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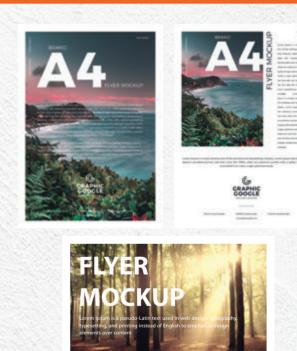






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by Ir. Prof. Dr Zuhaina binti Zakaria Principal Bulletin Editor

COVER & EDITOR'S

IEM's First Female President

he highlight of this month's issue is the Presidential Address of the 36th President of The Institution of Engineers, Malaysia (IEM) who officially assumed office on 16 April 2022. This year, IEM again conducted its Annual General Meeting

on a virtual platform. Nevertheless, the 63rd AGM saw the successful handover of the chain of office from the outgoing President, Ir. Ong Ching Loon, to the incoming President (2022/2024), Ir. Prof. Dr Norlida Buniyamin.

Ir. Prof. Dr Norlida is the first female President of IEM since its establishment in 1959. In her Presidential address, titled IEM Spearheading Sustainability, Ir. Prof. Dr Norlida pledged, among other things, to improve facilities for members and, more importantly, to strive for IEM to be respected and consulted.

The Editorial Board would like to congratulate Ir. Prof. Dr Norlida as well as offer our deep gratitude to Ir. Ong Ching Loon for the successful completion of his term.

During the AGM, the names of council members for session 2022/2023 were also announced; the list comprises new and familiar faces. Hearty congratulations are due to all new IEM Office Bearers.

The changes in leadership for IEM will definitely mean significant changes in its direction. However, the essence of the engineering fraternity will be upheld in order for us to grow and to meet new challenges with enthusiasm. We look forward to a more exciting future!

May is also the month when Malaysian celebrate Labour Day, Hari Raya Aidilfitri and Wesak Day. I believe many of us will take advantage of the long weekends, especially now that travel restrictions have been eased. Thus, the Editorial Board would like to wish our Muslim members Eid Mubarak and our Buddhist members Happy Wesak Day.

On another note, this is my last Editor's Note for JURUTERA as I am embarking on a new role in IEM. For the past year, I had learnt a lot and I would like to thank my fellow editorial members and the IEM staff for their support. I hope the IEM bulletin will continue to provide fresh and relevant content to our readers.



rd PRESIDENTIAL ADDRESS "IEM SPEARHEADING SUSTAINABILITY"

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Ir. PROF. DR NORLIDA BINTI BUNIYAMIN SESSION 2022/2023

ast Presidents, Immediate Past President, Deputy President, Vice Presidents, Council Members and Fellow Engineers.

Thank you all for taking the time off this Saturday morning to attend the 63rd Annual General Meeting of IEM. I am honoured to have been given this opportunity to serve the Institution as its 36th President. I wish to take this opportunity to express my sincere gratitude to the IEM Council for electing me to the office of the President of IEM and for all their support, trust and confidence in me.

Making history as the first woman President of IEM after 62 long years is quite exciting; hopefully, the responsibility that comes with the role will drive me further to prove the worthiness of women in a leadership role in a professional organisation such as IEM. My journey in IEM started in 1992 and I was first elected to the Council in 2000. I have been very fortunate to have had the opportunity to learn from Past Presidents and leaders in IEM. Thank you for the opportunity to learn from you and I truly treasure your guidance and support throughout my IEM journey.

I shall strive to carry out this honourable responsibility with utmost care and diligence, emulating and continuing the good work of my predecessors. I would like to thank the Immediate Past President, Ir. Ong Ching Loon, for all that he has done for IEM during his term of office. IEM has achieved much in the last 62 years, with contributions from all its members, led and guided by our Past Presidents and Council members.

The last two years have been extremely challenging as we worked against the odds to ensure IEM continues to operate and provide service to our members to the best of our ability. There were shortcomings and some services could not be carried out as per usual due to the MCO. We thank members for their understanding and tolerance.

After two years of grappling with the Covid-19 pandemic, both Malaysia and IEM are now embarking on plans to full recovery. This transition into the endemic stage will widen our opportunity to revitalise IEM so that it can continue to play an active role in upholding the interest of the engineering fraternity and the nation.

It gives me great honour to present the Presidential Address at this Annual General Meeting.

My Fellow Engineers,

My pledge, when I was nominated for the post of Deputy President, was that I would strive to make IEM an Institution that:



- (1) is respected and consulted and
- (2) serves its members.

My predecessor, Ir. Ong, has done a tremendous job in these two areas and it is my aim to continue his good work to give better service to our members and to ensure that IEM is a respected and consulted organisation.

To achieve this, my focus will be on several areas:

First focus, "Sustaining and Enhancing Service to Members"

IEM is, first and foremost, a member-driven organisation and therefore, services to members is one the most crucial functions of IEM that should never be overlooked. IEM leaders had always viewed this as the main task and many initiatives had been introduced over the years. It is my objective to look for more services that can be offered to our members.

With the simplification and minimisation of Covid Standard Operating Procedures and the reopening of borders, we will look into measures to help our members. This will include:

Service 1: Creating Job and Business Opportunities

To assist members who may have been affected by the pandemic over the last two years, IEM will increase efforts

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to create and enhance job and business opportunities for them. We have recently been in close communication with MATRADE to look into grants and schemes which can enable our members to promote their businesses or expertise outside the country. We will look into enabling our members to participate in overseas trade fairs with minimum financial impact through grants and schemes from the government.

Through our international network of ASEAN Federation of Engineering Organisations (AFEO) and Federation of Engineering Institutions Asia and the Pacific (FEIAP), we will organise more webinars, business exchange and promotion platforms, physical as well as virtual exhibitions. We hope that this increase in networking opportunities will assist our members to expand their services to overseas markets.

IEM has, in the last two decades, strived to place ourselves in a visible position on the world stage, especially in ASEAN and Asia Pacific. IEM has worked hard to widen the market for Malaysian engineers, engineering technologists and engineering technicians. We have participated in various Mutual Recognition Agreements such as ASEAN Engineer Register (AER), International Professional Engineer (IntPE) and APEC Engineer Registers, which facilitates registered members to practice beyond our shores.

My Fellow Engineers,

With the inclusion of new grades of membership last year, in addition to engineers, IEM now comprises of Engineering Technologists and Engineering Technicians who serve in a wide range of economic sectors, from manufacturing to construction and aviation. To provide more services and opportunities to our new members, the Engineering Technologists and Engineering Technicians, IEM in 2021 established a good relationship with the aviation industry through collaboration with the National Aerospace Industry Co-ordinating Office (NAICO) as well as the Selangor Darul Ehsan Aerospace Industry Coordinating Office (S-DAICO). As reported by the Immediate Past President, Ir. Ong earlier, IEM signed an MoU with the Association of Malaysia Airlines Licensed Aircraft Engineers (AMALAE) recently. This collaboration will create a close relationship between AMALAE and IEM which will be extremely beneficial to both parties.

Similarly, the successful ENGINEER 2022 conference and industry trade event held last month facilitated networking between engineering professionals in Malaysia and with this event, IEM established a close collaboration with the air conditioning, refrigeration and ventilation industry, which will again benefit our Engineering Technologists and Engineering Technicians.

IEM is now a provisional signatory of the International Engineering Technologists Agreement (IETA) and the Agreement for International Engineering Technicians (AIET) which allows for the mutual recognition of the substantial equivalency of standards establishing the competency for practicing engineering technologists and qualified engineering technicians respectively. We hope to obtain full signatory status very soon and when our members are qualified, their competency will be recognised across borders and this will facilitate their mobility.

Service 2: Assisting to Produce Industry Ready Talents

My Fellow Engineers,

In line with the recommendation of the Malaysian Education Plan 2013-2025, many local universities established the Industry Advisory Panel (IAP) to provide guidance and input in developing a comprehensive strategic plan for universities. Since many of our members are appointed to the IAP of various universities, they can function as a liaison body between universities and the industry players in various key economic sectors, to provide adequate guidance in ensuring that university education is always consistent with the current industry standards and requirements.

As many of the IAP members understand firsthand what the industry is looking for, they can advise the universities in fine-tuning their curriculum and improving the learning outcomes of the local engineering faculties. This will benefit students by equipping them with the knowledge and skills that are in demand and that will hopefully meet the needs of the industry upon entering the job market.

IEM has Student Sections in 25 universities throughout the country. We intend to form more student sections to increase engagement with students. All student members can attend the IEM webinars, technical talks and visits for free. We will be encouraging more students to join these events to broaden their knowledge and be exposed to the practical aspects of engineering as well as to keep abreast with the latest technology besides promoting interactions with the industry to gain more first-hand information on the engineering works and technologies involved.



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Service 3: Enhancing IEM Facilities to Better Serve the Members

My Fellow Engineers,

During my term as Deputy President, I had been planning to enhance the facilities at IEM for the benefit of members. Some of the initiatives which I will be embarking on comprise of:

1) Setting up a Co-working Space at Wisma IEM for upcoming entrepreneurs amongst IEM's young members.

This co-working space will be a small office, complete with basic facilities such as workstations, internet connection, photocopier, discussion area etc. for upcoming entrepreneurs who may not be ready to take on permanent office rental. We hope to be able to complete this initiative within the year and this will help lessen members' financial burden in operating their business.

2) Moving the IEM Library to Wisma IEM

Currently, the IEM Library is at Bangunan Ingenieur, which is not a very suitable place. It has served us well all these years but now, it's time to move to Wisma IEM. With the library in Wisma IEM, members will have easier access as most IEM activities are now held in Wisma IEM. Availability of parking space at Wisma IEM will be another attraction and we hope to have a modern library that will be comfortable and provide better services as well as more book titles, especially a better e-Library collection and inter-library loan facilities.

My Fellow Engineers,

The second focus of my pledge was for *"IEM to be Respected and Consulted"*.

I will continue with the effort of my predecessors to ensure that the voice of engineers will be heard by decision makers in Malaysia and internationally and that IEM will be consulted in decision making issues related to engineering in Malaysia.

We have a few Position Papers in the pipeline and we are working closely with a few government agencies. One example which can be learnt from the pandemic is that engineers should be very much involved and consulted in the strategies to curb the spread of the virus. Matters that needed to be looked into, such as ventilation, sanitisation, disinfecting, building medical facilities etc., require engineering input. Engineers will be able to provide ideas or solutions for better implementation or prevention techniques. IEM has formed a committee to look into preparing a Guideline on Design of School Buildings for Epidemic Prevention to provide inputs to both the Ministry of Education as well as the Ministry of Health.

In recent months, we witnessed many disasters such as massive flooding in the East Coast, Kuala Lumpur and Selangor. Landslides occur frequently and there was even a tornado in Ipoh; strong tremors were felt during an earthquake in Indonesia. These phenomena are due to the effects of climate change and as engineers, we should be part of a team of professionals to develop solutions to reduce and eliminate the occurrence of massive disasters in Malaysia. IEM has set up a Special Committee on Climate Change with the goal to propose solutions and action plans to the government.

Under the leadership of my predecessors, IEM had produced a number of Position Papers to address some of these issues such as Position Papers on:

- Prevention of Flash Floods and Mitigation of Erosion and Siltation
- The Impact of Sea Level Rise on Coastal Communities and Development
- Updated Policies and Procedures for Engineering Control of Hill Site Development
- Earthquake (EC8)
- Mitigating the Risk of Hill Site Development.

I will continue their efforts to ensure our proposals are heard and that we will be consulted.

My Fellow Engineers,

The 17 Sustainable Development Goals (SDGs) is the world's blueprint for building a future of peace and prosperity for all on a healthy planet. The Goals requires solutions rooted in science, technology and engineering.

It is essential to increase public awareness of the role of engineering to achieve the SDGs for it is engineering that applies scientific knowledge, technical methods and design principles to the practice of solving problems which hamper sustainable development and it is engineering which will ensure the well-being of all people and the health of the planet. In our efforts to achieve this, IEM will increase public awareness campaigns on sustainable development.

The Malaysian government, professional bodies and private companies are beginning to be involved in activities to realise the SDGs. IEM had been actively involved in activities to promote the SDGs. Our most recent participation is in the World Engineering Day for Sustainable Development event, organised by the Malaysian Research Accelerator for Technology & Development agency (MRANTI). IEM, through the Women Engineers Section, initiated a number of activities in conjunction with the event to promote sustainability. One example is the Biomimicry Engineering Challenge competition where student groups pitch creative nature-inspired ideas and solutions to meet the SDGs. The focus areas of the challenge were:

- Smart Technology & System
- Food & water
- Medical & healthcare.

I hope to increase similar activities in IEM that will provide engineering solutions to problems in Malaysia and support Malaysia to realise the SDGs for a better and healthier planet.



My Fellow Engineers,

As the first woman to be elected to the office of the President of IEM, I will look into the welfare and development of women engineers.

Women represent half of the world's population, yet far fewer women are involved in designing and developing smart, sustainable technology-based solutions that will enable us to live better lives. We need to increase the number of women engineers as they bring unique perspectives to developing impactful solutions. Being observant and detail-oriented make women suitable candidates to offer relevant solutions to complicated problems. This, of course, is not meant to imply that men are not capable in focusing on detailed work or that women can't have creative inspirations. In engineering, both rigorous work and inspiration are necessary. Thus, to have a balance in the number of men and women in engineering projects will be advantageous. To create more efficient equipment, for example new water filtering techniques or medical devices, it is always good to have inputs from both genders as they have different perspectives in various areas.

Women Engineers Section is one of the most active committees in IEM, collaborating with various government agencies and departments. In the last 2 years, they had spearheaded the IEM involvement in the Minggu Sains Negara activities and was involved in many STEM promotional activities in universities and schools.

I will be working closely with the Women Engineers Section to promote and encourage more girls to take up engineering and to sustain the number of women engineers in the industry rather than to have them leave and join other industries. IEM has started a research study on Women in Science & Technology as well as Women Engineers at Management Level.

The objective of the study is to determine the percentage of the women engineering workforce and to focus on how to further tap such talents. There may be a significant pool of talents who have stepped away to nurture their families. The aim is to encourage and lure them back into the industry.

With the results from the study, we hope to formulate action plans and possible solutions to sustain as well as increase the number of women engineers in the industry. More engagement sessions with women engineers will be held with the goal to understand the challenges which they face and to look into resolving the challenges jointly with them.

Conclusion

My Fellow Engineers, ladies and gentlemen,

Post COVID-19, the world has changed. The ways we work and interact with each other have been affected. We need to change and adapt to the new norm. As engineers, we should be the ones spearheading the change and we should be the ones showing others how to deal with the need for change. I look forward to working not only with IEM members but also other stakeholders and decision makers in Malaysia to ensure that IEM continues to be relevant to the members and the industry as well as contributes to the development of our Nation. I seek the full support of all IEM members in this venture.

Finally, please allow me to extend my utmost gratitude to all of you. Thank you, Immediate Past President Ir. Ong Ching Loon and team, thank you all Past Presidents and Office Bearers, for your contributions in managing IEM, our events, our properties and our elections. Thank you, all IEM members. Please continue to serve in IEM. You are needed to spearhead transformation, strengthen the engineering profession and transform the nation.

Before I end my speech today, I would like to say what U.S. Vice President Kamala Harris said, but in the context of IEM, that "I may be the first woman to hold the office of the President of IEM but I won't be the last."

Thank You.

Ir. Prof. Dr Norlida binti Buniyamin IEM President

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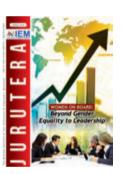




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INCEPTION IN DINCOLT MALAVER



The 36th President of IEM for the term 2022/2023 has stamped her mark as the first woman President of the 62-year-old institution. Ir. Prof. Dr Norlida Buniyamin speaks to Jurutera about her focus to drive IEM further as a premier learned engineering society.

r. Prof. Dr Norlida Buniyamin has made history as the first woman President of IEM. Since its establishment in 1959, IEM had always been helmed by men. But now, a woman is holding fort as its 36th President for the term 2022/2023.

The affable Dr Norlida considers her presidency as "quite exciting" as it comes with a heavy responsibility to drive the professional organisation. However, she is not looking at the presidency from the gender perspective. She holds on strongly to the view that one's achievements in life are not because one is a woman or a man but more because of one's merits. Nevertheless, she will still look into the welfare and development of women engineers and continue to encourage more women to take up engineering as a profession.

She is a role model for women engineers, not only as a high achiever but also for winning the IEM Women Engineer Award in 2016 for her contributions to the fraternity. She acknowledges that the Women Engineers Section is one of the most active IEM committees alongside nearly 20 Technical Committees and other committees.

In her Presidential Address at the 63rd Annual General Meeting of IEM held virtually on 16 April 2022, she said she was fortunate to have had the opportunity to learn from Past IEM Presidents and leaders and would continue to carry on the responsibility of President with care and diligence, emulating the good work of her predecessors.

"I never aimed for the presidency of IEM although I was aware that a woman had never held the post. I decided to run for deputy president for the term 2021/2022 and I won. However, I was in two minds then as the deputy president automatically takes over as President. When running for the post, I pledged to strive and make IEM an institution that was respected and consulted and to serve its members and the nation," says Dr Norlida.

Presidential Pledge

Now that she is President, she is determined to fulfill her pledge. Each past President had his own presidential theme on which was hinged the activity focus of the President during his tenure. Dr Norlida is no exception. She has chosen Spearheading Sustainability as the theme for the next two years, with the aim to make IEM a sustainable institution way into the future. To be sustainable is crucial and all the more so as the world is still reeling from the devastating impacts of the Covid-19 pandemic over the past two years. Dr Norlida says IEM must stay resilient and sustainable so that it can meander the difficult terrain in the "new normal" brought about by the pandemic.

"The last two years had been extremely challenging; we worked against all odds to ensure IEM continued to operate and provide services to our members. Some services could not be carried out as per usual due to the MCO (Movement Control Order imposed by the Government)," she says.

Adapting to Changes

Dr Norlida noted that during the MCO, IEM adapted quickly to changes, switching to virtual meetings and working from home. The learning curve of the IT staff members was also steep.

"Despite the MCO, we still managed to conduct professional interviews virtually. We learnt to adapt to changes and to become the driver to push for changes and still get things done," she says.

It was also a steep learning curve for everyone, technology-wise. Among other things, IEM arranged activities via webinars, which was a major achievement. The first webinar was held within one month of the start of the first MCO. Dr Norlida says IEM intends to increase such activity in the region and internationally. However, she cautions: "Networking is reduced with virtual meetings. With webinars we lose the dynamic interactions that we experience when we meet face to face. So we hope to have more physical meetings, such as Executive Committee (Excomm) meetings. These will be fully physical meetings, with the presence of representatives from our branches as well. For the first time, we will be having more branch representatives at our Excomm meetings."

There will also be more face-to-face interactions and training, which will be moved by the IEM Training Academy. IEM will resume physical safety courses such as courses for Bomba and other technical courses which cannot be done online. All Technical Committees can help move training programmes which require physical demonstrations.

As for economic activities, Dr Norlida says IEM had already re-activated them since the lifting of the MCO. "All activities should be in full swing now. We also have our crisis management team with an ad-hoc committee that meets when decisions have to be made quickly. The ad-hoc committee for Covid-19 meets every month now. We are always ready to respond to any crisis.

"What MCO has revealed to me personally is that I find that I like working from home. Many lecturers and students also prefer online classes. However, young people need connectivity and interaction, so attending physical classes can fulfill this need. Those nearing retirement age generally prefer to work from home without having to face the hassle of going to work and battling traffic. But I am also adaptable and am happy that IEM staff members are also very adaptable as can be seen during the pandemic."

Committed to Engineering Education

Dr Norlida first joined IEM in 1992 and became a full member in 1993. In 2000, she was elected to the IEM Council and afterwards climbed to the Vice Presidency post. Her upward mobility right to the year she won the contest for the post of Deputy President, speak volumes of her ability as a leader. She is active in many standing committees of IEM.

A holder of a Ph.D. (Manufacturing Systems) UK, she is a qualified Electrical Engineer. She has a deep passion for engineering education, hence her choice to become an academician to help develop a pool of engineers for the nation. She is Professor of Electrical Engineering and lecturer at the College of Engineering, Universiti Teknologi MARA (UiTM).

Due to retire next year, she reveals that it has been tough being both a full-time lecturer at UiTM and continuing her active participation in IEM and other bodies, including the Board of Engineers (BEM), Engineering Accreditation Council (EAC) and Engineering Technology Accreditation Council (ETAC). She is also actively officiating and judging equestrian endurance events nationally and internationally. Equestrian sports is a hobby she loves. She has made her mark in this field by becoming chief steward, trainer and judge in various equestrian endurance competitions. In the past, she also served on the Board of The National Sports Institute of Malaysia.

"I am an electrical engineer, and my priority is engineering education. I want this aspect to be well looked after in Malaysia," says Dr Norlida. Because of this, she actively contributes towards the improvement of standards in this area both in Malaysia and the ASEAN region. In 2018, she was elected the first woman Head Commissioner of the ASEAN Federation of Engineering Organisation (AFEO) and is currently chairing the Training & Education committee of the BEM. She is also a member of the BEM National Monitoring Committee (NMC) that monitors the standards and mobility

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of Malaysian professional engineers. She had served as Deputy Chairman of the Engineering Accreditation Council (EAC) and was Chairman of the Engineering Technology Accreditation Council (ETAC) for two sessions.

"I like both professions, as a lecturer and an engineer. Academicians are the ones who produce future engineers. In the education field, one of our main concerns is the existence of colleges offering unaccredited programmes. We try to educate the parties concerned through BEM that if they wish to offer engineering education programmes in Malaysia, they must have the programmes accredited by the Board so that their students would have qualifications recognised to register for practice, but enforcement needs to be strengthened. BEM is looking into this," she says.

Achieving Vision and Mission

Dr Norlida also considers it her responsibility to continue with efforts to achieve IEM's vision to be "the premier learned engineering society championing the adoption of ethics and professional best practices in all sectors of the industry". Her emphasis will be on the sustainability of IEM which, in turn, will support the progress of the nation.

She will also continue to drive IEM in its mission to promote sound professional engineering practices in support of the socio-economic development objectives of the nation, service the needs and interests of members and the public, uphold the social standing and image of the engineering profession, contribute towards nation building and strive to enhance awareness of science, engineering and technology.

Post Pandemic

"IEM is now embarking on plans for full recovery," she savs. adding that while her focus is on sustainability, she will continue with the IEM Connects theme of immediate Past President Ir. Ong Ching Loon.

"IEM has already developed IEM Connects, an app which will work towards achieving the sustainability of IEM for the long term," she adds.



"Coming out from the MCO, we need to further stabilise IEM. Membership subscriptions constitute about 50-60% of our income. While IEM will continue with its membership drive and attract new members from across the industry, I would like to see IEM diversify our income sources and I will try my best to look after the welfare of members, many of whom have been affected by the Covid-19 pandemic."

Dr Norlida also wants to continue with efforts to strengthen all 12 IEM branches, eventually making each financially strong and having its own premises to provide better services which will, in turn, attract engineers to join as members.

"IEM wants to make the branches more independent and financially capable of organising more activities for the benefit of members. We want all branches to attract more members. They can also work with state governments to help build up the engineering sector," she says. raise among our students an awareness of safety and sustainability. Our technologists and technicians must be hands-on as must engineers and engineers are also creators. Without these three professionals, building projects cannot be done," she says.

Focus Areas

To achieve sustainability, Dr Norlida will focus on several areas. The first is sustaining and enhancing services to members. In efforts to help those affected by the pandemic to get up on their feet again, Dr Norlida aims for IEM to help create and enhance job opportunities for them through collaborations with Government bodies such as Matrade; this can help IEM members to promote their businesses and expertise overseas.

"We will look into enabling our members to participate in overseas trade fairs with minimum financial impact, through grants and schemes from the government," she says.

Promoting and advancing the science and profession of engineering in all its disciplines and facilitating the exchange of information and ideas related to engineering will be done through various initiatives, with a focus on education and training.

"We teach our engineers to think about designing and to consider the 17 Sustainable Development Goals (SDGs) spelt out by the United Nations as the blueprint to sustaining a healthy planet. We Riding on international networks, including ASEAN Federation of Engineering Organisations (AFEO) and the Federation of Engineering Institutions Asia & the Pacific (FEIAP), IEM will organise more webinars, business exchanges and promotion platforms and physical/virtual exhibitions.

Over the years, IEM had worked hard to widen the market for Malaysian engineers and now, with the inclusion of two new grades of IEM membership, namely engineering technologists and engineering technicians, Dr Norlida says the institution must strive harder to serve its members across a wide range of economic sectors. Besides technologists and technicians, she says the country also needs more innovative developers. This is an area that IEM will also help to develop.

"Meanwhile, we want certified and qualified professional engineering technologists and engineering technicians. We are set to achieve this as IEM is now a provisional signatory of the International Engineering Technologists Agreement and the Agreement for International Engineering Technicians," she says. These allow for the mutual recognition of standards and competency of practising engineering technologists and qualified engineering technicians, respectively. IEM expects to obtain full signatory status soon, hence its members' qualification and competency will be recognised across borders, facilitating their mobility internationally.

The second focus area is helping to produce talents which can meet the requirements of the engineering industry. Dr Norlida notes that IEM has Student Sections in 25 universities which opens up opportunities for increased engagement with students and encouraging them to take part in IEM events such as free webinars, visits and technical talks. This way, they will get first-hand information and updates on the engineering industry.

Another initiative is to set up a co-working space at Wisma IEM to cater to young members and aspiring entrepreneurs who are not yet in a position to rent or own office premises. IEM will provide them with a small office equipped with basic facilities such as work stations and Internet connections for a nominal fee which will assist them to set up their own practices. Dr Norlida says the aim is to complete this project within the year.

She will also oversee the plan to move the IEM library from the more congested Bangunan Ingenieur to Wisma IEM which has a larger space. Also in the pipeline is a plan to make the library more modern and comfortable with larger and better e-Library collection and inter-library loan facilities.

IEM as a Respected and Consulted Body

Apart from sustainability, Dr Norlida will also focus on making IEM a respected and consulted body.

"I will continue with the efforts of my predecessors to ensure that IEM's proposals are heard and that we will be consulted in areas of our expertise. We want the voice of engineers to be heard by decision makers in the country as well as internationally so that we can protect Malaysia's interests and be involved in decisions concerning issues that affect its engineering industry."

Engineers can also be much involved and consulted in mitigating the Covid-19 situation in matters involving ventilation, sanitisation and disinfection. All these as well as building medical facilities require engineering input.

In addition, she says, engineers can be part of the team of professionals looking into the effects of climate change which has, in recent times, given rise to more natural disasters, such as flooding, landslides, tornadoes and strong tremors.





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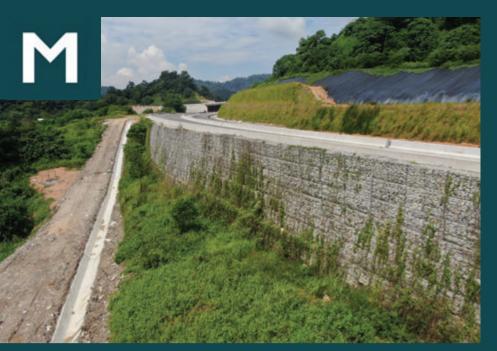
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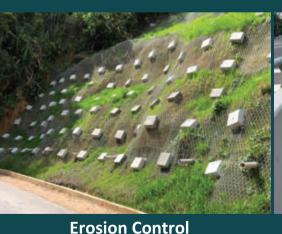
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"We need to be aware of the 17 SDGs which also require solutions based on not only science and technology, but also engineering."

"As engineers, when we create, we must think about sustainability. Before we build any structure, we must study the environment and ask many questions. Is cutting trees before building the answer? What will be the environmental effects of cutting trees and levelling the grounds? How will these affect the people? Although cutting trees and ravaging the land may mean cheaper construction for example, in the end the damage to the environment will be far more costly. In the long run, the environmental impacts can worsen. Floods and landslides will occur. Doing for short-term gain is cheap. Environment and health for the people are far more important," stresses Dr Norlida. Behind her cheerful, hale and hearty demeanour lies a steely determination, a no-nonsense approach and a belief in always doing the right thing.

Honest and vocal, Dr Norlida believes in considering the people's needs first. "When building low-cost houses, for instance, we must not design pigeon-hole homes. The design must include three rooms at least and we must find ways to make such houses affordable without compromising on safety and comfort."

IEM is also walking the talk where environmental preservation is concerned. "We are looking into installing solar panels as the alternative energy to be used at Wisma

IEM this year," she says.

Eye on the Future

In the next two years, Dr Norlida wants to see IEM relying less on membership subscriptions and becoming better in deriving revenue from other sources.

"We must organise more conferences which will attract participants, in order to promote and enhance knowledge as well as professionalism," she suggests.

As for the future of IEM, she again emphasises on the need to help all its branches to be financially strong.

"We also want to help more students by offering scholarships when we have more money in our Education Fund. We will be happy to name the fund after sponsors. Recipients must be deserving candidates who have the potential to become good engineers. We have stringent criteria to determine eligibility for our scholarships," says Dr Norlida, again showing her determination to do more for engineering education.

Another crucial stance for IEM to take is to be ever ready for change.

"As engineers, we must be the ones spearheading change and showing others the way to deal with change. IEM is the platform for us to institute the change; if we insist on remaining the way we have been in the past, it will be hard for us to be sustainable in a world that is dynamically changing," she concludes.

Upcoming Activities				
Webinar Talk on Open Data Validation of The Performance of a Smart City Application in Transport: Transit Signal Priority Request Via the Public Transport Information and Priority System (Rescheduled from 05 March 2022)		Machine Life Expectancy - From Cradle to Grave. An Overview of Machinery Life-Cycle from Design to Life Spectrum		
Date	: 28 May 2022 (Saturday)	Date	: 28 May 2022 (Saturday)	
Time	: 9.00 a.m. – 11.00 a.m.	Time	: 9.00 a.m. – 11.00 a.m.	
Venue	: Digital Platform	Venue	: Digital Platform	
Approved CPD	: 2	Approved CPD	: 0	
Speaker	: Mr. Teck Kean Chin	Speaker	: Ir. Arul Hisham Abdul Rahim	
•	Course on Carbon Emission Reduction in rojects Based On Financial Modelling	•	rironmental, Social, and Governance (ESG IOT Technologies as A Green Approach"	
Date	: 28 May 2022 (Saturday)	Date	: 28 May 2022 (Saturday)	
Time	: 9.00 a.m. – 5.45 p.m.	Time	: 9.00 a.m. – 3.00 p.m.	
Venue	: Digital Platform	Venue	: Wisma IEM	
Approved CPD	: 7	Approved CPD	: 3.5	
Speaker	: Ir. Noor Iziddin Abdullah bin Ghazali	Speakers	: Ir. Thirunavukkarasu	
			: Mr. Nitin Bahl	
			Max Commence Via alarse	

: Mr. Gaurav Yadav

IEM's First Woman President Installed at the 63rd AGM

<image>

6 April 2022 was indeed a special day for The Institution of Engineers, Malaysia (IEM) which achieved a huge milestone when Ir. Prof. Dr Norlida binti Buniyamin became the first woman to assume the office of the President of IEM.

Members who attended the 63rd IEM Annual General Meeting (AGM) witnessed the historic moment when the outgoing President, Ir. Ong Ching Loon, handed over the President's chain of office to Dr Norlida, signifying the inclusiveness of IEM, one of the largest professional learned society in the country.

Attendance at the AGM was overwhelming with 846 members attending online and 60 Council members showing up physically at the meeting in Malakoff Auditorium. However, with the experience gained from the previous two AGMs which were also held virtually, the arrangement and handling of the virtual platform by the IEM Secretariat went smoothly and communication from members who posed questions orally as well as via chat box, was well managed by the Honorary Secretary.



Ir. Ong Ching Loon and Ir. Prof. Dr Norlida Buniyamin

The AGM started promptly at 9.00a.m when quorum was achieved. President Ir. Ong Ching Loon presented a report on his activities for the past session which saw many exciting happenings in IEM such as participation in a number of meetings, especially in relation to the High Technology National Council organised by MOSTI.



Ir. Ong responding to questions from members

Ir. Ong Ching Loon – parting remarks



Ir. Ong putting on the Fellow pin for Ir. Leong Siew Meng

Due to the pandemic, practically all international meetings such as the general assemblies of WFEO, AFEO and FEIAP were held virtually. Ir. Ong reported that in the last 6 months, IEM had organised two huge events – MyAERO'21 and ENGINEER2022. IEM acted as event organiser for the National Aerospace Industry Co-Ordinating Office (NAICO) for MyAERO'21 and was the main organiser for ENGINEER2022 from which IEM made a nett income of RM200,000 to boost IEM's coffers.

The AGM was also informed of the strong support of IEM Women Engineers and their participation in Minggu Sains Negara 2021 activities in Negeri Sembilan as well as the first virtual technical visit to Institut Teknologi Petroleum, PETRONAS (INSTEP).

Then the Honorary Secretary, Ir. Assoc. Prof. Dr David Chuah Joon Huang, presented his report for the last session. It was noted that throughout the whole session, Council meetings were conducted online while Excomm meetings were conducted online up to August 2021 when the MCO was lifted. There were also a total of 248 webinars, 4 virtual technical visits and 36 courses/seminars conducted in 2021.

IEM also successfully published two guidelines: Guideline on Testing & Commissioning of Fire Protection Systems and Guidelines on Flood Abatement Equipment – Engineering Guide of Designation, Testing & Documentation. These are on sale at RM80 each and can be obtained from IEM Secretariat office. IEM also organised a Flood Disaster Relief Fund during the recent flooding incident in Klang Valley. The fund raised RM15,265; IEM wishes to thank members who had contributed, especially AFRIMA Consulting Sdn. Bhd. which contributed RM8,000. The money was handed out to 12 IEM members who were affected by the disaster. On the financial side, Honorary Treasurer Ir. Fam Yew Hin reported that in the last year, IEM successfully generated a surplus of RM358,144 despite many activities being affected by the pandemic. He also reported that the Education Fund released RM42,000 worth of scholarships last year.

There were two issues submitted by members for discussion at the AGM but the AGM requested for them to be presented to Council and Excomm for deliberation after listening to the opinions expressed by the Past Presidents.

Y.Bhg. Dato' Paduka Ir. Hj Keizrul bin Abdullah, the IEM Election Officer, then announced the holders of various positions in the Council for 2022/2023 as listed below.

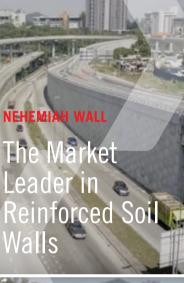
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Honorary Treasurer	Ir. Dr Lee Yun Fook
Council Member – Representative of Other Disciplines	Ir. Abdul Razak bin Yakob
Council Member – Ordinary Representative	Ir. Rusnida binti Talib Ir. Prof. Dr Lau Hieng Ho Ir. Muhammad Azmi bin Ayub Ir. Fam Yew Hin Ir. Abdul Razak bin Yakob Ir. Mohd Khir bin Muhammad Ir. Razmahwata bin Mohd Razalli Ir. Simon Yeong Chin Chow Ir. Chan Seong Phun Ir. Yam Teong Sian

The winners of the Tan Sri Ir. Hj Yusoff Ibrahim Final Year Project Competition were also invited to receive their prizes from the President.

1st Prize	Liew Son Qian	UTAR
2nd Prize	Tan Tze Jie	Monash University Malaysia
3rd Prize	Tan Wei Kun	UTAR
Consolation Prize	Teo Yar Lee Kwa Eng Keat Farah Rosmaniza binti Redzuan Mohd Fazli bin Abd Rashid Choi Zhi Chuan	Multimedia University UTAR Universiti Teknologi PETRONAS Universiti Putra Malaysia UCSI

Ir. Ong presented certificates and pins to the following members who were approved for transfer to the grade of Fellow in March 2022.

Ir. Leong Siew Meng	Mechanical Engineering
Ir. Fam Deng Fong	Electrical Engineering
Ir. Prof. Dr Fatimah binti Ibrahim	Electrical Engineering
Dato' Ir. Hj Rozlan bin Ahmad Zainuddin	Civil Engineering



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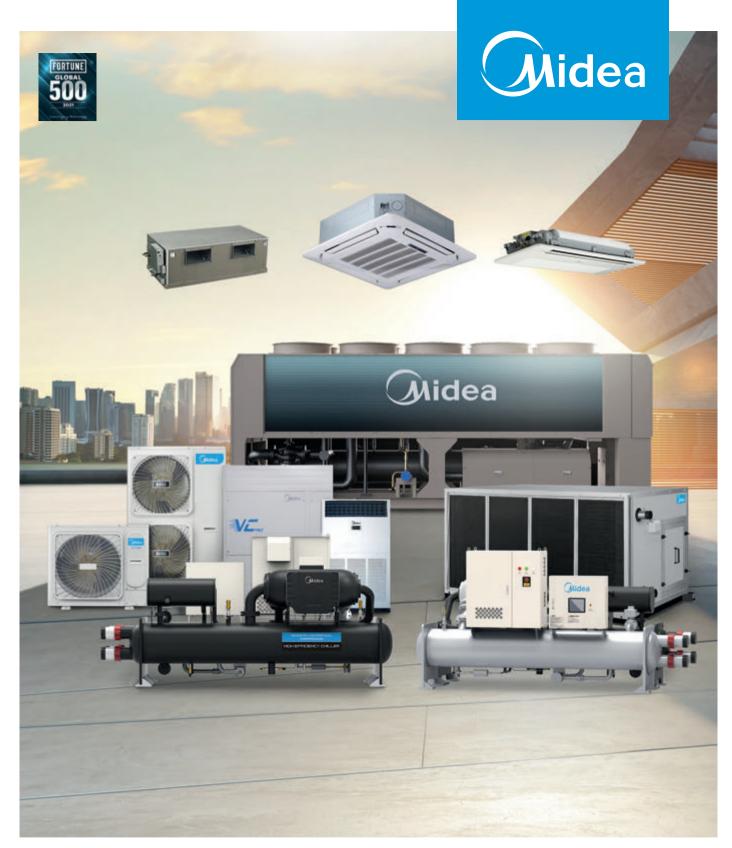
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MAY 2022 27

Tokens of appreciation was presented to the following Council Members who had completed their term of office.

Ir. Prof. Dr Leong Wai Yie Ir. Prof. Dr Ruslan bin Hassan
Ir. Assoc. Prof. Dr David Chuah Joon Huang
Academician Tan Sri Datuk Ir. (Dr) Hj Ahmad Zaidee bin Laidin
Ir. Dr Bhuvendhraa a/l Rudrusamy
Ir. Dr Tan Kuang Leong Ir. Mah Siew Kien Y.Bhg. Dato' Ir. Mohd Azmi bin Ismail Ir. Ng Yong Kong Ir. Dr Mui Kai Yin Y.Bhg. Dato' Ir. Noor Azmi bin Jaafar Ir. Ting Chek Choon Ir. Sukhairul Nizam bin Abdul Razak Ir. Lai Sze Ching Y.Bhg. Dato' Ir. Dr Ahmad Anuar bin Othman
Ir. Gopal Narian Kutty
Ir. Loh Ban Ho Ir. Puvanasvaran a/l Perumal Ir. Wong Yee Foong Ir. Ahmad Kamal bin Kunji Ir. Ng Vun Ping, Jeffrey Ir. Shaipuddin bin Shapii Ir. Wong Siong Ung

Ir. Ong Ching Loon then thanked all IEM members, the Council, the Excomm and the Secretariat for their support during his presidency of 20 months and 23 days. He said that while his term of presidency had been challenging due to the pandemic, everyone at IEM, be they from the Council, the Excomm, the Standing Committees, the Technical Divisions, Special Interest Groups, Sections or Secretariat, had worked very hard to ensure that services were provided in the best ways possible and that the financial position of IEM was sustained.

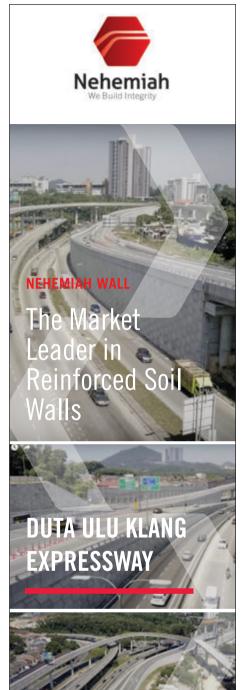


Handing over the chain of office

The new President, Ir. Prof. Dr Norlida, after receiving the chain of office, presented a token of appreciation to Ir. Ong to thank him for his leadership. Dr Norlida, who lectures in Electrical Engineering at Universiti Teknologi MARA (UiTM), then officially took over the chair of the AGM as the 36th President of IEM.

She then informed the AGM that six Past

Presidents had been invited to serve in the Council for the next session. These were Dato' Ir. Dr Gue See Sew, Dato' Paduka Ir. Hj Kezirul bin Abdullah, Academician Tan Sri Ir. Prof. Dr Chuah Hean Teik, Dato' Ir. Lim Chow Hock, Ir. Dr Tan Yean Chin and Ir. David Lai Kong Phooi.



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Ir. Prof. Dr Norlida presenting a token of appreciation to Immediate Past President Ir. Ong Ching Loon

Ir. Prof. Dr Norlida, the first woman President of IEM, making her Presidential Address



Top four office bearers of IEM session 2021/2022

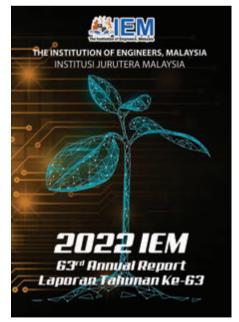




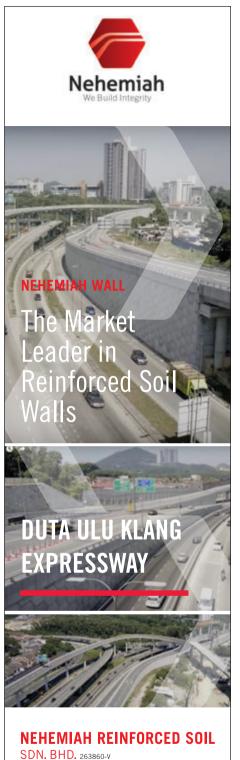
CH International Chartered Accountants were re-appointed as external auditors while Ir. Steven Toh Chin Kok and Ir. Assoc. Prof. Dr David Chuah Joon Huang were elected as Honorary Internal Auditors for 2022/2023.

The last agenda of the day was the presentation of the Presidential Address titled "IEM Spearheading Sustainability", by Ir. Prof. Dr Norlida. The full text of the Presidential Address is featured in the cover story section of this issue of the Jurutera.

The 63rd AGM was then adjourned at 12.13p.m., with a note of thanks to all members who attended. ■



IEM Annual Report 2022



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Grand Prize Winner of Tan Sri Ir. Yusoff Ibrahim FYP 2021 Competition: Mr. Liew Son Qian

Written and Prepared by:



Ir. Dr Wang Hong Kok

r. Liew Son Qian of University Tunku Abdul Rahman (UTAR) has won the Tan Sri Ir. Yusoff Ibrahim Final Year Project (FYP) 2021 Competition at the end of a keenly-contested oral presentation held on 23 November 2021 via Zoom online platform.

Mr. Liew's presentation, titled Hydrothermal Growth Of Niobium Oxide Microrods In Ammonium Fluoride For Electrochromic Application, was judged to be the best in the final round where 10 contestants and their FYP supervisors took part.

According to the competition rules, there was a twotier marking system. In the first tier, each submission was given 80% weightage and was marked by two experts in the field of the research. Ten of the best candidates were then selected to enter the second tier where the finalists' oratorical skills were put to the test. The second tier was given 20% weightage in marks.

2021 was the fifth year of the FYP competition which was funded by the Institution of Engineers Malaysia (IEM) Education Fund and jointly organised with the Institution of Engineering and Technology (IET) (Malaysia Chapter). There were a total of 39 submissions received from 20 accredited universities.



Liew Son Qian receiving the winner trophy from President, Ir. Ong Ching Loon

Ir. Dr Wang said that

IEM-IET hoped that the FYP competition would promote STEM education and encourage the production of quality engineering FYP in the universities. ■

Name	Discipline	FYP Title	Placing
	-		
Liew Son Qian Universiti Tunku Abdul Rahman	Material &	Hydrothermal growth of niobium oxide microrods in ammonium	Grand Prize
Universiti Tunku Abaul kanman	Manufacturing Eng	fluoride for electrochromic application	
Tan Tze Jie Monash University Malaysia	Civil Engineering	Assessment on the structural behaviour of novel candle-loc inter- module connection using finite element analysis	Second Prize
Tan Wei Kun Universiti Tunku Abdul Rahman	Electronic & Communication	IoT based car plate recognition system	Third Prize
Teo Yar Lee Multimedia University	Electrical	Optimising energy consumption of a rice milling plant through intelligent control of the paddy dryer	Consolation
Kwa Eng Keat Universiti Tunku Abdul Rahman	Biomedical Eng	Finite element modelling of bone tissue scaffolds: Correlation between material properties and scaffold strength	Consolation
Farah Rosmaniza binti Redzuan Universiti Teknologi Petronas	Petroleum Eng	Foam stability performance (half-life) of alpha olefin sulfonate (AOS)-coco glucoside (APG) with variation in concentration of surfactants, the salinity, and the temperature	Consolation
Mohd Fazli bin Abd Rashid UPM	Civil Engineering	Bending behaviour of reinforced concrete beam using hybrid glass fibre reinforced polymer (GFRP) and steel reinforcement bars	Consolation
Choi Zhi Chuan UCSI	Mechatronic	Development of effective metaheuristic search algorithms through hybridisation approach	Consolation

FYP 2021 competition: List of winners

Dear IEM members,

I am delighted to announce the launching of IEM's very own Mobile App (on 14 April 2021)! Named "IEMGo", this mobile app will enhance communication between IEM and its members. For a start, it will enable IEM members to connect to the IEM Community site for easy access to IEM Bulletin, IEM Journal, obtain information or first-hand announcements and to register for events. More features will be added in future to further enhance the app, such as providing job matching opportunities for members, enabling communication between IEM members and a host of other possibilities which we are exploring.

In fact, the need for IEM's very own mobile app was one of the feedbacks we obtained from members in our first survey carried out during the MCO last year. We are very excited to have accomplished this in just one year and without incurring any cost for IEM. On this note, I would like to thank Silverlake - the developer of IEMGo and IEM Secretariat for its relentless efforts to make the app a reality.

I hope all our members will join the community under IEMGo and make this project a success. You can download the app from Google Play Store, Apple App Store or Huawei App Gallery.

We will be sharing the steps on how to install IEMGo and how to make use of the app in our email blast, social media channels and website. Should you need further information, please contact our Secretariat staff for assistance.

Finally, I would like to express my appreciation to the IEM Council and Excomm, the respective Committees and Members for their support and I look forward to the success of IEMGo. Thank you. Stay Safe and Stay Healthy.

Ir. Ong Ching Loon, IEM President



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IEM Participation in Selangor Aviation Show

Written and Prepared by:



Mr. Ricky Liew Chee Leong

or the first time ever, the Selangor State Government, through Invest Selangor Berhad and its dedicated aerospace division viz. Selangor Darul Ehsan Aerospace Industry Coordinating Office (S-DAICO), brought together industry players from all over the world to witness the future of aerospace and aviation right in the heart of Selangor, Malaysia's economic powerhouse at Skypark Regional Aircraft Centre, Subang on 27 November 2021.

Themed Selangor, the ASEAN Business & General Aviation Hub, SAS 2021 gathered all relevant stakeholders

IEM was proud to be invited to participate and was allocated an exhibition booth with a speaker slot to share industry experience during the airshow.

Selangor is Malaysia's preferred aerospace hub as there are more than 62% of the country's aerospace and aviation related activities in and around the state. Subang International Airport (or Sultan Abdul Aziz Shah Airport) houses several key aerospace and aviation companies



Visitors to the event at Skypark Regional Aircraft Centre

from around the world, including Spirit Aerosystems Malaysia, RUAG Aviation Malaysia, Asia AeroTechnic, AIROD, Airbus Helicopters Malaysia, AgustaWestland Malaysia, Airfoil Services, GE Engines Services Malaysia, ExecuJet MRO Services Malaysia, Aerodyne Group, Systematic Aviation Services, etc.

KL International Airport is also building its aerospace eco-system rapidly with the presence of Malaysia Airlines Engineering, Sepang Aircraft Engineering and many others.

The event was officially launched by the Menteri Besar of Selangor, Yang Amat Berhormat Dato' Seri Amiruddin bin Shari. He was accompanied by Senior State Executive Councillor Dato' Teng Chang Khim.

Participants included heads of aviation related organisations and representatives from the Civil Aviation Authority of Malaysia. The exhibitors for the event included business jet manufacturers, helicopters OEM, general aviation operators, drones and UAV operators, educational institutions, training centres and chartered agents. The static aircrafts on display included the Embraer E2 aircraft, Beechcraft Kingair, Piaggio Avanti and Bell helicopters.

The secretariat team from IEM's Membership Drive & Promotion (MDP) was present at the IEM booth to promote IEM. Mr. Ricky Liew Chee Leong delivered a talk titled Practicing Accountability to Elevate the Malaysian Aviation Industry Higher. MDP Chairman Ir. Dr Aidil Che Tahir was also present to support the event, signifying IEM's commitment to ensure SAS 2021 was a successful IEM event as well.

IEM is getting ready to embark into the aviation segment of the engineering industry with the support of aircraft engineers who are now actively involved in activities aimed at planting IEM's footprint in the country's aerospace/aviation industry.

Upcoming Activities

.....

Webinar - Technical Talk on "Smart Homes forCity Residents"

Date	:	28 May 2022 (Saturday)
Time	:	11.30 a.m. – 1.30 p.m.
Venue	:	Digital Platform
Approved CPD	:	2
Speaker	:	Ir. Dr Cheong

Webinar Talk "Cloud Digitalisation Transformation For Construction On Project, Cost And Quality Management"

Date	:	28 May 2022 (Saturday)
Time	:	11.30 a.m. – 1.30 p.m.
Venue	:	Digital Platform
Approved CPD	:	2
Speaker	:	Mr. Tan Loo Toon

Webinar Talk on "A Case of Equatorial Rainforest Region Mitigation Measures for ESCP"

Date	:	30 May 2022 (Monday)
Time	:	2.00 p.m. – 4.00 p.m.
Venue	:	Digital Platform
Approved CPD	:	0
Speaker	:	Ir. Leong Kwok Wing



IEM Health & Wellness Series: Rejuvenate, Revitalise and Live Well

Written and Prepared by:





ver the last six months, from October 2021 to March 2022, the Institution of Engineers Malaysia – Young Engineers Section (IEM-YES) organised the IEM Health & Wellness Series. The theme of the event was Rejuvenate, Revitalise and Live Well, which was in line with one of the United Nations sustainability goals (SDG) – Good Health and Wellbeing.

Ms. Ong Ye Shian

The main objective of the IEM Health & Wellness Series was to nurture the emotional wellbeing of both students and working adults as well as foster a good relationship between all participants. Another objective was to upskill and cultivate leadership, teamwork and communication skills of young engineers, thereby creating opportunities for participants to discover their career paths.

The IEM Health & Wellness Series consisted of 11 webinars in collaboration with 15 IEM Student Sections in the country. The webinars were opened to the public and managed to attract 850 participants, comprising students, graduates, engineers and working adults. Invited speakers with various expertise such as Dr Ingo Tophoven, Dr Soo Wincci and Ir. Ang Pey Char, spoke on topics such as relationship management, ways to overcome stress and anxiety, techniques to master mind using Neuro-Linguistic

Programming and networking tips.

IEM-YES also organised a Virtual Sports Challenge which included a Virtual Workout Challenge and Fitness T-shirt Design Competition. The final series of activities was the IEM Health & Wellness Symposium: Live, Love, Learn. The symposium was held for 3 days (25-27 March 2022) with active participation from 5 IEM Student Sections from University Pahang Malaysia, Swinburne Sarawak, University of Nottingham Malaysia, Universiti Tun Hussein Onn and University of Malaysia, Sarawak. There were various events such as team building organised by student sections, technical webinar on Cyberthreat Awareness by Mr. Vincent Choy from FEDELIS Sdn. Bhd., Engineering Forum by Prof. Ir. Andrew Ragai Henry Rigit and Assoc. Prof. Dr Helmy bin Hazmi, stress management workshop by Mr. Lee Kah Seng, Laughter Yoga session by Ms. Fiona Lee and Ms. Alice Lee as well as a technical webinar on Industrial 4.0 Technologies by Keysight Technologies Malaysia.

We would like to thank the organiser, IEM-YES, platinum sponsor NS BlueScope Lysaght Malaysia, speakers, all IEM Student Sections and IEM members, for supporting the IEM Health & Wellness Series.



MAY 2022 3

Patau Patau Water Village

Written and Prepared by:



The Past Chairman of IEMNS and Director of Samsung SDI Energy (M). Sdn. Bhd.

he island of Labuan, off the coast of Sabah, is home to a unique water village known as Kampung Patau Patau. Located within Brunei Bay, it is inhabited by descendants of sailors, traders and fishermen from Brunei who settled here in the 1930s. However, there is new evidence indicating that the village had existed as early as 1830 during the reign of Sultan Omar Ali Saifuddin II (1829-1852). During World War II, the village was destroyed in the Battle of Labuan but was later rebuilt.

Till today, the villagers continue to preserve their own traditions, culture and their Brunei Malay dialect. The word *patau* in the local dialect means 'float', aptly describing the village.

I had the opportunity to visit Patau Patau when I was invited to be a guest speaker at a business seminar in Labuan. I went there with my family and extended my stay in order to explore the island. I rented a car at Bandar Labuan (formerly known as Victoria) and drove to Patau Patau.

An aerial view of the village shows a close but orderly cluster of about 100

wooden houses extending about 100m into the sea. The buildings are constructed individually on elevated platforms supported by stilts or poles and are connected by walkways. Most of the platforms and houses are made of wood but some newer units are built on concrete platforms. The poles are said to have been made from *belian* hardwood or Borneo ironwood which is naturally resistant to rot.

Each house is painted in a different colour, resulting in a settlement that resembles an assembly of brightly-coloured Lego bricks. The houses originally had attap roofs but these were later replaced with metal or ceramic roofs. They are connected by a series of narrow wooden boardwalks or concrete pathways which are accessible to pedestrians and small vehicles such as bicycles and motorcycles.

Most of the houses have verandahs with interesting decorations, from lamps made from seashells and stuffed hawksbill tortoises to traditional fishing traps and kites. I was particularly impressed by a pair of stuffed hawksbill tortoises. They were well-preserved with their beautiful, textured shells still intact. I also noticed plenty of potted plants with beautiful flowers that blossomed despite the saltwater environment.

Patau Patau is fully equipped with basic utilities, just like other villages on land. I saw a network of pipelines supplying fresh water and each home had a separate meter to record consumption. In addition, the houses had electricity via power cables suspended on poles along the boardwalks. There were street lamps and a yellow fire hydrant at one of the boardwalk junctions. There was also a small mosque or surau. The building was not new but it was wellmaintained, clean and adequately furnished. There were grocery stores and small restaurants serving traditional dishes such as ambuyat, sago fish and paha paha (green vegetables).

With its rich cultural heritage and unique physical environment, Patau Patau Water Village is a legacy to be proud of, not only for the people of Labuan but also for the nation.



Houses built on elevated platforms and supported by stilts over the sea



Verandah decorated with potted and flowering plants



The mosque or surau

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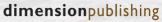
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Berikut adalah senarai calon yang layak untuk menduduki Temuduga Profesional bagi tahun 2022.

Mengikut Undang-Undang Kecil IEM, Seksyen 3.8, nama-nama seperti tersenarai berikut diterbitkan sebagai calon-calon yang layak untuk menjadi Ahli Institusi, dengan syarat bahawa mereka lulus Temuduga Profesional tahun 2022.

Sekiranya terdapat Ahli Korporat yang mempunyai bantahan terhadap mana-mana calon yang didapati tidak sesuai untuk menduduki Temuduga Profesional, surat bantahan boleh dikemukakan kepada Setiausaha Kehormat, IEM. Surat bantahan hendaklah dikemukakan sebulan dari tarikh penerbitan dikeluarkan.

Prof. Ir. Dr Zuhaina binti Zakaria

Setiausaha Kehormat, IEM

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NORAIDAH BINTI NORDIN	BE HONS (UITM) (CIVIL, 2007)
NORHAFSAH BINTI SELAMAT	BE HONS (UTM) (CIVIL, 2017)
WAN MOHD ASHRUL BIN WAN ABD RAHMAN	BE WITH HIGH DISTINCTION (CARLETON) (CIVIL, 2010)
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52904	ARNOLD VIC CHANDLER JUILY	BE HONS (UMS) (ELECTRICAL & ELECTRONICS, 2014)
94159	Mohammad zulfhian Nizam Bin Jikirun	BE HONS (UMS) (ELECTRICAL & ELECTRONICS, 2011)
64774	MUAZAN BIN HUSSAINI	BE HONS (UTHM) (ELECTRICAL, 2010) ME (UTHM) (ELECTRICAL, 2012)
104278	MUHAMMAD FAIQ BIN MOHD DANI	BE HONS (UITM) (ELECTRICAL, 2013)
42151	NADIA ASYIKIN BINTI KASSIM	BE HONS (UTP) (ELECTRICAL & ELECTRONICS, 2011)
95766	ONG YING TEIK	BE HONS (UNITEN) (ELECTRICAL AND ELECTRONICS, 2017)
79576	RAJA NASUHA BIN RAJA CHIK	BE HONS (UNITEN) (ELECTRICAL & ELECTRONICS, 2009)
95840	VASANTHASEHNAN RAM A/L RAJARAM	BE HONS (UMS) (ELECTRICAL & ELECTRONICS, 2015)
89023	WONG CHEK ING ZULFADLIZAN BIN MOHD	BE HONS (UMS) (ELECTRICAL & ELECTRONICS, 2012)
99436		BE HONS (UNITEN) (ELECTRICAL POWER, 2015)
101992 72722	AHMAD FATHI BIN ZAINAZLAN RODZIDAH BINTI MOHD RODZI	BE HONS (IIUM) (COMMUNICATION, 2010) BE HONS (UTM) (ELECTRICAL - ELECTRONICS, 2003)
KEJU	RUTERAAN INDUSTRI	
59143	AINUL AKMAR BINTI MOKHTAR	BSc (PURDUE) (INDUSTRIAL, 1996) MSc (NOTTINGHAM) (MANUFACTURING SYSTEMS, 2001 PhD (UTP) (MECHANICAL, 2011)
	RUTERAAN MEKANIKAL	
48491	AHMAD JAIS BIN ALIMIN	BE HONS (LONDON) (MECHANICAL, 1998) ME (UTM) (MECHANICAL, 2003) PhD (COVENTRY) (2007)
29758	ANUAR BIN BERO	BE HONS (UTM) (MECHANICAL - MARINE TECHNOLOGY, 2001)
111119	MAI ZAINATUN NUFUS BINTI	ME (UTM) (MECHANICAL, - MARINE TECHNOLOGY, 2009 BE HONS (MALAYA) MECHANICAL, 2001)
	MOHD JAFFAR	ME (UKM) (ENVIRONMENTAL, 2019)
54300	MASDI BIN MUHAMMAD	BSc (LEHIGH) (MECHANICAL, 1991) MSc (LEHIGH) (MANUFACTURING SYSTEMS, 1992) PhD (UTP) (MECHANICAL, 2012)
42025	MOHMIN BIN SALIM	BE HONS (UTM) (MECHANICAL, 2009)
73516	NASIRUDDIN ZHARIFF BIN RASIP	BE HONS (UTP) (MECHANICAL, 2014)
31471	NUR ISLAM BIN NUR ISKANDAR	BE HONS (UITM) (MECHANICAL, 2009)
99200	NUR SHAMIMI BINTI SHAHIROL	BE HONS (UMP) (MECHANICAL, 2016)
30572	SAW CHUN LIN	BE HONS (UTM) (MECHANICAL, 2001) ME (UTM) (MECHANICAL, 2009) PhD (UTP) (MECHANICAL, 2014)
85943	TAM JUN HAO	BE HONS (MMU) (MECHANICAL, 2014)
112604	ZULKIFLEE BIN UMAR	BE HONS (WOLLONGONG) (MECHANICAL, 2004)
KEJUI	RUTERAAN PEMBINAAN	-
89628	ONG CHIN HOW	BE HONS (SOUTHERN QUEENSLAND) (CIVIL, 2008) ME (UKM) (CIVIL, 2016)
PERI	WOHONAN BARU / PER	RPINDAHAN MENJADI AHLI KORPORAT

PER	MOHONAN BARU / PE	RPINDAHAN MENJADI AHLI KORPORAT
No.	Nama	Kelayakan
Ahli		
KEJU	RUTERAAN AWAM	
19364	ZOLKARNAIN BIN ABD RAHIM	BE HONS (UTM) (CIVIL, 1990)

PERMOHONAN BARU / PEMINDAHAN AHLI

Persidangan Majlis IEM yang ke-427 pada 19 Julai 2021 telah meluluskan sebanyak 847 ahli untuk permohonan baru dan permindahan ahli. Berikut adalah senarai ahli mengikut disiplin kejuruteraan:

	GRED KEAHLIAN											
DISIPLIN	FELO	SENIOR	AHLI	SENIOR GRADUATE	SISWAZAH	"INCORPORATED"	"AFFILIATE"	"ENGINEERING TECHNOLOGIST GRADUATE MEMBER"	"ENGINEERING TECHNICIAN GRADUATE MEMBER"	"ASSOCIATE"	SISWA	JUMLAH
Aeronautikal					2			4				6
Aeroangkasa					1	1					1	3
Pertanian					1			1				2
Automotif											2	2
Biokimia			1		1							2
Perkhidmatan Bangunan			1									1
Kimia	1		5		36			2			50	94
Awam			24		117			2	1	2	62	208
Komunikasi			2									2
Komputer							1	1			3	5
Sistem Komputer											1	1
Pembinaan								1			1	2
Elektrikal	6		26		81	1		2			16	132
Elektronik	1		5		38			1			32	77
Elektronik & Kawalan Instrumentasi											15	15
Alam Sekitar					7							7
Geoteknik			2									2
Industri			1		1							2
Sistem Maklumat											1	1
Pembuatan					4						2	6
Bahan			1		1						1	3
Metallurgi					1							1
Mekanikal	2		23		101			1		1	76	204
Mekatronik			1		4						42	47
Sumber Mineral					1							1
Arkitek Naval					1						1	2
Petroleum	1		1		7						5	14
Sumber Air			4									4
Pengangkutan			1									1
JUMLAH	11	-	98	-	405	2	1	15	1	3	311	847

Senarai nama ahli dan kelayakan adalah seperti di bawah. Institusi mengucapkan tahniah kepada ahli yang telah berjaya.

Ir. Assoc. Prof. Dr David Chuah Joon Huang

Setiausaha Kehormat, Institusi Jurutera Malaysia, Sesi 2021/2022

PERMINDAHAN AHLI KEPADA AHLI FELLOV

No. Ahli	Nama	Kelayakan	
KEJU	RUTERAAN ELEKTRIK	AL	(
16254	MOHD AZHA BIN ABU SAMAH	BE (BRUSSELS) (ELECTRICAL, 1991) MPM (OUM) (2015)	
11404	TING CHING HUONG	BE (RMIT) (ELECTRICAL, 1987)	2
27473	CLARENCE AUGUSTINE TEE TECK HUO	BE HONS (LEEDS) (ELECTRONIC & ELECTRICAL, 1997)	
25663	LIM YUN SENG	BE HONS (MANCHESTER) (ELECTRICAL AND ELECTRONIC, 1998) PhD (MANCHESTER) (POWER SYSTEM, 2001)	
43723	CHAN SEONG PHUN	BE HONS (SURREY) (ELECTRONIC & ELECTRICAL, 2000) PhD (SURREY) (2005)	9
25416	CHONG CHEW FAN	BE HONS (UKM) (ELECTRICAL, ELECTRONIC AND SYSTEM, 2002)	9
KF.JU	RUTERAAN ELEKTRON	JIK	
	VIGNA KUMARAN A/L RAMACHANDARAMURTHY	BE HONS (UMIST)	
KEIII	RUTERAAN KIMIA		8
22445		BE HONS (UTM) (CHEMICAL, 2000) ME (UTM) (CHEMICAL, 2003) PhD (UTM) (CHEMICAL,	4
		2006)	

KEJURUTERAAN MEKANIKAL

ELLOW LS) , 1991) 2015) LECTRICAL, EEDS) C &	14251 05043 KEJU	RUTERAAN MEKANIK/ KHAIRULANNUAR BIN SULAIMAN NG YONG KONG RUTERAAN PETROLEU JEYANTHI RAMASAMY	BE (WESTERN NEW ENGLAND COLLEGE) (MECHANICAL, 1991) BE HONS (MALAYA) (MECHANICAL, 1985)		MOHAMAD SAIFUL BAHTIAR BIN MOHAMAD SHARKAWI MOHD IRAHAJ BIN ISMAIL MUHAMMAD AFAIZ BIN ABDUL RAHMAN YAP CHUNG LING RUTERAAN BIOKIMIA CHIN WENG SENG	BE HONS (UTM) (CIVIL, 2003) BE HONS (UTM) 9CIVIL, 2012) BE HONS (UTHM) (CIVIL, 2015) BE HONS (KLIUC) (CIVIL, 2009) BE HONS (UTM)
, 1997) ANCHESTER) _ AND C, 1998)		MINDAHAN AHLI KEPAI				(ELECTRICAL-MEDICAL ELECTRONICS, 2000) ME (UTM) (ENGINEERING MANAGEMENT, 2002)
ESTER) STEM, 2001)	No. Ahli	Nama	Kelayakan	KEJU	RUTERAAN ELEKTRIK	AL
JRREY) C & , 2000) Y) (2005)	KEJU 96017	RUTERAAN AWAM CHEN CHUANG LOOM	BE HONS (UNIMAS) (CIVIL, 2013)	25079	AHMAD SYUKRI BIN MOHAMAD	BE HONS (ELECTRICAL & ELECTRONICS, 2003) MSc (UPM) (ELECTRICAL POWER, 2013)
<m)< td=""><td>93579</td><td>CHONG HAW JIUN, CLEMENT</td><td>ME HONS (NOTTINGHAM) (CIVIL, 2016)</td><td>74118</td><td>ALEX ANAK ELIZABETH ENCHING</td><td>BE HONS (UTM) (ELECTRICAL, 2004)</td></m)<>	93579	CHONG HAW JIUN, CLEMENT	ME HONS (NOTTINGHAM) (CIVIL, 2016)	74118	ALEX ANAK ELIZABETH ENCHING	BE HONS (UTM) (ELECTRICAL, 2004)
2 AND 92)	30148 21053	DUANE ALVIN WILLIAM BAYA ISMACAHYADI BAGUS BIN	BE HONS (UNITEN) (CIVIL, 2012) BE HONS (UITM)	77925	BAVANANTHAN A/L SELVAMANY	BE HONS (UNITEN) (ELECTRICAL POWER, 2015)
MIST) _ & C, 1998)		MOHAMED JAIS	(CIVIL, 2002) MSc (NEWCASTLE UPON TYNE) (GEOTECHNICAL, 2004) PhD (UITM) (CIVIL, 2014)	26942	CHARLES RAYMOND A/L SARIMUTHU	BE HONS (MALAYA) (ELECTRICAL, 2006) ME (MALAYA) (2010) PhD (UNITEN) (2019)
	88509	LEE CHUN HOONG	BE HONS (UNISEL) (CIVIL, 2006)	99271	EFFENDY BIN MANGSOR	BSc (SOUTHERN CALIFORNIA) (ELECTRICAL, 2006)
ΓM) 2000)	48520	LEOW YOONG KHA	BE HONS (QUEENSLAND) (CIVIL, 2009)	49867	FIRDAUS BIN MOHAMAD	BE HONS (UTM) (ELECTRICAL, 2003)
2003) CHEMICAL,	20768	LIEW YUK SAN	BE HONS (UTM) (CIVIL, 2003) MSc (USM) (RIVER & URBAN DRAINAGE MANAGEMENT, 2010)	94036	KARTHINATHAN A/L RANGANATHAN	BE HONS (UTM) (ELECTRICAL & ELECTRONICS, 2012)

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100000	KOK CHIN CHAI	BE HONS (WARNBOROUGH) (ELECTRICAL, 2001)		SHAIFUL MOHAMMED DANIEL BIN HALIM WONG SIONG BING	BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MONASH)	115494	MOHD RO
102997	LIM SENG BAN	BE HONS (HERTFORDSHIRE) (ELECTRICAL & ELECTRONIC, 1997)	52936	WOO WEN TZENG	(MECHANICAL, 2008) BE HONS (USM) (MECHANICAL, 2015)	115210	SHARMEL RAMACHA
70312	MAHENDRAN A/L BATUMALAY	BE HONS (UPM) (ELECTRICAL &		RUTERAAN MEKATRO		115058	VIGNESW
101935	MUHAMAD ZAKI BIN MUHAMAD ZAFIR	ELECTRONICS, 1999) BE HONS (UNITEN) (ELECTRICAL POWER,	45316	ANG CHUN KIT	BE HONS (UCSI) (MECHATRONIC, 2010) PhD (UPM) (2014)	KEJUI	RUTERA
02973	MUHAMMAD FARID BIN HASNI	2013) BE HONS (UNITEN) (ELECTRICAL POWER,		RUTERAAN PENGANG	BE HONS (UTP) (CIVIL,		CHOO CHI
94032	SHANGAR A/L	2009) BE HONS (NANYANG)		YAAKUB	2010)		
	EAGAMATHAN	(ELECTRICAL & ELECTRONIC, 2011) MSc (NANYANG) (POWER, 2016)		RUTERAAN PERKHIDN SIEW HAW SHIUN	BE HONS (UTM) (MECHANICAL- MANUFACTURING, 2010)	115491	MOHD HU
4602	SIOW LIP HAN	BE HONS (UPM) (ELECTRICAL & ELECTRONICS, 2012)	KEJU	RUTERAAN SUMBER A			MAZNUDE
94366	TAN KHENG SUAN, FREDDY	BE HONS (MMU) (ELECTRICAL, 2010) PhD (MALAYA) (2015)	31760	JAZURI BIN ABDULLAH	BE HONS (UITM) (CIVIL, 2004) MSc (STUTTGART) (WATER		RUTERA/ AZURA BIN
KEJU	RUTERAAN ELEKTRO	NIK			RESOURCES, 2007) PhD (COLORADO STATE)		
90347	AHMAD SAIFUDDIN BIN IBRAHIM	BE HONS (UiTM) (ELECTRICAL, 2016)	19338	TAN WOON YANG	(2013) BSc HONS (MISSISSIPPI		
31739	KASUMAWATI BINTI LIAS	BE HONS (UNIMAS) (ELECTRONICS & TELECOMMUNICATIONS,	10000		STATE) (CIVIL, 1998) ME (UTAR) (PROJECT MANAGEMENT, 2019)	KEJUI	RUTERA
		2005) ME (UTM) (ELECTRICAL- ELECTRONICS &	95808	UMI NADRAH BT ABDUL GHANI	BE HONS (UiTM) (CIVIL, 2014) MSc (UiTM)	114879	ASMADIB I ADNAN
		TELECOMMUNICATION, 2008)			(CONSTRUCTION, 2018)	115201	CHIA CHIN
80690	TAN SIN JIN	BE HONS (UTM) (ELECTRICAL- TELECOMMUNICATION,		PEMINDAHAN KEPADA EPERIKSAAN PENILAIA			LONG JI M
		2006) ME (MALAYA) (2010)	No. Ahli	Nama	Kelayakan	115493	MOHD DAS YUSOFF
KEJU	RUTERAAN GEOTECH	PhD (MALAYA) (2014)		RUTERAAN AWAM MD YUSHAIRI KAMARUL	BE HONS (UiTM) (CIVIL,	115212	SUZAINI B
6590	LEE CHEE KIEN	ME HONS (NOTTINGHAM) (CIVIL, 2015)		EFFENDY BIN MOHD YUSOF	2007)	KEIIII	
2578	YEW WAN TIAN	BE HONS (UTHM) (CIVIL, 2013) PhD (MALAYA) (2017)	53802 22449	SYED MOHD NAZERI BIN SYED NORIZAN KHAIRULANUAR BIN MUHARI	BE HONS (UKM) (CIVIL & ENVIRONMENTAL, 2007) BE HONS (UKM) (CIVIL, 2000)		KOH JUNG
KEJU 35485	RUTERAAN INDUSTRI SANTHIRAHASAN	BSc (PURDUE)	87099	KHAIRUL HISYAM BIN AB. GHANI	ME (UTM) (CIVIL, 2013) BE HONS (UTM) (CIVIL, 2016)		
	MUTHUSAMY	(INDUSTRIAL, 2015)	KE.III	RUTERAAN ELEKTRIK		KEJU	RUTERA
30693	RUTERAAN KIMIA REEZA FARHAN BIN RAMLAND ROSS	BE HONS (MALAYA) (CHEMICAL, 2010)	90155	RAJIV A/L MENATSI NATHAN	BE HONS (UNITEN) (ELECTRICAL POWER, 2013)	115205	HOO SHYA
	RUTERAAN KOMUNIK		78434	CHAN CHI YEN	BE HONS (UPM) (ELECTRICAL &	P	ERMOHO
55840	LEE VOON HIAN	BE HONS (THE UNIVERSITY OF	42480	KHAIRUL BIN FAIZAL	ELECTRONICS, 2015) BE HONS (UTHM)		PERIKS
		NEW SOUTH WALES) (TELECOMMUNICATIONS, 2011)			(ELECTRICAL, 2006)	No. Ahli	Nama
		ME (THE UNIVERSITY OF SYDNEY) (NETWORK		RUTERAAN KIMIA MOHD FADHIL BIN MAJNIS			AHMAD HA
		ENGINEERING, 2012)	24684		2006)		HASHIM
KEJU	RUTERAAN MEKANIK		KEJU	RUTERAAN MEKANIKA		115211	SHAZLINA
60038	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR A/L G.	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA)	KEJU	RUTERAAN MEKANIKA KUMARESAN MAGASWARAN		KEJU	SHAZLINA SHAHARU
60038 85906	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR A/L G. BALASUNDRAM	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM)	KEJU 56542	KUMARESAN MAGASWARAN	L BE HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010)	KEJU	SHAZLINA SHAHARU
60038 85906 25598	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR A/L G. BALASUNDRAM CHAN LING KET	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL-MARINE TECHNOLOGY, 2001)	KEJU 56542 PI No.	KUMARESAN	L BE HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010)	KEJU 115202	SHAZLINA SHAHARU RUTERA/ CHONG CI
60038 85906 25598 111128	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR A/L G. BALASUNDRAM CHAN LING KET DALBIR SINGH A/L ATAR SINGH	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL-MARINE TECHNOLOGY, 2001) BE HONS (UTM) (MECHANICAL, 2005)	KEJU 56542 Pr No. Ahli	KUMARESAN MAGASWARAN ERMOHONAN MENJAD	E HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010)	KEJU 115202	SHAZLINA SHAHARU RUTERAA CHONG CI DEWIKA N
60038 85906 25598 111128 70605	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR A/L G. BALASUNDRAM CHAN LING KET DALBIR SINGH A/L ATAR	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL-MARINE TECHNOLOGY, 2001) BE HONS (UTM) (MECHANICAL, 2005) BE HONS (UTAR) (MECHANICAL, 2014) BE HONS (UTM)	KEJU 56542 Pr No. Ahli KEJU	KUMARESAN MAGASWARAN ERMOHONAN MENJAD Nama	AL BE HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010) I AHLI KORPORAT Kelayakan BE HONS (UTM) (CIVIL, 2005) ME (NOTTINCHAM)	KEJU 115202	SHAZLINA SHAHARU RUTERAA CHONG CI DEWIKA N
60038 85906 25598 111128 70605 108131	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR A/L G. BALASUNDRAM CHAN LING KET DALBIR SINGH A/L ATAR SINGH GOH DES SOH HASZEME BIN ABU KASIM	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 2005) BE HONS (UTAR) (MECHANICAL, 2014) BE HONS (UTM) (MECHANICAL, 2007) MSC (UITM) (MECHANICAL, 2007) MSC (UITM) (MECHANICAL, 2014)	KEJU 56542 Pr No. Ahli KEJU	KUMARESAN MAGASWARAN ERMOHONAN MENJAD Nama RUTERAAN AWAM	BE HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010) I AHLI KORPORAT Kelayakan BE HONS (UTM) (CIVIL, 2005)	KEJU 115202	SHAZLINA SHAHARU RUTERAA CHONG CI DEWIKA N MUNISAM
60038 85906 25598 111128 70605 108131 94323	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR A/L G. BALASUNDRAM CHAN LING KET DALBIR SINGH A/L ATAR SINGH GOH DES SOH HASZEME BIN ABU KASIM KHOR LING SI	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 2005) BE HONS (UTM) (MECHANICAL, 2014) BE HONS (UTM) (MECHANICAL, 2014) BE HONS (UTM) (MECHANICAL, 2014) BE HONS (UPM) (MECHANICAL, 2012)	KEJU 56542 PP No. Ahli KEJU 114877	KUMARESAN MAGASWARAN ERMOHONAN MENJAD Nama RUTERAAN AWAM	BE HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010) I AHLI KORPORAT Kelayakan BE HONS (UTM) (CIVIL, 2005) ME (NOTTINGHAM) (SCIENCE GIVIL - GEOTECHNICAL	KEJUJ 115202 115204 No.	SHAZLINA SHAHARU RUTERAA CHONG CI DEWIKA N MUNISAM
60038 85906 25598 111128 70605 108131 94323	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR A/L G. BALASUNDRAM CHAN LING KET DALBIR SINGH A/L ATAR SINGH GOH DES SOH HASZEME BIN ABU KASIM	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL-MARINE TECHNOLOGY, 2001) BE HONS (UTM) (MECHANICAL, 2005) BE HONS (UTM) (MECHANICAL, 2007) MSC (UITM) (MECHANICAL, 2007) MSC (UITM) (MECHANICAL, 2012) BE HONS (UPM) (MECHANICAL, 2010) MSC (UITM) (MECHANICAL, 2014)	KEJU 56542 PI No. Ahli 114877	KUMARESAN MAGASWARAN ERMOHONAN MENJAD Nama RUTERAAN AWAM HAYATI BINTI ZAINAL	AL BE HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010) I AHLI KORPORAT Kelayakan BE HONS (UTM) (CIVIL, 2005) ME (NOTTINGHAM) (SCIENCE CIVIL - GEOTECHNICAL ENGINEERING, 2013) BE HONS (UTM) (CIVIL, 2011) BE HONS (USM) (CIVIL, 1999) (CIVIL, 1999) (CIVIL, 1999)	KEJUF 115202 115204 No. Ahli KEJUF	SHAZLINA SHAHARU RUTERAA CHONG CI DEWIKA N MUNISAM PERI Nama RUTERAA
60038 85906 25598 111128 70605 108131 94323 31137	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR A/L G. BALASUNDRAM CHAN LING KET DALBIR SINGH A/LATAR SINGH GOH DES SOH HASZEME BIN ABU KASIM KHOR LING SI MOHD SHAHRUDIN BIN MOHD ALIAS	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL-MARINE TECHNOLOGY, 2001) BE HONS (UTM) (MECHANICAL, 2005) BE HONS (UTM) (MECHANICAL, 2014) BE HONS (UTM) (MECHANICAL, 2014) BE HONS (UTM) (MECHANICAL, 2012) BE HONS (UPM) (MECHANICAL, 2012) BE HONS (UPM) (MECHANICAL, 2010) MSC (UTM) (MECHANICAL, 2011) BE HONS (UITM)	KEJU 56542 PI No. Ahli 114877 115207 114878	KUMARESAN MAGASWARAN RUTERAAN MENJAD Nama RUTERAAN AWAM HAYATI BINTI ZAINAL MOHAMAD NIZAR BIN ABDONASRAH SURIA BINTI HALIM	AL BE HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010) I AHLI KORPORAT Kelayakan BE HONS (UTM) (CIVIL, 2005) ME (NOTTINGHAM) (SCIENCE CIVIL- GEOTECHNICAL ENGINEERING, 2013) BE HONS (UTM) (CIVIL, 2011) BE HONS (USM) (CIVIL, 1999)	KEJUI 115202 115204 No. Ahli KEJUI 114889	SHAZLINA SHAHARU RUTERAA CHONG CI DEWIKA N MUNISAM PERI Nama RUTERAA CHIN YUN HASNIZAM
60038 85906 25598 111128 70605 108131 94323 31137 43581	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR AL G. BALASUNDRAM CHAN LING KET DALBIR SINGH A/LATAR SINGH GOH DES SOH HASZEME BIN ABU KASIM KHOR LING SI MOHD SHAHRUDIN BIN MOHD ALIAS MOHD SOLEHAM JURAIMI BIN KAMARUDIN MOHD SYAFIQ HAFIFI BIN	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 2001) BE HONS (UTM) (MECHANICAL, 2005) BE HONS (UTM) (MECHANICAL, 2014) BE HONS (UTM) (MECHANICAL, 2017) MSC (UTM) (MECHANICAL, 2012) BE HONS (UPM) (MECHANICAL, 2010) MSC (UTM) (MECHANICAL, 2010) BE HONS (UTM) (MECHANICAL, 2010) BE HONS (UTM)	KEJU 56542 Pf No. Ahli 114877 115207 114878 KEJU	KUMARESAN MAGASWARAN ERMOHONAN MENJAD Nama RUTERAAN AWAM HAYATI BINTI ZAINAL MOHAMAD NIZAR BIN ABDONASRAH	AL BE HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010) I AHLI KORPORAT Kelayakan BE HONS (UTM) (CIVIL, 2005) ME (NOTTINGHAM) (SOIENCE GIVIL - GEOTECHVIL - GEOTECHVICAL ENGINEERING, 2013) BE HONS (UTM) (CIVIL, 2007) MSc (USM) (STRUCTURAL, 2007)	KEJU 115202 115204 No. Ahli 114889 115226	SHAZLINA SHAHARU RUTERA CHONG CI DEWIKA N MUNISAM PERI Nama RUTERA CHIN YUN HASNIZAM
60038 85906 25598 111128 70605 108131 94323 31137 43581 100690	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR A/L G. BALASUNDRAM CHAN LING KET DALBIR SINGH A/L ATAR SINGH GOH DES SOH HASZEME BIN ABU KASIM KHOR LING SI MOHD SHAHRUDIN BIN MOHD ALIAS	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 2005) BE HONS (UTAR) (MECHANICAL, 2014) BE HONS (UTM) (MECHANICAL, 2017) MSC (UITM) (MECHANICAL, 2012) BE HONS (UPM) (MECHANICAL, 2010) (MECHANICAL, 2010) MSC (UITM) (MECHANICAL, 2010) CMECHANICAL, 2010) CMECHANICAL, 2010) CMECHANICAL, 2010) CMECHANICAL, 2010) CMECHANICAL, 2010) CMECHANICAL, 2010) CMECHANICAL, 2010) CMECHANICAL, 2010)	KEJU 56542 Pf No. Ahli 114877 115207 114878 KEJU	KUMARESAN MAGASWARAN ERMOHONAN MENJAD Nama RUTERAAN AWAM HAYATI BINTI ZAINAL MOHAMAD NIZAR BIN ABDONASRAH SURIA BINTI HALIM RUTERAAN BAHAN	AL BE HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010) I AHLI KORPORAT Kelayakan BE HONS (UTM) (CIVIL, 2005) ME (NOTTINGHAM) (SOIENCE GIVIL - GEOTECHVIL - GEOTECHVICAL ENGINEERING, 2013) BE HONS (UTM) (CIVIL, 2007) MSc (USM) (STRUCTURAL, 2007)	KEJUF 115202 115204 No. Ahli KEJUF 114889 115226 114882 115214	SHAZLINA SHAHARU RUTERAA CHONG CI DEWIKA N MUNISAM PERI Nama RUTERAA CHIN YUN HASNIZAN HUSNAN HERMAN E LIM SIN YI
60038 85906 25598 111128 70605 108131 94323 31137 43581 100690 38252	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR A/L G. BALASUNDRAM CHAN LING KET DALBIR SINGH A/L ATAR SINGH GOH DES SOH HASZEME BIN ABU KASIM KHOR LING SI MOHD SHAHRUDIN BIN MOHD SHAHRUDIN BIN MOHD SULEHAM JURAIMI BIN KAMARUDIN MOHD SYAFIQ HAFIFI BIN KAMISAN	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 2001) BE HONS (UTAR) (MECHANICAL, 2005) BE HONS (UTAR) (MECHANICAL, 2005) BE HONS (UTM) (MECHANICAL, 2014) BE HONS (UTM) (MECHANICAL, 2012) BE HONS (UPM) (MECHANICAL, 2012) BE HONS (UITM) (MECHANICAL, 2012) BE HONS (UITM) (MECHANICAL, 2010) MSC (UITM) (MECHANICAL, 2010) BE HONS (UITM) (MECHANICAL, 2010) BE HONS (UITM) (MECHANICAL, 2012) BE HONS (UITM)	KEJU 56542 No. Ahli KEJU 114877 115207 114878 KEJU 115209	KUMARESAN MAGASWARAN RMOHONAN MENJAD Nama RUTERAAN AWAM HAYATI BINTI ZAINAL MOHAMAD NIZAR BIN ABDONASRAH SURIA BINTI HALIM RUTERAAN BAHAN SALMI BT MOHD YUNUS @	AL BE HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010) I AHLI KORPORAT Kelayakan BE HONS (UTM) (CIVIL, 2005) ME (NOTTINGHAM) (SCIENCE CIVIL- GEOTECHNICAL ENGINEERING, 2013) BE HONS (UTM) (CIVIL, 2011) BE HONS (USM) (CIVIL, 1999) (SCIUSM) (STRUCTURAL, 2007) BE HONS (UKM) (MECHANICAL, 2008) MSc (UKM) (MECHANICAL & MATERIALS, 2018)	KEJUF 115202 115204 No. Ahli KEJUF 114889 115226 114882 115214	SHAZLINA SHAHARU RUTERAA CHONG CH DEWIKA N MUNISAM PERI Nama RUTERAA CHIN YUNI HASNIZAW
60038 85906 25598 111128 70605 108131 94323 31137 43581 100690 38252 35373	AMIRUL FAIZ BIN KAMARUDDIN ANANTHAKUMAR AL G. BALASUNDRAM CHAN LING KET DALBIR SINGH A/LATAR SINGH GOH DES SOH HASZEME BIN ABU KASIM KHOR LING SI MOHD SHAHRUDIN BIN MOHD SHAHRUDIN BIN MOHD SOLEHAM JURAIMI BIN KAMARUDIN MOHD SVAFIQ HAFIFI BIN KAMISAN MUHAMMAD IZZUL HAQ BIN ABU RAHIM	AL BE HONS (UPNM) (MECHANICAL, 2012) BE HONS (MALAYA) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 1997) BE HONS (UTM) (MECHANICAL, 2005) BE HONS (UTM) (MECHANICAL, 2007) MSC (UITM) (MECHANICAL, 2014) BE HONS (UTM) (MECHANICAL, 2017) MSC (UITM) (MECHANICAL, 2012) BE HONS (UPM) (MECHANICAL, 2010) MSC (UITM) (MECHANICAL, 2010) BE HONS (UITM) (MECHANICAL, 2010) BE HONS (UITM) (MECHANICAL, 2010) BE HONS (UITM) (MECHANICAL, 2012) BE HONS (UITM)	KEJU 56542 PI No. Ahli KEJU 115207 114878 KEJU 115209 KEJU 115209	KUMARESAN MAGASWARAN ERMOHONAN MENJAD Nama RUTERAAN AWAM HAYATI BINTI ZAINAL MOHAMAD NIZAR BIN ABDONASRAH SURIA BINTI HALIM RUTERAAN BAHAN SALMI BT MOHD YUNUS @ ABD WAHID	AL BE HONS (UTeM) (MECHANICAL (AUTOMOTIVE), 2010) I AHLI KORPORAT Kelayakan BE HONS (UTM) (CIVIL, 2005) ME (NOTTINGHAM) (SCIENCE CIVIL- GEOTECHNICAL ENGINEERING, 2013) BE HONS (UTM) (CIVIL, 2011) BE HONS (USM) (CIVIL, 1999) (SCIUSM) (STRUCTURAL, 2007) BE HONS (UKM) (MECHANICAL, 2008) MSc (UKM) (MECHANICAL & MATERIALS, 2018)	KEJUF 115202 115204 No. Ahli KEJUF 114889 115226 114882 115214	SHAZLINA SHAHARU RUTERA/ CHONG CH DEWIKA N. MUNISAM PERI Nama RUTERA/ CHIN YUNI HASNIZAM HUSNAN HERMAN E LIM SIN YII

HD ROSLI BIN AWANG	BE HONS (UTHM) (ELECTRICAL-ROBOTIC & AUTOMATION SYSTEM, 2007)
ARMELA A/P MACHANDRAM	BE HONS (UNITEN) (ELECTRICAL POWER, 2014)
NESWARAN A/L GURU ORTHY	BE HONS (UNITEN) (ELECTRICAL POWER, 2015)
ERAAN ELEKTRON	lik
DO CHEE WEE	BE HONS (MMU) (ELECTRONICS MAJORING IN ROBOTICS AND AUTOMATION, 2006) ME (UMS) (ELECTRICAL & ELECTRONICS, 2011) PhD (UMS) (ELECTRICAL & ELECTRONIC, 2018)
HD HUSAINI BIN ZNUDEEN	BE HONS (UTM) (ELECTRICAL- TELECOMMUNICATION, 2010)
ERAAN KOMUNIKA	SI
JRA BINTI HAMZAH	BE HONS (IIUM) (COMMUNICATION, 2005) ME (MALAYA) (TELECOMMUNICATION, 2009) PhD (MALAYA) (2012)
ERAAN MEKANIKA	L
MADIB BIN YUSOFF @ NAN	BE HONS (UTP) (MECHANICAL, 2004) MSc (UTM) (MECHANICAL, 2018)
A CHIN KUAN	BE HONS (MALAYA)
NG JI MING	(MECHANICAL, 1999) BE HONS (ADELAIDE)
HD DASUKI BIN SOFF	(MECHANICAL, 2005) BE HONS (UTM) (MECHANICAL- AUTOMOTIVE, 2005)
ZAINI BIN ZAINAL DIN	BE HONS (UTP) (MECHANICAL, 2006)
ERAAN PETROLEU	IM
H JUNG HUNG	BE HONS (UTM) (CHEMICAL, 1999) MSc (GREENWICH) (FACILITIES MANAGEMENT, 2004) PhD (UTM) (GAS, 2019)
ERAAN SUMBER A	IR
O SHYAN SHYAN	ME WITH MERIT (PORTSMOUTH) (CIVIL, 2003)
MOHONAN MENJAD RIKSAAN PENILAIA	
ma	Kelayakan
ERAAN AWAM	
MAD HAZRY BIN	BE HONS (UTM) (CIVIL,
SHIM AZLINA BINTI	1993) BE HONS (UTM) (CIVIL,
AHARUDIN	2006)
ERAAN KIMIA DNG CHING CHIENG	BE (MANCHESTER) (CHEMICAL, 2010) MSc (IMPERIAL COLLEGE LONDON) (ADVANCED CHEMICAL, 2011)
NIKA NAIDU A/P NISAMY NAIDU	BE (UTM) (CHEMICAL, 2000) ME (UTM) (ENVIRONMENTAL, 2003) PhD (UTM) (2019)

		PhD (UTM) (2019)					
	PERMOHONAN KEPADA AHLI 'SENIOR GRADUATE'						
o. hli	Nama	Kelayakan					
EJUI	RUTERAAN AWAM						
1889	CHIN YUNG KHANG	BE HONS (PORTSMOUTH) (CIVIL, 2004)					
5226	HASNIZAM BIN MOHD HUSNAN	BE HONS (MALAYA) (CIVIL, 2001)					
1882	HERMAN BIN YAHYA	BE HONS (UTM) (CIVIL, 2011)					
5214	LIM SIN YIN	BE HONS (UNI. OF PORTMOUTH)(CIVIL, 2001)					
4881	POON CHUAN KIT	BE HONS (LINTON UNIVERSITY/ IMPERIAL EAST LONDON) (CIVIL, 2010) ME (UTM) (CIVIL - STRUCTURE, 2015)					
1884	SITI NADIRAH ABD WAHAB	BE HONS (UiTM) (CIVIL, 2012)					

53593

72266 90848

66311 89518

79239 105418

92273

89258

TAN YI REN

114764	STEPHANIE ANAK JOHNSON KAYUS	BE HONS (UITM) (CIVIL, 2009)
114888	TEOH CHEE HUI	BE HONS (UNIMAS) (CIVIL,
		2008)
	RUTERAAN ELEKTRIK	AL
115141	LOW TECK WEI	BE HONS (UNITEN) (ELECTRICAL POWER,
		2007)
115224	MOHAMAD SYUKRI BIN ISMAIL	BE HONS (UTM) (ELECTRICAL, 2010)
114886	MOHD ZULKEFLI BIN AYOB	BE HONS (UTM)
114883	NOOR AZLAN BIN	(ELECTRICAL, 2000) BE (UMP) (ELECTRONIC,
445440	NORALAM SUZANAWATI BINTI MUSA	2009)
115142	SUZANAWATI BINTI MUSA	BE HONS (UTM) (ELECTRICAL -
		INSTRUMENTATION AND CONTROL, 2008)
115146	VENOTHKUMAR	BE HONS (UNITEN)
	SELVARAJOO	(ELECTRICAL POWER, 2011)
	RUTERAAN ELEKTRON	
115225	NIK AHMAD FAIZ BIN	BE HONS (UniMAP)
	ABDUL JAMEL	(ELECTRONIC, 2008)
114890	S.R.ASHOK	BE HONS (UNITEN) (ELECTRICAL &
		ELECTRONICS, 2012)
115223	TADAD BIN TASIR	BE (UTM) (ELETRONIC/ COMPUTER, 1991)
	RUTERAAN KIMIA NEE TECK SOON	BE (ADELAIDE)
		(CHEMICAL, 2006)
114820	WONG JY SHYUAN	BE HONS (MELBOURNE) (CHEMICAL AND
		BIOMOLECULAR, 2010) ME (MELBOURNE)
		(ENVIRONMENTAL, 2011)
KEIII		•
115227		
	BIN YAACOB	STATE) (1987)
KEJU	RUTERAAN MEKANIKA	۱. ۱
115221	HERBERT DEVAN A/L	BE HONS (UKM)
115145	SAWNTHARA PANDIAN KHAIRAN SYUHADA BINTI	(MECHANICAL, 2001) BSc (CARNEGIE MELLON)
	KASSIM	(MECHANICAL, 2007)
114885	KUMARAN RACHANDRA	BE HONS (UNITEN) (MECHANICAL, 2009)
115228	ZAIPUL AKRAM BIN ABDULLAH	BE HONS (UTM) (MECHANICAL, 2012)
_		(MEGHANICAE, 2012)
	RUTERAAN PETROLEU	JM
114880	CHONG WAI LUEN	BE HONS (UTM) (PETROLEUM, 2010)
115143	KAMRAN HAIDER TUNIO	BE HONS (UTP) (PETROLEUM, 2011)
114887	MUHAMMAD HAFIZ BIN	BE HONS (UTP)
	KHAIRUL AZMI	(PETROLEUM, 2011) ME (UTM) (PETROLEUM,
		2018)
	ERMINDAHAN KEPADA	
No. Ahli	Nama	Kelayakan
KEJU	RUTERAAN ALAM SEK	ITAR
90229	CHEONG KIN WAI	BE HONS (UTAR) (ENVIRONMENTAL, 2021)
97876	NG HAO YU	BE HONS (UTAR)
102172	TANG CHUI HENG	(ENVIRONMENTAL, 2021) BE HONS (UTAR)
102172	INTO ONOTHERO	(ENVIRONMENTAL, 2021)
KF.III	RUTERAAN AWAM	
	AHMAD KHAIRUL WAFI BIN	
30127	OSMAN AHMAD KHAIRULAZRI BIN	2021) BE HONS(IUKL)(CIVIL,
	KAMALUDDIN	2020)
84011	AMIR MUHSIN BIN CHE HUSNI	BE HONS (UNITEN)(CIVIL, 2019)
74602	ANG KAI SIONG	BE HONS (UTAR)(CIVIL,
96110	ANG MIN YUAN	2019) BE HONS (UTAR SG
		LONG)(CIVIL, 2021)
015070	CHEANG YEE	BE HONS(UMP)(CIVIL, 2016)
89820	CHEONG YUAT WAI	ME HONS(HERIOT-WATT UNI.)(CIVIL, 2020)
90695	ENG HWAI ERN	BE HONS (UMP)(CIVIL,
95287	FAIZWAN BIN JOLHARI	2020) BE HONS (UNIMAS)(CIVIL,
28403		2019)
20100	FARAH WAHIDA BINTI MOHD LATIB	
97385		2019) BE HONS (UKM)(CIVIL & ENVIRONMENTAL, 2009) BE HONS (UTAR SG
97385	MOHD LATIB	2019) BE HONS (UKM)(CIVIL & ENVIRONMENTAL, 2009)

2016)

BE HONS (IUKL)(CIVIL,

71161 KO CHEO LIANG, ALEX

	KUEH TING MING, KENTIGERN	BSc (UNI. OF DUISBURG- ESSEN)(CIVIL, 2013) BE HONS (UKM)(CIVIL & ENVIRONMENTAL, 2013)
	LI LIANG WEI	ME (UNIMAS)(CIVIL, 2019) BE HONS (SWINBURNE UNI. OF TECH.)(CIVIL, 2015)
	MICHAEL ANAK AKOK	BE HONS (UTM)(CIVIL, 2013)
	MOHAMAD KHAIRI BIN MOHAMAD AZMI	BE HONS (UTM)(CIVIL, 2011)
	Mohd Lokman Hakim Bin Rasib	BE HONS (UITM)(CIVIL, 2009)
	MOHD SYAHRIL BIN MOHD JOHAN	BE HONS (IUKL)(CIVIL, 2016)
	MOHD SYAZWAN BIN SHAVAREIN	ME HONS (LOVERPOOL JOHN MOORES UNI.) (CIVIL, 2020)
	MU KER SHIN	"BE HONS (UTM)(CIVIL, 2012) PhD (UTM)(CIVIL, 2019)"
	MUHAMAD ZULFADHLI BIN ABDUL FATTAH	BE HONS (UTP)(CIVIL, 2019)
	MUHAMMAD AMIRUDDIN BIN JALALOL SAYUTI	BE HONS (UTHM)(CIVIL, 2019)
	MUHAMMAD AZRI FIKRI BIN ARIFFIN	BE HONS (UTHM)(CIVIL, 2019)
	NG SIANG YUN	BE HONS (UTP)(CIVIL, 2019)
	NG SING MIN	BE HONS (UTAR)(CIVIL, 2015)
	NGU TOH SHENG, JOSEPH	BE HONS (UNI. COLLEGE OF TECH. SARAWAK) (CIVIL, 2018)
	NUR SHAQEENAH BINTI ZAINUDIN	BE HONS (UNITEN)(CIVIL, 2018)
1	ONG BINGJIAN	BE HONS (UTAR SG LONG)(CIVIL, 2021)
1	OOI WEI CHIEN	BE HONS (UTAR)(CIVIL, 2020)
	PUNG QI SEN	BE HONS (UTAR)(CIVIL, 2020)
	SAMSIA BINTI AZMAN	BE HONS(UiTM)(CIVIL, 2014)
	SITI NUR HANNA BT. SULAIMAN	BE HONS (UTHM)(CIVIL, 2017)
	SUGUNA MURUGIAH	BE HONS(IUKL)(CIVIL, 2016)
	VARUNESH A/L THINAKARAN	BE HONS(UTP)(CIVIL, 2019)
	YAN HONG LEE	BE HONS(IUKL)(CIVIL, 2015)
	YAP JIAN YANG	BE HONS (UNI. OF SALFORD)(CIVIL, 2016)
	YONG CHIA CHI, GRACE	BEM HONS (SWINBURNE UNI. OF TECH.)(CIVIL, 2018)
	YOOGALECHUMY A/P VELAVAN	BE HONS (IUKL)(CIVIL, 2020)
	YVONNE HO	BE HONS (UMS)(CIVIL, 2019)
	RUTERAAN ELEKTRIK	AL
	AMIR SYAFIQ BIN AZHAR	BE HONS (UNITEN) (ELECTRICAL &
		ELECTRONICS, 2013)

	RUTERAAN ELEKT	
49190	AMIR SYAFIQ BIN AZHA	R E

49190	AMIR SYAFIQ BIN AZHAR	BE HONS (UNITEN) (ELECTRICAL & ELECTRONICS, 2013)
91178	FREDERICK FRANCIS	BE HONS (UM) (ELECTRICAL, 2020)
65938	KHONG WENG HONG	BE HONS (UNISEL) (ELECTRICAL, 2016)
96410	LEE JIN YAO	BE HONS (UTeM) (ELECTRICAL, 2020)
94634	LEE YENG YANG	BE HONS (UNI. OF BRADFORD)(ELECTR & ELECTRONIC, 2015) MSc (UNIMAP) (ELECTRICAL POWER 2019)
94735	LIEW WEI HONG	BE HONS (UTAR) (ELECTRICAL & ELECTRONIC, 2020)
102201	LIM WIL SON	BE HONS (UTM) (ELECTRICAL, 2020)
88366	MOHAMAD AIMAN B. NOOR FREEZAILAH	BE HONS(UNITEN) (ELECTRICAL POWER 2019)
62661	MOHAMAD AMIRUL ASYRAF B. RAMLEE	BE HONS (UTHM) (ELECTRICAL, 2018)
104348	MOHAMMAD NAZMIE BIN YASIR	BE HONS (UMP) (ELECTRICAL - POWE SYSTEM, 2019)
74291	MOHD AIZZAT BIN AZMI	BE HONS (UTeM) (ELECTRICAL, 2018)
101899	MUZAIMIE BIN OMAR	BE HONS TECH (UNIK (ELECTRICAL, 2016
87821	NAGARAJA RUPAN A/L PANNEERCHELVAN	BE HONS (UNITEN) (ELECTRICAL POWER 2019)
86961	SATHIYANANTHAN A/L VALAUTHAM	BE HONS (UTAR SG LONG)(ELECTRICAL 8 ELECTRONIC, 2021)
62866	SHARVEENAH RAJ A/P YUVA RAJ	BE HONS (UTHM) (ELECTRICAL, 2018)
59242	SYAHIR NAJID B. SULAIMAN	BE (UMP)(ELECTRICA POWER SYSTEM, 201

RICAL R R. ER KL) ٢. A I BE (UMP)(ELECTRICAL -POWER SYSTEM, 2013) BE HONS (UTAR SG LONG)(ELECTRICAL & ELECTRONIC, 2021)

		2014)			
89244	VINOD A/L K.GANESAN	BE HONS (UTAR SG			
		LONG)(ELECTRICAL &			
		ELECTRONIC, 2021)			
KEJURUTERAAN ELEKTRONIK					
97874	LEE SI MIN	BE HONS (UTAR)			
		(ELECTRONIC, 2021)			
102170	LEE ZI JIAN	BE HONS (UTAR) (ELECTRONIC, 2021)			
94073	MOHD SHAHRIL BIN	BE HONS (UMP)			
34073	ROSELI	(ELECTRICAL -			
		ELECTRONICS, 2020)			
102171	TEH JUN QUAN	BE HONS (UTAR)			
		(ELECTRONIC, 2021)			
88375	YOON KHAY KIT	BE HONS (UNITEN)			
		(ELECTRICAL &			
		ELECTRONICS, 2018)			
	RUTERAAN KIMIA				
45771	BEH JYH JIUNN	BE HONS (USM)			
45771	BEH JTH JIUNN	(CHEMICAL, 2014)			
40578	DEDYMASRA BIN MAT SIIN	BE HONS(UTM)(CHEMICAL			
10010		- BIOPROCESS, 2008)			
105345	IVORY THIEN SZE CHEN	BE HONS (UTAR)			
		(PETROCHEMICAL, 2021)			
85268	KIRTHAN A/L YOGAN	BE HONS(USM)			
		(CHEMICAL, 2019)			
87304	LEE JIT CHEN, SEAN	BE HONS(MONASH UNI.)			
105240	OOI ZI HENG	(CHEMICAL, 2019) BE HONS (UTAR)			
105346	OUI ZI HENG	(PETROCHEMICAL, 2021)			
105341	PHANG CHIAN HUI	BE HONS (UTAR)			
100011		(PETROCHEMICAL, 2021)			
85384	PUVANISWARAN A/L	BE HONS (MIU)			
	KRISHNA MOORTHI	(CHEMICAL, 2017)			
94544	SAKTHI VEL RAJAMOGAN	BE HONS (MANIPAL			
		INTER. UNI.)(CHEMICAL,			
00040		2020)			
90210	SIAH SHENG RONG	BE HONS (UTAR) (PETROCHEMICAL, 2021)			
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