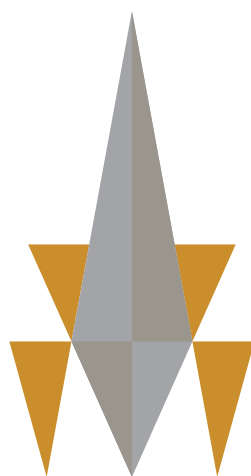




MERDEKA  
AWARD

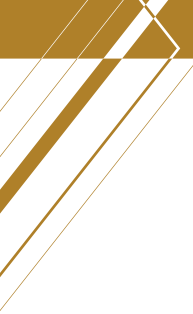
**Fostering a Culture of Excellence**  
**2018**



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

**ExxonMobil**





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**HIS ROYAL HIGHNESS  
SULTAN NAZRIN MUIZZUDDIN SHAH  
IBNI ALMARHUM SULTAN AZLAN MUHIBBUDDIN SHAH AL-MAGHFUR-LAH  
D.K., D.K.S.A., D.K.A., D.M.N., D.K.(Kelantan), D.K.(Selangor), D.K.N.S., D.K.(Perlis),  
D.K.(Kedah), Ph.D (Harvard)**

**THE SULTAN OF PERAK DARUL RIDZUAN  
ROYAL PATRON OF THE MERDEKA AWARD TRUST**



**Tan Sri Wan Zulkiflee Wan Ariffin**  
President & Group CEO, PETRONAS

As we progressed on this journey of nationhood, many individuals and organisations have played their part to give form and meaning to our independence, in their own unique ways.

Some have added immensely to the store of human understanding and scientific knowledge, some have pursued their passions and gave voice and expression to the Malaysian identity, some have led social causes that have uplifted the lives of many, and some have left lasting legacies that continue to deliver dividends to the society at large. These are ordinary people, who have gone above and beyond to perform extra-ordinary feats. And the Merdeka Award is a fitting salute to their achievements.



# ExxonMobil

## Edward E. Graham

President & Chairman  
ExxonMobil Exploration and Production  
Malaysia Inc

ExxonMobil has journeyed with Malaysia for 125 years through many phases of nationhood. We look back with a small measure of pride on our role and contributions to the country's amazing growth and transformation over the past six decades through our participation in the energy industry.

We hope the Merdeka Award can contribute to creating a new mindset among Malaysians by awakening potential talents to new possibilities. May it provide the inspiration that leads to greater creativity and purpose, transforming the way we see our own capabilities and enabling us to transcend the ordinary.

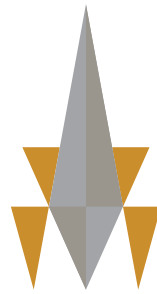


**Datuk Iain Lo**

Chairman, Shell Malaysia

As a partner in Malaysia's progress, Shell is committed to being an incubator for national innovation and competitiveness. We aspired to promote Merdeka Award as the platform of choice to showcase world class Malaysian talent and ingenuity, and we hoped that in turn, it would inspire the younger generation to strive for excellence in their chosen fields while contributing to nation building.

The energy sector plays a critical role in the economic growth of Malaysia, representing about 20% of its total gross domestic product. As oil and gas players, we stand in good stead to be a powerful force for good. Through continued investments and with a commitment to deliver shared value for society, we can uplift Malaysia's standing as a hub for talent, capabilities and resources in the region and for the world.



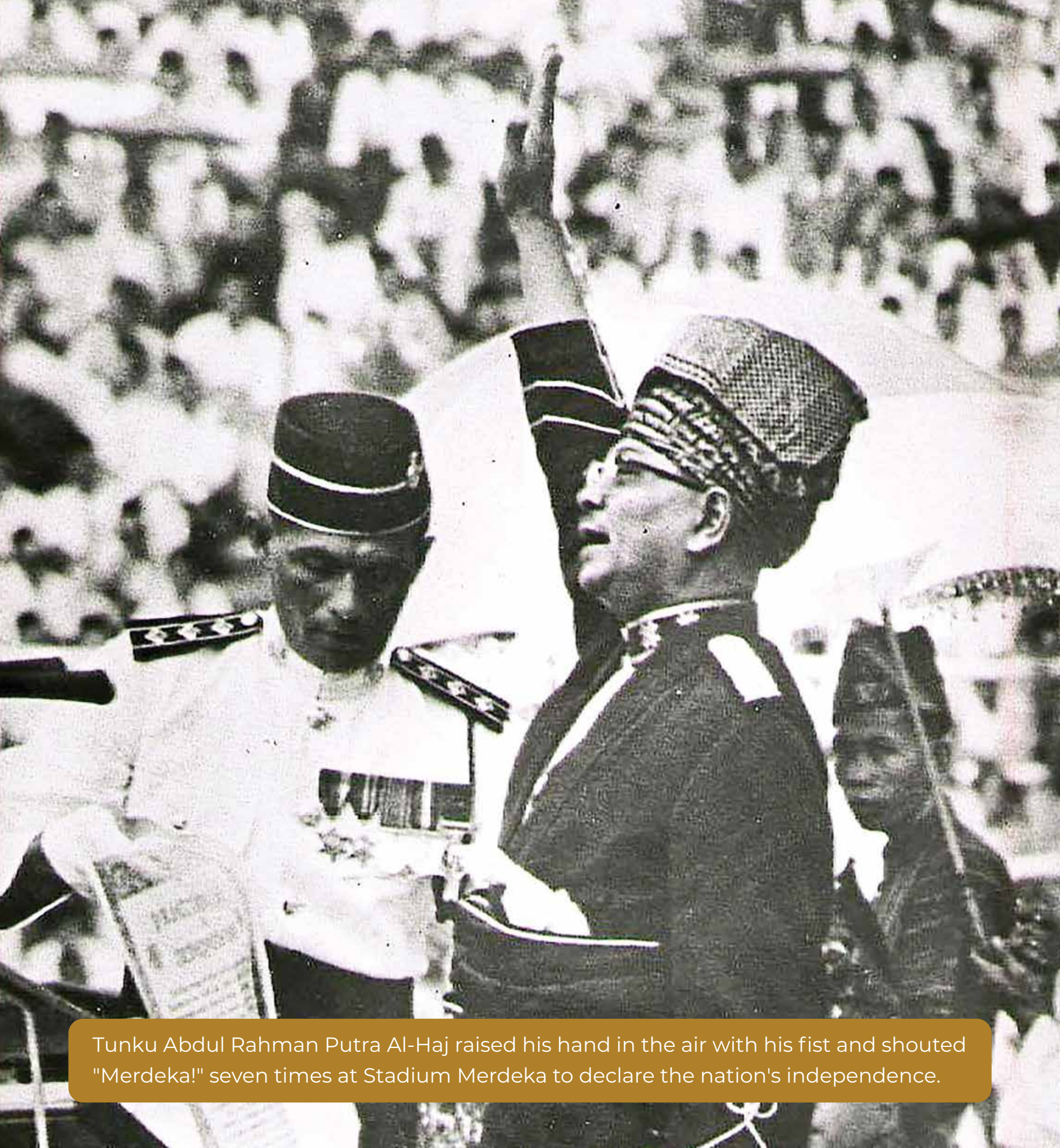
M E R D E K A  
A W A R D

## **Celebrating the Heroes Among Us**

The Merdeka Award is presented to honour individuals and organisations that have contributed in an exceptional way to the people of Malaysia.

This Award celebrates the human potential and its ability to achieve excellence by realising the highest goals with breakthrough ideas, and the perseverance to stay with the task to its fulfilment and achievements. It is this exceptional spirit that inspires people and organisation to produce consistently brilliant work over a period of time.

Merdeka Award Trust, now in its 11<sup>th</sup> year, will continue to foster a culture of excellence, promote thought leadership and innovation, encourage a world view, thereby enhancing Malaysia's standing as a dynamic, competitive 21<sup>st</sup> Century Global Player in all key sectors from science and technology to the arts.



Tunku Abdul Rahman Putra Al-Haj raised his hand in the air with his fist and shouted "Merdeka!" seven times at Stadium Merdeka to declare the nation's independence.





## Making Our Mark

The Merdeka Award is named in acknowledgement of the liberation of mind and spirit that enabled Malaysia to gain independence.

It is this sense of belief that anything is possible coupled by hard work and the perseverance to make a difference that leads to breakthroughs.

The Award recognises and rewards outstanding individuals and organisations; whose work have impacted the lives of Malaysians and beyond in their fields of science, technology, humanities and the arts.

## 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 representatives from the Founders - PETRONAS, ExxonMobil Malaysia and Shell Malaysia 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 Merdeka spirit.



# Award Categories

## 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 benefitting the marginalised.

## 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.

## 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.

## OUTSTANDING SCHOLASTIC ACHIEVEMENT

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

## 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.



## Recipients 2018



### EDUCATION AND COMMUNITY CATEGORY **HASSAN ABDUL MUTHALIB**

For outstanding contribution as the pioneer and earliest influence in the local animation world through his folktale-inspired works and his leadership role in developing educational framework on artistic importance of animation in the country.



### ENVIRONMENT CATEGORY **ENGR GURMIT SINGH K S**

For outstanding contribution through his activism, advocacy works and leadership role in the promotion of sustainable environment and combatting climate change in Malaysia.



### HEALTH, SCIENCE AND TECHNOLOGY CATEGORY **DATO' PROFESSOR DR GAN EE KIANG** (Joint Recipient)

For outstanding contribution in his pioneering work in developing a successful exemplary commercial model for R&D for Malaysia's universities, and through his extensive work and leadership role in the fields of clinical pharmacology, pharmaceutical sciences and drug-related research in the country.

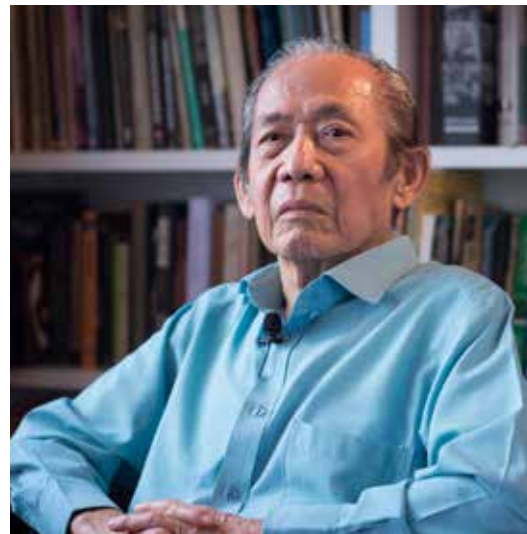


**HEALTH, SCIENCE AND  
TECHNOLOGY CATEGORY**

**PROFESSOR DR MOHD  
HAIR BEJO**

(Joint Recipient)

For outstanding contribution and instrumental role in advancing efforts towards sustainable food production through the development and commercialisation of chicken disease vaccines in treating Gumboro disease that benefits poultry industry in Malaysia and internationally.



**OUTSTANDING SCHOLASTIC  
ACHIEVEMENT CATEGORY**

**EMERITUS PROFESSOR  
TAN SRI DATUK DR KHOO  
KAY KIM**

(Joint Recipient)

For outstanding contribution to the scholarly research, development of reinterpretation of Malaysian history and lifetime dedication in the history education in the country that has shaped the post-independence study of history in modern Malaysia.



**OUTSTANDING SCHOLASTIC  
ACHIEVEMENT CATEGORY**

**DISTINGUISHED  
PROFESSOR DR RAJAH  
RASIAH**

(Joint Recipient)

For outstanding contribution in his scholarly research and development of theoretical macroeconomic framework in the promotion of sustainable development, by pioneering the conceptualisation, measurement and application of innovation theory and the framing of innovation policy for developing countries.



**OUTSTANDING  
CONTRIBUTION TO THE  
PEOPLE OF MALAYSIA  
CATEGORY**

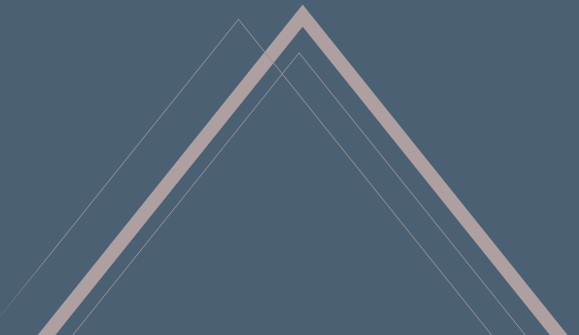
**ANDREW JAMES EAVIS**

For outstanding contribution in his pioneering works in the areas of geomorphology and cave survey through the Mulu Cave Projects with Royal Geographical Society Expedition, and the discovery of the Sarawak Chamber, leading to extended research on rainforest habitats and ecosystem, and establishing international collaborations for scientific and nature expeditions.



## **EDUCATION AND COMMUNITY CATEGORY**

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 benefitting the marginalised.



**HASSAN ABDUL MUTHALIB**  
EDUCATION AND COMMUNITY



*Part of duty at ROBINSONS KL, 1965*

## **HASSAN ABDUL MUTHALIB**

For outstanding contribution as the pioneer and earliest influence in the local animation world through his folktale-inspired works and his leadership role in developing educational framework on artistic importance of animation in the country.

Widely regarded as the Father of Malaysian Animation, Hassan Abdul Muthalib is also a self-taught artist, graphic designer, photographer, animator, writer, director, and sometimes actor, who has been actively involved in the film industry for more than 53 years. Throughout his career, Hassan has been involved in numerous films including four feature films, two TV dramas, one music video, one documentary, and numerous short films as an actor. He is also an advisor and mentor to lecturers, film and animation agencies, filmmakers, as well as film and animation students.

## Life

Hassan Abdul Muthalib was born in 1945 in Kedah. He secured his first job in 1964 in Kuala Lumpur as an assistant artist and assistant window display man at Robinsons, the first department store in Malaysia. "When I arrived in KL, I was wearing a shirt given by my neighbour, carrying a tattered bag with shoes split in the middle, and RM50 cash given by an Indian woman who had kindly pawned her earrings for me." The job involved making commercial art, interior store decorations, and displaying sales goods in the store's huge front door display area. "I learnt a lot on the job and through self-study from books that I borrowed from libraries," he said.



*Sketching at Tin Mine KL, 1966*

This gradually became a turning point for Hassan as his passion for visual arts grew. In 1968 he left to join Film Negara as a Graphic Artist where he said his experience working on signage at Robinson proved useful in coming up with documentary film titles, and producing the graphics for the first *Bakat TV* programme.

In 1972, Hassan was given the opportunity to write the scripts and animate festival trailers for television. "This was when the animation bug bit me!" he exclaimed. "It was trial and error. I borrowed animation films, looked at them with a magnifying glass and copied the effects for use in the trailers." The trailers Hassan worked on as public service advertisements became a hit due to the humorous approach he applied.

A few years later, he started a Film and Photography Section under the studio's *Kelab Sukan* (Recreational Club), where he directed Malaysia's first short film *Harimau Putih Lawan Harimau Gelap* (White Tiger Versus Dark Tiger), a parody of kung fu films he had been watching at the time.

In 1978, Hassan started doing work as an animator making commercials for cinema and television. At the same time, he also designed Bank Bumiputera savings coinbox, the South East Asian Games mascot, among other projects.



*Preparing xmas art, ROBINSONS KL, 1967*

*Sketching at Jln Mesjid India, 1968*



Working his way up the career ladder, Hassan progressed to writing and directing live action public service advertisements in 1981 with his first film winning the Best Idea Award from *Anugerah Sri Angkasa*. That was when he became interested in directing and in 1983, Hassan created the popular *Sang Kancil* animation series and Aesop's Fables stories on the request of then Minister of Information. Hassan's first documentary in 1987, *Hasil Dari Rotan* (The Cane), won a jury award for Best Documentary at the Asia-Pacific Film Fest in Jakarta.

In 1995, he co-wrote, supervised the visual effects, and directed Malaysia's first animated feature film, *Silat Legenda* (Legendary Silat Warriors). "I am most proud of this film as it encapsulates my thoughts and feelings about storytelling through entertainment, to convey something about our people, country, and culture. It is important to know our history, traditions and moral values, while at the same time encourage a sense of adventure, show concern for the environment and strengthen our spiritual values. These 'old ways' remain pertinent until today," he said

During this time, Hassan got to impart his experience and trained his team to understand the language of film. Some of them have since gone on to become respected professionals and lecturers in the industry.

Retirement did not stop Hassan, and for the next 15 years from 1999-2014, he spent his time lecturing part-time or guest lecturing at many well-known universities local and abroad, including major animation studios. In between, he was appointed as the director of an animation school and an animation consultant in Kota Bahru, Darul Digital, where he trained school leavers, giving them an introduction to filmmaking and animation.



*Fashion photography, 1970s*



*Animating at Filem Negara, 1970*



*Senior Designer at Filem Negara, 1980*



*Working on Sang Kancil storyboard, 1987*

## Work

Talking about his work, Hassan Muthalib said, “My work is my life! I cannot take a holiday and relax on the beach. I need to do something”. With his strong commitment and dedication, Hassan has risen through the ranks to become the earliest influence in the local animation world and his contributions have been acknowledged when he was honoured and recognised as an Animation Veteran and the Father of Malaysian Animation.

His *Sang Kancil* series shown over RTM in the 1980s have influenced generations of film-makers and artists. *Sang Kecil*, a funny and educational animation series running from four to six minutes, was well known for its moral lessons on honesty, diligence, tolerance and other values for young children, while his films and Public Service Announcements contributed to improving the understanding of specific health and safety issues.

Hassan directed Malaysia’s first animation film, *Silat Lagenda* which has since impacted the animation industry in the country. *Silat Lagenda* was honoured with a Special Award for First Animated Feature Film in Malaysia at the 1998 Malaysia Film Festival.



*Directing a documentary on traditional boat building, 1988*



*Best Documentary Award, Jakarta 1989*



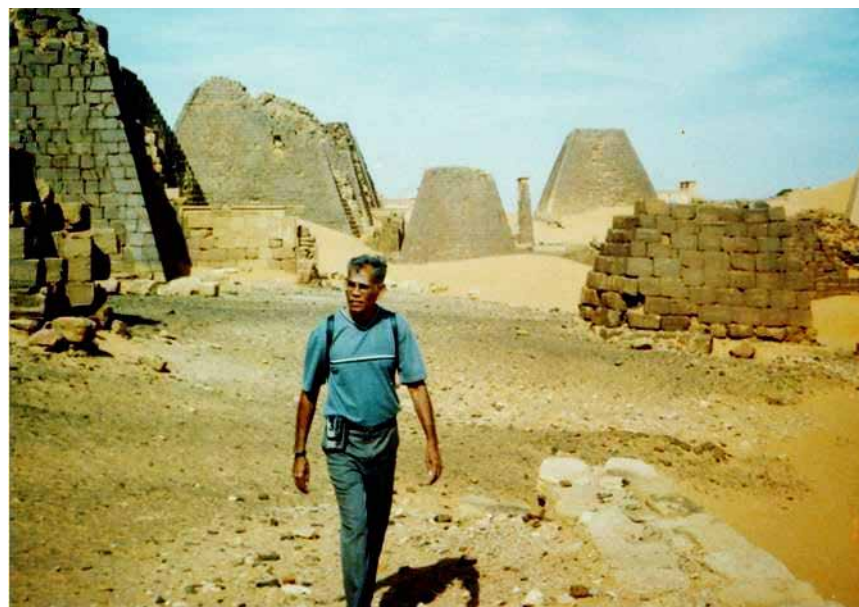
*Storyboard discussion on Silat lagenda, 1995*

For his pioneering achievement, Hassan was honoured with an Honorary Masters in Creative Technology by UiTM where he was the Artist-in-Residence in 2008.

In 2011 he was acknowledged as an Animation Pioneer by Singapore’s Nanyang Technological University and subsequently was officially recognised as the Father of Malaysian Animation, a title conferred to him in 2012.

He has sat on many panels of local universities, colleges and polytechnics, developing curriculums and drawing from his own experiences as well as those from other film education practitioners, national agencies and industry-related organizations.

Over the years, Hassan had published two important books – the most recent was *From Mouse Deer to Mouse*, published in 2016 documenting 70 years of Malaysian animation history that was inspired by Malaysia's first animation series. The book is currently an academic reference on Malaysian animation, and was published by Akademi Seni Budaya dan Warisan Kebangsaan (ASWARA). The second book is *Malaysian Cinema in a Bottle* published in 2013, which is an analytical history of Malaysian cinema from 1897 to 2013.



*Documentary Workshop Sudan, 2003*



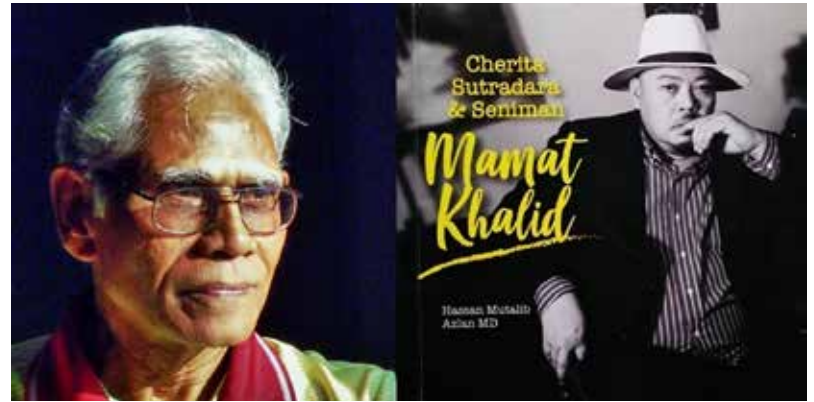
*Lecture at Volda University, Norway, 2009*

Hassan has written at least 84 academic articles and presented these in Malaysia and other overseas countries, including Bali, Bandung, Berlin, Hong Kong, Jogjakarta, London, Singapore and Tokyo. He has also successfully published his papers in major international book publications, film magazines, and academic journals.

From 2000 to today, Hassan is a researcher on early Malaysian cinema, a creative writer, actor, author, and film critic. Currently, he is also a jury member for film and animation festivals in Malaysia and several overseas countries. He is currently working on the history of Filem Negara Malaysia with plans to write on Visual Storytelling for Film and Animation.



Film Forum at FINAS 2014



Book on Mamat Khalid, 2018

## Personal Philosophy

“Perjuangan belum selesai’ (The struggle is not yet over), but no matter what happens, there is always light at the end of the tunnel.”



Astro V Buzz ,19 feb 2016

## Message for young Malaysians

“Connect with your inner self. This comes from a lot of reading, understanding the philosophy behind great films, conversing with highly intelligent people, and traveling. This will open your eyes. Once you find that inner self it will be reflected in your work.”



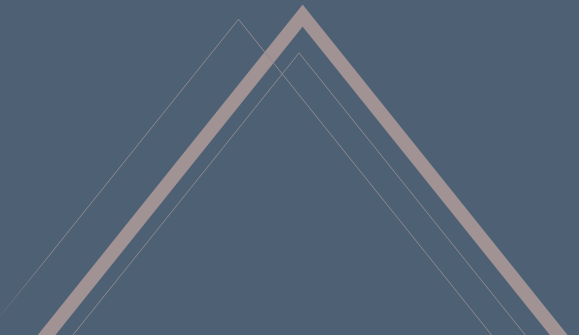
Netpac Jury Macao Int Film Fest 2017

23 MERDEKA AWARD 2018



## **ENVIRONMENT CATEGORY**

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



**ENGR GURMIT SINGH K S**  
**ENVIRONMENT**





## **ENGR GURMIT SINGH K S**

**For outstanding contribution through his activism, advocacy works and leadership role in the promotion of sustainable environment and combatting climate change in Malaysia.**

Gurmit Singh, 75, Chairman of the Board of Directors of the Centre for Environment, Technology and Development Malaysia (CETDEM), has been an active supporter of sustainable living in Malaysia as well as an advocate for environmental conservation and rehabilitation. For more than 40 years, Gurmit has been reaching out to Malaysians and reminding them of the need to work together to keep the environment clean for future generations. Gurmit's efforts have earned him recognition and accolades including the Langkawi Award 1993 for championing environmental issues, the Outstanding Sustainability Contribution Award 2009 from the Institution of Surveyors, Malaysia, the UN Malaysia Award 2013 and the Green Catalysts Award 2015 by Green Technology Corporation Malaysia.



RMAF

## Life

Gurmit Singh K.S. was born during the Japanese occupation of Malaya on 3 November 1942 in George Town, Penang. Despite being born during the world war, he recalled his early childhood as unremarkable, save for a brief episode in which he was sent back to his father's hometown in Punjab, India, when he was three years old. "My stay in India did not last long, and due to economic and social difficulties I returned to Malaya in 1948".

Back in Penang, he was briefly enrolled in the privately-run Lutheran English School for Standard One before transferring to the Anglo-Chinese School (ACS) where he would continue his primary education up till Form One.

Gurmit proved to be a brilliant student, scoring at the top of his class each year and dedicating his spare time to reading books he enjoyed and exploring his neighbourhood. "As a child, I was a curious and adventurous boy, and had little difficulty making friends," he said. "While I was not into sports, but I enjoyed exploring my neighbourhood, especially after I acquired a used bicycle which quickly became the object of my attention," He said.



Siblings



In Japan



Expedition Conquest, 1962

In 1957, Gurmit moved on to secondary school, or rather, moved to a new building of his existing institution. ACS had erected a new building which was to be called the Methodist's Boys School (MBS). At MBS, Gurmit became quite involved in extra-curricular activities, serving as a school prefect and joining several student clubs. However, it was the Georgetown Senior Boy Scout Troop that piqued his interest the most.



*International Sustainable Development Conference, CIFOR headquarters, just outside Jakarta, 2003*

“With the guidance and encouragement from my scoutmaster, I spent a lot of time outdoors, going on hikes and accumulating badges and promotions within the troop.” Continuing he said, “The expeditions into the hills of Penang Island had given me an appreciation for nature which remains with me until today.”

Getting into university was a challenging time in Gurmit’s life. Despite being head prefect, sporting an impressive list of accomplishments as scout leader, and above average academic results, he was unable to secure any scholarships or student loans. “I saved up money from temporary teaching jobs at MBS and after a brief six-month stint with the Royal Malaysian Air Force, I finally took up an offer to study engineering at University of Malaya in 1965 at the age of 23,” he said.

Although he struggled academically, Gurmit may have found his true calling as a future activist when he was elected to the council of the University of Malaya Students Union. As an active participant in university affairs, the union allowed Gurmit to hone his leadership skills and develop an interest in championing for the rights of others.



*Attending the Steering Committee Meeting of the Sustainable & Peaceful Energy Network, Asia (SPENA) in Tokyo, 2000*

One thing led to another and Gurmit found himself elected as deputy president of the National Union of Malaysian Students – a role that broadened his worldview as he was able to travel to other countries.

“I graduated from the University of Malaya after five years of study. Ultimately, it was my student activism that kept me going despite many setbacks, including repeating a year due to poor examination results,” he said. Several months after getting his degree, Gurmit was offered a job with the Rubber Research Institute of Malaysia (RRIM) where his life would change forever.



## Work

Gurmit worked for the Rubber Research Institute of Malaysia for five years as an electrical assistant works engineer, during which time he was able to meet and share ideas with other researchers who specialised in different scientific disciplines.

During his spare time, Gurmit involved himself with various social organisations. His association with other progressive-minded individuals prompted Gurmit to take a greater interest in academic freedom, human rights and most significantly, environmental affairs. Sharing his experience he said, “although trained as an Electrical Engineer, I moved into social issues and environment in the 1970s where I became the President of the Selangor Graduates Society, and the Founder President of the Environmental Protection Society, Malaysia (EPSM) in 1974.”



*Being presented the Green Catalyst Award by Raja Muda Selangor, 2015*

Gurmit recalled when the members of the Graduate Society got wind of a new proposal by the government – the Environmental Quality Act – he and his peers felt emboldened to create their own organisation, which they did in the form of the EPSM. Gurmit took an active role in getting the organisation off the ground as its founder-president and embarked on what would soon become his lifelong passion.

Gurmit helmed EPSM during its early, turbulent years and remained an active President for 20 years. Even though he officially left the organisation in 1994, he is still acknowledged by EPSM as an advisor.

Times were tough back in the 1970s as the government kept a close eye on organisations that showed any signs of political leanings. Nevertheless, with Gurmit as its head, the EPSM grew into one of Malaysia’s most vocal and visible environmental bodies, highlighting numerous environmental concerns through the media, discussions with government agencies, campaigns against polluters, surveys and studies, and environmental education and awareness via public talks and the society’s own publication, *Alam Sekitar* (Environment).

Throughout all of this time, Gurmit served as the EPSM’s public face and spokesperson, solidifying his new role as an environmental activist. The iconic image of him cycling through the streets of Kuala Lumpur while wearing a gas mask was captured in 1979, on World Environment Day (6 June) was a bold statement to highlight the air pollution problems in the city as well as the terrible traffic conditions.

Throughout the 1970s and 1980s, Gurmit strongly advocated for environmental reforms. While changing the mindset of Malaysians at a grassroots level remained one of his top priorities, he was keenly aware of the bigger picture of climate change and sustainable living. Gurmit founded the Centre for Environment, Technology and Development Malaysia (CETDEM) in 1985 as a complement to EPSM but one targeting businesses, government agencies and citizen groups.

Among its most notable projects was the 1986 CETDEM Organic Farming project to encourage more ecologically sound agricultural practices in Malaysia and to reduce the country's excessive use of chemical pesticides and fertilisers.

Talking about his experiences, Gurmit said, "In my work, I have frequently faced apathy and sometimes hostility from various levels of officials, businesses and even individuals – even now when propagating concepts of sustainability." However he added with perseverance, challenging resistance, and sharing positive experiences from elsewhere he was able to overcome them.



*IUAPPA at Bristol, UK 1999*

Between the years 1986 and 2009, Gurmit was also an active member of the Environmental Quality Council, Malaysia. In the 1990s, his activist spirit did not diminish as he was appointed coordinator of the Malaysian Climate Change Group (MCCG) which was jointly formed in 1992 by EPSM, CETDEM and the Malaysian Nature Society. He also served as the Regional Coordinator of the Climate Action Network Southeast Asia (CANSEA), which he played a key role in forming in 1992. Gurmit recalls the formation of CANSEA and its continued survival over 26 years, despite changes of coordinators and NGOs, as one of his proudest achievements.

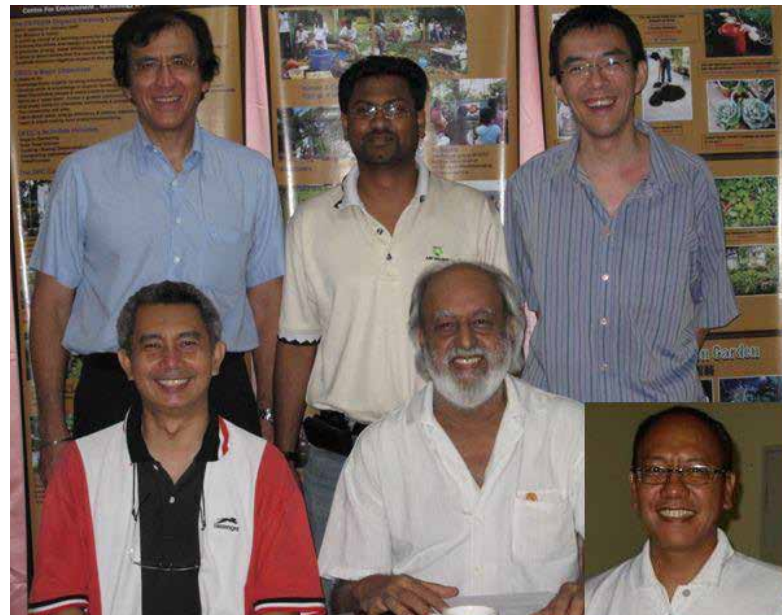
In the 2000s, he has been a member of several UNDP Malaysia Project Steering Committees including the Malaysian Industrial Energy Efficiency Improvement Project (2000-2007) and the Second National Communication project to the United Nations Framework Convention on Climate Change (UNFCCC) which took place from 2007-2010.

Looking back over his career, Gurmit recalls some of his best memories include “seeing energy conservation and renewable energy taking root in the country; having the Tembeling Dam cancelled; having Environmental Impact Assessments implemented more regularly; the success of CETDEM’s organic farming initiative; and the operation of an energy efficient and cool terrace house in SS2, Petaling Jaya.”

Although he is already 75 years old, Gurmit Singh has yet to retire from his cause for Mother Nature. He still sits on the Board of Directors for CETDEM as Chairman and serves in several other advisory roles. “Issues on the impact of climate change, water stresses, land management, unsustainable management of all resources, and inadequate political commitment continue to be a region. At the individual level, we can play our part to reduce our ecological footprints by learning and understanding how it can be done”, he stresses.tz

## Message for young Malaysians

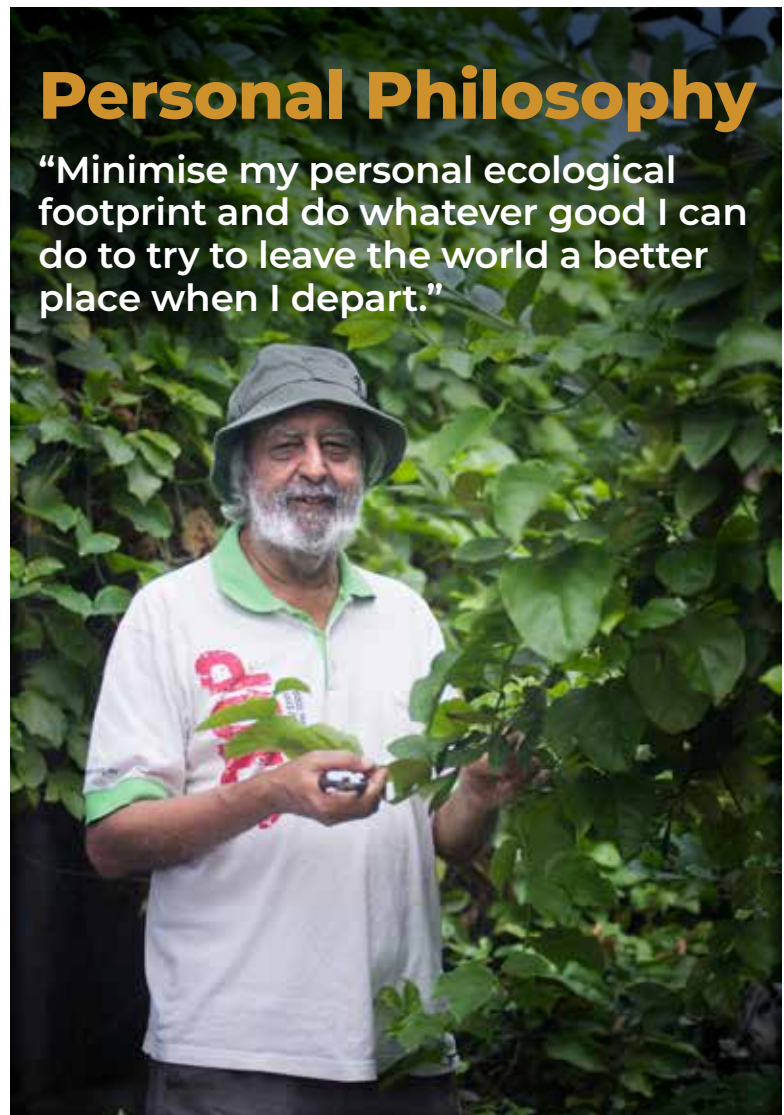
“Rise above selfishness and excel in your endeavours for the betterment of the nation”.



*The Board of Directors of CETDEM*

## Personal Philosophy

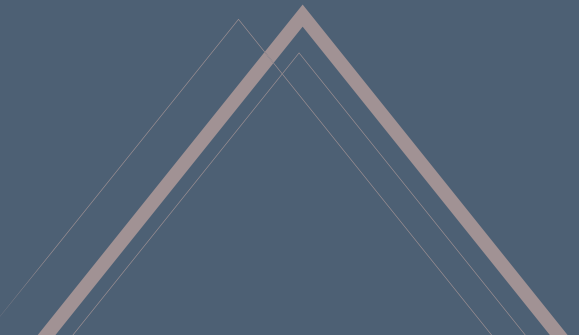
“Minimise my personal ecological footprint and do whatever good I can do to try to leave the world a better place when I depart.”





## **HEALTH, SCIENCE AND TECHNOLOGY CATEGORY**

Awarded to individuals and/or organisations to honour contribution for the public good in the field of health, science or technology in research, healthcare support or the discovery and innovative application of technology.



**PROFESSOR DR MOHD HAIR BEJO**  
HEALTH, SCIENCE & TECHNOLOGY  
(Joint Recipient)





## **PROFESSOR DR MOHD HAIR BEJO**

**For outstanding contribution and instrumental role in advancing efforts towards sustainable food production, safety and security in the country through the development and commercialisation of chicken disease vaccines in the prevention and control of Gumboro disease that benefits poultry industry in Malaysia and internationally.**

Professor Dr Mohd Hair Bejo, 58, is one of the world's leading experts in the fields of veterinary and avian pathology, as well as animal biotechnology and vaccinology. In a career that has spanned more than 26 years, he has contributed significantly to the scientific community especially with regards to avian vaccination. Dr Hair-Bejo was the first researcher in the country to diagnose Infectious Bursal Disease (IBD) (also known as Gumboro disease) virus and Fowl Adenovirus (FAdV) or Inclusion Body Hepatitis (IBH) outbreaks in commercial chickens in 1991 and 2005 respectively, which led to the development of vaccine MyVAC UPM93 and MyHatch IBD. Through his research, Dr Hair-Bejo has contributed to the development and improvement of sustainable poultry farming in Malaysia, and transformed it into an exemplary model for the nation's livestock industry. Dr Hair-Bejo currently serves as the Dean of the Faculty of Veterinary Medicine, Universiti Putra Malaysia (UPM).



*With family - Recipient of Fellow Academy of Sciences Malaysia*

“There was an incident during the early days of my practice as a pathologist. We called it Infectious Bursal Disease or Gumboro disease – it was the first one in Malaysia,” recalled Dr Hair-Bejo. The chickens affected by Gumboro disease suffered from a high mortality rate due to a severely reduced immune system. The success of the project and its enormous implications for Malaysia’s economy, moved Dr Hair-Bejo to narrow his focus to avian pathology which he did so by undergoing post-doctoral training at the University of Georgia, Athens, in the United States in 1993.

“I really appreciate the fact that I was given the opportunity [to work on this Gumboro project]. I did my best and Alhamdulillah, you can see the effects today,” said Dr Hair-Bejo proudly.

## Life

Professor Dr Mohd Hair Bejo was born on 1 May 1960 in Muar, Johor. From a young age, he was already inspired to take up the mantle of veterinarian. After earning his Doctor of Veterinary Medicine (DVM) from Universiti Putra Malaysia in 1985, he was offered the opportunity to further his education in this field at the University of Liverpool, England. In 1990, he obtained his PhD in Veterinary Pathology and the following year, was appointed as a lecturer of Veterinary Pathology at the Department of Veterinary Pathology and Microbiology at UPM’s Faculty of Veterinary Medicine.

During his early years as an academician, Dr Hair-Bejo played a key role in strengthening the nation’s poultry industry. He was the first researcher to diagnose the first case of Infectious Bursal Disease (IBD) or Gumboro disease outbreak in Malaysia.



*Fellow Academy of Sciences Malaysia*



*High School Batu Pahat, Johor old boys with their beloved teachers in 2012*

Dr Hair-Bejo's passion to pursue graduate studies in veterinary pathology was due to his interest in addressing the root causes of diseases in animals. "I was already working as veterinarian in animal clinic before I persuaded my postgraduate degree," he recalled. "I did practice medicine and surgery to companion animals especially dogs, cats and pet animals. The incident with the Gumboro disease outbreak further strengthened my resolve to put my knowledge and skills to good use for the benefit of the country."



*With Sekolah Kebangsaan Parit Latiff Muar Johor students for Academic Excellence Awards Ceremony*



*With Sekolah Kebangsaan Parit Latiff Muar Johor student for Academic Excellence Award Ceremony*

Following his return to Malaysia after completing his PhD programme, Dr Hair-Bejo resumed teaching, research and professional services at UPM. In 1999, UPM decided that his talents deserved recognition and Dr Hair-Bejo was promoted to Associate Professor. In 2002, he was offered the position of Deputy Dean (Research and Post-graduate Studies) at the Faculty of Veterinary Medicine which allowed him a greater opportunity to supervise and lead research teams. In 2007, he was appointed as a full Professor of Universiti Putra Malaysia.

As a result of his in-depth knowledge of the subject and his many years of experience, Dr Hair-Bejo is now regarded as one of Malaysia's foremost experts in veterinary pathology. Under his supervision 46 PhD and 44 Masters was successfully graduated. He was awarded International Project Grant amounting USD2.6 million and national research grant up to RM5.4 million as Principal Investigator. Throughout his career, Dr Hair-Bejo has never wavered from his commitment to put his knowledge to use for the public good and is thankful the opportunities to do so.

## Work

From the day of his return to Malaysia after completing his doctoral studies, Dr Hair-Bejo has been working tirelessly to improve Malaysia's poultry farming industry. The diagnosis of the first IBD virus case in 1991 was merely the first of many accomplishments he achieved throughout his career.

In 2005, he was successfully developed and commercialised a safe and effective MyVAC UPM93 IBD vaccine. Dr Hair-Bejo and his team had been studying the virus for some time and conducting field trials in commercial broiler farms in Johor, Selangor and Perak. Under his supervision, Dr Hair-Bejo's team used laboratory and field studies to demonstrate that the vaccine was safe and effective in controlling the disease.



*Necropsy on chickens for diagnosis of disease.*

"We were very concerned about the impact of the disease. The poultry industry is one of the biggest in Malaysia, so if we could not control the disease, the effects on the industry would be catastrophic. Furthermore, at that time, there was no specific vaccine for this new strain of virus. Hence, we needed to come up with a very good strategies to control and prevent the spread of the virus," said Dr Hair-Bejo.



*Visit from Sekolah Kebangsaan Parit Latiff Muar Johor to the faculty.*



The successful result of Dr Hair-Bejo's works led to the Ministry of Agriculture and Agro-Based Industry officially adopting MyVAC UPM93 and MyHatch UPM93 IBD for commercialisation. The vaccines are currently available in Malaysia, Vietnam and Myanmar markets and in the process of registration in Indonesia, Egypt, India, Bangladesh, Philippines and Thailand, a testament to its effectiveness and economic significance. The poultry industry in Malaysia has also grown significantly at about 5.95% annually since the years 2000 - thanks to Dr Hair-Bejo's work.

In 2017, Dr Hair-Bejo's research was recognised internationally with the presentation of the WVPA-Merial Innovation in Vaccination Award by the World Veterinary Poultry Association (WVPA). "It meant a lot to me," commented Dr Hair-Bejo on his winning the award. "It was also very encouraging for my research team and other researchers as well because it was a form of recognition and appreciation for what we have accomplished."



*Anugerah Mengenang Jasa, Veterinary Association Malaysia 2017.*

We started out with ideas and then turned those ideas or invention into innovation. That award was particularly significant because it was an international recognition. To me, winning an award is simply another opportunity to grow, excel and contribute. It's more of a credit to one's hard work rather than something to strive for."

Not one to rest on his laurels, Dr Hair-Bejo is currently working on researching and developing new generation of vaccines that would further improve the health and quality of Malaysia's poultry and the society. In addition, he is also very keen on exploring the use of green technology and nanotechnology for the production of safer and healthier poultry.

He has encountered a major breakthrough in the use of cationic liposomes using nanotechnology to enhance vaccine delivery and in the application of anolytes (electrolytes) using green technology.



*The Golden Globe Tigers 2018 – Best Professor in Veterinary Medicine (Education Leadership).*

To date, he has at least seven research products in the process of commercialisation while at the same time, he is also actively involved in developing bacterial vaccines for Salmonellosis, Avian Pathogenic E. Coli Infection and Fowl Cholera. The use of these vaccines will minimise the use or abuse use of antibiotics in the poultry industry which definitely reduce the risk of antimicrobial resistance (AMR), an emerging global health treats.

An avid contributor to scientific literature, Dr Hair-Bejo has published 200 papers in refereed journals, five articles as chapters in books, 350 in proceedings, 210 in other forms of publications international and nationally. He has Scopus h-index 19 and 10 Intellectual Property including seven patents, one trade mark, one copyright and one trade secret. He has presented his work in conferences all over the world, in places as far away as the United Kingdom, USA, Japan and France, to regional summits in Singapore, Thailand and Indonesia. He is also a member of the peer review board for the Malaysian Journal of Microscopy, the Journal of Veterinary Malaysia, the Malaysian Journal of Animal Science and the Journal of Tropical Agricultural Science.



*With colleague from King Faisal University, Saudi Arabia (Alumni University of Liverpool) during World Veterinary Congress in Incheon South Korea*

“I enjoy what I do and I really appreciate what I can do as an academican. In life, there are so many challenges, but what is most important is how we respond and adapt to those challenges. Challenges are opportunities and we should strive to excel in every challenge in order to be more successful in our life.”



*With research partner from Amsterdam Netherlands*



*With colleagues, Alumni University of Georgia Athens, USA during industry meeting in Shanghai, China.*

## Personal Philosophy

**“To be excellent, we have to do our best. This is something that is very important. Usually, when we do our best, the outcome will also be the best. Think positive, look for opportunities not challenges, and then make sure we do our very best.”**

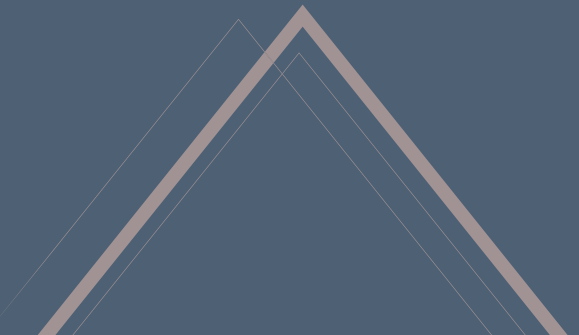
## Message for young Malaysians

**“When you begin to do research, the important thing is to look for what comes after, your contribution to society. No matter what sort of research you plan to do, look towards solving the problems of society.”**



## **HEALTH, SCIENCE AND TECHNOLOGY CATEGORY**

Awarded to individuals and/or organisations to honour contribution for the public good in the field of health, science or technology in research, healthcare support or the discovery and innovative application of technology.



**DATO' PROFESSOR DR  
GAN EE KIANG**  
HEALTH, SCIENCE AND  
TECHNOLOGY (Joint Category)





## **DATO' PROFESSOR DR GAN EE KIANG**

**For outstanding contribution in his pioneering work in developing a successful exemplary commercial model for R&D for Malaysia's universities, and through his extensive work and leadership role in the fields of clinical pharmacology, pharmaceutical sciences and drug-related research in the country.**

International Medical University (IMU)'s Chancellor Dato' Professor Dr Gan Ee Kiang is often regarded as one of the first pharmacologists in Malaysia. His passion and dedication to his craft earned him global honours which helped pave the way for the future of Pharmacology and Clinical Pharmaceuticals in the country. His accolades include the curating of syllabi for Universiti Sains Malaysia to establishing the Drug Research Centre in 1978, the National Poison Centre in 1994 and the National Doping Control Centre in 1996. He has been recognised on an international scale by the International Health Advisory Panel of The United States Pharmacopeia Convention and is also an advisor to the Malaysian Society of Pharmaceutical Trade and Manufacturers Association.

## Life

Dato' Professor Dr Gan Ee Kiang was born in Alma, a small town in Bukit Mertajam, Penang, on 23 June 1944. Driven by his passion for education, Dato' Dr Gan completed his secondary studies in Bukit Mertajam High School and moved to Australia in 1963 to further his studies. In Australia, he quickly enrolled in Coburg High School in Melbourne, where he completed his matriculation before pursuing Pharmacology in the University of Western Australia where he earned his Honours.



When asked about his life's accomplishments that he was most proud of, Dato' Dr Gan said "that would be completing my Doctorate in two and half years; advancing the School of Pharmaceutical Sciences (USM) to be the premier institution in the region, and launching and successfully managing the first commercial arm of the university, the USAINS Group of Companies".



Following his graduation, Dato' Dr Gan was awarded the National Health and Medical Research Council scholarship to pursue his PhD. During this period, Dato' Dr Gan had the opportunity to collaborate with his mentor, the late Emeritus Professor M. F. Lockett. "She was the first female professor in Australia and a world renowned Pharmacologist from the University of London who spent her entire life researching in pharmacology. She supervised my PhD and was a great source of inspiration," he said.

"The University of Western Australia has named a hall in remembrance of her. I was most honoured to have been invited to deliver a guest lecture at that hall." In 1972, Dato' Dr Gan achieved his PhD through his research on Intra-renal Secretion of Renin.

After establishing himself in the field of Pharmacology, Dato' Dr Gan decided to expand his horizons and found his path leading him to becoming an educator. He finally decided to return home to Penang, by accepting a job at Universiti Sains Malaysia, then known as Universiti Pulau Pinang. From there, he was involved for more than 40 years in the fields of pharmacology, pharmaceuticals and drug-related research. During his time he also managed to lead the university to be an innovative global centre of excellence in learning and research by supporting a community of scholars and professionals to create value through integrating education, health care and research. Widely recognised as a pioneer in the field of clinical pharmacology, Dato' Dr Gan is no stranger to overcoming monumental tasks and handling pressure – from establishing syllabi to becoming a member of the Health Advisory Panel by the United States Pharmacopeia Convention (USP).



*Student in Melbourne, 1963*

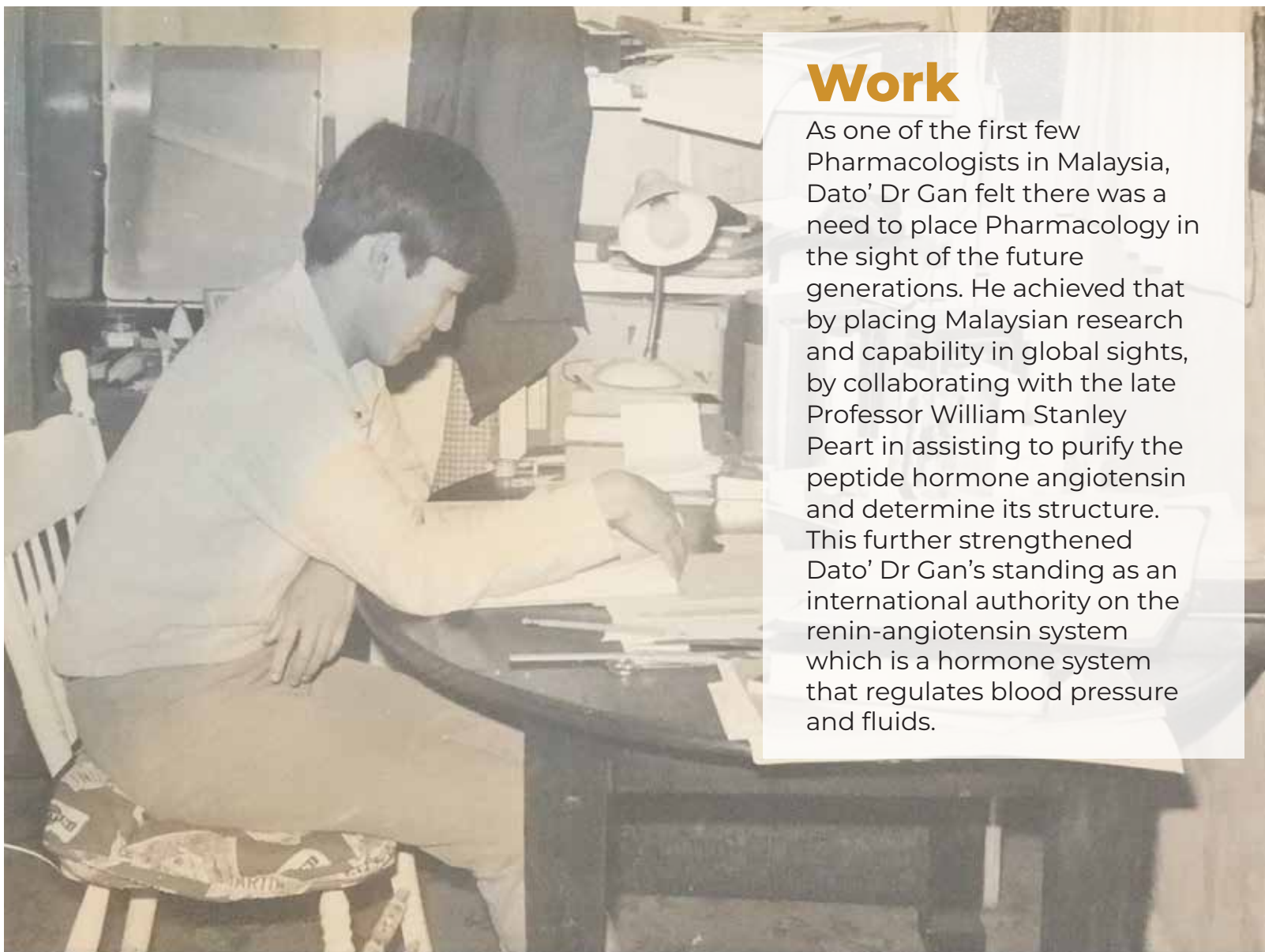


*As the Dean, School of Pharmaceutical Sciences USM, 1983*

Somewhere in the midst of all this, Dato' Dr Gan found love and married Lilian Yeoh Beng Guat and had two children, a daughter – Datin Michelle Gan, a double degree holder in Commerce and Law, and a son – Dr Michael Gan, who holds a Medical Degree and pursues corporate activities in Malaysia and the APAC region. Nowadays, Dato' Dr Gan spends most of his time playing golf, gardening, charity community work and most of all, cooking Italian and French cuisine for his family and closest friends.



*Chairman of Organising Committee Asia Pacific Regional Meeting of Pharmacologist, 1983*



## Work

As one of the first few Pharmacologists in Malaysia, Dato' Dr Gan felt there was a need to place Pharmacology in the sight of the future generations. He achieved that by placing Malaysian research and capability in global sights, by collaborating with the late Professor William Stanley Peart in assisting to purify the peptide hormone angiotensin and determine its structure. This further strengthened Dato' Dr Gan's standing as an international authority on the renin-angiotensin system which is a hormone system that regulates blood pressure and fluids.

His achievement was a milestone for USM's pharmacy education and established USM as a credible research centre. This then led to the establishment of the Clinical Pharmacy Programme which was emulated by other educational faculties across the region.

After establishing the Clinical Pharmacy Programme, Dato' Dr Gan took pharmaceutical education a step further by introducing the Masters in Clinical Pharmacy Programme and setting up the Bioequivalent Studies Laboratory which paved the way for today's national level clinical studies.

In 1978, when Dato' Dr Gan was Deputy Dean of the School of Pharmaceuticals in USM, he supported the establishment of the Drug Research centre – the first national drug centre designated to undertake research for developing policies and guidelines for drug abuse programmes in Malaysia.

After the centre was set up, it evolved and while working closely with the Cabinet Committee on Drug Abuse Control, the centre was eventually renamed the Centre for Drug Research (1985) and received international recognition by the World Health Organization, in the area of analytical methodology and clinical pharmacy in relation to drug development. This eventually led to the Centre for Drug Research being recognised by international bodies such as UN Narcotics Commission and the UN office on drugs just four years after the establishment.



*With family at the Installation of Chancellor, International Medical University, 2018*

Talking about the success of the drug education and research efforts that he pioneered, Dato' Dr Gan modestly said, "It was the outcome of a visionary group of academics who wanted to make an impact on the drug related challenges faced by the nation. As the Dean of the School of Pharmaceutical Sciences I proactively supported this programme as a noble venture." Continuing he said, "One of the biggest challenges was to build trust and cooperation with the agencies and victims. The success is the result of the joint efforts of persons from the university and from international organisations."



*With family, 2011*

Dato' Dr Gan later went on to establish the National Poison Centre (formerly IDPIS USM) in 1994 resulting in the expansion of services to drug and poison information, education and prevention to research, documentation and eventually toxicology. Two years later, he was approached yet again to set up the National Doping Control Centre in 1996 – now known as the Analytical Biochemistry Research Centre (ABrC) – which also assisted in testing athletes at the 1998 Commonwealth Games and 2017 Southeast Asian (SEA) Games in Kuala Lumpur.

Dato' Dr Gan was internationally recognised for his work in Malaysian pharmaceuticals when he was appointed as a member for the international Health Advisory Panel by the United States Pharmacopeia Convention (USP) from 1990 to 1995. He was the first and only Malaysian to be given this honour. He is also an advisor to the Malaysian Society of Pharmaceutical Trade and Manufacturers Association.

From 2000 to 2013, Dato' Dr Gan led the development of USAINS Group as the Founding Group Managing Director. USAINS became the first company in Malaysia to be set up by a public university with a sustainable commercial model. He was also responsible in directing USAINS into becoming a successful model for a private-public partnership in R&D industry offering research services and serving as a referral centre to reputable international agencies such as the International Atomic Energy Agency, World Health Organisation and the Rockefeller Foundation. USAINS was also the first university incubator to receive MSC status in 2002.

## Message to young Malaysians

**“Be focused and be committed.  
Be prepared to work hard and smart.  
Remember failures are often just  
stepping stones to ultimate success”.**



*With Prof James Watson discoverer of DNA*

## Personal Philosophy

**“Always Give Your Best Shot in  
Whatever You Do”.**

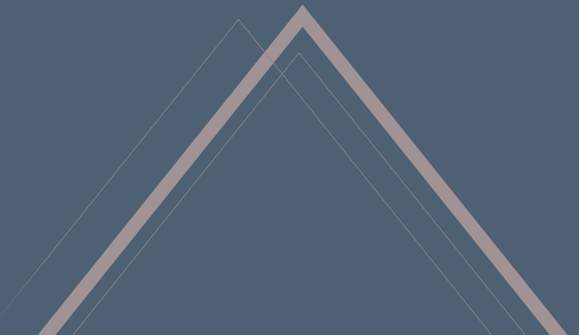
Dato' Dr Gan's passion comes from his innate nature to be curious and his love of development. He is a firm believer that the technology that is available will be able to propel Malaysia to greater heights. Throughout his career, he successfully licensed out around three patents and nine technologies owned by Universiti Sains Malaysia – all in the medical sector - to be produced and marketed by Malaysian Bio-Diagnostics Research Sdn Bhd.

Recollecting his experiences, Dato' Dr Gan said, “Initially it was exhilarating, but slowly the task of developing and advancing pharmacy education for the whole nation became a passion,” he said. “Now in the environment of Industrial Revolution 4.0, the government and the system have to encourage the younger generation to think out of the box, or even beyond the box,” he stressed adding, “There are no short cuts, though we can search for smart ways to address societal challenges, however determination, perseverance and staying focused are still the corner stone of success. The authorities must formulate programmes that provide wide exposure to our young scientists.”

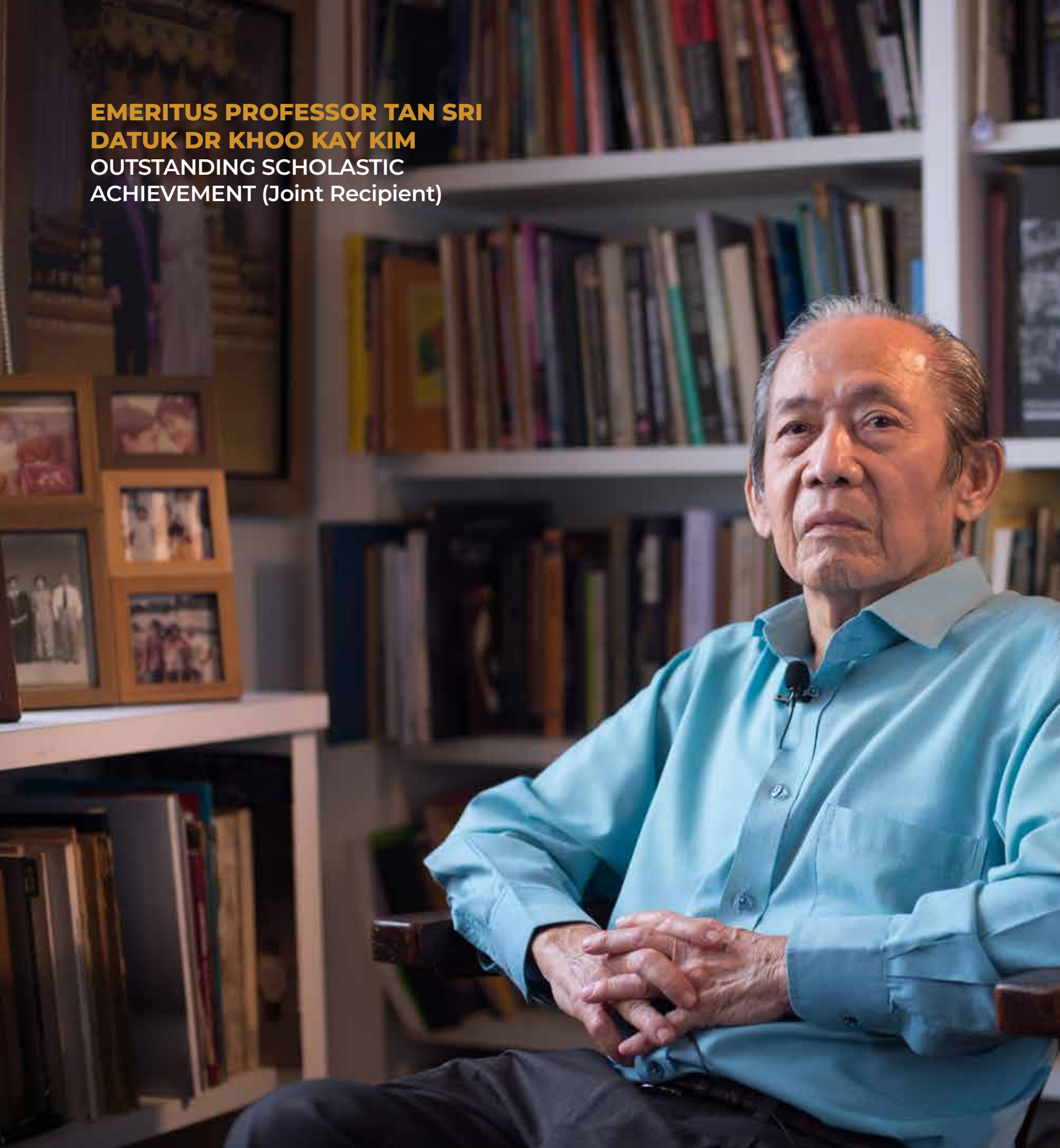


## **OUTSTANDING SCHOLASTIC ACHIEVEMENT**

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



**EMERITUS PROFESSOR TAN SRI  
DATUK DR KHOO KAY KIM**  
OUTSTANDING SCHOLASTIC  
ACHIEVEMENT (Joint Recipient)

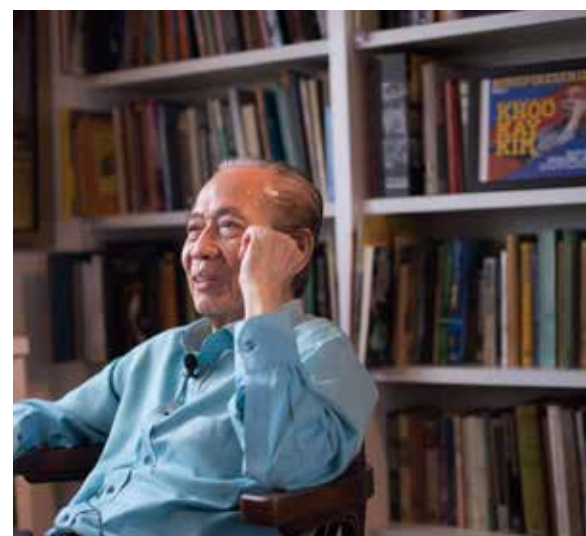




## **EMERITUS PROFESSOR TAN SRI DATUK DR KHOO KAY KIM**

**For outstanding contribution to the scholarly research, development of reinterpretation of Malaysian history and lifetime dedication towards history education in the country that has shaped the post-independence study of history in modern Malaysia.**

Historian Emeritus Professor Tan Sri Datuk Dr Khoo Kay Kim is widely regarded as the formative figure in the field of Malaysian history. Professor Khoo's illustrious career spans both academic and public life. He is the author of countless works in the English and Malay language and his writings have been a primary source of reference for the history curriculum in Malaysia. He was one of the instrumental figures in the formulation of the Rukun Negara (National Principles) to foster national cohesion following the aftermath of the 1969 riots.



## Life

Emeritus Professor Tan Sri Datuk Dr Khoo Kay Kim was born to Peranakan Chinese parents on 28th March 1937 in Kampar, Perak when the Sino-Japanese War broke out. He was raised in Teluk Intan and had his early education at the Methodist Anglo-Chinese School until primary six.

For him, sports was one of the best memories that he had growing up. "Sports gave me so many opportunities to learn about other towns and to learn about Hong Kong. It was my first overseas trip to play football in Hong Kong," claimed Professor Khoo. Sports provided him with an avenue to explore other ideas and knowledge. From inspiring him to adopt the values of sportsmanship to creating opportunities to learn about other towns and cultures, it was a lifetime experience where he appreciated and understood the meaning of education taught outside of the school's four walls.

Professor Khoo was initially not a keen university student, however when he pursued his undergraduate degree in University of Malaya, Singapore, in 1959, he was inspired by his History lecturers who encouraged him to do research and discover more about the country. In 1967, he obtained M.A (History) from the Faculty of Arts, University of Malaya in Kuala Lumpur, and in 1974, he became the first Malaysian to obtain a PhD for his thesis entitled *The Beginnings of Political Extremism in Malaya 1915-1935*.



*Intervarsity games, 1957*



*Baby photo, Batu gajah, 1937*

In 1967, Professor Khoo was appointed as a lecturer in University of Malaya after two years of tutorship. Subsequently, he gained his professorship and appointment as the Chair of Malaysian History from 1974 up to his retirement in 1992. During his tenure, he was appointed as Head of the History Department, and later Dean of the Faculty of Arts and Social Sciences from 1984-1986. He was the first lecturer outside of Malay Studies to conduct lectures in the national language. Professor Khoo served over 50 years in University of Malaya's history department, and throughout his career, he has taught many prominent leaders of the country.

Some of Professor Khoo's best memories throughout his career included the opportunity to exchange ideas with many national committees alongside Tun Ghazali and other top civil servants, who had graduated from the University of Cambridge and the University of Oxford.

Over the years, Professor Khoo has also been appointed on various national committees: the Pardons Board of Wilayah Persekutuan, chaired by the Yang di-Pertuan Agong (till today), Member of the National Advisory Council on Culture (1974-1976), Board Member of the Institute of Strategic International Studies (from 1984), Member of the National Human Rights Commission (SUHAKAM) (2004-2010), Member of the Malaysia-Indonesia Eminent Persons Group (2008), Member of the Malaysian Anti-Corruption Commission (MACC) (2009-2012), Board Member of the Integrity Institute of Malaysia (2004-2013), and the Board of Trustees for Merdeka Award (2007-2013).



*With family, 1970*



*Honours degree with sister and family.*



*Conferment of Masters in 1967.*

As a respected scholar of international repute, he was often invited as an External Examiner for Doctoral and Master's candidates, as well as a promotions evaluator for many well-known universities locally and internationally.

## Work

Professor Khoo was among the initiators in the formulation of the Rukun Negara (National Principles) to foster national cohesion following the aftermath of the 1969 riots. "The idea to form Rukun Negara was suggested by Tun Ghazali Shafie, as inspired by Indonesia's national philosophy, Pancasila," explained Professor Khoo. "When a panel comprising civil servants, corporate sector professionals and academicians were formed, Ghazali suggested a draft and recommended to the Majlis Gerakan Negara".



*Interschool debating team ipoh vs taiping*

He was also for many years, the President of the Malaysian Branch of the Royal Asiatic Society and served as the Editor-in-Chief of the prestigious Journal of the Malaysian Branch of the Royal Asiatic Society, published by the society. As a well-respected proponent of national sports, he had been actively involved in international sporting events. He was the founder of the University of Malaya Sports Centre and he was responsible for introducing the first sports science degree programme in the country.

At the national level, he served on the National Education Advisory Board and the Cluster School of Excellence Advisory Panel. From 1970-1997, he also served as the Head Examiner for the History Paper II, Sijil Tinggi Pelajaran Malaysia (STPM), appointed by the Malaysian Examinations Council. Under his leadership, he assisted the Government of Malaysia in creating a quality examination system for the subject. He has also written numerous books on history referenced by school pupils to this day.



*With S.R.Nathan, 2001*



*Phd by Tuanku Bahiyah, Chancellor of University of Malaya, 1994*



*Receiving Professor Emeritus from Sultan Azlan Shah.*

As a highly prolific scholar, Professor Khoo has authored 87 academic writings to date, and initiated various research on history focusing on Malaysia. His writings have been widely published by reputable academic journals locally and internationally, including: Malaysia in History, Jurnal Sejarah, Sejarah, JEBAT, Journal of the Malaysian Branch of the Royal Asiatic Society, Journal of Southeast Asian History, The Southeast Asia Review, and Journal of the New Zealand Asia Studies Association. His writings addressed various aspects of Malaysian history, from a Malaysian-centric approach, emphasising local viewpoints as the basis of historical interpretation and understanding.

Among his numerous published books are Transformasi & Demokrasi (1971); The Western Malay States: The Effects of Commercial Development on Malay Politics (1972); Pensejarahan Malaysia (1975); A History of Southeast Asia, South and East Asia: Essays and Documents (1977); Panji-panji Gemerlapan: Satu Pembicaraan Pensejarahan Melayu (1979); Taiping: Ibu Negeri Perak (1981); Teluk Anson (Teluk Intan): 100 Tahun (1982); Kenegaraan 25 Tahun: Satu Perspektif Sejarah (1983); Majalah dan Akhbar Melayu Sebagai Sumber Sejarah (1984); 100 Years of Kuala Lumpur as Local Authority (1990); His Majesty Sultan Azlan Shah (1991); Malay Society: Transformation and Democratization (1991); Pacific Bank: 75 Years of Service to the Community (1996); Thoughts on Malaysian Historiography (1996); Kuala Lumpur: The Formative Years (1996); The Commemoration of the 40th Anniversary of Federal Hotel, 1957-1997 (1997); and most recently; I, KKK - The Autobiography of a Historian (2017).



*Conferment of Tan Sri-ship, 2008*



*At launch of autobiography I KKK (2017)*



## Personal Philosophy

“Never be satisfied with what you are. Always try to improve and change for the better, not change for the sake of changing.”



In recognition of his outstanding service and contribution in scholarship, Professor Khoo was honoured as the “Emeritus Professor” by the University of Malaya in 2001. He has received a number of National accolades including the exclusive Fellowship of the Malaysian Historical Society (2012), The Brand Laureate Most Eminent Brand ICON Leadership Award 2013 by The Asia Pacific Brand Foundation (APBF) for his outstanding lifetime achievements. In 2017, he was given the distinction of *Tokoh Akademik Negara ke-10* in recognition of his immense achievements in the academic world.

At the age of 81, Professor Khoo does not consider himself as retired, as he continues to actively contribute to academic and public life in reorienting the study of history from a Eurocentric focus towards a greater appreciation for local histories. Since retiring, he is regularly invited as a guest lecturer, head of panels for academic forums and evaluation panel for history-related publications. “Education is not based on theories, it must be learnt by going out of the classroom. It is not about passing the exam, but it goes beyond that,” explained Professor Khoo as he desires to instil this thought in his students.

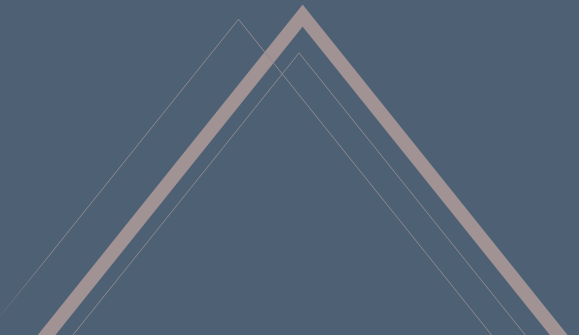
## Message to young Malaysians

“The child is the Father of the Man. Educate and groom the young person and he will grow up to be the right kind of adult. If you wait until he becomes an adult, it is too late.”



## **OUTSTANDING SCHOLASTIC ACHIEVEMENT**

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



**DISTINGUISHED PROFESSOR  
DR RAJAH RASIAH**

OUTSTANDING SCHOLASTIC  
ACHIEVEMENT (Joint Recipient)





## **DISTINGUISHED PROFESSOR DR RAJAH RASIAH**

**For outstanding contribution in his scholarly research and development of theoretical macroeconomic framework in the promotion of sustainable development, by pioneering the conceptualisation, measurement and application of innovation theory and the framing of innovation policy for developing countries.**

Professor Dr Rajah Rasiah is globally recognised as a pioneer in the field of innovation and development. In addition to reconceptualising technology and its measurement to reflect the reality of how innovation and spillovers occur, he pioneered the Systemic Quad model, which has revolutionised the role of strategic clustering in driving employment, wages, and sustainable development across the globe. In addition to be a key contributor in the preparation of industrial development reports of Malaysia, and several Southeast Asian economies, he has also contributed considerably to the preparation of international development reports for the World Bank, UNIDO, UNCTAD, UNDP, UNESCO, World Intellectual Property Organisation (WIPO) and the International Labour Organisation (ILO). He currently serves as a Distinguished Professor of International Development at the Asia-Europe Institute, University of Malaya.

## Life

Professor Dr Rajah lives by a simple philosophy - 'to never give up on an honest and noble pursuit'. He shares the same virtues as his parents, which is to always put their children first. Coming from a family of 13 siblings and being number 10 meant that his upbringing was not easy. "My parents lived a frugal life without any overabundance. My father worked three jobs a day, all related to driving, while my mother worked as a seamstress at the Hilir Perak District Hospital. Yet the size of the family meant that finances were constrained. That experience drove me to avoid debts, and ensure the current and future needs of my family always took priority."

His sense of perseverance and hard work was evident at a young age. During his high school years starting From Three till Form Five, Professor Dr Rajah represented his school in the inter-school history, geography and general knowledge quizzes. He was adjudged the best contestant in history and geography at the district level in 1974, and won the *Peraduan Syarahan Bahasa Malaysia Kelas Muhibbah* (Malay Language Public Speaking Competition) at the district level in 1975. He then studied at the Horley Methodist Primary and Secondary schools in Teluk Intan, before beginning his undergraduate degree at Universiti Sains Malaysia in 1978.

He enrolled at Cambridge University for his doctorate in economics in 1989. It is during his studies there that he began to work seriously on the economics of innovation following the works of Joseph Schumpeter, Albert Hirschman, and Nathan Rosenberg. Upon completion of his PhD in 1992, Professor Dr Rajah served at Universiti Kebangsaan Malaysia (UKM). "I enjoyed excellent collegial relationship with several honourable professors including the late Ishak Shari, the late Osman Rani Hassan and Anuwar Ali, who impressed me with their honest approach to scholarship," he said.



First year in USM with undergrad friends. Picture taken at Tan Sri Ubaidullah's home in Ampang, 1978

His academic thinking has also benefitted from exposure to prestigious universities as a fellow (and senior fellow), and when giving public lectures at Cambridge University, Oxford University, Harvard University, University of California (Berkeley), Emory, American University, Rutgers University, Columbia University, Zhejiang University, Jawaharlal University, Indian Institute of Management (Bangalore), Monash University, Melbourne University, Nagoya University, Keio University, University of Witwatersrand, University of Capetown, Seoul National University, Unicamp, University of Malaya, University of Philippines (Diliman), Chulalongkorn University, and Universitas Padjajaran.

Professor Dr Rajah also took on the advice of visionary Professor Dato Zawawi Ismail to be on secondment to the Faculty of Economics and Business at Universiti Malaysia Sarawak (UNIMAS) in 1999-2000. "As the Faculty Dean, I personally wrote to the chairmen of top universities to convince them to consider taking my young staff as postgraduate students, so that they would bring back the high standards that they were exposed to at those universities."

In addition to encouraging collaborative research and critical discourse among his colleagues, Professor Dr Rajah initiated and launched the International Journal of Business and Society, which won the Current Research in Malaysia (CREAM) Award for Excellence in 2017.

Among all his outstanding accomplishments, receiving the Celso Furtado Prize from the World Academy of Sciences in the field of social sciences was the proudest achievement for Professor Dr Rajah thus far. Announced in 2014 and conferred in 2015, the award recognises his work in advancing the frontiers of social science thought in the field of economics, and a vindication of his alternative views on technology, innovation and development. Another remarkable moment in his career was when he delivered the keynote speech at the launch of the Sustainable Development Programme at Cambridge University in 2016.

Professor Dr Rajah has been called a passionate lecturer and supervisor by the students who have appreciated his contribution to their academic development. Many of his former students have since moved on to high places, holding leadership positions in prominent organisations.

During his spare time, he enjoys taking a break from his research and publishing work to tend to his family garden.



*Standard 4, Horley Methodist Primary School.*



*As a tutor in USM, 1982*



*PhD graduation in Cambridge, 1992*



*Jesus College Cambridge, 1992*



*Jesus College Cambridge, 1992*



*Punting with my wife on River Cambridge, 1991*

## Work

Professor Dr Rajah's illustrious career includes many notable affiliations with renowned international bodies. He was appointed by the United Nations Industrial Development Organization as a principal author of the 2009 World Industrial Report. He was also entrusted to use his Systemic Quad model to capture the role of strategic clustering in driving employment, wages, and sustainable development in Argentina (automotive), Brazil (paper and pulp), Chile (salmon), Nigeria (computers and components), China (buttons), Cambodia (clothing), India (leather), Indonesia (automotive), Laos (agro-processing) and Malaysia (electronics).

Furthermore, Professor Dr Rajah takes pride in being hired by government departments in Malaysia, Cambodia, Indonesia, Laos, Myanmar, Timor-Leste, and Vietnam to advise or write economic development and industrial plans.

Reflecting on his work and interest in the promotion of sustainable development in economics, Professor Dr Rajah said, "My ambition to become a scholar started with my curiosity over conflicting claims made by different school of thoughts in economics. In the end, I settled to focus on the role of technology and innovation in economic development."

It was this time that he started to study various firms to understand the nuts and bolts of technology of products produced that he began to realise that something was amiss from leading methodologies used to measure technology, technical change, and technical spillover.

He added that his research work gravitated to address issues around sustainability whereby his studies expanded to focus on innovation synergies directed at sustainable development.

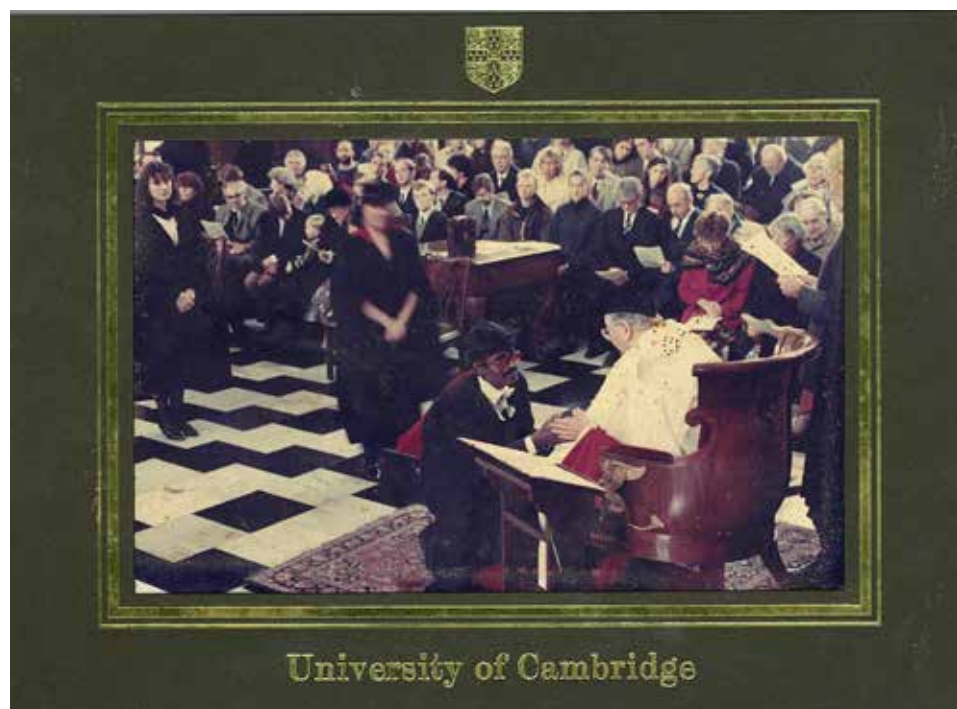
"It was really my inquisitive mind that began questioning prevailing accounts of knowledge, technology, measurement, spillover, and their promotional prescriptions," he said.

“My initial focus was only on how knowledge and technology revolve, and how they spill over from one socioeconomic agent to another, and the systemic implications of it,” he said. He added that his critical mind was very much shaped at Universiti Sains Malaysia by his main mentors, Kamal Salih, Chandra Muzaffar, Johan Saravanamuttu, Khoo Khay Jin and Wan Zawawi Ibrahim.

Explaining he said “My empirical understanding of how the dynamic clusters evolved from scratch to eventually become developed, for example, the Hsinchu Science and Industrial Park, Silicon Valley, Route 128, and Nagoya resulted in me developing the Systemic Quad for governments to focus on four strategic pillars.”



*With foreign guests, 2000*



*Receiving doctorate from Cambridge University Chancellor, 1992*



*Daughter's 5th birthday, 2000*

Professor Dr Rajah testifies that it had been a challenge to get the established journals to accept his work on technology, innovation and spillovers, which were dominated by mainstream economists.

He overcame this challenge by looking into different avenues and publishing his work in non-mainstream journals led by economists who recognise the real world. Although economics has remained a divided field, he is confident that the evolution of grounded theories would soon become the mainstream to displace the 'old mainstream' so that obsolete conjectures are rejected with new knowledge.

Meanwhile, Professor Dr Rajah's work on the conceptualisation of public goods and public utilities was used in the assessment of concentration and competitiveness of the Malaysian economy in 2011 for Malaysia's Economic Planning Unit and the World Bank.

This has led him to formulate several policy reports for the promotion of technological upgrading and industrial development in Malaysia. Subsequently, he also became part of the advisory team for policy matters for the Ministry of Trade and Industry (MITI) in 2015.

He has also been a major contributor in the preparation of international development reports relating to industrial and science, technology and innovation policies in the developing world for the World Bank, UNIDO, UNCTAD, United Nations Development Programme (UNDP), UNESCO, World Intellectual Property Organisation (WIPO) and International Labour Organisation (ILO). Professor Dr Rajah was appointed as the principal researcher or leader of these projects.

Professor Dr Rajah currently serves as a Distinguished Professor of Economics at the Asia-Europe Institute, University of Malaya. He is the author of 23 books and 240 book chapters and international journal articles. He is in the process of editing two books, both of which are expected to be published by the end of 2018. The first book will be published by University of Malaya Press and is titled *Driving Development: Revisiting the Role of Razak in Malaysia's Economic Progress* (co-written with Kamal Salih). The second book – co-edited with Kamal Salih and Cheong Kee Cheok – is scheduled to be published in 2019 and is titled *Malaysia's Leap into the Future: The Building Blocks*.



## Personal Philosophy

“Never give up on an honest and noble pursuit.”



*Raising a question at a Malaysian Government Forum, 2007*



*Wife and daughter at UM Chancellory, 2017*

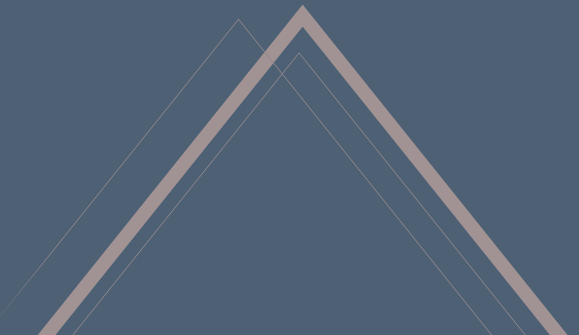
## Message to young Malaysians

“Honesty, diligence, and perseverance are the key ingredients to achieve one’s noble goals. It is a good habit to plan ahead when strategising and drawing up the goals, and success in the long term is generally achieved through hard work and honesty.”

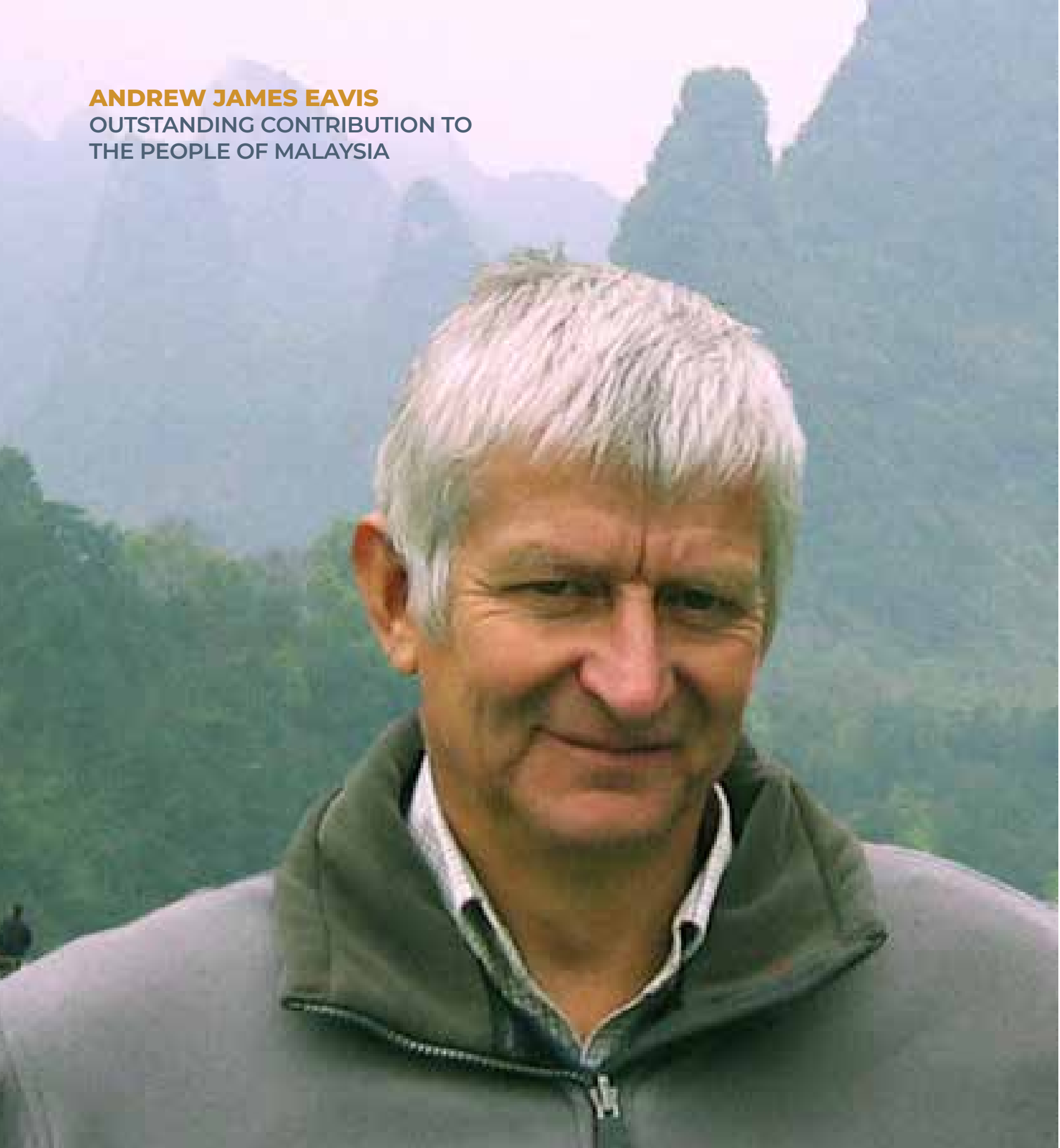


## **OUTSTANDING CONTRIBUTION TO THE PEOPLE OF MALAYSIA**

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



**ANDREW JAMES EAVIS**  
OUTSTANDING CONTRIBUTION TO  
THE PEOPLE OF MALAYSIA





## ANDREW JAMES EAVIS

For outstanding contribution in his pioneering works in the areas of geomorphology and cave survey through the Mulu Cave Projects with the Royal Geographical Society Expedition and the discovery of the Sarawak Chamber, leading to extended research on rainforest habitats and ecosystem, and establishing international collaborations for scientific and nature expeditions.

Andrew James Eavis or fondly referred to as Andy, used to imagine himself as an explorer in his early days and was always keen on deep cave explorations. This childhood desire and interest in cave exploration eventually led him to become an explorer of the underground in real life – his expeditions have discovered more territory on earth than anyone else alive. He is well known for his discovery of the Sarawak Chamber, the largest known cave chamber in the world by area.

## Life

Andrew was born on 6 January 1948 in Alton, Hampshire, England. He obtained his Bachelor of Science in Engineering (Hons) at the University of Leicester, England and Bachelor of Science in Mining (Hons) at the University of Leeds, England in 1971 and 1973 respectively.

From his humble beginnings as a farmer to becoming one of the most accomplished cave explorers in the world, Andrew lives a life envied by many. He was brought up on a farm in the South West of England and worked the farm together with his family.



After the demise of his parents in his early teen years, he left to pursue his studies in General Engineering at the University of Leicester. During his time there, he discovered his passion for cave explorations and the love of his life, Lilian Olds. Andrew went on to marry Lilian and six years later in 1978, the couple had the first of their three children. Lilian Olds played a huge part in Andrew's life as her understanding of his passion and her unwavering love enabled Andrew to juggle his cave exploration activities, his career and education.

In 1973, Andrew was offered a position with the National Coal Board which allowed him to do a second degree in the University of Leeds. It was an easy decision for him who did not have to think twice about accepting the offer. On top of being a top-class varsity, the University of Leeds was also renowned for its caving club, which was something he had always wanted to be part of.

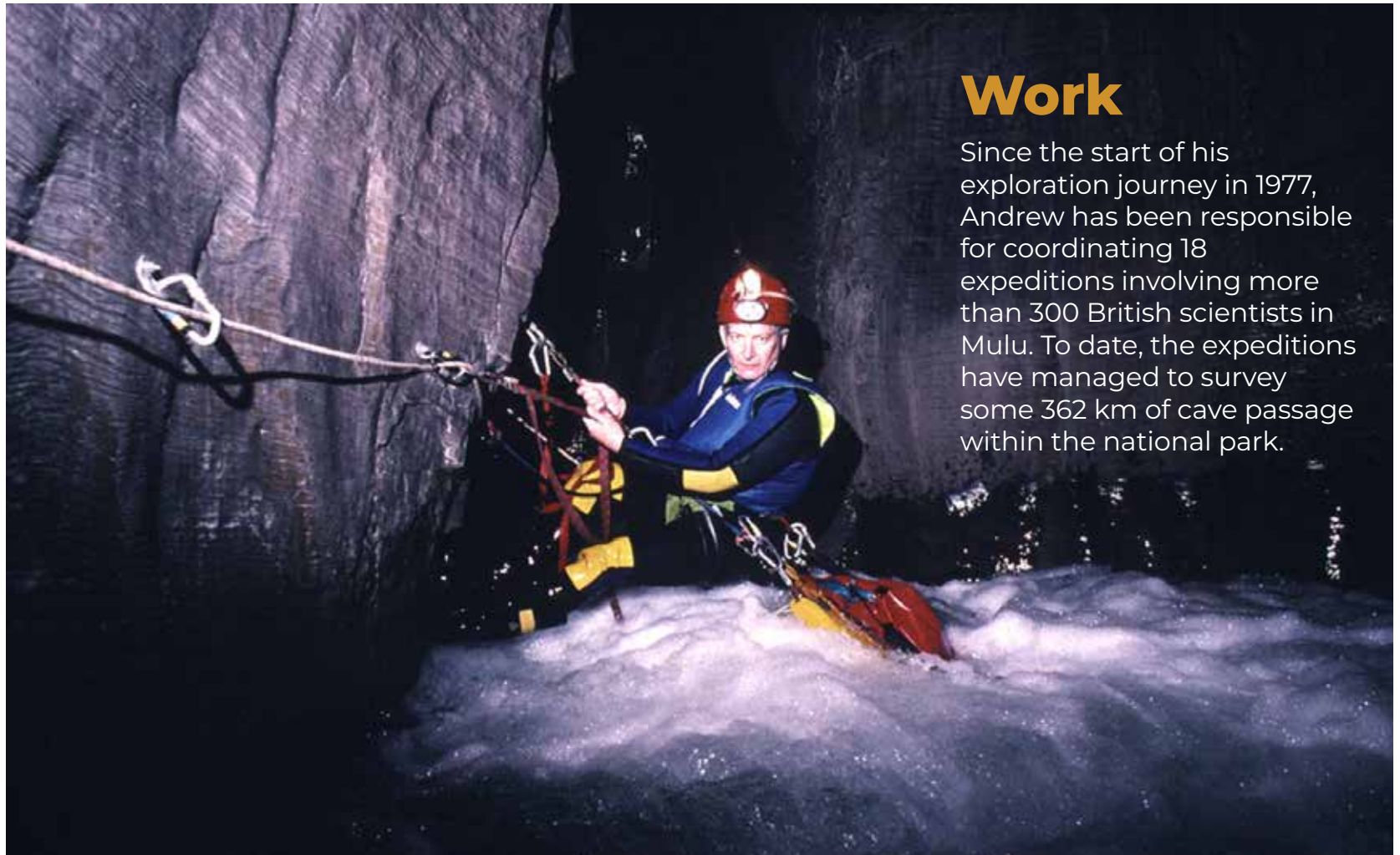
At the age of 26, Andrew organised his first expedition to Papua New Guinea where he was noticed by the Royal Geographical Society. He was invited to join in an expedition to an area of rainforest in Mulu, Sarawak. The spring of 1978 saw Andrew join six other speleologists in one of the largest scientific expeditions to survey and explore over 50 kilometres of the cave passages at the Gunung Mulu National Park.

The expedition marked the beginning of a prolific partnership between him and Sarawak as the partnership played a pivotal role in initiating the Mulu Caves Project. Andrew has been fundamental in the Mulu Caves Project as he managed to help organise and coordinated a series of Anglo-Malaysian expedition for over thirty years.

Today, Andrew is one of the leading speleologists in the world and he has devoted over forty years of his life to the fields of geomorphology, hydrology and cave science in the discoveries and mapping of details of Mulu caves at Mulu National Park. He is also widely known as the pioneer cave explorer who discovered the Sarawak Chamber, the largest known cave chamber in the world by area and the second largest by volume in 1981.

Apart from his expeditions, Andrew was also quite successful with his business venture in the plastic moulding field. Capitalising on the booming caravan spare parts market in 1978, Andrew, together with his two friends, founded and successfully ran a plastic moulding company which was later sold off in 2008.

Finding leisure time in between his heavy schedule is often difficult but when it is time to relax and unwind, Andrew enjoys going out for long drives as he is able to relax behind the wheel and just breathe in some fresh air.



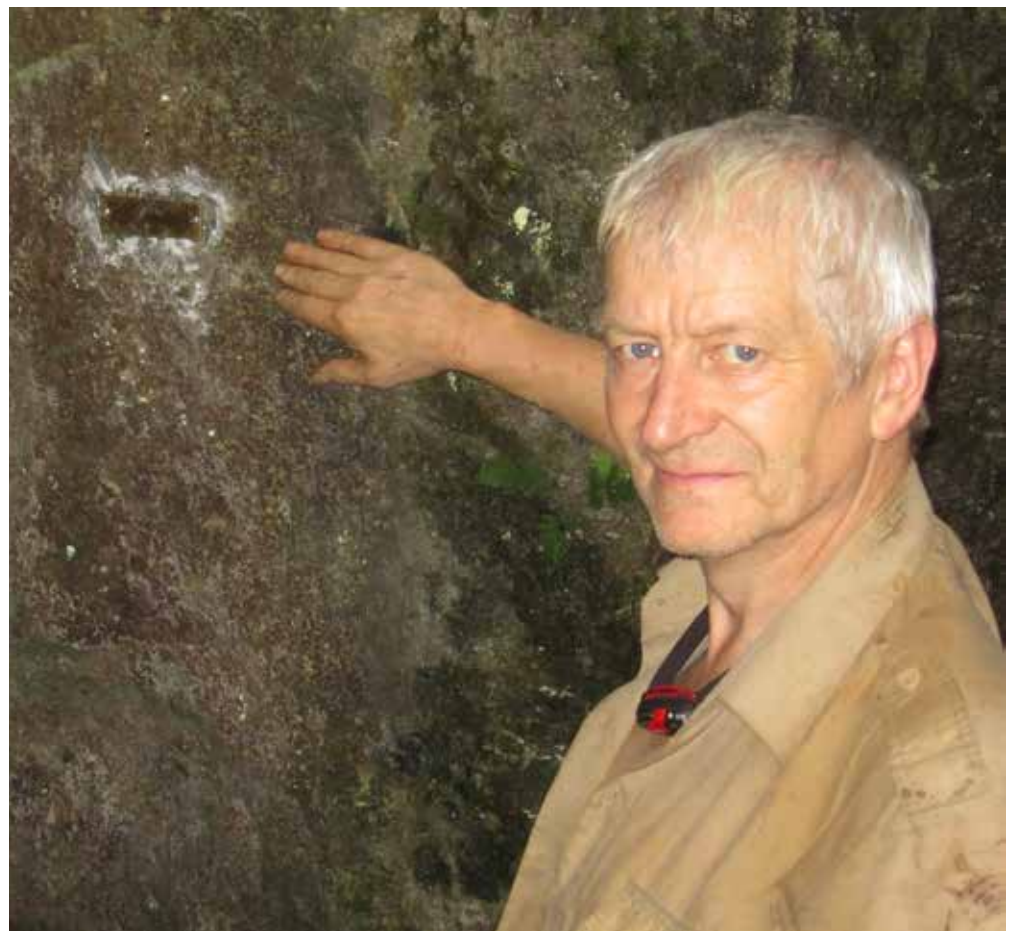
Andrew regards this as a truly satisfying accomplishment as very few people have achieved this feat. In addition to the Mulu expeditions he has organised, Andrew has also led more than 40 other cave exploration expeditions and has subsequently published one publication for each of the expeditions he led.





Andrew regards two of his major discoveries in the caves of Mulu as among his proudest achievements. "The first was Clearwater Cave where my team and I explored and surveyed five kilometres of some of the biggest cave passages in the world, on a one day caving trip and the second was the discovery of the Sarawak Chamber," he said.

His extensive mapping of the complex Mulu caves system has opened avenues for a wider range of studies and successfully established Mulu as an outstanding example of Earth's geological history, a location of exceptional natural beauty with significant natural habitats for the conservation of its biological diversity and the protection of threatened species. This also led to the Mulu National Park being listed as UNESCO's World Heritage Site in 2000.



*Mulu, 2011*

Understanding the need to incorporate technological advancements to the field of cave exploration, Andrew and his team successfully applied LiDAR (light detection and ranging) at the Mulu Cave Project in 2011. This is a new technology to plot and study vivid maps of underground spaces at Mulu caves with stunning accuracy.

To date, the biggest challenge Andrew has faced is to convince people that cave explorations are valuable activities that can benefit many parties. Andrew firmly believes that exploration of caves is equally as important as exploring deep space and oceans although he admits that it can be quite an uphill battle at times to convince people about the benefits of cave exploration.



## Personal Philosophy

"I believe we have to fully understand something before putting in our efforts as working hard in the right direction is essential to success."



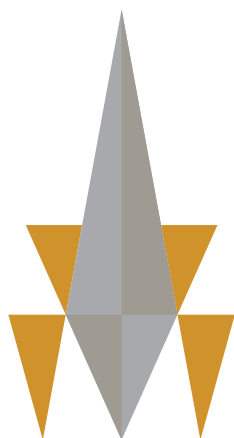
*Deer Cave (South Entrance)*

## Message to young Malaysians

"In the search for greatness, it is common to meet failures but it is important to keep going and not to give up. Choose a path you think is right, be confident with it and move forward."

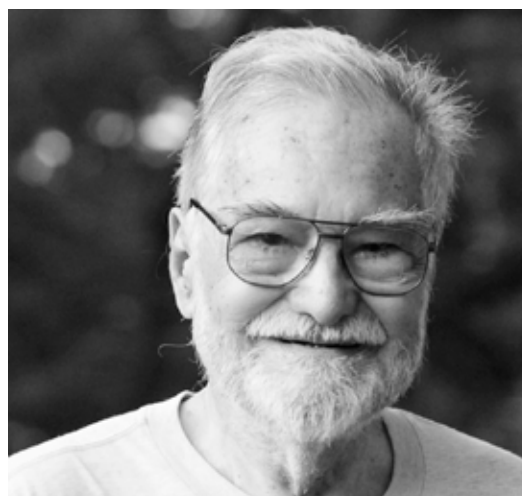


## **Merdeka Award Past Recipients**



## MERDEKA AWARD

2008



### EDUCATION AND COMMUNITY

#### Royal Professor Ungku Abdul Aziz bin Ungku Abdul Hamid

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



### ENVIRONMENT

#### Malaysian Nature Society

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



### HEALTH, SCIENCE AND TECHNOLOGY

#### Nipah Virus Encephalitis Investigation Faculty of Medicine, University of Malaya

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



### HEALTH, SCIENCE AND TECHNOLOGY

#### Professor Dato' Dr Khalid Bin Tan Sri Abdul Kadir

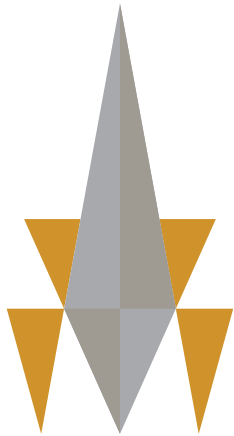
For his outstanding contribution to the study and understanding of diabetes and the relationship between hormones and stresses in various tissues.



### OUTSTANDING CONTRIBUTION TO THE PEOPLE OF MALAYSIA

#### Datuk Leslie Davidson

For his 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

**Allahyarhamah Tun Fatimah Hashim**  
(Joint Recipient)

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



## EDUCATION AND COMMUNITY

**The late Tan Sri Dato' Lim Phaik Gan**  
(Joint Recipient)

For her 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 Halimaton Hamdan**

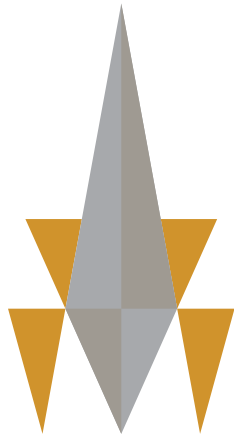
For her outstanding contribution in the development and application of Maerogel as a commercially viable multi-purpose material



## EDUCATION AND COMMUNITY

**Professor Dato' Seri Ir Dr Zaini Ujang**

For his 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**

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



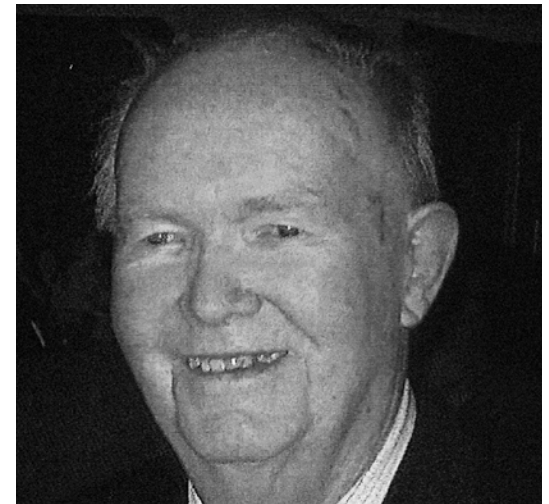
### **OUTSTANDING SCHOLASTIC ACHIEVEMENT**

**Professor Emeritus Dr Yong Hoi Sen**  
For his 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



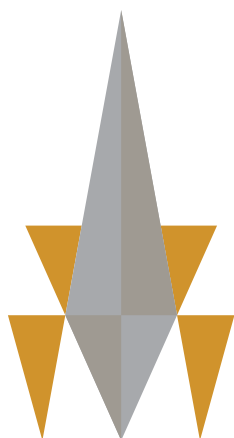
### **OUTSTANDING SCHOLASTIC ACHIEVEMENT** **Distinguished Professor Datuk Dr Harith Ahmad**

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



### **OUTSTANDING CONTRIBUTION TO THE PEOPLE OF MALAYSIA** **The Late Tan Sri Just Faaland**

For his 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 his 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)

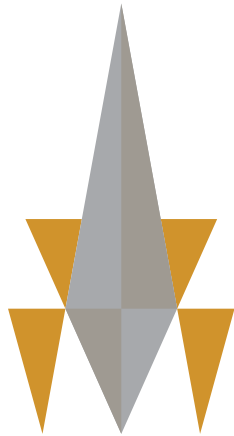
For his outstanding contribution in elevating the study and practice of gastroenterology and hepatology in Malaysia to global standards



### **OUTSTANDING SCHOLASTIC ACHIEVEMENT**

#### **Professor Dr Mak Joon Wah** (Joint Recipient)

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



MERDEKA  
AWARD

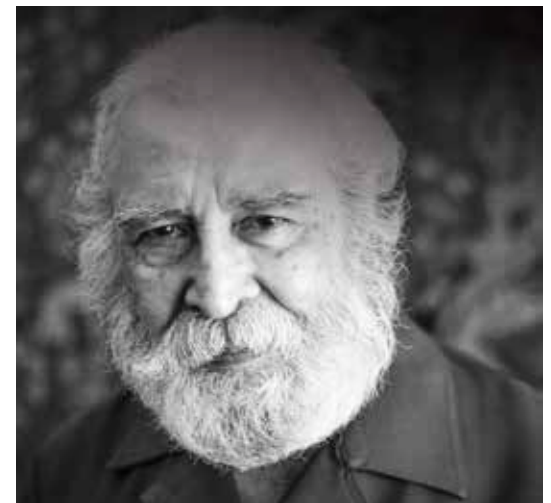
2012



**HEALTH, SCIENCE AND  
TECHNOLOGY**

**Academician Tan Sri Emeritus  
Professor Datuk Dr Augustine Ong  
Soon Hock**

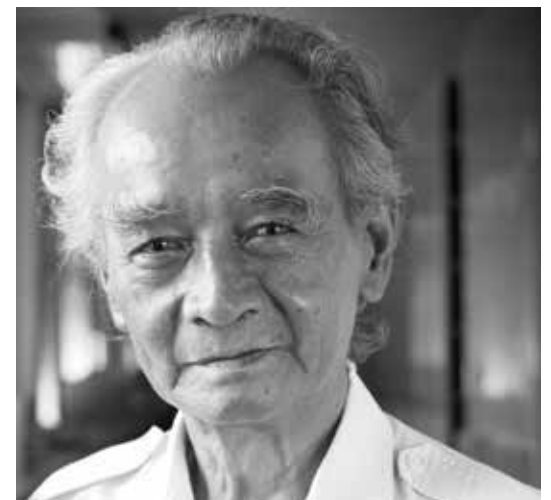
For his outstanding contribution to the research and development of the chemistry and technology of palm oil and for his significant role in advocating and promoting the Malaysian palm oil industry to the world



**OUTSTANDING SCHOLASTIC  
ACHIEVEMENT**

**Tan Sri Professor Dr Syed Muhammad  
Naquib al-Attas**

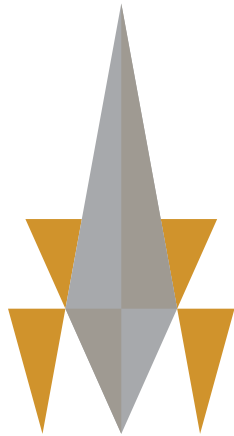
For his outstanding contribution to the scholarly research in the area of Islamisation of contemporary knowledge and of Muslim education



**OUTSTANDING CONTRIBUTION TO  
THE PEOPLE OF MALAYSIA**

**Dr Engkik Soepadmo**

For his 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)

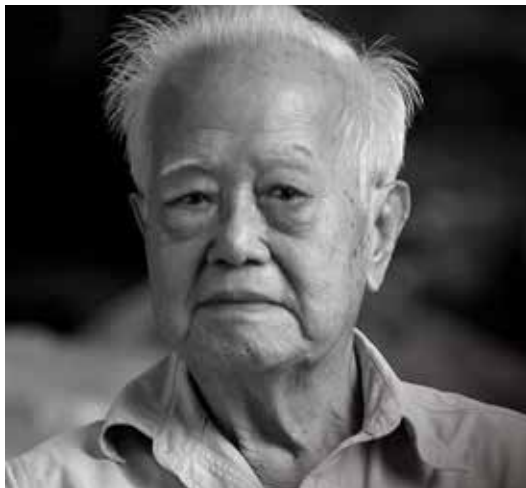
For his outstanding contribution in shaping Malaysia's education landscape through the development of professional education, education reforms and innovation that have resulted in education becoming more accessible to Malaysians.



### EDUCATION AND COMMUNITY

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

For his 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 his 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**

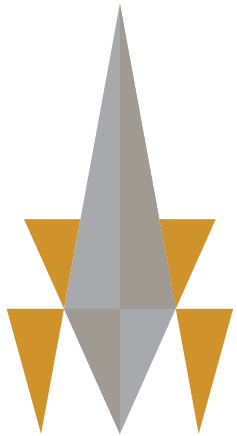
For his outstanding contribution to pioneering the development of clinical research and cardiac surgery in Malaysia and for his instrumental role in the establishment of the National Heart Institute (IJN).



### OUTSTANDING SCHOLASTIC ACHIEVEMENT

**Emeritus Professor Dato' Dr Lam Sai Kit**

For his outstanding contribution to scholarly research and development in medical virology and emerging infectious diseases including dengue.



## MERDEKA AWARD

**2014**



### EDUCATION AND COMMUNITY

#### **Datuk Mohd Nor Khalid (Lat)**

For his 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 his 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 her 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**

For his 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 Datuk Dr Ahmad Fauzi Ismail**

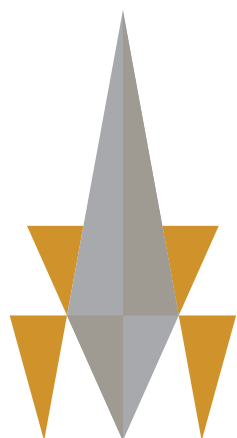
For his outstanding contribution to the scholarly research and development of technologies for commercialisation in membrane performance for both gas separation, and water and wastewater treatment



### OUTSTANDING CONTRIBUTION TO THE PEOPLE OF MALAYSIA

#### **Dato Sri Gathorne, Earl of Cranbrook**

For his 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



# MERDEKA AWARD

2015



## EDUCATION AND COMMUNITY

**Tan Sri Dr Jemilah  
Mahmood**

For her outstanding  
contribution to the  
development of humanitarian  
and international emergency  
relief



## ENVIRONMENT

**Emeritus Professor Dato' Dr  
Abdul Latiff Mohamad**

(Joint Recipient)  
For his outstanding  
contribution to the research  
and understanding of plant  
taxonomy and conservation  
biology in Malaysia



## ENVIRONMENT

**Professor Emeritus Tan Sri  
Dr Zakri Abdul Hamid**

(Joint Recipient)  
For his outstanding contribution  
to the observation, analysis and  
assessment of biodiversity and  
ecosystem services, fostering  
the remediation and protection  
of the natural environment and  
promoting environmental  
sustainability in Malaysia and  
globally



## HEALTH, SCIENCE AND TECHNOLOGY

**Professor Datin Paduka Dr  
Khatijah Mohamad Yusoff**

For her outstanding  
contribution in the field of  
microbiology and virology  
through a better  
understanding and diagnosis  
of the contagious and fatal  
viruses in poultry and the study  
of the potential of the virus in  
combating cancer cells



## OUTSTANDING SCHOLASTIC ACHIEVEMENT

**Professor Dr Ir Mohd Ali  
Hashim**

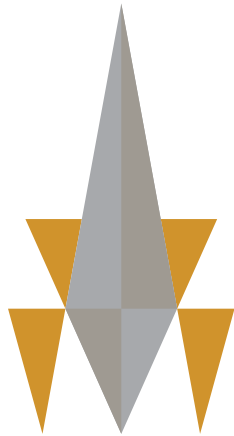
For his outstanding scholastic  
contribution in the research of  
separation processes and  
water and wastewater  
treatment and for his  
instrumental role in the  
setting-up of the Centre for  
Ionic Liquids



## OUTSTANDING CONTRIBUTION TO THE PEOPLE OF MALAYSIA

**Dr Elizabeth Lesley Bennett**

For her outstanding  
contribution to the  
conservation and  
management of wetland  
habitats and that of  
endangered wildlife in Malaysia  
through research, advocacy  
and policies



MERDEKA  
AWARD

2016



**EDUCATION AND COMMUNITY**

**Tan Sri Lakshmanan Krishnan**

For outstanding contribution to laying the foundation for the modern film industry in the country and for his instrumental role in developing early acting talents including Malaysian film icon the late P Ramlee



**ENVIRONMENT**

**Tan Sri Dato' Seri Dr Salleh Mohd Nor**

For outstanding contribution to wildlife and forest conservation in Malaysia and the region through fieldwork, education, advocacy, policy and international cooperation



**HEALTH, SCIENCE AND TECHNOLOGY**

**Distinguished Professor Datuk Dr Looi Lai Meng**

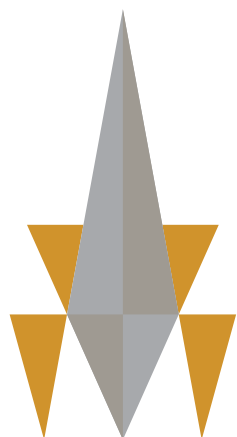
For outstanding contribution in pioneering research in amyloidosis, renal pathology and cancer pathology and for her significant contributions and role in promoting the field of pathology in Malaysia and the region



**OUTSTANDING SCHOLASTIC ACHIEVEMENT CATEGORY**

**Professor Dato' Ir Dr Wan Ramli Wan Daud**

For outstanding scholarly research and development in advancing the technology of fuel cells and hydrogen energy in Malaysia and the region



## MERDEKA AWARD

2017



### EDUCATION AND COMMUNITY

#### **Dato' Dr Abdul Halim Ismail**

For outstanding contribution and his pivotal role in establishing the first Islamic Bank in Malaysia, which led to the development and growth of the Nation and region's Islamic banking, insurance and finance sectors



### HEALTH, SCIENCE AND TECHNOLOGY

#### **Professor Dr Balbir Singh Mohan Singh**

(Joint Recipient)

For outstanding contribution to the discovery and pioneering work on a new cause of human malaria, Plasmodium knowlesi. The discovery of this potentially fatal zoonotic disease has changed the understanding of malaria and the way infections are treated in the country and globally



### HEALTH, SCIENCE AND TECHNOLOGY

#### **Dr Timothy William**

(Joint Recipient)

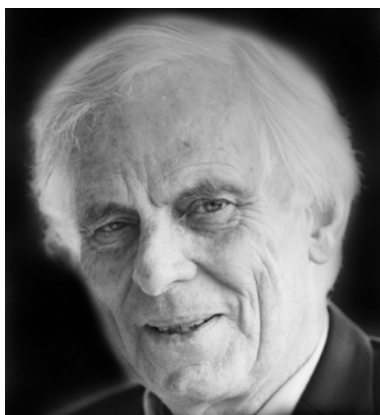
For outstanding contribution to the effective treatment of a new cause of human malaria, Plasmodium knowlesi. The discovery has changed the way this infection is managed in the country and globally



### OUTSTANDING SCHOLASTIC ACHIEVEMENT

#### **Professor Dr Masjuki Haji Hassan**

For outstanding scholarly research in engineering and energy science and for his instrumental role in the research and development of biofuel and other sources of efficient energy and automotive engines



### OUTSTANDING CONTRIBUTION TO THE PEOPLE OF MALAYSIA

#### **Professor Dr Anthony Crothers Milner**

For outstanding contribution to research and education in Malaysian history that has shaped and promoted the understanding of the Nation's identity, heritage and culture, and for his role in fostering international collaborations



### ENVIRONMENT

#### **Dato' Seri Tengku Dr Zainal Adlin Bin Tengku Mahamood**

For outstanding contribution to wildlife and forest conservation in Malaysia and the region through fieldwork, education, advocacy, policy and international cooperation

## Nurturing young Malaysian talent

Over the years, Malaysia has gone through various stages of industrialisation, transforming from resource-based to knowledge-intensive. Today, the world is also witnessing exponential changes, led by rapid technological innovations.

Malaysia – like many other countries – charts a course towards becoming an innovation-led country, there is a need for further developments in science, technology and innovation.

With the emergence of Industry 4.0, Malaysians must be prepared to face challenges and find innovative solutions to stay relevant and competitive in the global arena. It will be imperative to acquire and master new skills especially among the younger generation.

Moving forward, the Merdeka Awards aims to inspire young and talented Malaysians to excel and broaden their expertise through continuous creativity and innovation.

One way is through the Merdeka Award Grants for International Attachment which allows the grantees to gain valuable insights and experience at internationally recognised institutions.

Another initiative is the Merdeka Meeting which aims to inspire younger generations of Malaysians by linking them up with previous winners of the Merdeka Award. This will help to create a vital platform to share insights as well as exchange views and solutions. By establishing mentor-mentee relationships, the Merdeka Meeting aims to be a facility for knowledge transfer to build the capacity of future award winners.

# Merdeka Award Grant for International Attachment

The Merdeka Award Grant for International Attachment was launched in 2011.

The Grant is designed for qualified and deserving young Malaysians, between the ages 22-35, to engage in short-term collaborative projects or programmes at an internationally-recognised host institution in select disciplines (education, arts, sports, community/social work, environment, health, science and technology).

Grantees will have the unique opportunity to collaborate with other academics and researchers in their field of interest in order to build on their body of work and achievements.

Eligible recipients for the Merdeka Award Grant are identified through an austere three-step process selection. First, the Merdeka Award Secretariat evaluates all applications to develop a longlist of promising candidates, before researching each potential candidate to ensure that the requirements of the Grant are met.

The list will then be handed over to a Selection Committee, consisting of representatives from the founding partners. Appointed by the Merdeka Award Board of Trustees, the Selection Committee will review and identify a shortlist of candidates, who will then be invited to an interview with the Committee.

## 2013

RECIPIENTS	INSTITUTIONS
<b>Associate Professor Dr Abhimanyu A/L Veerakumarasivam</b> Identification of molecular markers for the diagnosis, prognosis and therapy of bladder cancer through greater molecular understanding of the disease	Institute of Genetic Medicine, Johns Hopkins School of Medicine and the Broad Institute of Harvard-MIT
<b>Dr Natrah Fatin Mohd Ikhsan</b> Understanding molecular microbial ecology towards sustainable agriculture production	Scripps Institutions of Oceanography, University of California, San Diego, and University of Sydney, Australia

## 2014

RECIPIENTS	INSTITUTIONS
<b>Dr Kamalan Jeevaratnam</b> Mechanistic insight for cardiac cellular therapy using stem cells	University of Cambridge, United Kingdom
<b>Dr Lim Hong Ngee</b> Nanotechnology-based blood testing to identify breast cancer	University of Toronto, Canada

## 2015

RECIPIENTS	INSTITUTIONS
<b>Ms Chua Ling Ling</b> Association between gut microbiome dysbiosis (changes in gut microbiome) with systemic immune activation, inflammation and early onset of age-related diseases in HIV infected individuals	New York University Medical Center
<b>Dr Mohd Sukor Su'ait</b> Advanced Energy Conversion And Storage Material From Malaysian Palm Oil Industries	Ecolé Polytechnique Fédérale de Lausanne, Switzerland

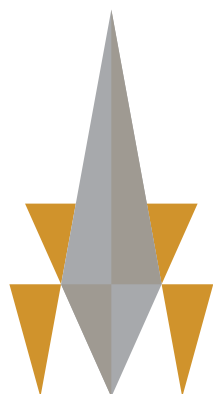
Following the interviews, the Selection Committee will make a recommendation to the Board of Trustees, who will then make the final selection. Thereon, an appropriate institution will be arranged by The Merdeka Award for the recipient to be attached with for a duration of up to three months in furtherance of their scholarly study and research.

The value of The Merdeka Award Grant goes far beyond numbers in its goal of investing in Malaysians for the benefit of Malaysia. The Grant extends the goal of the Merdeka Award by infusing thought leadership and innovation, fostering a culture of excellence and encouraging a global outlook among young Malaysians for the future.

2016	
RECIPIENTS	INSTITUTIONS
<b>Dr Khamarrul Azahari Razak</b> The Power of Knowledge: How Prepared Are We For Disaster – The Malaysia Context	Disaster Prevention Research Institute, Kyoto University, Kyoto, Japan
<b>Ms Koh Lily</b> How Small and Medium Enterprises' (SMEs) can strategically position themselves in the value chain in the midst of Industry 4.0	Harvard Business School

2017	
RECIPIENTS	INSTITUTIONS
<b>Shahar A/L Koyok</b> Indigenous Arts and National Narratives: A Comparative Study of Indigenous People's Art and Representation within National Institutions.	Art galleries and museums in Australia, New Zealand and United Kingdom
<b>Dr Sophia Rasheeqa Ismail</b> Lipidomics Profiling and Risk of Early-Onset Myocardial Infarction	University of Cambridge, United Kingdom
<b>Dr Zetty Norhana Balia Yusof</b> The Potential of Malaysian Seaweeds as the Source of Antifungal Compounds for Application in the Oil Palm Industry	University of Cambridge, United Kingdom





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# Merdeka Award Board of Trustees & Committee Members

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Professor Dr Kopli Bujang

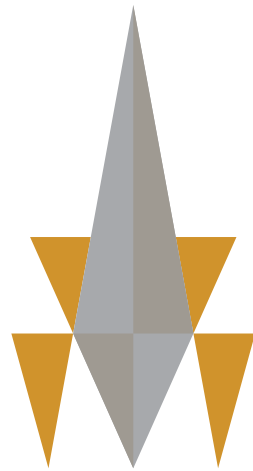
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Datuk Dr Shahnaz Murad  
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Tan Sri Rainer Althoff  
YAM Tengku Datin Paduka Setia  
Zatashah Sultan Sharafuddin

## The Logo and Trophy



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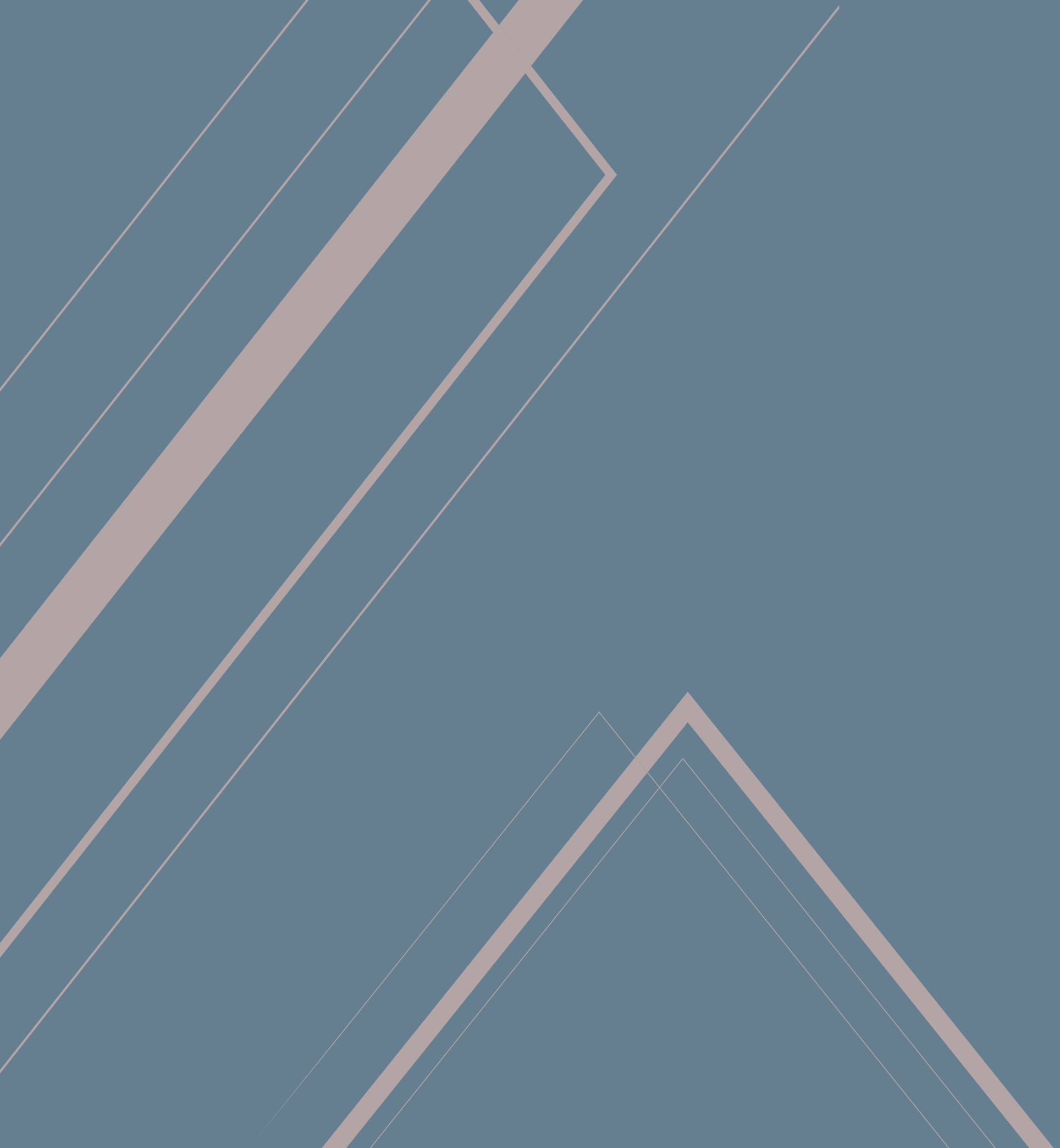


Designed by Dato' Johan Ariff, the trophy is a three dimensional version of the Merdeka Award logo. It expresses convergence and ascension, the same qualities celebrated in the achievements of the Merdeka Award winners. The trophy also represents environmental concerns in the form of a plant shoot *Rebung*,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



### Dato' Johan Ariff

After serving in the Ministry of Information, Dato' Johan Ariff set up his Design Practice in 1974, when PETRONAS logo was also conceived. Though multidisciplinary, his Practice is largely involved in Corporate Identity commissions. Some of his works are in the permanent collection of the World Trademark Centre, Belgium. He has executed and supervised the largest logo portfolio in the country.



Founders of Merdeka Award Trust

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