



Naratif

ALUMNI



Foreword

Fifty years in a life of a university is a short one. Yet it can be very meaningful especially for those who are lucky enough to grow with the institution. Here is a case of three gentlemen who are privileged not only to see such a growth, but equally important to participate in the process. The accounts as recorded in this book are therefore very significant for those who came afterwards. The rich and frank narratives that they share bring back many memories of what Universiti Sains Malaysia is all about, going back to the very first days when it is known as University of Penang.

It is my immense pride to be associated with this awesome book as I know all the writers well as a student of the UP-USM in the early 1970s. No doubt their contributions to the alma mater are, materially or otherwise, invaluable as we recognise the many names of individuals who are/were closely associated with University since then. We can only say thank you to all of them for their huge sacrifices that will be remembered for as long as the University stands tall.

It is my humble wish that this book be dedicated to all of them, and in particular to mark October 4th as the Founder's Day. The memorable date is chosen to commemorate the day when the founding Vice-Chancellor officially took office in 1969.

Congratulations to the Persatuan and those who have made this publication possible against all odds. It is indeed a hallmark of what the University have been advocating - Kami Memimpin

Happy 50th Anniversary - We Lead.

Dzulkifli Abdul Razak, Pharmacy 1976
Vice-Chancellor, 2000-2011
President, AUSM, 2015-2019

INTRODUCTION

The purpose of this document is to share the historical information about Universiti Sains Malaysia (USM) since its inception in 1969 and conjunction with USM's 50th year celebration. This document entails significant milestones and contributions of USM citizens during their period. The historical information will be a source of reference to the USM community to understand and recognise the huge impact of USM citizens to their alma mater.

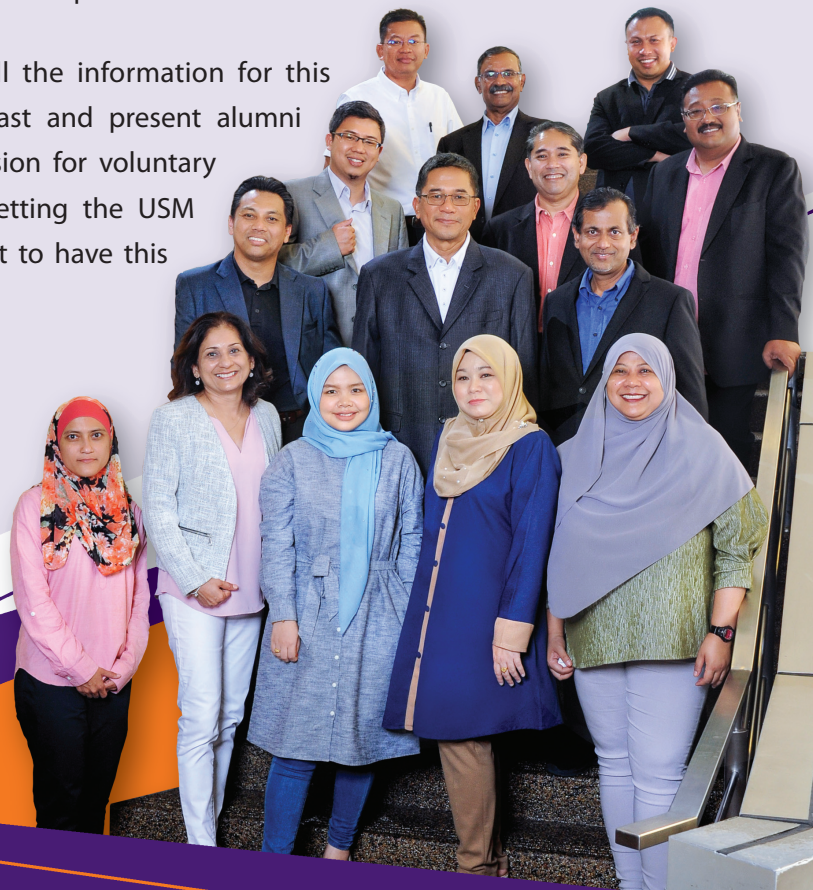
Another compelling reason to establish this document is to inspire the USM alumni community to have a sense of belonging to their alma mater and to attract them to participate and contribute in any form of efforts and ideas that they believe will benefit USM and the education industry at large.

With the fast pace changes in all aspects of life, be it, economically, technically, socially and even politically, the education industry in Malaysia and specifically a higher institution like USM critically needs a continuous supply of an "external life support" to be self-reliant and less dependent on the government. There is no stronger light at the end of the tunnel than the care from the USM Alumni community, who are willing to do whatever it takes to preserve the relevancy and existence of USM, as it helped mould and inspire them to succeed in all aspects of life.

Many people were involved in gathering all the information for this document, from past patrons as well as past and present alumni committee members, who have a deep passion for voluntary work and in giving back to USM. Not forgetting the USM senior staff who provided continuing support to have this document published and distributed.

Thank you

Sincerely from
**JAWATANKUASA EKSEKUTIF
PERSATUAN ALUMNI USM
2019-2021**



The Birth and Rise of Universiti Sains Malaysia (USM) **Some Ruminations**



By
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This is a broad sweep of the story of the Universiti Sains Malaysia (USM) in multiverse Penang. It shares the unusual institutions and individuals that made Penang an intellectual hub and how this new unique institution sprouted out to be a centre of excellence and innovation in higher education in Malaysia and globally. I share my own journey with USM and some of the unusual stories and initiatives that I was associated with. I add my own thoughts on what made USM a shining star both locally and globally.

A Place called Penang

The Universiti Sains Malaysia (USM) could not have chosen a more special place to be located- Penang.

Unique Penang is like *laksa*, *rojak*, and *pasembor*, many ingredients, unusual flavours, tangy, and a lasting and an unforgettable treat. Penang's history as a port open to the whole world gave it a globalness. Penang's people and its places are rooted in multiple diversities and celebrated as one of the cosmopolitan wonders of the world as a UNESCO Heritage Site based on its outstanding universal values. Certainly, Penang has a special combination of soil, soul, and society. Over 200 years ago, it was already being acknowledged and celebrated. I share four stories that illustrate this:

1. A colonial Governor of Penang, Sir George Leith, in 1804, said he has never in his whole life seen a community of more colours, creeds, cultures, and languages.
2. One of the earliest entries in the renowned Encyclopaedia Britannica in 1817 had two pages on what then was called "Prince of Wales Island" and described its many vibrant activities.
3. A leading travel writer, Isabella Bird, called this place "a brilliant place under a brilliant sky".
4. The first "free school", i.e. open to students of all religions, a unique initiative in the whole region, was established on this island in 1816 – The Penang Free School (PFS).

The Beginnings

To understand USM, we must not forget its history. The past is easily forgotten if not recorded and shared if we are to feel part of the soil, the soul, and society. Facts and stories, people and places, great moments and even tragedies like May 13, 1969 must be remembered and learnt from. It was coincidentally in that year in 1969, that this institution of higher learning began its operation. It was a wonderful gift of hope and a beacon of the future that we needed so during those very turbulent times.

The founding story of USM is exciting, challenging and celebratory as is the story of our nation. This place called Penang was once owned by the State of Kedah and later became a birth colony. Just across this campus is Batu Uban, where a community already existed before the island was colonised by the British. This larger area became a great plantation of spices and was owned by two of the wealthiest British families called the Scotts, and later, the Browns. It then became a major military camp for the British, first called the "Gelugor Barracks" and later changed, in 1953, to "Minden Barracks" by a British regiment that had, in 1780, won a battle at the city of Minden in Germany. The British named a place in Malaysia after a place in Germany! That's Penang for you.

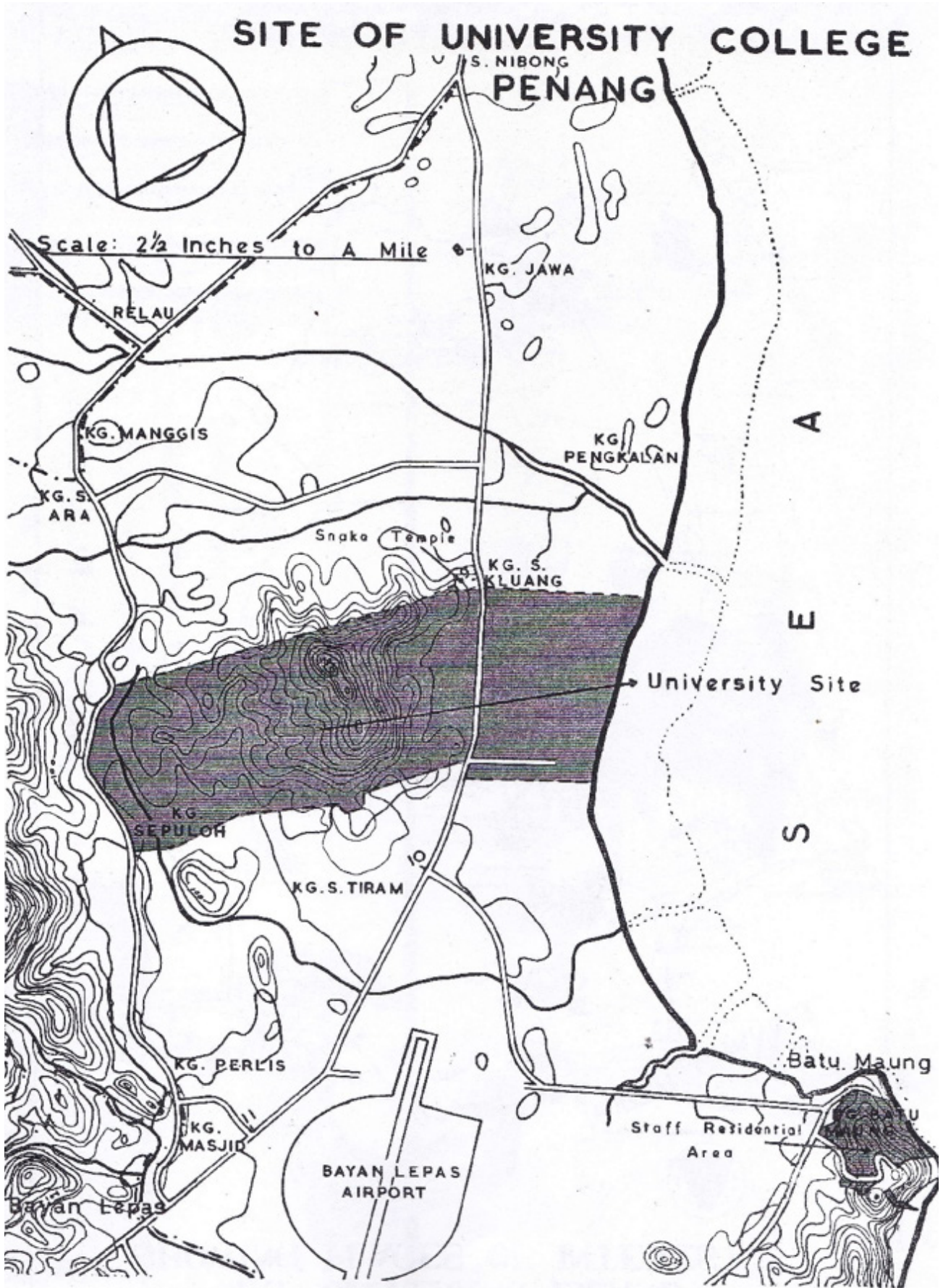
My own links with this place began even before USM was established in the late 50s. I used to play cricket and rugby on the grounds when my school, PFS, took on the British Military in those games. It was hard to beat them especially in rugby. Two other stories:

1. My dear friend, one of the greatest activists and poets in the third world, Cecil Rajendra, lived in his stepfather's quarters in the barracks. His stepfather was working as a clerk with the British Army.
2. All four of my sisters were deeply connected to USM. Jamilah, was among the first batch of students and also the Secretary of the inaugural Students' Council. Faridah, also graduated from USM and has just retired as headmistress of Convent Pulau Tikus school. Rashidah Begum, was employed by the university and recently retired as Chief Librarian. Asghari, a teacher, was among the early "senior citizen" students to do her science degree in the pioneering part-time distance learning programme, for which she is ever grateful.

Some Early 'Institutions' of Higher Learning in Penang

People often think of USM as Penang's first institution of higher learning in Penang. It is more complicated, and I like to share five interesting stories of special individuals and institutions prior to USM that were in their own unique ways 'institutions' of higher learning:

1. The first story is that of the "College General", founded in 1808 in Penang by the Vatican, Rome, to develop Roman Catholic priests in a formal educational setting for this whole region. It was located where Gurney Paragon is now between Kelawei Road and Gurney Drive. Only the Chapel now remains to remind us of its legacy and, thankfully, it is well restored and used for public events. There was a campaign to preserve the whole College, but it did not succeed. The College itself moved to Tanjung Bungah.
2. The second story is that of James Richardson Logan (1819-1869), a Scottish lawyer and advocate of the civil rights of the local people, outstanding environmentalist, and most of all, a scholar of distinction of a rare kind. He founded, edited, and wrote in the Journal of the Indian Archipelago and Eastern Asia. It had 27 volumes that even included research on the ethnological history of what he called the "Malay" region. He also extracted from the 27 volumes and did eight volumes on "The Language and Ethnology of the Indian Archipelago", all out of Penang. Interestingly, his work was described as the first statements that I quote, "dignified the Malay (or more popularly, the Nusantara) by indicating to them the proud position among most ancient and civilised races of the Earth." It was great that USM later set up the pioneering Archaeological Centre, one of USM's greatest assets, which rapidly became among the leaders in the region, in the world, and even finding great things today. Logan is also credited with coining the term "Indonesia". He has a monument opposite the Penang courthouse on Leith Street and next to Dewan Sri Pinang. There is also an annual public lecture organised by the Penang Bar Council in his name and I had the privilege to do the inaugural lecture on the topic of "Civic Activism in Penang".
3. Some 50 years after Logan passed away, there was born in Penang a great Malaysian medical legend, Dr. Wu Lien-Teh (1879-1960). He saved China from extinction through brilliant research and excellence action measures, in the early part of the last century. A horrific pneumonic plague was killing thousands of people. He was a world leading scholar on communicable diseases, nominated for the Nobel Prize in Medicine in 1936, started the Anti-Opium Society and the Anti-Racist Society. He was from the Penang Free School and was the first medical student from Malaysia in Cambridge, United Kingdom, and top student every year he was there, a scholar and activist extraordinaire. There is now a Dr. Wu Lien-Teh Society to remember his great legacy (<http://wulientehsociety.org/>). He wrote extensively on medical issue including for the World Health Organisation (WHO). He also wrote a book on the King & Queen Scholarships under the Colonial Era, the most prestigious university scholarship in the UK. Dr. Wu Lien-Teh and Dr. Lim Chong Eu, a former Chief Minister, were among those to receive it. The book records some of the most brilliant people of those times.
4. Another legend was Mohamed Haniff (1872-1930), a botanist extraordinaire, graduated from the Penang Free School, worked a lifetime at Penang Botanical Gardens and had over a dozen plants named after him and helped all the great British botanists with their work. To celebrate this "barefoot" scholar, I arranged for the PFS Foundation to set up a Ten Thousand Ringgit a year trust fund for USM to give out to mini projects, lectures, workshops, etc. USM gave a matching Ten Thousand Ringgit and it flourished for several years under the leadership of Dr. Chan Lai Keng, including organising a historic symposium on "The Role of the Penang Botanic Gardens: Meeting the Challenges of the 21st Century". It needs to be seriously resuscitated.
5. Lastly there was the Malayan Teacher's College in Gelugor that trained pioneering teachers in Science, and they generously provided USM a home in its early years. It now also has the Regional Centre for Education in Science and Mathematics (RECSAM), making Penang a leader in this field. Never forget that they provided USM its first home in 1969 and shared its excellent facilities.



Site of University College, Pulau Pinang



The Birth of USM

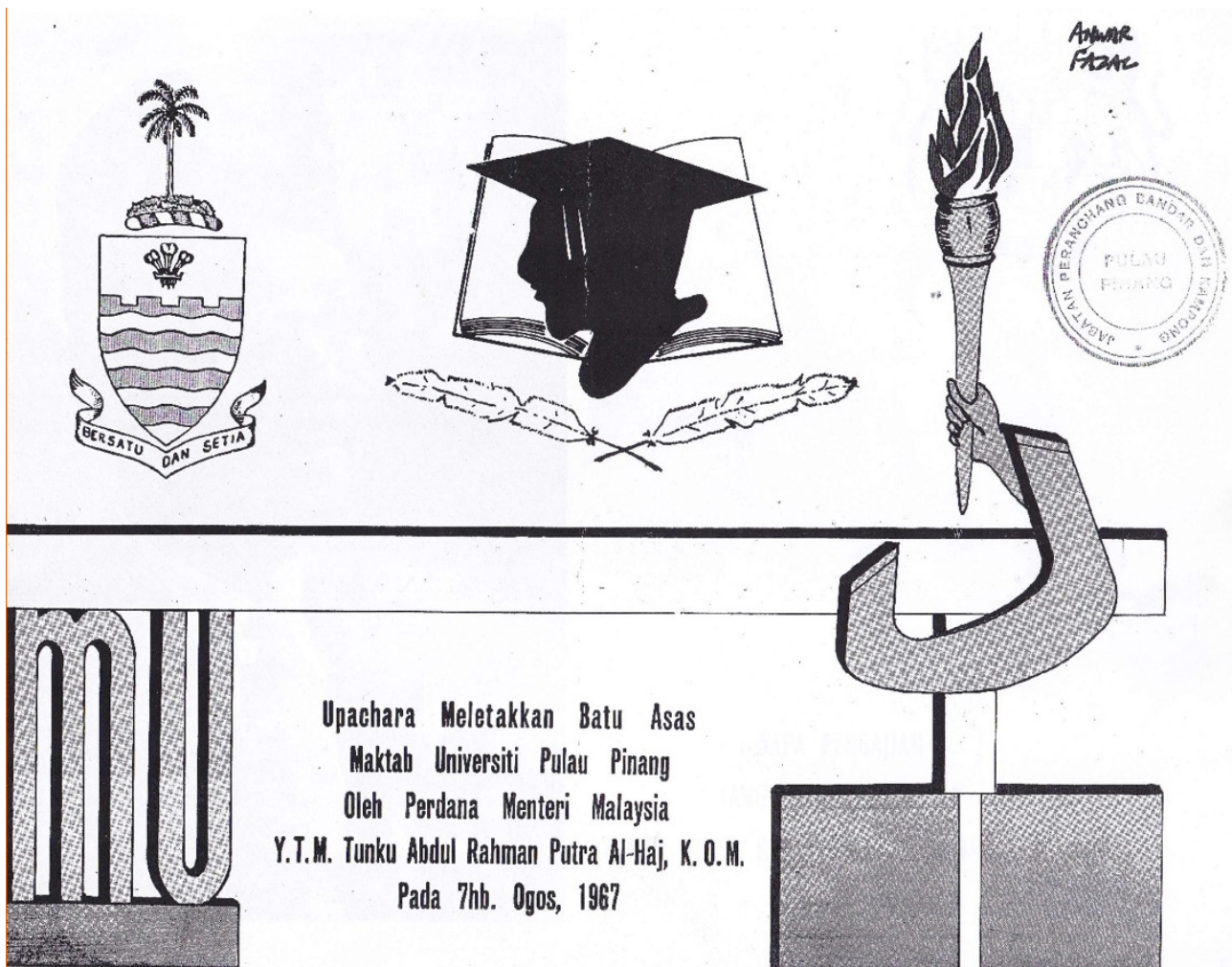
The story of USM begins with the story of the University of Malaya, which was opened in Singapore in 1905 when it was part of the Straits Settlements and later, Malaya. Many philanthropists in Penang contributed to its initial founding. University of Malaya (UM) sent a team to start the 'University of Malaya' branch in 1957 in Kuala Lumpur. The Singapore campus was called 'University of Malaya, Singapore' while the Kuala Lumpur one was called 'University of Malaya, Kuala Lumpur'. I enrolled there in 1961 when it had that name.

In 1962, UM Kuala Lumpur became independent and took the name 'University of Malaya' while the older university changed its name to 'University of Singapore'. I was the President of the University of Malaya Students Union (UMSU) then. Incidentally, the President of the University of Singapore's Student Union was also a Malaysian, Dr. Ling Leong Sik (my classmate in primary school in Taiping) who, after graduation, moved to Penang and set up a clinic. He joined the University of Malaya Graduate Society that was most active in Penang

and helped USM. It was a high-level team from the University of Malaya, led by its Vice Chancellor, the eminent Professor Sir Alexander Oppenheim, who did the key pioneering work of establishing USM. They visited numerous sites and made strategic recommendations that were adopted. It also was a team from UM in Kuala Lumpur that were the inaugural staff which included the VC, Tan Sri Hamzah Sendut, and 4 professors. The first Bursar and the Librarian were also from the UM, as was a key administrative officer Mr. Kandasamy. The Registrar was also a graduate from UM when it was in Singapore.

USM itself had three names, you could say three births, namely:

- University College of Penang (7 August 1967)
- Universiti Pulau Pinang (Minden Heights) (June 1969)
- Universiti Sains Malaysia (USM) (April 1972)



Laying of foundation stone

There are three reasons given for the change of name from 'Pulau Pinang' to 'Sains'. The first was that it will then not seem to be only a local university, it will remember its Legacy of beginning with the sciences and thirdly, not much talked about, was that it will not encourage a premature cascade of every state in Malaysia demanding a university too as prestige and a right.

USM also saw several changes in its logos, a key figure in the current logo was played by Mr. GS Reuters, who was my Art teacher of the Penang Free School. He was responsible for several logos in Penang including that of the Penang Tourist Association and the Consumers Association of Penang (CAP). The powerful and symbolic colour purple was also chosen to be the core colour of USM including its graduation robes.

Battle for Minden

The choice for a physical venue for USM was a major struggle. A study was done by a team led by the Vice Chancellor of the University of Malaya. They found the recommended places at Sungai Ara/Batu Uban/Batu Maung problematic and unsuitable and strongly recommended it to be located at Minden Barracks (formerly Gelugor Barracks) as the British were vacating it. It would enable USM to move and grow faster. For some of us it was also the public heritage value and that the transformation of a military base into an education centre was so meaningful and a symbol of moving from war to peace. Interestingly, USM was the first institution to start a Peace Studies program!

However, the Malaysian military wanted the prestigious barracks and, interestingly, the political party, UMNO, in Penang was also strongly opposed to USM getting it. I persuaded University of Malaya Graduate Society of which I was a council member, to make a strong press statement in support of USM being given Minden Barracks. It was carried by the leading press. I will give the University library, for its archives, a copy of that historic statement which I helped to draft. Tun Abdul Razak, the Deputy Prime Minister, decided that education was more important during these times and the Prime Minister, Tunku Abdul Rahman and the cabinet supported him. USM got the Minden Barracks and the Malaysian Military got the vast Batu Uban area where they built a new Military barracks including a hall that is now popular for weddings. What is interesting and there are lovely photographs of it, is that the official opening of the short lived Universiti Pulau Pinang was held there and Tunku Abdul Rahman, the Prime Minister, launched the beautiful designed brick and mortar structure for the foundation stone. The Chief Minister of Penang, Tan Sri Wong Poe Nee and DS Ramanathan were present. The structure has been since been removed and do hope that historic monument is kept securely somewhere.

About Tan Sri Hamzah Sendut (1927-1996)

I had a long relationship with USM's former Vice Chancellor, Tan Sri Hamzah Sendut. He was my Geography teacher at University of Malaya and also my hostel master. He contacted me immediately after his appointment in 1969 to help in settling down in Penang. I was then Asst. City Secretary in charge of Development at the City Council. I took him to stationery shops, arranged for finding quarters for the pioneers of the City Council. I arranged for him to stay in a beautiful mansion, which is now the City Mayor's official residence Park Road in the plush Pulau Tikus residential

area. I also arranged for three other pioneering professors to rent the beautiful City Council bungalow homes next to Suffolk House, off Jalan Air Itam. I connected Tan Sri with the alumni of the Universiti of Malaya Graduate Society and other Alumni associations. A geographer and planner, he was very caring of the USM campus environment, maintaining its greenery and biodiversity. This tradition evolved beautifully into a true "University in a Garden" under the visionary leadership of Tan Sri Dzulkipli Abdul Razak, the former Vice Chancellor who also led to USM getting the APEX, the leading research university status in the country. Tan Sri Dzulkipli also made USM a leader in sustainability studies including becoming a regional leader in education for sustainability. He also made USM a global leader in higher education with him elected as the President of the International Association of Universities (IAU), the only Malaysian to achieve that honour.

Some of the key players and supporters in the founding of USM are many but three are often forgotten:

1. DS Ramanathan
2. The University of Malaya Graduate Society
3. The City Council of George Town

About DS Ramanathan

If any outside individual in Penang played a greater advocacy role in the foundation of USM, it was DS Ramanathan. He was the first person to openly suggest the formation of the university in Penang at the State Assembly in 1962. He subsequently chaired the University Committee of the State Government of Penang. He was a leading educationist, Headmaster of the Pykett School and later President of National Union of Teachers. He was a founder President of the Labour Party and the Socialist Front and later left to become President of MIC, Penang. Most significantly, he was the Mayor

of the City of George Town for several years. The City remembered him by renaming Scott Road to Jalan DS Ramanathan (the signboard was defaced many times with black paint by people who opposed him and the change of name that it had to be moved up to six feet at one stage. Incidentally, his home was at the end of that road at the junction with Gottlieb Road. It is now a popular hawker complex. He was a strong supporter of hawkers. Interestingly, USM did a major study of hawkers in Penang who incidentally contribute greatly to the economy in Penang. In fact, one UN expert told us in the consumer movement some three decades ago that in his estimates the hawkers of Penang contributed more to the economy of Penang than all the multinational corporation operating then in Penang!

About the University Alumni Associations

Also remarkable were its early years were the close links with the various University Alumni groups in Penang. The Australia, New Zealand, and American alumni groups in Penang were supportive. Most of all, it was the University of Malaya Graduate Society that supported USM intensively. We had a wonderful meeting with him on 6th July 1969 and the Vice Chancellor shared some ten ways to proceed in the development of USM. I will give a copy of the document of that to USM for its archives. The MU Graduates Society proceeded to hold a film premiere, "The Sicilian Clan", in the Odeon Theatre in George Town to raise money for USM and had full house. The Society, as I mentioned earlier, also played a strong public role in the campaign for USM getting the Minden Barracks.

The City Council of George Town

Tan Sri Hamzah and I had a common interest in urban issues and planning. I was then the Asst. Secretary of the City Council of George Town in charge of Development. After discussing with him, I organised the fundraising for setting up of the Chair in urban studies. In the early seventies I found an ingenious idea (first time I am sharing this story) and persuaded the City Council to pre-approved some land for a petrol station at Dato Keramat Road (stadium entrance) by tender. Such sites were hard to get, and the petroleum companies were strongly wanting more sites in the City. Because of the competition and the pre-approved status, we got the very substantial money, and USM was able to establish a chair in Urban studies and more. Interestingly, one of the holders of the chair was Tan Sri Prof. Kamal Salih later the founder of the International Medical College and the think tank, Malaysian Institute for Economics Research (MIER). He was also my student at the Royal Military College where I was teaching Economics there in 1965. The Trust Fund of that chair now had a substantial amount of money, several million now over the years and can be a trigger for more innovation activities relating to urban issues perhaps even the first International Hawkers Research Centre since USM already did a research project on that subject.

The Spirit of USM

USM from the beginning was different. It had from the start a different and refreshing spirit which continued in various ways over the last 50 years. There were five qualities that I feel stood out; Creativity, Competence, Courage, Caring, and the spirit of Community.

23 Pioneering Works

Let me share some personal experiences of examples that encompassed these five qualities. These are 23 initiatives that were inspiring and made a special impact. From my personal experience the “school” system rather than the “faculty” system to encourage interdisciplinary and transcending disciplines was the greatest start it could have and that made a great difference. It has now some 26 schools and 12 major research centres. There have been hundreds of initiatives of all kinds and I would like to share 23 of them because of my personal engagement with them in one way or other:

1. We created the City In-Service Training Centre (CITC) with the City Council of George Town. Unemployment was high in the early 70s. I initiated a scheme where school-leavers were given a part-time job as parking attendants. They worked as attendants for four hours and then did four hours of study at the CITC to do one of an amazing range of vocational training programmes. I invited Prof. Chatar Singh, one of the pioneering professors, to lead it and under this leadership we saw very professional development. It was located at the old maternity hospital at Macalister Road. The centre used the City and Guilds study and certification framework from the United Kingdom and there were courses for electricians, draftsmen, machinists, and many others. The German Government, which has a globally outstanding vocational training programme, also provided extensive equipment and several teachers through their German Volunteer programme. Over the years, a few hundred students went through these practical courses. This was much appreciated, particularly with the growing industrial development in Penang. The CITC closed after a few years and that work was taken over by the outstanding Penang Skills Development Centre in which USM also played an important role. Tan Sri Dzulkifli, the former Vice Chancellor, and I had a plan to get this building for a city presence for USM, but it was given to the museum, which then desperately needed to renovate and expand. Instead, USM got the vacant ABN Bank office at Beach Street for, sadly, only a short period.
2. The USM Library was a global leader. I was then the Hon. Supervisor of the Penang Library, the oldest in the region, founded in 1817. The pioneer librarian, Edward Lim Huck Tee, was outstanding pioneer and his book, “History of Public Libraries in West Malaysia”, is a classic. USM was the leader in digitalising. In its early years, I donated some large wooden shelves to USM. USM also did an amazing comprehensive annotated bibliography on Penang. Jocelyn Tan, one of USM’s students then and later a leading journalist with The Star newspaper, did some excellent work. USM should do a project to update it. USM also helped many training programmes for Library Management for schools and civil society groups together with the University of Malaya Graduate Society.
3. USM was a hotbed of activists and public intellectuals. They played key role in civil society including active engagement in various groups like Aliran, Malaysian Nature Society, Consumers Association of Penang (CAP), Water Watch Penang, Sahabat Alam Malaysia, Arts Ed and cultural mapping, music, performing Arts, people with disability and many others. They also played a key role in the setting up the pioneering think tank called the Socio-economic and Environment Research Institute (SERI) which has now transformed into the Penang Institute. A good study of this civic engagement and the personalities involved will be inspiring and a useful document.
4. I also arranged for USM to lead the Philanthropy Initiative in Malaysia. It published a unique and comprehensive book at the School of Social Sciences, “The Giving Society”, a pioneering unparalleled analysis of this field, and worthy of serious attention again.
5. The School of Pharmacy was a pioneer in Malaysia. It was also a strong partner of the International Organisation of Consumers Union (IOCU), which I led as President. There was Health Action International and Anti-Tobacco Campaign. One young (then) personality from USM in the nineteen eighties got the Olle Hanson Award named after a global health activist. That young person was Tan Sri Dzulkifli Abdul Razak, who is the current President of the USM Alumni. This was his first international award!
6. The School of Biology was particularly active and the Marine Research Centre at Batu Maung, initiated by the late Prof. CP Ramachandran, a global leader in Malaria issues and worked later for the World Health Organisation (WHO) was again outstanding. In conjunction with the Malayan Nature Society, they also had nature education project for children, and my two kids and I attended the programme. Prof.

Ho Sinn Chye, who later became the Vice Chancellor of Wawasan Open University (WOU) also played an active role. Another notable figure was Dr. Leong Yueh Keong, who did the Penang Conservation Plan and also played a key role of getting the North-west area of Penang Island National Park status one of the unique smallest of such forested parks globally.

7. USM was also a university pioneer in photography and film, making two of its great staff, Ismail Hashim and Robert Crock, unforgettable. The latter did the pioneering book called "PENANG" with amazing photos of the state and authored by Margaratha Retnam, wife of another USM legend, Prof. KJ Retnam, a former Deputy Vice Chancellor who also initiated the Centre for Policy Studies and served on the board of the Penang Development Corporation. I also partnered with the USM team when I was President of the International Organisation of Consumers Union (IOCU) to make a pioneering film called 'The Food Game', on educating young children about health matters. It was filmed entirely at the Federation School of the Deaf at Tanjung Bungah. A large size snake-and-ladder game was constructed out of wood by the students. A large dice was made and rolled by the students to get a number. When you did good deeds like eating healthy, you move up the ladder. When you did bad deeds like eating junk food, you slide down the snake. Each moves' significance was explained by a speaker and was also done in sign language. It was a simple but profound education platform on food and nutrition. Unfortunately, the original film was lost in a fire at a USM audio-visual centre many years ago.
8. USM was a global leader in distance learning and academic 'start-ups'. Tan Sri Dr. Dhanaraj's leadership led to founding of Disted and the setting up of Wawasan Open University. Dr. Dhanaraj was also the Secretary General of the Commonwealth Centre in Canada. Prof. Sharom Amat, a former Deputy Vice Chancellor, also played a pioneering role there and in setting up the Brunei University and several others.
9. USM has been renowned for its commitment to care for the poor which was embodied in its Bottom Billion initiative. We must never forget Prof. Yunus, the recipient of the Nobel Prize for micro credit programs. He always appreciated USM, which was the first university, making Malaysia the first country besides Bangladesh to be inspired by his pioneering work. USM did outstanding work in establishing a similar programme and it was so successful that it was taken to national level.
10. The pioneering role in the School of Mass Communication is also special. In the early 80s, I developed with the School a globally pioneering consumer education programme using radio called 'Calling all Consumers'. After a pilot project in Penang and with funding from the New Zealand government, we organised the first ASEAN comprehensive two-week training programme together with the Asian Institute of Broadcasting Development (AIBD) in Kuala Lumpur.
11. USM was the pioneer in gender studies with the setting up of a dedicated centre called KANITA. A world-renowned scholar, Prof. Wazir Jahan Karim initiated this centre. She also authored a pioneering 'Directory of Welfare Services in Penang' in March 1980, the first such compilation in Malaysia.
12. USM has become a regional and global leader in the field of Archaeology and has an excellent gallery and field sites.
13. USM is the pioneer in the area of astronomy. Schools in Penang have taken interest in this field and set up astronomy centres and there is an interesting participatory programme on astronomy in the Tech Dome at Komtar.
14. USM pioneered, in 2009, hosting the Right Livelihood College (RLC), a University-Activist initiative, where all Right Livelihood Award (popularly known as the 'Alternative Nobel Prize') winners covering every public interest issue you can think of are 'Fellows'. I had the privilege to initiate this and lead the College for four years as a visiting professor. USM became the incubator, hub, catalyst, multiplier and accelerator of this unique set up and it now has campuses involving every continent with campuses in ten leading universities globally. It was engaged in peace, justice, ecological sustainability, and eradicating poverty. After this pioneering work at USM, the Global secretariat of the RLC was handed over to Bonn University, where it was funded by the German Government and many others (www.rightlivelihood.org/college). It continues to be a thriving academic activist network, thanks to the pioneering work at USM.
15. The Asia Pacific University Community Engagement Network (APUCEN) is hosted by USM. I had the pleasure of drafting the Working Principles of this centre, which gave USM the regional leadership and facilitating role in University-Community engagement.

16. The pioneering 'Decolonising Universities International Conference' was hosted by USM and led to an excellent book called 'Decolonising the University' was published by USM. It was done together with Citizens International, which I initiated together with one of Malaysia's greatest activists, the late Tuan Haji SM Idris. We pioneered something at the conference where we got USM post-graduate candidate students from many countries to participate actively as facilitators and to present their own views at the concluding session. Engaging the next generation is of some significance. This was part of the "Youth for the Future" project with the Right Livelihood College which was hosted then at USM. USM also published a book together with RLC, titled 'Changing Course, Reclaiming Our Future', an excellent description of the great challenges and actions needed in the future to make a better world.
17. The Global Ethic Project was initiated in Penang with the assistance of USM and was held in its centre in Beach Street. It involved four major programmes:
 - a. Exhibition on all the religions and their values.
 - b. Using calligraphy to promote harmony by promoting the Golden Rule "Treat others the way you would like to be treated".
 - c. Training guides for the Street of Harmony, Jalan Masjid Kapitan Keling, where all the major religions have their houses of worship located near each other, a model of diversity and harmony to the world.
 - d. Three well attended workshops on Religion fighting corruption, saving the environment, and promoting peace. (<https://www.global-ethic.org/>)
18. The scientific innovations and collaboration at USM with industries are many, and I am sure someone will do justice to sharing those in one of your coming talks. The other two pioneering works are on solar energy and worm fertilisers.
19. USM's Department of Social Work led an initiative on workers' education. I suggested the programme and obtained funding from the Federation of Malaysia Family Planning Association and the United Nations to undertake a unique project called the 'Young Workers Community Education Programme'. This was to study and support systematically the hundreds, later thousands, of young female workers in the new established electronics factories in the Free Trade Zone in Bayan Baru. The young workers were mostly from other states and were in need social support.
20. USM also developed in 2013 one of the best books on volunteerism ever in Malaysia. It was called 'Volunteerism in Malaysia: Fostering Civic Responsibility', which gives an excellent history and the systematic structuring and developing this great resource. The Division of Industry and Community Network of USM initiated this and must be widely promoted.
21. In December 2011, USM also organised the first ever workshop on Future Studies jointly with the World Future Studies Federation (WSFS) and the Right Livelihood College. It was entitled 'Visionary Thinking for Tomorrow: Creative, Ethical Imagination for Designing our Futures'. This inspired Think City, a Khazanah's subsidiary, to host two other such workshops.
22. The pioneering work USM did in the field of Peace Studies is well known. There is the Peace Studies unit, the Taiping Peace Initiative, and active engagements on some of the main conflicts in the region is quite remarkable. The 'Peace Poles' with engravings of the words 'May Peace prevail on Earth' in all the official languages of the nations at one of the main roundabouts in USM are a unique mark of this area of work. As Chairperson of the Taiping Peace Initiative, I arranged for these to be hand made at Taiping, a name that means "everlasting peace" in Chinese. Subsequently, it is also the town where I grew up in my youth.
23. USM has also led the Regional Centre for Expertise (RCE) on Education for Sustainable Development. It worked with the United Nations University in Tokyo, Japan. Hence, USM became a regional leader. There are, of course, many other great initiatives, innovations and successes but forgive me as I can only talk about those that I have been directly engaged in one form or another.

Ideas for the Future

I have seven ideas for the future:

1. USM could set up an Institute of Social History. A systemic centre like the one in Netherlands that promotes and archives Penang's and Malaysia's social history.
2. Setting up a Biomimicry Initiative as is being done in many countries. It researches and utilises the power of nature for innovation. It is a growing creative movement that binds our links with nature.
3. Do a new edition of the annotated bibliography of Penang, which it did in its early years; updated and digitalised by contagious project that can be called 'Penangpedia' and developed also to include audio
4. As USM is a significant publisher but not that well known, it can begin to initiate a Penang Book Festival perhaps in conjunction with the Penang International Literary Festival. Penang has printed more books in the last decade than in the last 200 years. A great opportunity awaits USM.
5. Initiate the UN Days of Action Initiative making a formal systematic action to do things that inform, inspire, ignite, to make the world better. There could a booklet series on '99 Things You Can Do' for those days. Different Schools and Research Centres can each be asked to lead in one day related to their field. e.g. World Peace day, Biodiversity Day, Women Day and many others.
6. Special global lectures can be a series addressing the global challenges ahead. There are many for the world and suggest the following seven topics as a start.
 - Ecocide and the destruction of our environment
 - Hate and violence
 - Impunity and integrity
 - The post-truth era and fake news
 - The digital revolution
 - Food security
 - Healthy living

Each of these should be subjects of a new lecture series on 'Global Challenges – Today and Tomorrow.'

7. Values education is very important during these times. I like to share with you an idea of '11 Sins against Humanity' that you should make as a part of the orientation programme for USM students, with an education series on it which be a model for the world. The '11 Sins against Humanity' are as follows:
 - i. Politics without principles
 - ii. Wealth without work
 - iii. Enjoyment without conscience
 - iv. Knowledge without character
 - v. Business without morality
 - vi. Science without humanity
 - vii. Religion without compassion
 - viii. Rights without responsibility
 - ix. Power without accountability
 - x. Development without sustainability
 - xi. Laws without justice

The first seven were shared with the world by Mahatma Gandhi. The last four were my additions to meet current concerns.

Conclusion

USM will certainly keep soaring upwards if it continues to be more than producing PhDs but also BSTs (blood, sweat, tears) and GTD (getting things done) people. If you continue to be rooted in soil, soul, and society, you will continue to be a champion in creativity, competence, courage, caring, and the community. Finally, remember this saying, 'If you want to grow, make the whole world your garden. If you want to learn, make the whole world your university.'

Minden Trilogy

Glugor Plantation



by
Dato' Anwaruddin Ahamad

28 February 2019

*Edited by
Sherline Ann Andrew and Ajuntha Kuppan
School of Languages, Literacies and Translation
Universiti Sains Malaysia*

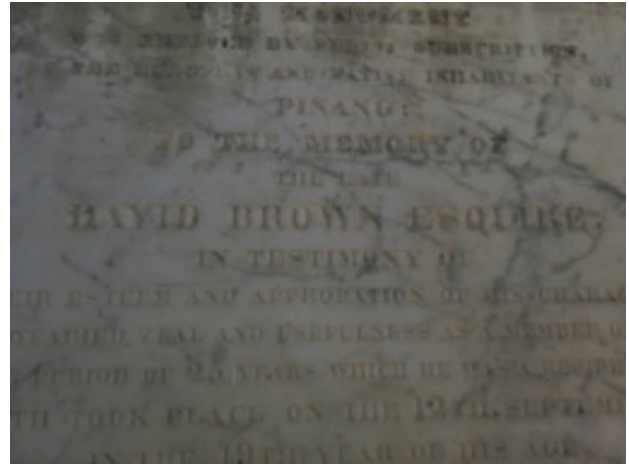
*Graphic Design & Layout by
Rosman Ahmad
Pusat Racun Negara, USM*

Allow me to first congratulate Universiti Sains Malaysia (USM) on attaining its 50th Anniversary. Syabas to all who have made this possible.

I will not dwell on USM's rapid rise to fame and how in a short span of 50 years the University has achieved the status of an APEX University, a status that many aspire but only a few achieved. Thanks to astute leadership, passionate and visionary with a penchant for the pursuit of excellence. USM is to date the only APEX University in Malaysia. An achievement you can all be proud of.

Secondly, thank you to USM Alumni for inviting me to share my experience on USM's early inception and how it came to be located at Minden.

I am not a prolific writer and I hope you will grant me some leeway if I don't measure up to the standard set by acclaimed speakers like Dato' Dr Anwar Fazal and the other luminaries and academicians.



This monument was erected by public subscription by the European and native inhabitants of Pinang: To the memory of the late David Brown Esquire In testimony of their esteem and approbation of his character, and for his unwearied zeal and usefulness as a member of the community, during the long period of 25 years which he was a resident on the island. His death took place on the 12 September 1825 in the 49th. year of his age, on board the H.C.S Windsor Castle on her passage to Malacca.

Portions of the story that I am going to tell about Minden Barracks and USM relate to my personal experience and may differ with your research or readings; that's because I have exercised the right to creative license to embellish the story to make it more interesting.

The topic 'Minden Trilogy' seek to explain the three facets of Minden – the spice plantation it once was, the military establishment era culminating in it being the home of Universiti Sains Malaysia.

Way back in early 1800, the area around Relau, Sungai Ara and Gelugor was a spread of huge spice plantations mainly of cloves, nutmegs and other local spices intersperse with coconut plantations. Spice trade was a lucrative business for the East India Company then. And many Europeans got themselves involved in this line of business. Amongst them was Mr David Brown, of Scottish descent and a partner we are told of was Capt. Francis Light. David went on to become a successful trader and planter and had his family estate at Gelugor House, site of the present campus.

Another Brown, John, served on the Local Government Committee, holding several portfolios, provost, sheriff, Bailiff, Police Officer and Secretary of the Committee. Both Browns served actively on the Committee which was set up to ensure the orderly development and administration of the island.

Those of you from Penang, I am sure are familiar with Brown Road, Brown Gardens and Padang Brown (BROM), these are dedicated to John or David, I am not sure but I do know that at the corner of Padang Brown at the Perak road end, stands a monument dedicated to David Brown Esq. He served for 25 years and died on 12 September 1825 on Board HMS Windsor Castle on his way to Malacca.



What we know as the Minden Barracks was built before or during World War 2, and the structure today unrecognisable as part of the Universiti Sains Malaysia

By that time, spice business was giving way to commerce and industry. And the British in wanting to protect their interests started to establish a military presence in Penang. In addition, there were conflicts between Chinese settlers working in the tin mines and the Malays, civil strife amongst the Malay chieftains and increase in piracy in the Straits of Malacca. Under such an environment, plans were put in place to establish a military garrison and Minden Barracks was established around 1939/40, then known as Gelugor Barracks. It was initially converted from one of the Browns plantation houses and over time, new buildings were added.

That development saw Minden transformed from a plantation to a military establishment and thus the beginning of the next story.

By the way, Minden Barracks got its name from the battle of Minden in Germany, that reportedly ended the 7 years war; a war fought on many fronts, US/Europe/Africa between the British, Haverians, Hessians, Prussians against the French and the Saxons. Basically, to exercise control over territories and to establish spheres of influence.

Minden then covered some 239 hectares of land and several barracks and officers' quarters plus a hospital, cinema and recreational facilities.

Between 1941 – 1944, the Japanese Imperial Military Forces occupied Minden after retreat of the British Forces. Not much to tell as very little literature can be found of their activities at Minden. We can surmise that it was used as the Japanese military centre to coordinate their operations in

Penang and Province Wellesley. The Japanese occupation was a dark period in the country's history with mass murder, beheadings, torture, rape and other atrocities being committed. The Chinese Community was a prime target because of their support for Sun Yat Sen and the Kuomintang and the MPAJA. The "Suk Ching" mass murder took place in Penang. Fortunately, the Japanese surrendered in September 1945.

As in most cases of Japanese occupation, stories abound of atrocities committed within Minden. When we were growing up, we were told by our elders of sightings of headless spirits roaming the grounds at night. Even to this day I am told by early morning joggers and walkers that they would feel and even sight the presence of 'uninvited guests' amongst them, only to see them disappear some distance down the road. Yet another story familiar to us is that an underground tunnel exists from Minden to the sea frontage across the road – being a possible exit route in case of emergency or when a hasty retreat is called for. But no stories of hidden treasure of the infamous Yamashita gold that I recalled. USM does not need it. Today, it has become a treasure trove itself a priceless Higher Institute of Learning in this region.

With the withdrawal of Japanese forces after their surrender in 1945 and the return of British Military Administration, Minden was once again occupied by the British forces as their HQ's in Penang.

I have chosen the year 1966 as the beginning of the third story on Minden Barracks. Why?

Because in 1966, the Bangkok Accord was signed. An Agreement that essentially ended confrontation and paved the way for the formation of ASEAN. Tun Abdul Razak, Adam Malik, Thanat Khoman, S. Rajaratnam and Fidel Ramos all played significant roles that led to the signing of the Agreement.

The Bangkok Accord signed on 31st May 1966 also paved the way for other bilateral arrangements being entered between the ASEAN countries.

For Malaysia, an important element of the Agreement provided for the withdrawal of Commonwealth Forces in Sabah, Sarawak and Peninsular Malaysia. Arising thereto, British and Commonwealth assets, camps and bases were to be handed over to the Malaysian Government represented by the Ministry of Defence under the Dudley Arrangements.

I remembered signing the Letter of Acceptance to join the Government Administrative Service at 10am sometime in July 1966 and by 5pm, I was on my way to the Sungai Besi Airbase en route to Kuching to join my colleagues from the military to take over several camps in Sarawak. All told if my memory serves me right, some forty plus camps and bases were to be taken over from the Commonwealth Forces in Sabah, Sarawak and Peninsular Malaysia.

Though a civilian officer that period saw my introduction to army life of being accommodated in an officers' mess and being served with early morning coffee, shoeshine and other services by a batman. It also introduced me to kerosene fridges, sight of blond Iban boys and girls running around in some longhouses and of half-dressed maidens going about doing their chores. This was an adventure to the young 23-year-old officer, not easily forgotten. But that will be a story for another time, another occasion.

In Penang, Fort Auchry, RAAF Butterworth Base (March 1970), Minden Barracks (1970) and Runnymede (1971) had been handed over to MinDef. I was fortunate to be part of the team taking over these assets. My work was over, so I thought but fate has a way of intervening.

On the brink of change

21 APR 1977

THE three-year old University of Penang stands poised on the brink of change — on the eve, so to speak, of its "coming of age" convocation on June 10.

But change brings with it controversy, and opinion on the campus is split on one issue — whether the Universiti di Pulau Pinang, as it is now called, should

PROPOSED NEW NAME FOR THE UNIVERSITY OF PENANG STIRS UP CONTROVERSY

PENANG, Thursday



PROF. HAMZAH... ANSWER

Senator G. D. Isu who was among the 8 executive councillors spearheaded the varsity project in the second the State Con

Umno no to use of Minden Barracks by varsity

0171

THE Penang Umno delegates' conference unanimously resolved last night to oppose any move to convert Minden Barracks into a campus for the University of Penang.

Heated arguments against this proposal followed a motion by the Jalan Hatim branch calling on the Government to retain the barracks.

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THE UNIVERSITY WITHOUT A CAMPUS

WHAT are they like — the pioneer students on whom the future status of the University of Penang depends so much?

Ever since the first formal registration on June 9, observers interested in the University's future have wondered how these 57 students are making out in "their unique experience of joining a university without a campus."

"They seem a mature group with experience in leadership," observed the Vice-Chancellor, Professor Hamzah Sendut, after he had met members of the pro-tem Committee of the Student Representative Council.

"We have full confidence in the Vice-Chancellor. I'm sure he won't let us down," commented the secretary of the pro-tem Committee, Miss Jamilah Fazel.

These two comments sum up the close relationship of trust and co-operation built up between the students and the administration.

Interviews with the students showed that they were a group keenly aware of their pioneer status — with all its responsibilities, advantages and

by OOI CHENG GAIK

0120

PENANG



augurs well for the University.

Perhaps even more striking than the obvious determination to do well was the spirit of friendliness and co-operation between the students

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Varsity names registrar

119 AUG 1969

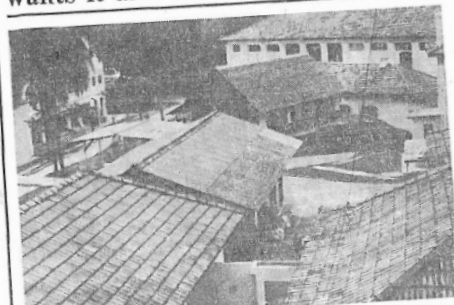
PENANG, Mon.—The University of Penang has appointed Mr. N. A. Ogle, a former headmaster of the Sultan Abdul Hamid College, Alor Star, as its registrar.

The Vice-Chancellor, Professor Hamzah Sendut, also announced today two other appointments: Mr. Cheah Hoong Tuck as bursar and Mr. Edward Lim Huck Tee as librarian.

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0126

The university wants it, the army wants it and the British may stay on



A section of Minden Barracks. These blocks, according to university sources, could be easily converted into classes and offices.

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Tussle for Minden Barracks

0139

By KHOR CHEANG KEE

PENANG

Chances

However, the university's chances of anything to it may well depend on the outcome of the next

All three were in high spirits when they continued their talks informally at a cocktail party which Prof. Hamzah gave on Monday night.

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Meantime calls for Universiti Sains Malaysia to be located at Minden became louder. The temporary arrangements at the Malaysian Teachers College (MTC), Gelugor were not working out too well and restrict plans to expand rapidly USM. The original site at Sungai Ara did not take off presumably due to lack of funds and time constraint and the fact that the country was adjusting to the aftermath of May 13, 1969.

Universiti Pulau Pinang was originally mooted by D.S. Ramanathan, in 1959. It became a statutory body in 1969. In fact, in 1967 on 7th August, a ceremony for the laying of the foundation stone of Universiti Pulau Pinang by Tunku Abdul Rahman at Sungai Ara took place.

This period also saw resistance from student groups and others to the proposed change in name from Universiti Pulau Pinang to Universiti Sains Malaysia. In addition, UMNO Pulau Pinang also passed a resolution to oppose USM's move to Minden. Possibly on security grounds, and the fact that a permanent site had been made available at Sungai Ara.

My initial introduction to Universiti Pulau Pinang started as early as 1961/2. Sarojini, D.S. Ramanathan's daughter was my classmate in Sixth Form in Penang Free School and would sometimes talk about her father's passion to have a university established in Penang. Datin Mahmuda Bibi; Dato' Prof. Dr Ghouse Nasruddin can attest to this. So too, Dato' Dr. Anwar Fazal who was our senior in PFS at that time. Presently, we sit on the Penang Free School Foundation and are members of G-25, a group of concerned Malaysians fighting for a just and better future for all. Another classmate, the late Ooi Cheng Gaik, who later became a journalist was instrumental in writing several articles on problems and issues USM faced in its infancy. As fate would have it, the brief discussions in the classroom in 1961/62 would 9 years later, brought

me to be directly involved in USM's move to Minden.

As mentioned earlier, in 1970, Minden Barracks had been handover to the Ministry of Defence under the Dudley Arrangements. The military were adamant that it be retained as a military camp being purposely built for such use. At the same time, the country had just gone through the May 13 episode and security was high on the priority of the Administration. The Armed Forces Council which met and was chaired by Tun Abdul Razak, had also agreed for MinDef to occupy Minden. In addition, returning battalions that were set up in earnest during the confrontation years, to serve in Sabah and Sarawak were also looking for permanent camps to come home to.

Meanwhile, the Ministry of Education with strong lobbying by USM and the Penang State Government had also put forward their claim for USM to be located at Minden. Tun Abdul Razak then instructed that the matter be put forward to the National Operations Council for a decision.

While the Cabinet Paper was being prepared, I remembered receiving a call from my boss, the Permanent Secretary to the Ministry of Defence, AB Samad Nor (Tan Sri). He inquired about the status of our position. As a professional, it was our job to support the request by the Army to occupy Minden but on a more personal basis, as a Penangite, I would be happy if the Barracks were given to USM. In addition, I informed him that we had taken over several major camps and assets. In Penang alone, we had taken over Minden, Runnymede, Fort Auchry and RAAF Butterworth Base. Other facilities include the huge camp at Terendak, Malacca and the Jungle Warfare Training School at Ulu Tiram in Johor. These camps and bases should be adequate for MinDef's immediate requirements.



AB Samad Nor (Tan Sri) and his counterpart from the Education Ministry, Shaikh Hussain (Tan Sri), then made a quick visit to Penang and had discussions with the VC Hamzah Sendut.

To cut matters short, the NOC agreed subsequently for Minden barracks to be handed over to USM for its use. At the meeting, Tun Razak was heard to have quipped, "In this government, education will prevail over defence anytime and every time." Not too far different from Tunku's 'food on the table first before bullets.'

In keeping with the decision of the NOC a Handover Board was established and Minden Barracks was finally handed over to the Ministry of Education in 1971. At the ceremony, I represented the Ministry of Defence with several of my colleagues from the military in attendance. Representing the Ministry of Education was Noh Abdullah (Dato') and USM was represented by Noel Ogle (Dato') and others.

And that, ladies and gentlemen was how USM came to occupy Minden as its campus. The rest as they say is history.

Ably led by your first Vice Chancellor, Tan Sri Hamzah Sendut, a lecturer at University of Malaya when I was a student there, with subsequent entrepreneurial and innovative initiatives especially during the tenure of your Alumni President, Tan Sri Dzulkifli Abdul Razak, USM is now one of the top universities in the region. Congratulations to all who have made it happen. I pray you will go on to achieve many more successes, success that you so richly deserve.

As a young 27-year-old government officer, it did not dawn upon me that in carrying out my assigned tasks that one day it would be regarded as a part of USM's early history.

I am not an Alumni of USM though my family home is at Minden Heights, Brown Gardens, presumably named after the original owner of Gelugor plantations on which USM now reside, is my favourite breakfast haunt for its *nasi dalcha*, various nasi bungkus and the inimitable *serabai*; 40 years ago I had breakfast with a friend over *teh tarik* and *serabai*. Today the same friend is here to share *teh tarik* and *serabai* with me. Thank you, Dato' Prof. Ghouse.

USM's motto "We Lead" is uncannily similar to what we developed at second college of University of Malaya in 1964 and where Prof. Francis Morsingh was then our Resident Fellow.

Your Royal Chancellor, DYMM Tuanku Syed Sirajuddin was my school mate at Westlands and later at the Penang Free School, till 1958 when Tuanku left for Sandhurst. Though not an alumnus of USM, today, I really feel like I belong.

If I may be bold enough to suggest that USM maintain its link to its historical past by considering the following:

- a. that a spice garden be established to complement the 'University in a Garden' project started some 15 years ago. Consider *bunga kantan* and *asam gelugor* as both are easy to grow and resilient. The former for its fragrance and decorative effect and the latter for its affinity to Gelugor (both are also important ingredients for the famous Penang *Asam Laksa*)
- b. that on the 1st Monday of the month or on the anniversary date of the University's founding, a bugle / trumpet be sounded playing the university song to signify its early military linkage.

By the way, lest I forget, where is the 1 Ringgit that you guys owe me? You see I paid 1 Ringgit to the British Land Agent when we took over Minden. I do not recall Dato' Noh Abdullah or Dato' Noel Ogle ever paying me for handing over Minden to them. I guess that will be my small contribution to USM.

Thank you for your patience and more importantly for taking time off to read this. In doing so, I have the privilege of making new friends and rekindling old acquaintances, something precious as the years go by.

Ladies and gentlemen, have a good day.

Reminiscences of the Foundation Professor of Physics Universiti Sains Malaysia



by
Emeritus Professor Dato' Dr. Chatar Singh
Foundation Professor of Physics and Professorial Dean,
School of Physics & Mathematics [now School of Physics]

16 March 2019

Edited by
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The University of Penang (Universiti Pulau Pinang) commenced operations on 1st June 1969 and was mandated by the government to be a natural sciences-based university. It was temporarily located at Maktab Perguruan (Malayan Teachers' Training College) at Bukit Combi (now referred to as RECSAM). The Late Tan Sri Prof. Hamzah Sendut was appointed the Vice-Chancellor Designate of the University.

While serving with the University of Malaya, I was requested by the Vice-Chancellor Designate in May 1969 to undertake full responsibility of organising the teaching of physics and mathematics, the latter was compulsory for all science undergraduates, and establish the departmental structure for the disciplines. The Late Tan Sri Hamzah Sendut also appointed the Late Professor Francis Morsingh to be in-charge of chemistry and the Late Professor E. Balasingham to be in-charge of biology; both were from the University of Malaya.

Dato' Dr. Anwar Fazal, noted that when the University of Malaya Kuala Lumpur Campus was created, the administrators and academics from the University of Malaya in Singapore played a leading role in establishing it and later this institution became the University of Malaya and that in Singapore became the National University of Singapore. History repeated itself when the University of Penang was founded, again the administrators and academics from the University of Malaya were enrolled to help in establishing it.

As from May 1969, at the heights of the riots, I commuted from Kuala Lumpur, sometimes under police escort arranged by the Vice Chancellor, to serve the university. I gave physics lectures, supervised physics practicals with the help of part-time staff recruited from Penang. I compiled a list of equipment to be purchased for the physics laboratories and assisted in the recruitment of part-time and full-time staff for physics and mathematics and also for the other disciplines of the university. I had to compile and organise the academic curriculum for undergraduate teaching in physics and mathematics. Together with the two Foundation Deans we drew up administrative rules and regulations for the university to cater for all aspects of a newly established academic institution.

On 1st April 1970, I took up a formal position with the University of Penang as the Foundation Professor of Physics and Professorial Dean of the School of Physics & Mathematics. The post of Professorial Dean was the brainchild of the Late Tan Sri Hamzah Sendut who had the vision of appointing only full professors to be Deans. Unfortunately, these posts have vanished with the rapid expansion of the university.

University of Penang was re-located to Minden Barracks in 1971 and was renamed Universiti Sains Malaysia (University of Sciences Malaysia) in April 1972. In fact, several names were presented to Parliament in 1971 and Universiti Sains Malaysia was chosen. [Sunday Gazette 21 April 1972]. USM was to play the leadership role in gathering and disseminating scientific knowledge for Malaysia. Minden Barracks was then an army base for the British Far East Command for their rest, recreation and medical facilities. The Vice Chancellor had invited the Minister of Defence, The Late Tun Dr. Ismail Abdul Rahman, to the university for a dialogue session and after the formalities were over, a game of golf was arranged for Tun at the

Penang Turf Club Golf Section. The university team comprised the Registrar Dato' N.A. Ogle, Prof. Francis Morsingh and me. After the game Tun Dr. Ismail informed the Vice Chancellor that Minden Barracks will be the seat of Universiti Sains Malaysia on the receipt of One Malaysian ringgit. For record purposes, golfing diplomacy did play a small part in getting Minden Barracks transferred from the British to the University.

On 28/2/19, Dato' Anwarrudin Ahmad Osman, the second speaker in the series, confirmed and enlightened us in vivid details of what transpired before the decision was made to convert the army post into an academic institution. Apparently the USM owed Dato' the dollar that was the transfer fees and this was only returned to him on 28/2/19 by Dr. Hari Narayanan, Chairman of the University Board of Governors.

Why Did I Join University of Penang [USM]?

I was serving at the University of Malaya in Kuala Lumpur and was a student in the University of Malaya, Singapore. Both these institutions were established on a traditional colonial pattern wherein there was only one professor per department who was also concurrently head of the department. Having been promoted to a Readership in Physics at the University of Malaya, the first and only one in Malaysia, I had to wait for the then Professor of Physics, the Late Professor Thong Saw Pak, under whose supervision I did my Master's Degree in Plasma Physics at the University of Malaya, Singapore, to either retire or leave the university, to be promoted to a full professorship. So, the best option for me was to get out of the way; and I looked forward to the challenges of being part of the founding team of a new university in Malaysia, that would be the first by our independent nation.

Structural Changes

On joining the University of Penang, my colleagues and I were given the opportunity to think out of the box and make use of our experiences. With the Vice Chancellor's blessings and consent we introduced the concept of Schools in place of departments with related multidisciplinary subjects per discipline. This multidisciplinary approach enabled the University to create multiple chairs to enable the academic staff to develop their full potential in research to be promoted and not to wait for a vacancy to occur. USM was the first Malaysian university to introduce subject groups with tailor-made research laboratories to encourage active group research in place of individual research, thereby saving tremendous costs in research equipment and was also the first university to offer courses in geophysics and biophysics - the graduates of geophysics served a compelling need of the nation for developing the gas and petroleum industries in Malaysia.

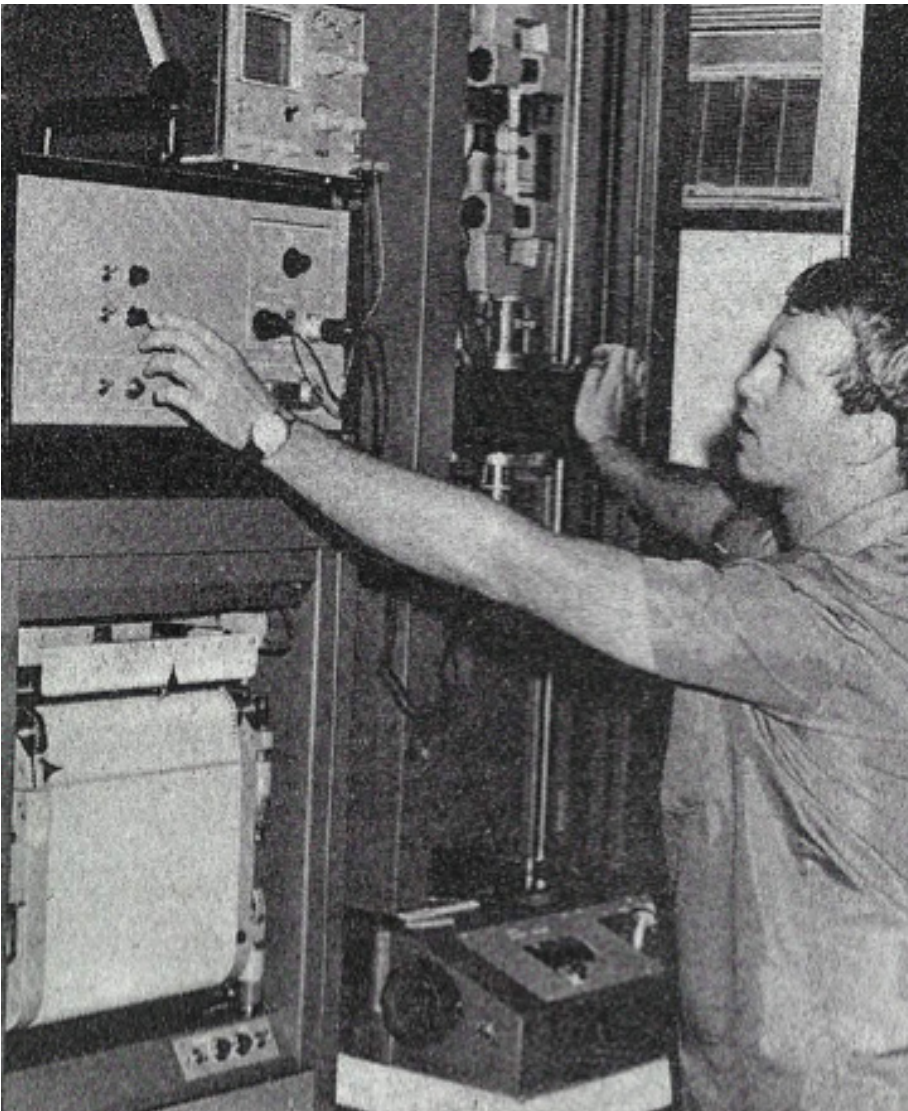
Likewise, to keep abreast with academic and administrative developments elsewhere, we planned, organised and executed the shift from the traditional three terms paper based academic system to the two-semester unit based system in the 1970s in keeping with modern university education to cater for bright students and those who want to go at their own pace. An earlier challenge was of condensing the traditionally offered four-year undergraduate programme in the sciences with honours degree to be offered at USM as a three years programme as from 1969. This move was successful in drawing high calibre students to USM. More satisfying was the elation from seeing our graduates finding easy acceptance for post graduate entry at world reputed universities overseas.

The University introduced the Academic Staff Training Scheme to build up its own academic manpower in its areas of thrust.

Introduction of the Students Training Scheme i.e. short attachment during semester breaks with industry and government departments, for all science students who have completed their first year was very rewarding. It gave students first-hand exposure to working conditions in industry and government departments. It also gave the industry and departments an opportunity to get the students to study some of their minor problems and for them to identify good candidates for employment on graduation. I am not sure if this scheme is still operative.

USM was the first university in this country to introduce Off Campus Education in 1971. Physics and the other sciences were the early ones to get involved. My involvement in this programme has left me a lasting memory; for in 1980 I got a minor heart attack when I was having breakfast at home before taking a flight to Kota Baru and the scare is permanently embedded in my heart as a reminder. Now, Off Campus Education has become a trend in this country with universities being established just for it.

USM was the first university in the country to offer Matriculation Courses (Foundation Science) for Bumiputra science students who have passed their SPM examination. The aim was to get the academic staff to tutor them to the STPM level and on passing gain admission to the University. The programme went viral with all universities adopting it. I was the first physics staff to lecture in the Malay Language and ended up writing a textbook entitled '*Ilmu Optik*'. I am the only Foundation Dean who has donated a Gold Medal for excellence in physics. On 26/2/2019, about 45 years later, the Vice-Chancellor presented me *Sijil Penghargaan* for it at her Annual Report of the University.



Bob Seward

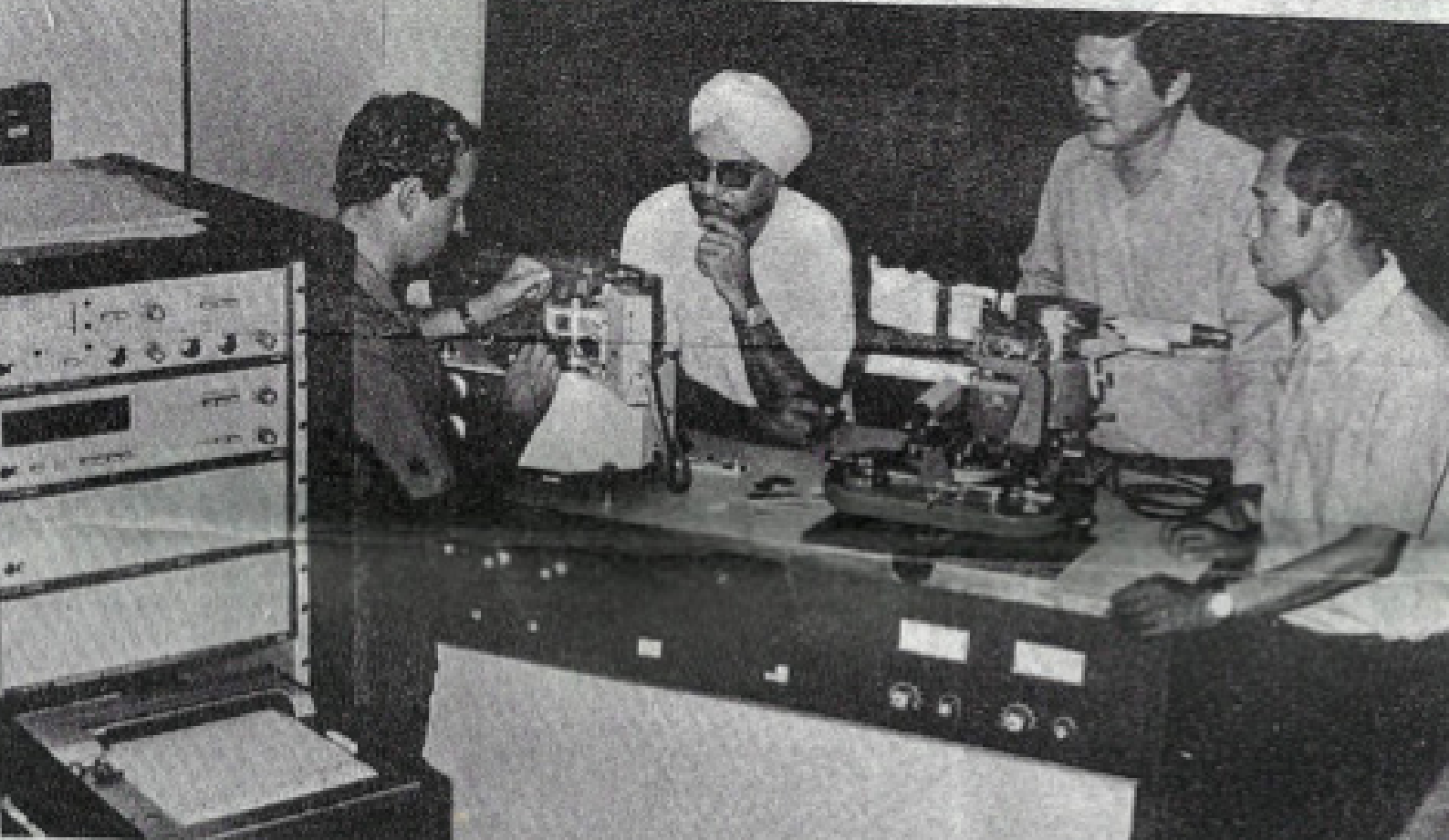
My Unforgettable Experiences and Fondest Memories

The meetings with The Late Tan Sri Hamzah Sendut and the three Deans of the founding natural science schools, serviced by the administrative staff, normally started in the mornings and ended at dinner time. Morning tea, lunch and evening coffee and sometimes even dinner was served at the meeting table whilst discussions were on-going. Such intensive meetings were held almost every working day of the week since there was so much to plan and document for the start of the academic session of a newly founded university. As Foundation Deans, we were members of all academic committees and on most non-academic committees of the university.

It amazed me how quickly The Late Tan Sri Hamzah, a geographer by training, picked up the science jargon and became very proficient in it.

The environment created by The Late Tan Sri Hamzah Sendut was very invigorating, cordial and challenging and made everyone concerned contribute to his highest level of creativity, ingenuity and brilliance in charting the path of the newly established university.

The Vice-Chancellor's welcome and get-to-know sessions for newly recruited staff at the Water Tower in Minden Campus were very warm and welcome by all who joined the university and helped create a cordial family-like atmosphere admired and respected by all. There was such camaraderie and



Bob Seward and Me at the diffractometer

collegiate atmosphere throughout the early days until the natural sciences university became a full-fledged university.

The first convocation of USM was held on Saturday 10th June 1972 [THE STAR's Convocation Supplement, Saturday 10th June 1972] and amongst those present were DYMM Raja of Perlis, Chancellor; Minister of Education, Hussein Onn Jaffar; the Pro-Chancellors Ungku Raja Azlan Shah and Lim Huck Aik and Vice-Chancellor Tan Sri Hamzah Sendut. Of the 57 pioneer students 39 graduated.

The cooperation given by most of the foreign staff during my tenure as Dean was excellent. They spared no effort to undertake administrative and committee work on top of their academic commitments. Dr. Bob Seward was most cooperative and helpful. [THE STAR's Convocation Supplement, Saturday, June 10, 1972].

Of course, minimal research was undertaken since there was a lack of research facilities. Furthermore, they were very busy with teaching and administrative duties. My family and I made every effort to get to know them and their families. We made them feel welcome by having functions at my home in Penang and introduce them to Punjabi food cooked by my dear wife.

The Vice-Chancellor also spared no effort to look after his senior executives. On each occasion, our Pro-Chancellor, Ungku Azlan Shah, the then Lord President and later the Sultan of Perak, came to hear a case in Penang. He was treated to a silver cutlery dinner at the Boon Siew Revolving Restaurant. We, the Deans and senior officials always got invited.

Being A Busy Body

I happened to be the most active and restless of the Foundation Deans in raising issues and as a consequence was assigned to undertake tasks by the Vice-Chancellor and the Academic Planning Board. I chaired the USM Computer Requirements Committee which established the initial computer facilities for the university which are now under the jurisdiction of the School of Computer Sciences. I was also the chairman of the Liaison Committee of the Natural Sciences Schools which ensured uniformity of practice in decision making in non-academic matters.

School of Physics and Mathematics

The School of Physics and Mathematics decided to create group centred research, a novel idea at that time, and established research groups in Solid State Physics, X-ray Crystallography, Geophysics, Biophysics and Theoretical Physics, with coordinators. This policy decision led to the selective hiring of academic staff and the prudent utilisation of funds to purchase research equipment to be used collectively and effectively by each research group thereby strengthening research in the School. I am proud that the structure has stood the test of time and is still relevant as we celebrate our 50th anniversary.

I prepared the Five-Year Development Plan for physics and mathematics in 1971 and for physics in 1977. I compiled a New Degree Structure Report for physics and mathematics in 1972, the Physics & Mathematics Handbook in 1972 and the Physics Handbook in 1975.

School of Mathematical Sciences

In 1974 the School of Physics and Mathematics was split into two separate schools to allow for mathematics to become a subject in its own rights with the addition of Computer Sciences.

Let's pause and have a look at the names of the original natural sciences schools: we have the School of Biological Sciences; School of Chemical Sciences; School of Mathematical Sciences and School of Physics, why not School of Physical Sciences? Only recently Dato' Prof. Shukri pointed this out to me, and I was flabbergasted. It goes to show that even my colleagues then did not raise this issue; Why? It may be that there was something in my personality that made it difficult.

The academic and administrative structures that I have played a part in establishing have withstood the test of time and USM has marched forward to become the only APEX University in 2008.

Contributions to State and Country

On the request of the Chief Minister of Penang, Tun Dr. Lim Chong Eu, my staff helped the state government to locate high quality silicon crystals in Kedah which helped Schottglass to locate its factory in Penang instead of Selangor, and we agreed to help determine the calorific value of fuel supplied for the electricity generating turbines in Seberang Perai, which apparently was not to specifications. On being told that the university will test the calorific value of the supplied fuel, the suppliers immediately admitted their guilt and agreed to replace the fuel at no cost but according to specifications.

Whilst serving the university, I was a member of the Board of Advisors and chairman of the Board of Examinations of the City In-Service Training Centre. I served on several State committees e.g. Penang State Pollution Control Committee, Jawatankuasa Penamaan Jalan dan Tempat whereat I got Jalan Brick Kiln to be renamed Jalan Gurdwara in 1990, on Penang Skills Development Centre Management Council and Forum Perundingan Kerajaan Tempatan.

I chaired several committees for the National Council for Scientific Research and Development e.g. Oceanography & Meteorology, Utilization of Solar Energy, Survey of Underground Water Resources. I was a member of the Defence Science Coordinating Committee, Ministry of Defence and got Rear Admiral Tan Sri Thanabalasingham's approval for our geophysicists to conduct surveys for mineral and petroleum deposits offshore from Penang to Langkawi on board Malaysian Navy ships. Golfing with Tan Sri whenever he was in Penang enhanced our relationship and cooperation for the greater benefit of USM.

I served the Ministry of Education on Jawatankuasa Sukatan Pelajaran Ilmu Hisab and Jawatankuasa Penasihat Pengajaran Sains Asas, also the Public Services Department and SIRIM. I was a member of the Metrication Technical Committee of the Ministry of Trade & Industry and External Examiner and Coordinator in Physics for Mara Institute of Technology. My participation brought credit to USM.

I was Public Orator for the Honorary Degree for YTM Tunku Abdul Rahman Putra Al-Haj in 1975.

I am a Foundation Member, was Vice-President and President of Insitute Fizik Malaysia [1975-1977] and was elected a Fellow [1974] and an Honorary Fellow [1985]. I was the Chairman of the Pro-Tem Committee to form the Asian Physical Society and was elected its President [1979-1984].

I was the Sub-Editor of the World Directory of Crystallographers.

Seminars held in 1980 and 1983 led to the establishment of the Penang State Sikh Welfare Society [PSSWS] in 1983 which changed its name to Penang Sikh Association [PSA] in 2002. I was the first Vice President [1983-1987] and became its President and served the Association for 18 years. I established the Penang Sikh Education Fund in 1988 through a contribution of RM10,000.00 to provide financial aid for Sikh students of poor parentage and to recognize and reward students who excelled in major school examinations. I was Vice President of the Malaysia-Singapore Sikhs Sports Council [MSSSC] and the Malaysian Sikh Union [MSU] and was the Chairman of its Penang Branch.

I was the Chairman of Parent Teachers Associations of Wellesley Primary School and Convent Primary School; member of PTAs of Penang Free School, Vice-President of St. Xavier's Institution and S. M. Hamid Khan. I was the Vice-President of the Diamond Jubilee Sikh Temple; Executive Committee Member and Secretary of Kelab Ilham; Committee Member and Secretary of PTC Golf Section and chairman of the Liaison Council of Bukit Jambul Country Club [14 years].

On joining the University, I initiated the formation of the University Staff Golf Club to compete in the Inter-Varsity golf tournaments against the University of Singapore and other Malaysian institutions of higher learning for the Y.T.M. Tunku Abdul Rahman Putra Golf Challenge Trophy. The Late DYMM Sultan Azlan Shah, as University's Pro-Chancellor, was our Patron.

On retirement in 1984, I was attached to the School of Physics as Co-ordinator of the University Workshop Facilities and later as the Coordinator of the University's Central Technical Facilities. In 1987, I was appointed Visiting Professor and Advisor

to the Industrial Research and Consultancy Unit headed by Dato' Dr. Ratnalingam. This Unit was the precursor to the Pusat Inovasi dan Perundingan, which itself paved the way for the incorporation and operation of the USAINS Group of Companies that is fully owned by the University.

In 1991, I was appointed a Royal Commissioner, apparently the first Sikh, of the Royal Commission of Enquiry into the Sungai Buloh Bright Sparklers Fire Tragedy. In 1995, I was appointed the Foundation Fellow of the Academy of Sciences Malaysia and served as its Council Member [1996-1999].

Unforgettable Events or Incidents That Happened In USM During My Tenure

Two students I taught at the University of Malaya, Kuala Lumpur joined USM and made very significant contributions. Dr. R. Ratnalingam [now Dato'], a Rhodes Scholar from Oxford University was the first permanent staff member of University of Penang in January 1970. In fact, he applied to the University of Malaya but the Dean in his wisdom decided that there was no vacancy. I brought the form to Penang and gave it to the Vice-Chancellor who appointed him without hesitation. He later rose to be the Professor of Solid-State Physics and Deputy Dean, then Dean of the School of Physics. He took optional retirement and became the first Director of Penang Medical College wherefrom he retired as its President.

Dr. Fun Hoong Kun was selected for the Academic Staff Training Scheme, and he graduated from Purdue University in Solid State Endor Spectroscopy. While serving as a lecturer at USM, he was persuaded to join the already established and well-equipped crystallography research group. Professor Fun Hoong Kun rose to become the top publisher of research papers in USM and in Malaysia and in January 2014 he

was cited as No: 6 in the world-wide ranking of publishers of crystallographic papers by the Cambridge Structural Database. USM awarded him Emeritus Professorship of Crystallography. He was concurrently Professor, Department of Pharmaceutical Chemistry, King Saud University, Saudi Arabia whereat he fell ill and has since returned home to recuperate and retire.

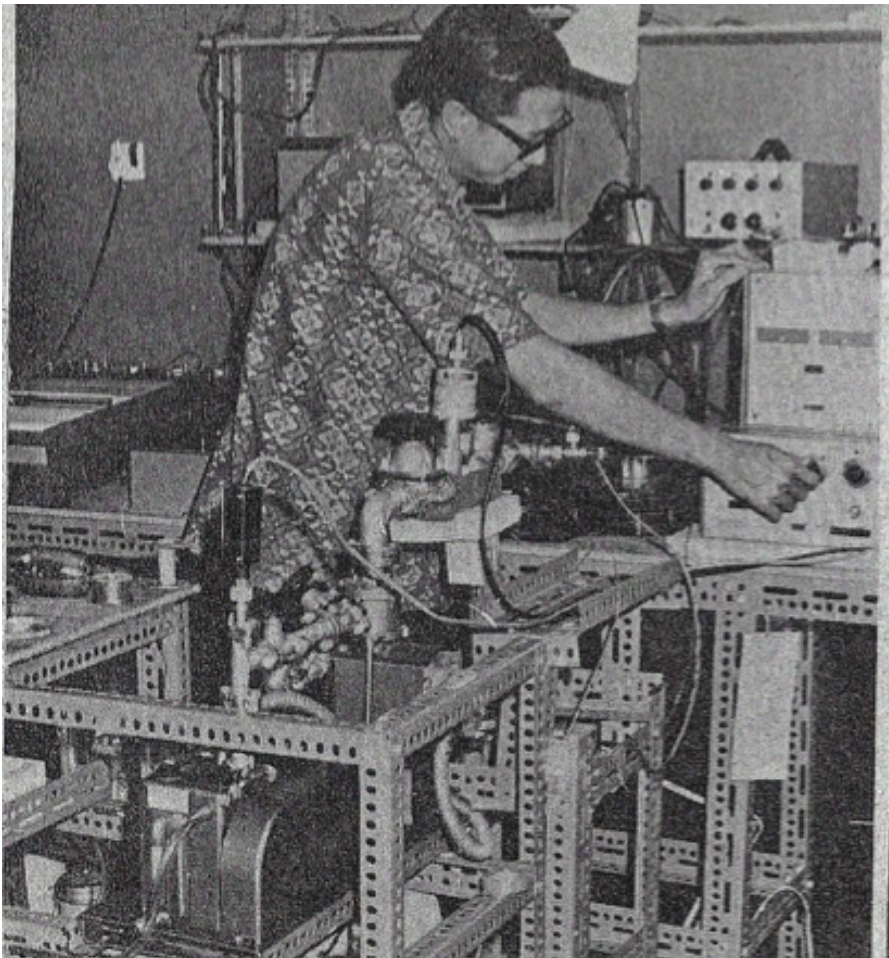
Another two Academic Staff Training Scheme fellows have gone on to chart commendable careers outside USM. Dr. Karsono Ahmad Dasuki went on to become the Director of USM's Off Campus Centre. He then became Professor of Physics at Universiti Teknologi Malaysia and rose to become the Director of its Pusat Kajian Sains Fundamental. Lastly, he served as a contract Professor at Universiti Sains Islam Malaysia.

Dr. Abdul Latif Awang rose to serve as the Dean of the School of Physics from about 1985 to 1995. He was then drawn to serve the nation in the political arena as a State Legislative Assembly member for Terengganu and as a member of its State Executive Committee.

Shift to Minden

The planning and execution of the physical developments and the provision of facilities and services related to the School of Physics and Mathematics too gives me great satisfaction. From Maktab Perguruan, we headed to the long houses at Minden Campus which had to be converted to offices and laboratories. Later we had to plan and build proper laboratories and offices for the School of Physics and Mathematics.

As Dean, I had to be closely involved with the design and construction of the permanent buildings for the School. These were designed and built to the stringent standards and frugal finishing requirements set by the World Bank, as these were



*Donald Chuah Guan Siong
[STAR 10 June 1972]*

financed from World Bank loan to Malaysia. I had to ensure that the floor-loadings for the research laboratories above the ground floor were able to withstand the weight of heavy research equipment to be installed and the Biophysics laboratory was radiation-leak proof. This architectural aspect, although foreign to me, was undertaken as a learning process, and I am proud that the buildings are serving their intended purpose. They have stood the test of time and are still in use after 50 years.

Central Facilities

We established Machines and Wood Workshop and Electronics Workshop and made it a central facility to serve the entire university thereby fulfilling the needs of teaching laboratories and providing support for the research activities of the scientific community. This eliminated the duplicating of such

services (or outsourcing them). It reduced cost and the workshops could acquire more of the latest equipment and hire better trained manpower. Most of the top universities in India, such as the IITs, have this set up. USM through the School of Physics was the first to establish this facility in the country.

It gives me great pride to note that Datuk Prof. Dr. Ahmad Yusoff bin Hassan commenced his career at USM as the Head of this central facility. He was then selected for the Academic Staff Training Scheme. Subsequently, he rose to be a Professor and Director of USM's Engineering Campus. He has also served as the Vice-Chancellor of Universiti Teknikal Malaysia Melaka.

Research

As a physicist and Founding Dean, I am proud that the School of Physics produced the first Ph.D. in physics in Malaysia, although we were not the oldest physics department in the country. Donald Chuah Guan Siong, whom we got transferred from Saint Xavier's Institution to USM, was the candidate and Dr. Ratnalingam was the supervisor. Decades earlier, Donald Chuah was Ratnalingam's teacher; the tables had turned; this only happens in an academic environment. Dr. Donald Chuah was the earliest researcher in the country on solar photovoltaic cells with support from the French Government. In recognition of his achievements, the French Government awarded him the Chevalier of the Ordre des Palmes Academiques (Knight of the Order of Academic Palms). He currently serves as a consultant to industry, as a Pastor and Preacher.

Non-Academic Staff

The Non-academic staff was also encouraged and morally supported to continuously upgrade their careers through further studies and qualify to enrol in the Off-Campus programme. Laboratory Assistants Ong Sew Eng, Loh Ah Chuan, Amanjeet Singh, Fong Sew Kuan and Tan Eng Cheang undertook the challenge and all graduated with Honours degrees from USM, with Ong Sew Eng scoring a 1st Class. They have moved on to secure managerial and consultancy positions in their careers; while Fong Sew Kuan served the School of Physics as a Science Officer. He continues to serve USM, on contract basis, as USM's Industry Liaison Officer with the Chancellery.

VV Sarachandran was the Administrative Assistant who headed the administrative support services of the School of Physics. He was promoted to Assistant Registrar, then Senior Assistant Registrar and eventually Principal Assistant Registrar. Along with these promotions, he was the recipient of a scholarship to undertake a post-graduate Diploma in Management Science at INTAN and was adjudged the Best Student, and then awarded study leave for the Bachelor of Law at the University of Leeds (securing a Second Class (Upper) Honours at the age of 43). Upon his return from Leeds, he served the multifarious legal needs of the University. In 2000, the University's Council seconded him to assist in the launch and operations of USM's commercial arm, Usains Holding Sdn. Bhd. He continued to serve this organisation and concluded his career as its Senior Manager for Corporate & Legal Affairs. He has since retired.

Physicists as Administrators

I also note with pride that many physicists have made invaluable contributions in the governance of USM as Deputy Vice-Chancellors (Professor Dato' Dr. Ahmad Shukri Mustapa Kamal and Professor Emeritus Lim Koon Ong), and as senior executives within USM (Professor Aziz Tajuddin, was Registrar). Dato' Ratnalingam took optional retirement and became the first Director of Penang Medical College where from he retired as its President. Dr. Koo Wee Kor went on to head various private higher educational institutions. I hope the administrative training they received while serving with the School of Physics aided them in discharging their greater responsibilities.

Honours

Being bestowed Datoship on the behest of The Late DYMM Sultan Azlan Shah was a singular honour since I have not served in the State of Perak. My appointment by DYMM Yang Di-Pertuan Agong Sultan Azlan Shah as a Royal Commissioner, Royal Commission of Enquiry, Bright Sparklers Sdn. Bhd. Fire Tragedy, Sungai Buloh in May 1991 was a rare honour to me in person and to USM in particular. Being appointed Foundation Fellow of the Academy of Sciences of Malaysia in March 1995 also brought honour to USM. The Certificate of Appointment was presented to me by The Prime Minister of Malaysia, Dr. Mahathir Mohamad at the official dinner.

My views on School of Physics

Having left Minden Campus since 1990, I have rarely visited the School of Physics. The only occasion that I was invited back was in December 2010 by the then Dean, Professor Zainuriah Hassan who organised "Majlis Penghargaan" to acknowledge receipt of my collection of over 350 textbooks of physics, crystallography, computing and mathematics.

From information gathered then, all I can state is that during my tenure as Dean, we created the post of one Deputy Dean who handled mainly student matters. There was an Administrative Assistant who managed the Dean's office. In 2010, I noticed that apart from the Dean, there were three [3] Deputy Deans, five [5] Programme Chairmen, three [3] Coordinators, a Chief Science Officer and two [2] Assistant Registrars.

I took note that Applied Physics and Engineering Physics have been offered as new subjects. Being in the dark since my departure about developments at the School of Physics, especially its current student enrolment, academic programmes,

research outputs, facilities and services, I am unable to make any comments about the future of the School. I would like to suggest that research must be actively encouraged, financed and sustained for USM to maintain its Apex University status. In any academic institution of higher learning, academic excellence and meritocracy must be given great emphasis starting from its leadership downwards. Recruitment, promotions and appointments to positions of academic leadership must be based on academic excellence. USM's motto is WE LEAD. Therefore, USM's leadership too must be by example.

My Perspective on USM

Of course, every university should strive to be the best not only in the country it is located in but regionally and internationally. USM has equal potential as any other university in Malaysia and it all depends whether it is the policy of the university to encourage and lay strong emphasis on research publications that are accepted for publication in internationally recognised journals and are regularly cited. Not being fully aware of the criteria used by international evaluators to declare which university is the best, I can only stress that active research at the international level must be encouraged in an academic institution. USM does have some leading researchers whose publications are internationally recognised. It goes without saying that researchers must be given the time, provided research facilities and adequate funding to devote themselves wholeheartedly into research.

Research must be group centred i.e. each research group must have at least two or more active researchers in it to enable them to collectively interact with each other academically and then collectively plan the long term research activities for the group, to ensure maximum utilisation of the very expensive equipment acquired and also to

ensure that if one of them were to leave, the group's facilities are continuously used and the approved projects continue to produce results of high quality. Of course, there must be rigorous monitoring by the peers to weed out those not performing to commitments made when applying for funds. Outstanding performance by researchers should be given due recognition and reward in terms of perks, privileges and promotions. If it is absolutely necessary, foreign staff with international standing in a nationally important research area be hired to act as catalyst as is being done in Singapore.

I wish to suggest that USM encourages and financially supports their recognised and productive researchers an opportunity to attach themselves to institutions and research groups overseas where internationally recognised scientists in their specific field of research exist to interact academically and to upgrade their skills and methodologies. Getting a placement in an internationally renowned institution will be a test of their academic standing in their field. Such international linkages and research collaboration are a must for USM to be noticed and to achieve global status. Emeritus Professor Fun Hoong Kun was a glowing example of a Malaysian researcher who had achieved international recognition in crystallography and had students from many countries in Asia and the Middle East seeking attachment for post-doctoral experiences at USM. He was also an Honorary Professor of several universities in China.

The University should also consider twinning arrangements with internationally recognised and world-renowned research institutions/universities worldwide whose areas of research are considered most important to our national economy, and we do have recognised researchers working in that field. This arrangement will enable staff of sister institutions to spend time researching in each other's campus on a regular basis. The constant

interaction at the highest research level will bring rich dividends for both parties.

Industry-university collaboration and undertaking joint industrial research and product development will not only help promote research that caters to the needs of the industry and country but will also enhance and boost industrial R & D. Students and lecturers undertaking industrial attachments will have a better idea of job opportunities and careers that involve Research & Development.

The Vice-Chancellor, YBhg. Profesor Datuk Dr. Asma Ismail, presented a very detailed account on the Way Forward for USM on 26 February 2019 and my thinking has already been implemented and taken much further. She encourages research above all else and I call upon the USM academics to rally to her clarion call.

My Service at USM

I served USM with full dedication and commitment and retired from the School of Physics in September 1984 on reaching 55 years of age and after having served under three Vice-Chancellors since 1970. I was rehired as Visiting Professor and Advisor to the Industrial Research & Consultancy Unit of USM till 1990. Thus, I was retired, thereafter rehired and eventually fired to enjoy a well-earned rest.

The main personalities during my term of service whom I wish to recognise are e.g. The Late Tan Sri Hamzah Sendut, The Late Tun Hamdan and Tan Sri Musa Mohamed (Vice Chancellors), Dato NA Ogle (Registrar), Mr. Cheah Hoong Tat (Bursar), Mr. Edward Lim (Librarian), Encik Zambri from Personnel, Mr. Padmanathan and Mr. Kandasamy from the Registry, and also my colleagues from other Schools like, the Late Professor Francis Morsingh, the Late Professor Balasingam and the Late Professor CP Ramachandran, Professor Ritchie, Dato KJ Ratnam, Professor Sharom Ahmat,

Dr. Hulman Sinaga, Prof Abdullah Hassan from Language Centre, Tengku Ismail from Education, Professor Emeritus Dato Tan Wang Seng and some of the other deans.

I also like to highlight the very successful Southeast Asian Regional Conference on University Physics Education held in 1977 that attracted almost a hundred Vice-Chancellors and physicists from the major commonwealth countries and helped place the School and USM on the international academic map.

We also had Nobel Laureate Professor Adus Salam, Trieste, Italy; Fellow of the Royal Society Professor Bill Cochran, Edinburgh, Scotland, Professor Arnie Engstrom, Karolinska, and Sweden visiting the university.

Regrets if Any

None whatsoever. I enjoyed serving the university to the best of my ability and generally provided coordination for the natural science schools to ensure all are in pace in non-academic issues. I still visit the university to make use of the excellent medical facilities that have kept me hale and hearty to date and do make observations of the university's natural environment but have no means to share these with the authorities who are too busy with their own portfolios.

While I was preparing this talk, I began to wonder how I could find the time and energy to carry out such diverse tasks on a voluntary basis. It must be at the cost of not devoting much time to my family. My daughter, Prof. Dr. Gurjeet Kaur, probably will concur. Even the Late Tan Sri Prof. Hamzah Sendut kept reminding me not to neglect the family. He was indeed a rare jewel and very kind-hearted. A man of rare breed.

Old Boys Online Network

The Public Relations Office should compile online lists of retired academics, retired administrators, alumni, etc. and circulate to each group important/significant events and activities that may be of concern to them and are scheduled to take place in the university campuses. For example, if there is an academic lecture by a prominent person, the retired academics should be informed. I for one missed attending the latest convocation whereat our former student and then Vice Chancellor and current Rector of International Islamic University, Tan Sri Dato Emeritus Professor Dzulkifli Abdul Razak being bestowed the Emeritus Professorship.

Even the old Water Tower concept of The Late Tan Sri Hamzah Sendut could be replicated to keep the surviving retirees in touch periodically with the university over a cup of tea.