, USA, as a Fulbright scholar. His time there gave him the knowledge and practical experience in the science of wildlife management and national parks. This exposure later proved invaluable when, in 1971, he was appointed Chief Game Warden (now known as Director General).



As the Chief Game Warden he worked closely with his game rangers and officers to solve the human- elephant conflict. Khan pioneered the capture, handling technique and relocation of wild elephants in Malaysia – a method that was used in Assam, India, at the time. However, because the Assam lasso technique was inefficient in capturing elephants in the dense Malaysian jungles, he and his team developed the revolutionary drug capture technique. To date, approximately 1,000 elephants in Malaysia have been captured and relocated via the drug capture technique as a result of Khan's pioneering work. Two officers were sent to Vietnam, Sri Lanka and Singapore (Pulau Tekong) to capture and relocate elephants. The relocation of elephants is critical to Malaysia as these endangered keystone species is prone to conflict with people living in plantations and villages around the country.

In 1980, Khan went on to pioneer efforts in conserving the endemic Seladang (Gaur) since the population had declined to around 200. He set up the Jenderak Seladang and Deer Captive Breeding Centre in 1982 as an initiative to protect the Seladang and Deer from severely declining populations. The Malaysian Seladang (*Bos gaurus*) is an endangered species and is believed to be the largest and heaviest of all wild cattle. Threats to the species include hunting (mainly for their meat and horns), loss of habitat, and diseases that are transmitted by domestic cattle, such as foot-and-mouth disease. At present the Seladang breeding project by the Department of Wildlife and National Parks (DWNP) holds about 66 Seladang in captivity. The plan is to introduce these Seladang back into the forest in their respective habitat.

Habitat suitability index analysis and disturbances by humans is being carried out as more Seladang will be released into other protected areas in the future.

Khan also conducted a four-year research on the endangered and endemic Malayan Tiger (*Panthera tigris malayensis*) and discovered that the population had critically declined to less than 250 tigers. Based on these research findings, the tiger, which is a national icon, was then classified as a totally protected animal under the Protection of Wildlife Act (1972). With this total protection status, the tiger population then increased to an estimated 500 and 600 individual tigers.

Khan was also instrumental in establishing the Kuala Gandah National Elephant Conservation Centre in Pahang in 1978. The Centre is the base

for the Elephant Unit, which began the elephant translocation programme in 1974. The Centre is the only one of its kind in Malaysia. As the home to a herd of resident elephants, the Centre also carries out public awareness activities related to the conservation of elephants in Malaysia. Over the past 30 years, the team has successfully relocated more than 1,000 wild elephants.





Khan has presented more than 40 papers in local and international conferences. He has also authored two books, namely *Mamalia Semenanjung Malaysia* and *The Malayan Elephant – A Plan for its Conservation*. These books have had a significant impact, especially for the palm oil industry which is trying to balance the impact of the industry on wildlife biodiversity and the environment. Khan recently published several new books on the Tapir, Tiger, Seladang, Rhinoceros and Elephant that he calls the Big Five.

CONCLUDING REMARKS

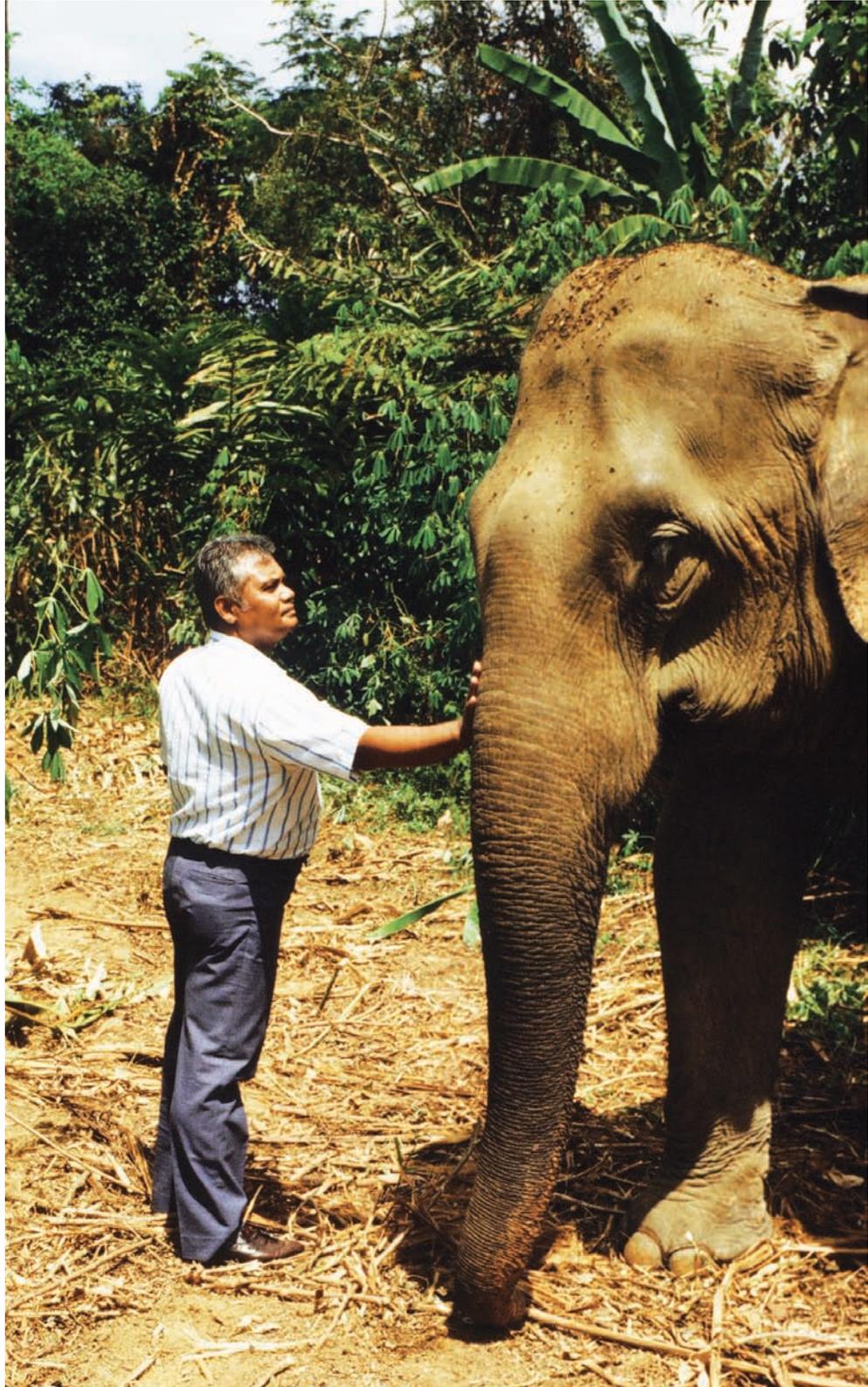
Khan spent 34 years in the service of the Department of Wildlife and National Parks. He was the Director General for 21 years where he was closely involved with the World Conservation Union and the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES).

He also served on the Save the Tiger Fund (STF) for 15 years; was the Chair of the Asian Rhino Specialist Group (AsRSG) from 1984 (when captive breeding of this complex species started) and stayed for more than 20 years during which time two Rhino calves were born (Andalas and Suci) at the Cincinnati Zoo in America. It proved that the first birth was not a fluke and he decided it was time for him to step down. As he was closely involved with the ASEAN Experts Group on Nature Conservation (ANC), Khan initiated the move to recognise the Kinabalu National Park in Sabah, the Gunung Mulu National Park in Sarawak and the Taman Negara National Park in the Peninsular as ASEAN Heritage Sites. After retirement in December 1992 he worked for two-and-a-half years for the International Tropical Timber Organization (ITTO) during which a management plan was prepared for the Lanjak Entimau Wildlife Sanctuary in Sarawak, Malaysia.

An internationally well-respected figure in wildlife conservation and in pioneering the successful management of human-wildlife conflict Khan has dedicated much of his life to protecting wildlife and wildlife conservation efforts in Peninsular Malaysia. Khan was the sole Malaysian honoured for his long-time dedication and significant contributions to conservation with the prestigious Sir Peter Scott Award for Conservation Merit in 2004. The Award is given out by the International Union for Conservation of Nature and Natural Resources (IUCN) which is the world's oldest and largest global environmental organisation. The Award was given to Khan in recognition of his many years of championing fauna conservation in Asia.



Khan has contributed substantially to the conservation of various species of wildlife and his efforts have shown significant success in managing the human-wildlife conflict. His continuous work in wildlife conservation has ensured the protection of numerous species in their original habitat and, in this regard, Khan has shown great leadership in wildlife conservation and protected areas management. His unerring commitment and dedication to wildlife and environmental conservation personifies the *Spirit of Merdeka* and its pursuit of excellence and contribution to the Nation.



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.



DATUK DR CHOO YUEN MAY



PROFILE

Datuk Dr Choo Yuen May, was born in December 1955 in Penang. She completed her secondary school education in Ipoh and later obtained her BSc and MSc from the University of Waikato, New Zealand in 1978 and 1979 respectively. After spending two years as a lecturer at Universiti Sains Malaysia, Dr Choo joined the Malaysian Palm Oil Board (which at the time was known as PORIM) in July 1982 as a Research Officer. She says, “When the Palm Oil Research Institute of Malaysia was established, I saw it as an opportunity to further hone my research skills while working on a largely unexplored crop in terms of science.” In 1987 she obtained her PhD in Chemistry from the University of Malaya and went on to successfully pursue an Executive MBA (Master of Business Administration) from the Asian Institute of Management.





In the laboratory - tailoring research to address global problems

Since joining MPOB, Dr Choo has focused her efforts on developing various novel manufacturing technologies/products for the palm based industry. The principal focus of her research is the development of novel, efficient and green processes for the palm-based industry. These include the production and evaluation of first and second generation palm biofuels and palm aviation fuel and, also, the production of palm phytonutrients (carotenoids concentrate and vitamin E (tocotrienols) concentrate).

Dr Choo is one of the pioneers in the production of normal grade palm biodiesel (palm oil methyl ester). “In the development of the novel and green

processes, it came to my attention that due to the inherent properties of palm biodiesel (pour point of +15°C), it cannot be used in temperate countries as it solidifies at low temperature. This inspired me to develop a novel and efficient process for the production of winter grade palm biodiesel.” Dr Choo’s work with low pour point palm biodiesel (winter grade palm biodiesel) (pour point of -21°C) has since been commercialised with three commercial plants currently in operation in Malaysia.

In addition, Dr Choo had also been instrumental in the commercialisation of seven normal grade palm biodiesel plants – five in Malaysia, one in South

Korea and one in Thailand. More recently, two additional commercial palm biodiesel plants are being constructed, one plant each in Colombia and Thailand. The patented process for producing palm biodiesel is mild and retains valuable phytonutrients. Dr Choo leveraged this to simultaneously produce palm phytonutrients (carotenoids concentrate and vitamin E (tocotrienols) concentrate). The technologies for extraction of palm phytonutrients have been successfully commercialised by three local companies.

Additionally, she played an important role in the development and successful commercialisation of carotene enriched

Red Palm Oil. A commercial plant has been built in Pasir Gudang, Johor, and the product CAROTINO is sold in local and international markets in more than 30 countries. In addition, Dr Choo had also developed and commercialised an environmental friendly palm based degreaser with the tradename INXBIO, an Eco-Label certified product.

The commercialisation of carotene riched red palm oil, palm biodiesel technologies, palm phytonutrients concentrates and palm based degreaser have had significant impact on the growth and future of Malaysia's oil palm industry . Her other inventions include production of monoglycerides from oils and fats for applications as food emulsifiers, surface active agents in non-food applications; lubricity additives / improver for ultra low sulphur diesel and production of palm bio briquettes / pellets as household and boiler fuels.

The implementation of the Economic Transformation Programme (ETP) gave the palm oil industry a new focus after it was identified as one of the 12 National Key Economic Areas (NKEA) to drive the nation's economy. The palm oil sector NKEA is aimed at improving upstream productivity and sustainability and enhance downstream expansion and sustainability, while focusing on the sustainable development of the palm oil industry. Dr Choo has leveraged on her renowned research and leadership position to take stewardship of 7 of the 8 eight point projects (EPPs) for oil palm under the ETP.

Her vision and passion for science is reflected by the fact that she is an inventor of 60 patents of which 29 have been granted and has authored and co-authored 823 scholarly articles. "As a scientist, it gives me a great thrill to see research move from the bench to the market place. I am happy that many of my innovations and inventions are enjoying commercial success. The main challenge is to come up with a good innovation that would attract potential licensees and technology takers. A critical requirement for successful commercialisation is engagement with industry through the process of technology transfer. Good commercial partners who are really committed are important to ensure the success of the commercialisation."

Dr Choo also works closely on sustainability and climate change. She played a pivotal role in formulating and implementing a sustainability strategy for the oil palm industry which includes among others, reducing greenhouse gas emissions and life cycle assessment study for various palm products. She was also involved in strategising and drafting the Malaysian Sustainable Palm Oil (MSPO) Standard, which was announced in 2013.

Although her career makes heavy demands on her personal time and energy, Dr Choo values time with family. She considers her mother as her greatest role model and source of inspiration. "She almost single-handedly raised me and my siblings as we lost our father at a young age. Her determination and sacrifices, belief in



Dr Choo with her mother - a portrait of love and family values

what was right, and endurance have had a life long impression on us" says Dr Choo.

CONCLUDING REMARKS

Dr Choo is currently the Director-General of the Malaysian Palm Oil Board (MPOB). She oversees and directs programmes that keep the palm oil industry at the forefront of science and, also, that foster

economic growth and innovation. She says: “I have tried to create a conducive ecosystem to nurture innovation, as innovation is pivotal to the success of the oil palm industry. On taking over as the DG, I formulated 10 research and 12 non-research strategic thrusts in efforts to elevate MPOB to a world-class organisation. I am also very active in the Malaysian Invention and Design Society (MINDS) and this involvement keeps my curiosity and creative streak alive.”

Her scientific and innovative contributions have garnered national and international recognition winning her various accolades including the Knight of the International Order of Merit of Inventors awarded by International Federation of Inventors’ Association (IFIA) and, also, the WIPO (World Intellectual Property Organization) Gold Medal for Best Women Inventions 1994 and 2003. She is a Fellow of the Academy of Sciences Malaysia, Fellow of the Malaysian Oil Scientists and Technologies Association, Fellow of the Malaysian Institute of Chemistry and Fellow of the Malaysian Scientific Association.

Dr Choo has spent 32 years researching the chemistry and technology of palm oil and, in the process, has made significant contribution to the advancement of the palm oil industry in Malaysia. When asked what is her advice to young people today she says: “The sky is the limit if you put your heart and soul in your endeavors. My advice is to never give up but believe in yourself. It is important to keep in mind that failure is the stepping stone for success. Fear of failure is the major impediment to success. Successful



Dr Choo with YB Dato’ Ar Wan Mohammad Khair-il Anuar Wan Ahmad, Chairman of MPOB, Professor John Andrews, Pro-Chancellor of University of South Wales and Professor Julie Lyndon, Vice-Chancellor of University of South Wales - Receiving the Honorary Doctorate of Science from the University of South Wales- an endorsement of excellence

people fail and make mistakes but they do not give up. You should analyse your failure and move on to success eventually by persevering. More importantly, we learn from our failures.”

Dr Choo is a firm believer that knowledge is a journey and not a destination. She believes in the power of continuous education. According to her, “The impact of education lies in its power to open new vistas for us. It expands our outlook and teaches us to be tolerant towards other views. Education widens our intellectual landscape and is the way forward to greatness.” She has mentored and nurtured a number of scientists and successfully supervised 10 PhD and 5

M.Sc candidates. In July this year the University of South Wales recognised her outstanding contribution to science by awarding her an Honorary Doctorate of Science, gaining international recognition not only for herself but also for MPOB and the oil palm industry.

Dr Choo’s high expectations for excellence have earned her an impressive résumé of accomplishments and awards. She has gone beyond the call of duty in her pursuit of excellence. Her wide-ranging work and research in elevating the palm oil industry has had significant impact on Malaysia and truly embodies the *Spirit of Merdeka*.

Outstanding Scholastic Achievement

Awarded to a scholar conducting or playing
a major role in academic research resulting
in significant discovery.



PROFESSOR DR ABDUL LATIF AHMAD



PROFILE

Professor Dr Abdul Latif Ahmad was born in Beranang, Selangor on 4 January 1967. He received his early education at Sekolah Kebangsaan Beranang, Selangor and his secondary education at Sekolah Menengah Khir Johari Beranang, Selangor. In 1990 he obtained his B.Eng in Chemical Engineering from the University of Wales, Swansea, United Kingdom. This was followed by an MSc in Chemical Engineering and, subsequently, a PhD in Chemical Engineering (with a focus on Membrane Technology) from the University of Wales in 1991 and 1995 respectively. Upon his return to Malaysia, he joined Universiti Sains Malaysia (USM) as a lecturer in the School of Chemical Engineering. He served as the Dean of the School of Chemical Engineering from 2005 to 2010 and as the Dean of Research in the Research and Innovation Division of USM from 2010 to 2012. Prof Latif is currently a Professor at USM's School of Chemical Engineering.





Prof Latif working with Enzymatic Membrane Bioreactor (EMBR) Producing Drug Precursors

Widely regarded as an authority in the study of environmental research with special emphasis on wastewater treatment and membrane technology, Prof Latif's expertise is evident through a body of work that spans two decades and which includes extensive and in-depth research on and application of membrane technology for the treatment of waste water from industrial sources such as palm oil mills, pesticides, dyes, and the textile industry. Among his most prominent research inventions is the development of a novel-innovative hybrid treatment process for palm oil mill effluent (POME) using membrane separation technology coupled with

chemical/physical pre-treatment. With this invention one of the world's most polluting wastewater is treated and recovered as crystal clear drinking water that complies with the United States Environment Protection Act (USEPA) Standard, enabling the concept of zero discharge to be implemented in the industry. A very high recovery of 85% crystal clear water can be achieved with the application of the technology and the water can be recycled for internal mill usage. According to Prof Latif "85% of water in POME can be recycled as clean water." The success of this invention would enable 47.9 million tonnes of pure water with high

commercial value to be recovered from POME generated in Malaysia. This is particularly important he says as we "have to protect our environment by making it more sustainable."

Prof Latif's work on synthesis and fabrication of membranes has made it possible to produce membranes at a fraction of the prevalent market price with the added advantage of the ability to be tailored to suit specific applications thus enabling membranes to be explored and employed even further. In translating theoretical knowledge to practical application, a custom membrane auto-casting



machine was invented to successfully control the membrane morphologies, pore sizes, porosity and performance characteristics. The machine integrates all the advantageous features of casting technology to reduce the errors of normal manual casting, thereby enhancing the synthesis of even, smooth, ultra-thin and defect-free membrane. The machine is the first of its kind in the world that has successfully synthesised different

types of membranes such as polymeric, ceramic, thin film composite as well as mixed matrices membranes to meet the wider and more diversified applications in water recovery and reused for various industries.

Prof Latif has also continued efforts to expand the application of membrane technology to include the production of cardiovascular drug precursors using

an integrated membrane bioreactor. In addition he has also successfully developed a lateral flow nitrocellulose membrane which is widely used in biomedical applications particularly for diagnostic kits. He also extended the application of membrane technology for gas separation.

His aptitude for high quality research of international standing has been further supported by his more than 280 international journal publications with a total citation of 4,361 times and an h-index of 35. In his capacity as the Dean of the School of Chemical Engineering (2005-2010) at Universiti Sains Malaysia, the school rose in both quantum and quality of research and development output and was ranked among the top 20 faculties in Asia and top 100 faculties worldwide. Prof Latif has also successfully supervised 26 PhD and 60 MSc students and is currently supervising 17 PhD and 7 MSc students.

CONCLUDING REMARKS

Prof Latif is a scholar, educator, consultant and distinguished scientist. A role model and scientist, his inventions and ideas make him one of the leading scientists in the country. Internationally recognised as an expert in wastewater treatment, he has dedicated over 20 years of his life to research endeavors with a strong focus on preserving the environment, and in particular water. His advice to young people today



Prof Latif receiving the World's Most Influential Scientific Minds: 2014 Award from Thomson Reuters

is to “always work hard and not be complacent.” He says: “In science, solutions do not happen overnight – one must be willing to work with perseverance.” Prof Latif has been honoured with 44 local and international awards for his achievements. The first and sole Asia Pacific recipient of the 2006 Saudi Arabia Prince Sultan Bin Abdul Aziz International Prize for Water, he has also been honoured with the 20th Khwarizmi International Award 2007 from the Iranian Research Organization for Science and Technology (IROST) for outstanding research achievement. The Institution of Chemical Engineers, United Kingdom has also bestowed Prof Latif with the

Novel Engineering Solutions Award 2008 for his accomplishments and tangible real applications designed to address vital economic, environmental and social issues. The World Academy of Sciences (TWAS) based in Italy has selected Prof Latif to be the recipient of TWAS 2012 Prize in Engineering Sciences for his contribution to Sustainable Environmental Protection and Healthcare in Developing Countries via membrane based technology. In June 2014, Thomson Reuters named Prof Latif among the World's Highly Cited Researchers by awarding him “The World's Most Influential Scientific Minds: 2014”. He has made the nation proud to be one of the three top scientists



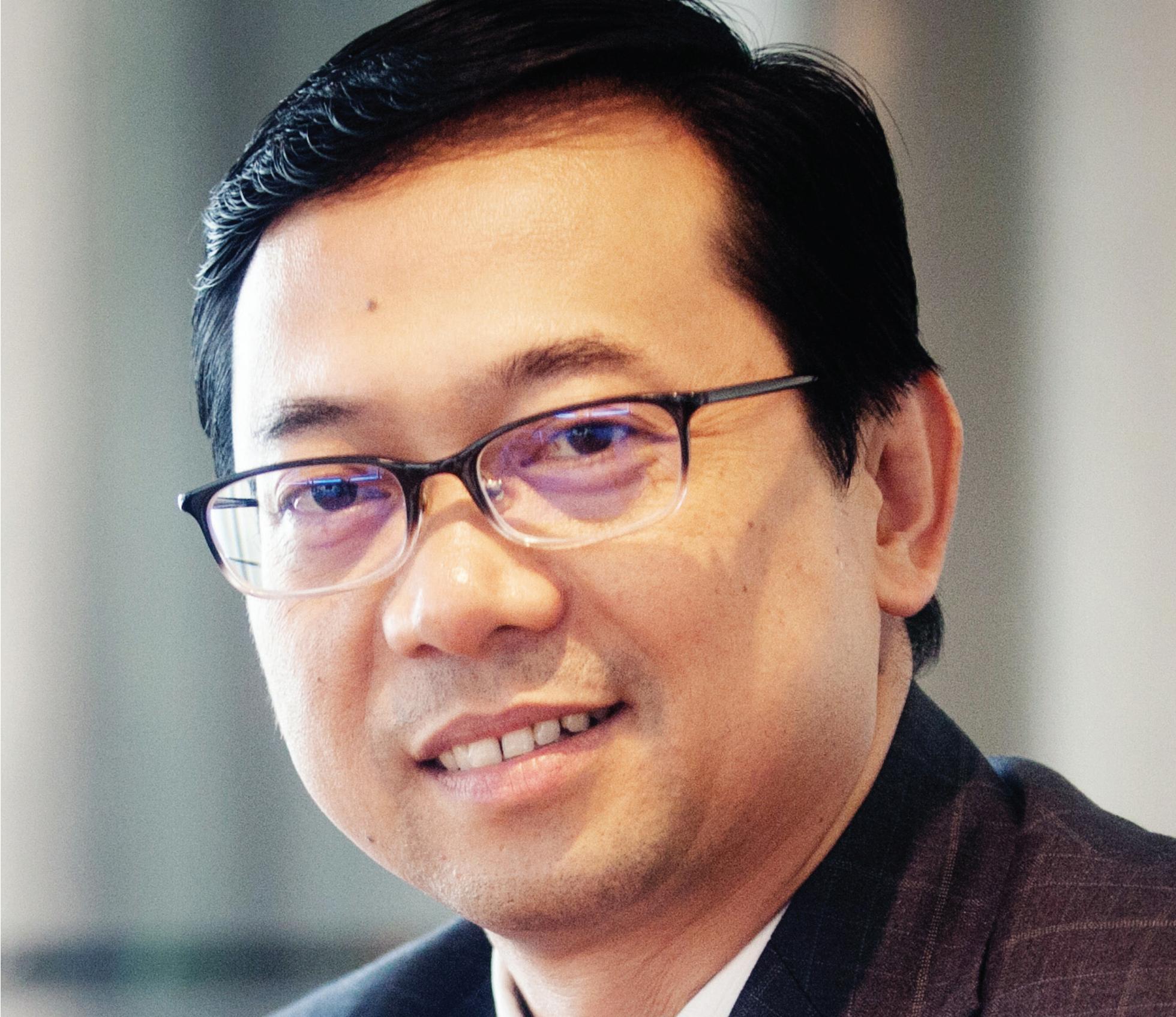
Prof Latif explaining his Invention on Membrane Casting Machine

in Malaysia to receive this award.

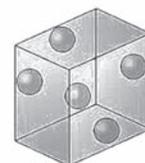
Prof Latif's groundbreaking research has contributed immensely to affordable and reliable membrane technology to filter impurities from effluents, especially from palm oil mills. The scope of his research is wide and emphasises the recovery of water from palm oil mill, pesticides, dyes, and the textile industry via innovative membrane application and membrane synthesis. This ultimately contributes to water savings and extensive reduction in wastewater discharge which is crucial in maintaining a balanced environment for future generations. In this regard, his pursuit of excellence in the areas of polymer science, wastewater treatment and membrane separation technology is a reflection of the innovative and pioneering *Spirit of Merdeka*.

Outstanding Scholastic Achievement

Awarded to a scholar conducting or playing
a major role in academic research resulting
in significant discovery.



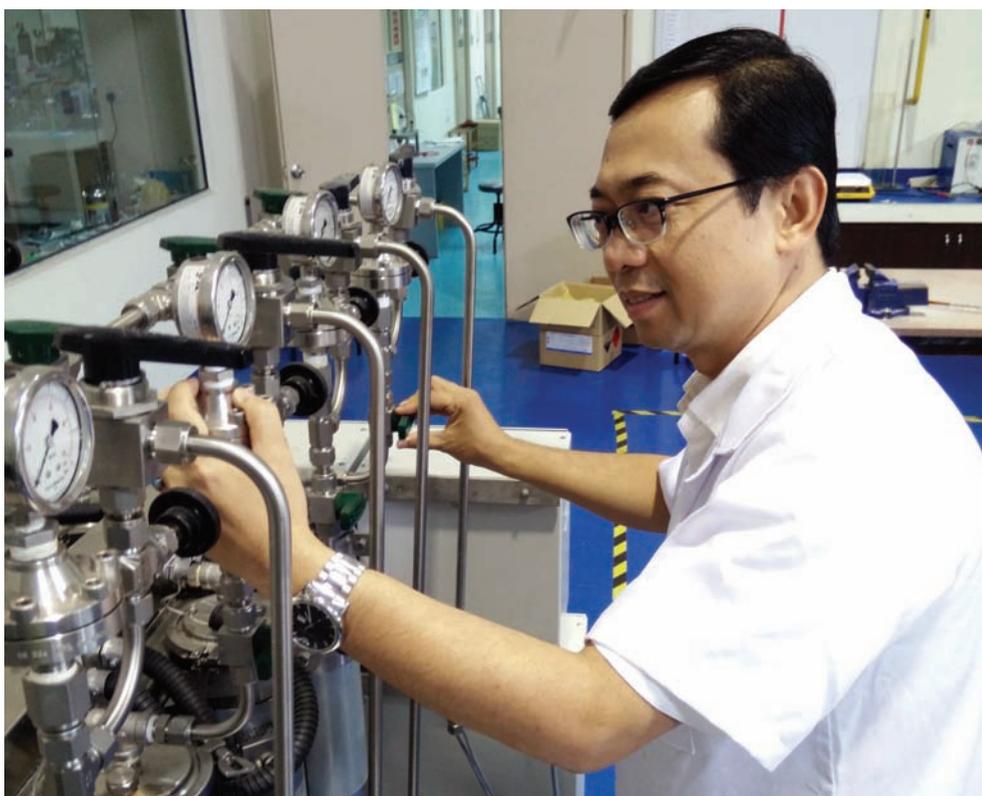
PROFESSOR DR AHMAD FAUZI ISMAIL



PROFILE

Born in March 1966, Professor Dr. Ahmad Fauzi Ismail graduated with a B.Eng (Petroleum Engineering) and MSc. (Chemical Engineering) from Universiti Teknologi Malaysia (UTM) in 1989 and 1992 respectively. In 1997 he was awarded the Commonwealth Academic Staff Scholarship to pursue his Ph.D in Chemical and Process Engineering at the University of Strathclyde in Glasgow, United Kingdom. With his expertise in membrane manufacturing technology, Prof Fauzi completed his PhD study in “less than three years”. Upon his return to Malaysia, he continued his academic career at UTM where he now services as the Dean of Research for Materials and Manufacturing Research Alliance. He is also the Founder and Director of Advanced Membrane Technology Research Center (AMTEC), which is the first of its kind in Malaysia to conduct advanced research as well as to provide services and consultation in membrane-related technology for gas separation, water and waste water treatment, palm oil refining and energy applications.





With over 15 years of hands-on experience, Prof Fauzi demonstrated the operations of membrane pilot plant system.

Dedicated to introducing and promoting membrane technology, Prof Fauzi is the first Malaysian scientist who produced the indigenous commercially competitive hollow fibre membranes for their applications in gas separation as well as in water and waste water treatment. One of the most significant findings of his research is the fundamental study to understand the basic science of polymer rheology and the application of spectroscopy techniques to produce high performance membranes. The findings, which have been published in various international journals, is considered groundbreaking due to its ability to produce membrane with tremendous improvement compared to conventional commercial membranes. Owing to

their significant impacts to science, economy and society, his innovative research and inventions have attracted global and national interests, enabling him to secure financial support from both private and government agencies. With this achievement, Prof Fauzi has positioned Malaysia as one of the main Membrane Technology research centres in the world. Recently, his research team has developed the world's first high pressure and high CO₂ concentration hollow fibre membrane pilot plant for CO₂ removal from natural gas stream. The membrane pilot plant was fully designed and fabricated locally and has been exclusively tailored and commercialised to petrochemical industries. The successful collaboration



Imagination is the foundation of all ideas and discoveries; invention is the route to innovation.

with PETRONAS is also witnessed through the establishment of the PETRONAS-UTM Membrane Technology Research center.

Prof Fauzi is also a prolific scientific writer in high impact international and national journals. His capability in carrying quality research work



Ahmad Fauzi recognised that one of the key elements that leads to the success of his research thus far is through the collaborative efforts of his team members.



Ahmad Fauzi describing the design and operation of the membrane system to his team members.

of international standards has been evidenced by the publication of more than 350 technical or scientific papers in well-established and high impact factor journals. His published research has been highly cited with a total citation of 4,696 times and an h-index of 34. In 2004, the Cambridge Biographical Centre listed him as one of the 2000 Outstanding Scientists of the 21st Century. Prof Fauzi is also the recipient of the Malaysia Young Scientist Award in 2000; the ASEAN Young Scientist Award in 2001; Two times winner of the National Intellectual Property Award (Patent Category), 2009 and (Product Category), 2013; Two times winner of the National Innovation Award (Waste to Wealth Category), 2009 and (Product Category), 2011. Recently, he won the National Academic Award (Innovation and Product Commercialisation Category) in



Ahmad Fauzi and Fadilah with their children in front of Edinburgh Castle during their family holiday, June 2014. From left: Fatin Nabilah, Faris Izzat, Fadilah, Ahmad Fauzi dan Faiz Azizi.

August 2013 and he was also the recipient of the Malaysian Toray Science and Technology Foundation Award in November 2013. Prof Fauzi was also named as one of the Top Research Scientists in Malaysia (2012) by Academy of Sciences Malaysia. He is also the first Malaysian and ASEAN national who has also been appointed as the Editor of Desalination Journal, the international journal on the science and technology for desalination and water purification. He is also the co-founder of the ASEAN Membrane Science and Technology Society where one of the main functions is to stimulate R&D collaboration among ASEAN membrane scientists and technologists. The society has successfully organised a series of international conferences on membrane science and technology.

CONCLUDING REMARKS

Widely recognised for his contributions as a membrane scientist, technologist and inventor, Prof. Fauzi's professional expertise covers membrane processes, membrane materials development for gas separation and water and wastewater treatment, and carbon nanostructured materials for composite and energy applications. The enthusiasm and dedication Prof. Fauzi towards his research and innovation work have been well reflected by the various awards and recognitions (about 100) he has received at both national and international levels.

Prof Fauzi's extensive work in developing membrane technology has positioned Malaysia as one of the main membrane technology innovators in the world. This is especially important as membrane technology stands to play an essential role in helping Malaysia to develop and fully utilize the abundantly available natural resources. In this regard, Prof. Fauzi's wide ranging and innovative contributions in enhancing membrane performance have had significant impacts and embodied the *Spirit of Merdeka*.

**Outstanding Contribution
to the People of Malaysia**

Awarded to a citizen of any nationality and/or foreign
organisation to honour substantial contribution to
Malaysia or to the lives of Malaysians.



DATO SRI GATHORNE, EARL OF CRANBROOK



PROFILE

A chartered biologist with a keen interest in environmental studies, zoology and a long standing voluntary commitment to environmental issues and museums, Dato Sri Gathorne - Earl of Cranbrook, was born in June 1933. He obtained his BA in Natural and Moral Sciences from Corpus Christi College, Cambridge in 1956 and, subsequently, a PhD from the University of Birmingham in 1960. As one of the early conservationists to have worked in Malaysia, Dato Sri Cranbrook is a specialist in the biology and management of cave swiftlets, the biology of living mammals and zooarcheology of the Malaysian region. He has contributed immensely to raising awareness of conservation issues in Malaysia and his wide body of work has added to our understanding of the ecology and biology of Malaysian mammals and birds.





In 1958, Dato Sri Cranbrook introduced systematic sorting, conserving and identification of animal remains excavated during the Sarawak Museum's active archaeological campaign at the Niah caves in Sarawak. This work radically changed perceptions of regional zoogeography. His field and museum research on mammals resulted in the publication of two widely used references: *Mammals of Borneo* and *The Wild Mammals of Malaya/Peninsular Malaysia and Offshore Islands Including Singapore*.

In the late 1960s, Dato Sri Cranbrook, in his capacity as a lecturer at University of Malaya, introduced students to

the richness of the tropical forest by emphasising the values of biodiversity and the dangers of environmental exploitation. He obtained funding (from the Nuffield Foundation) for the Ulu Gombak Field Studies Center where teaching and research continues today. He says: "In 1964, I obtained external funds sufficient to pay in full for the construction of the Field Studies Centre, Ulu Gombak, at no cost to the University, formally opened in 1965. The FSC has since been refurbished on my original layout and is still in regular use. The Year 2015 will mark the 50th anniversary of this world famous research center, well used by Malaysians and international scientists. I look on

this lasting resource for the University with great satisfaction." The Field Studies Centre, situated on 120-hectares of secondary and primary forest, is a veritable fountain of biological & ecological knowledge, with the area's fauna and flora extensively studied and documented throughout the site's 40-year history. A favourite research centre for foreign researchers conducting biological and ecological studies, the site is also popular with geology students and, under the leadership of the present University staff member in charge, remains an excellent training ground for students to experience their first fieldwork practice. The centre is also open to school children who want



Farnham Marshes, Jan 2014

to experience the wonders of nature firsthand.

In the late 1970s, Dato Sri Cranbrook co-authored the first (environmental) management plan for the Mulu National Park. The site is valuable for baseline studies of ecosystem processes in the humid tropics. In addition, the combination of alluvial, sandstone, and limestone ecosystems is unique in Southeast Asia and provides

opportunities to understand long-term ecosystem dynamics, landscape ecology and the impacts of visitors on tropical protected areas. A second management plan was compiled by the Sarawak Forest Department in 1992 and a third management plan is currently being prepared.

From 1989 to 1990 Dato Sri Cranbrook was appointed leader of the International Tropical Timber Organisation (ITTO)



At Gombak, first child, 1968



At Niah Cave, 1958



Portrait, 1978

Mission. The subsequent report presented in 1991 (in Bali) became a major policy setting document in Sarawak State Forestry Management. Sarawak Forestry is currently working towards the goals set out in the policy setting document stipulating that 10% of the State be designated as a Totally Protected Area.

In 1994 Dato Sri Cranbrook, supervised a talented University Malaya graduate student, who undertook research into the biology and sustainable management of the cave dwelling edible nest swiftlets. Their joint publication, *Swiftlets of Borneo: Builders of Edible Nests* was the only source book for advice to swiftlet cave managers and has since become a manual for the industry. Swiftlet nests are an important constituent of traditional Chinese medicine and, since the 16th

century, their harvest and trade have thrived in the Borneo area. Over the last decade, illegal harvesting of bird nests, indiscriminately destroying eggs and nestlings, caused a drastic decline in the swiftlet population and even led to local extinction. Moreover, recent large scale forest clearing in the area and conversion of pristine forest vegetation into oil palm monoculture have altered the integrity of the ecosystem, reducing the quantity and variety of aerial insect food sources for the swiftlets. The conservation of swiftlets is crucial as many local owners of cave rights depend on swiftlet nests as a source of income. The publication provided a proper conservation guideline which could also benefit local people.

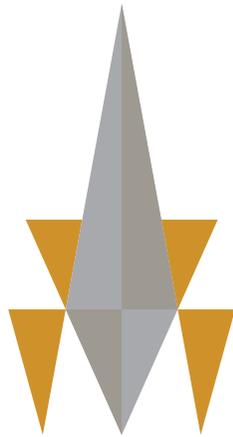
CONCLUDING REMARKS

Since 2000, Dato Sri Cranbrook has resumed productive cooperative research into Malaysian zooarcheology and paleo-environments and, also, the biology of edible nest swiftlets while simultaneously pursuing his own interest in the history and literature of Sarawak. He has been the Honorary Curator of the Mammals, Sarawak Museum, since 1960. He is also currently the external adviser to Yayasan Ulin, a charitable foundation for the promotion of conservation in unprotected habitats in Kalimantan, founded by the oil palm plantation company, REA Kaltim. Dato Sri Cranbrook has authored (or co-authored) books on the mammals, the birds, the tropical rainforest, and

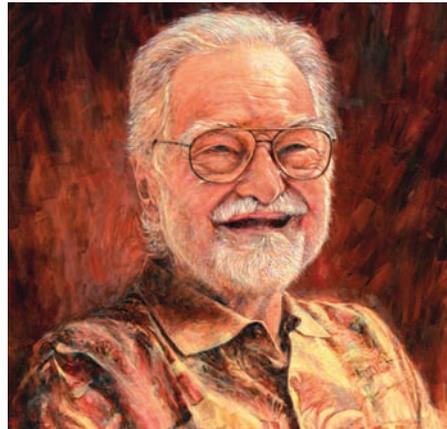
wonders of the natural world of the South-East Asian region as well as many scientific papers on these and related topics. He was awarded the Royal Geographical Society's Founder's Gold Medal in 1995.

Today, Dato Sri Cranbrook, continues to be a frequent visitor to Sarawak and Southeast Asia. His extensive body of work has created an enduring legacy. From his initial documentation and quantification of remains on site and his first publication in 1958, his work has dovetailed the discipline of zoology with that of archaeology through innovative research and analysis. His work remains a benchmark in zooarcheology in the region. In this regard, his wide-ranging work in environmental conservation, and his foresight and passion embodies the *Spirit of Merdeka*.

Merdeka Award Past Recipients



MERDEKA
AWARD
2008



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*



ENVIRONMENT

Malaysian Nature Society (MNS)

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



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*



HEALTH, SCIENCE AND TECHNOLOGY

**Professor Emeritus
Dato' Dr Khalid Kadir**

(Joint Recipient)

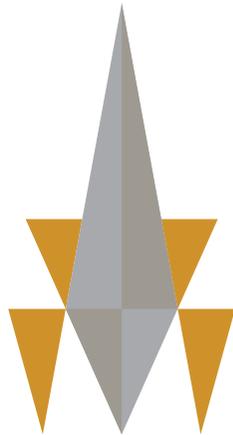
*For outstanding contribution to the study and
understanding of diabetes and the relationship
between hormones and stresses in various
tissues*



**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
plantations in Malaysia, leading to the rapid
development of the palm oil industry.*



MERDEKA
AWARD
2009



EDUCATION AND COMMUNITY

Tun Fatimah Hashim

(Joint Recipient)

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



EDUCATION AND COMMUNITY

Dato' Lim Phaik Gan

(Joint Recipient)

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



HEALTH, SCIENCE AND TECHNOLOGY

Professor Dr Halimatun Hamdan

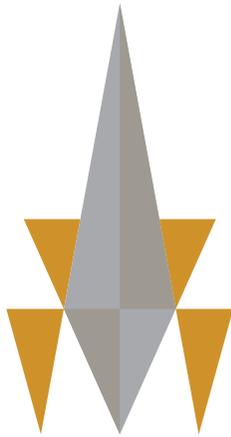
For outstanding contribution in the development and application of Maerogel as a commercially viable multi-purpose material



**OUTSTANDING SCHOLASTIC
ACHIEVEMENT**

Dato' Seri Ir Dr Zaini Ujang

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



MERDEKA
AWARD
2010



EDUCATION AND COMMUNITY
Datin Paduka Mother A Mangalam
A/P S Iyaswamy Iyer

For outstanding contribution in promoting the welfare of the underprivileged and for fostering national unity



OUTSTANDING SCHOLASTIC
ACHIEVEMENT
Professor Emeritus Dr Yong Hoi Sen

(Joint Recipient)

For outstanding contribution to the development of basic and applied knowledge of Genetics, Molecular Biology, Biological Systematics, Evolutionary Biology and Biological Diversity of Malaysian flora and fauna



OUTSTANDING SCHOLASTIC
ACHIEVEMENT

Professor Dr Harith Ahmad
(Joint Recipient)

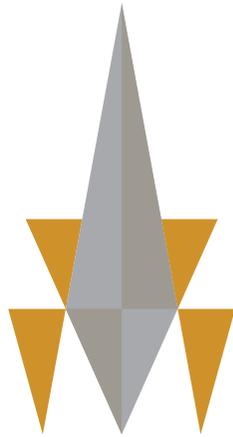
For outstanding contribution in research and promoting the development of photonics in Malaysia



OUTSTANDING CONTRIBUTION
TO THE PEOPLE OF MALAYSIA

Tan Sri Just Faaland

For outstanding contribution to the advocacy of equitable growth through eradication of poverty and reduction of socio-economic polarisation



MERDEKA
AWARD
2011



ENVIRONMENT
Dato' Dr Kenneth Yeang

For outstanding contribution to the development of design methods for the ecological design and planning of the built environment



**OUTSTANDING SCHOLASTIC
ACHIEVEMENT**

**Professor Dato'
Dr Goh Khean Lee**

(Joint Recipient)

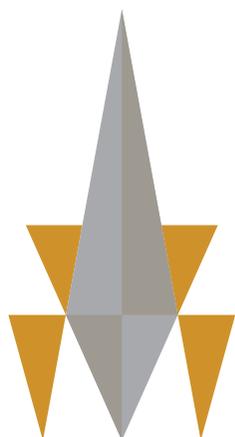
For outstanding contribution in elevating the study and practice of gastroenterology and hepatology in Malaysia to global standards



**OUTSTANDING SCHOLASTIC
ACHIEVEMENT**

Professor Dr Mak Joon Wah
(Joint Recipient)

For outstanding fundamental and applied research in parasitology and parasitic diseases, public health and pathology

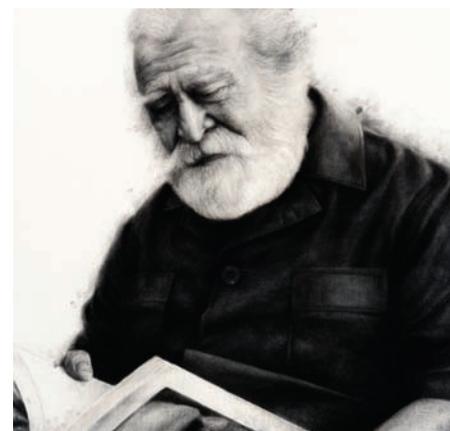


MERDEKA
AWARD
2012



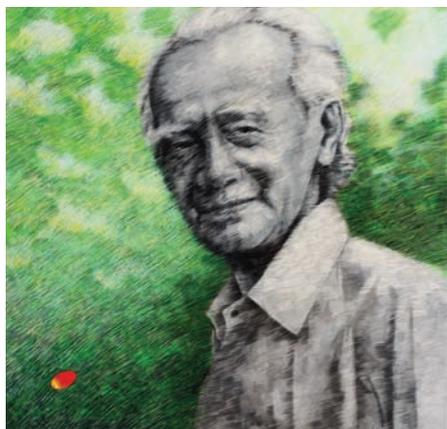
HEALTH, SCIENCE AND TECHNOLOGY
Academician Tan Sri Emeritus
Professor Datuk Dr
Augustine Ong Soon Hock

For outstanding contribution to the research and development of the chemistry and technology of palm oil and for his significant role in advocating and promoting the Malaysian palm oil industry to the world



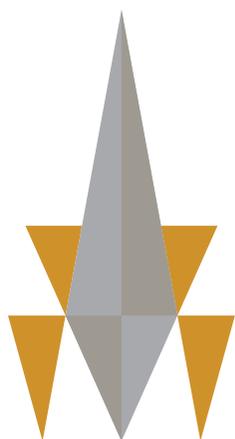
OUTSTANDING SCHOLASTIC
ACHIEVEMENT
Tan Sri Professor
Dr Syed Muhammad Naquib al-Attas

For outstanding contribution to the scholarly research in the area of Islamisation of contemporary knowledge and of Muslim education



OUTSTANDING CONTRIBUTION
TO THE PEOPLE OF MALAYSIA
Dr Engkik Soepadmo

For outstanding contribution to the research and conservation of Malaysia's forest plant diversity



MERDEKA
AWARD
2013



EDUCATION AND COMMUNITY

Tan Sri Dato' Seri Utama Arshad Ayub
(Joint Recipient)

For outstanding contribution in shaping Malaysia's education landscape through the development of professional education, education reforms and innovation that have resulted in education becoming more accessible to Malaysians.



EDUCATION AND COMMUNITY

**Raja Tan Sri Dato' Seri Utama
Muhammad Alias Raja Muhammad Ali**
(Joint Recipient)

For outstanding contribution to rural development and rural reform through organising successful land settlement projects (FELDA) for the many landless, rural population in Malaysia.



ENVIRONMENT
Dr Lim Boo Liat

For outstanding contribution to the conservation of Malaysia's biological diversity through the study, understanding and control of vector-borne diseases and the relationship between diseases and the environment; and for advocating the protection of our natural heritage.



HEALTH, SCIENCE AND TECHNOLOGY
Tan Sri Dato' Dr Yahya Awang

For outstanding contribution to pioneering the development of clinical research and cardiac surgery in Malaysia and for his instrumental role in the establishment of the National Heart Institute (IHN).



**OUTSTANDING SCHOLASTIC
ACHIEVEMENT**

Emeritus Professor Dato' Dr Lam Sai Kit
For outstanding contribution to scholarly research and development in medical virology and emerging infectious diseases including dengue.

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*Merdeka Award
Secretariat*

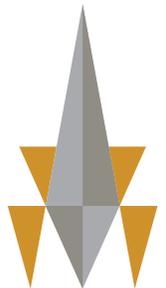


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AWARD

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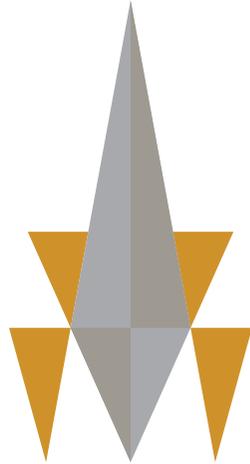
Outstanding Scholastic Achievement

Professor Dr Abdul Rahman Mohamed
Dr Charles M Wiener
Professor Dato' Dr Goh Khean Lee

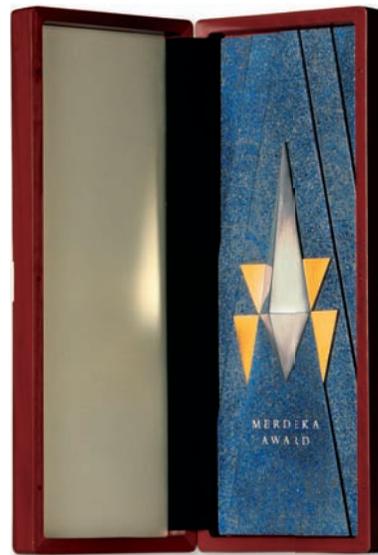
Outstanding Contribution to the People of Malaysia

Michelle Gyles-McDonnough
YAM Tunku Zain Al-'Abidin ibni Tuanku Muhriz
Dr Zakariah Abdul Rashid

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.



