

JURUTERA



SEPTEMBER 2024

The Monthly Bulletin of The Institution of Engineers, Malaysia

Leading the Charge: Empowering
Engineers for Project Success

KDN PP 1050/12/2012 (030192) ISSN 0126-9909

COVER STORY

Empowering Engineers for
Project Success

FEATURE

Port Development Project
Incorporating Biodiversity
Conservation and Land
Degradation Control in Malaysia

FORUM

Retreat Programme:
Harnessing the
Committee's Potential

Introductory Rate for New Advertisers

RM 3,200^{*}/page
(NP RM4,900)

Full-Page, Full-Colour Advertisement

- This one-time-only special rate offer is for new advertisers.
- Space availability is subject to booking on a first-come-first-served basis.
- Clients will provide ready-to-print artwork in PDF format with 300dpi.
Full page: 210mm x 297mm, 3mm extra bleed sizes for 4-sided.
- Advertising space must be utilised before 31 December 2024.
- *Please note that the above rate will be subjected to 8% SST.
For overseas advertisers, an additional 25% will be charged.
- Rate shown above excludes 15% advertising agency commission.
- Payment term: Full advance payment.
- Artwork submission deadline is on (or before) the 1st week of the prior month of publication.
- After the material deadline, no cancellation or alteration to the advertisement will be entertained.
- Any cancellation after signing the advertising order will result in a 50% penalty charge.
- The publisher reserves the right to edit, revise or reject any advertisement deemed unsuitable or inappropriate.

Circulation & Readership Profile

JURUTERA has an estimated readership of 200,000 professionals. Our esteemed readership consists of certified engineers, decision making corporate leaders, CEOs, government officials, project directors, entrepreneurs, project consultants, engineering consulting firms and companies involved with engineering products and services.

Name of Company:

Address:

Tel: Fax: Contact Person (s):

Email Address:

Publication month/s:

.....
Company's Stamp & Authorised Signature

.....
Date

For enquiries, please contact:



dimensionpublishing
The Choice of Professionals

Authorised Publisher: The Institution of Engineers, Malaysia (IEM) - JURUTERA

Dimension Publishing Sdn Bhd [199701034233 (449732-T)]

📍 Level 18-01, PJX-HM Shah Tower,
No. 16A, Persiaran Barat, 46050 Petaling Jaya,
Selangor Darul Ehsan, Malaysia.

☎ +603 7493 1049
☎ +603 7493 1047
✉ info@dimensionpublishing.com

👤 Joseph How : +6011 1234 8181
Shirley Tham : +6016 283 3013



ENGINEERING EXCELLENCE:

Rihand Dam: Asia's Largest Reservoir Rehabilitation

Rihand Dam, Asia's largest water reservoir by volume, is in Uttar Pradesh, India. Built between 1954 and 1962, it has a holding capacity of 10.6 billion m³, a length of 934.45 m, and a height of 91.46 m, the powerhouse has a generation capacity of 300 MW.

Decades of service led to concrete aging and Alkali Aggregate Reaction (AAR), causing cracks and surface degradation. Various maintenance efforts were made but failed, and extensive rehabilitation was needed. Following a year-long study by the Central Soil and Material Research Station (CSMRS), engineers selected the unique Xypex Crystalline Technology for the task.

Critical Areas Addressed

The rehabilitation focused on three key areas: the Spillway, Piers, and Dam Top. Issues included deteriorated surfaces, loose joints, structural cracks, AAR-related alligator cracking, and failed previous repairs.



Repair Solution

Xypex Crystalline Technology was chosen for its ability to form a permanent, non-soluble crystalline structure within concrete cracks and voids. This renders concrete waterproof, chemically resistant and able to self-heal static hairline cracks up to 0.4 mm, protecting concrete even under extreme hydrostatic pressure. Over 57,000 kg of Xypex Patch'n Plug was used to repair cracks and joints.



Xypex Megamix II was applied at a thickness of 12.5 mm to resurface 14,000 m² of deteriorated concrete surface. Xypex Concentrate was applied to an area of over 21,000 m² for final protection.

The Uttar Pradesh Irrigation Department (UPID) and UP Jal Vidyut Nigam Ltd. (UPJVN) oversaw each repair phase, with three-years of successful inspections from senior officials and technical experts to ensure Xypex technology effectiveness. As a result, the dam is now better equipped to provide reliable service for years to come.



Let's discuss the waterproofing and protection needs for your project. Contact us today!



37 Jalan Putra Mahkota 7/7B, Putra Heights
47650 Subang Jaya, Selangor Darul Ehsan

+603-51928186 / Fax: +603-51926826

support@waterproofing.com.my

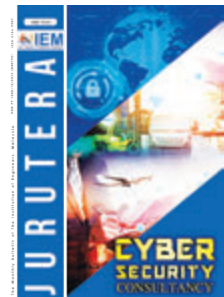
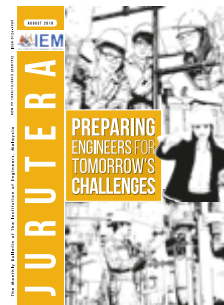
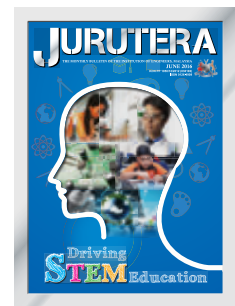
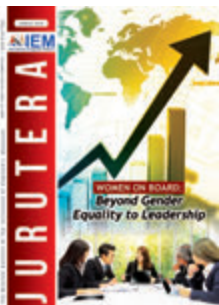
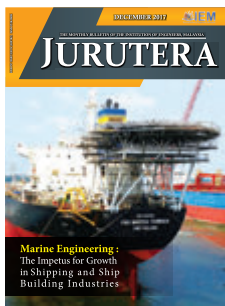
www.waterproofing.com.my

RNC Integral Concrete Technology (M) Sdn Bhd (436178-D) Exclusive applicator and distributor for Xypex in Malaysia. Xypex: Sustainability In Concrete Structures solutions that includes concrete repair, protection and durability enhancement.

To Learn More:



Advertise with us!



For advertisement placements and subscriptions, please contact:

Dimension Publishing Sdn. Bhd. [199701034233 (449732-T)]

+603-7493 1049 info@dimensionpublishing.com



IEM COUNCIL SESSION 2024/2025

President

Ir. Prof. Dr Jeffrey Chiang Choong Luin

Deputy President

Ir. Yau Chau Fong

Vice Presidents

Ir. Dr Siti Hawa binti Hamzah, Ir. Fam Yew Hin, Ir. Chen Harn Shean, Ir. Ts. Prof. Dr David Chuah Joon Huang, Y.Bhg. Dato' Ir. Wan Nazari bin Wan Jusoh, Ir. Dr Bernard Lim Kee Weng, Y.Bhg. Dato' Ir. Nor Hisham bin Mohd Ghazali

Honorary Secretary

Ir. Ts. Prof. Dr Tan Chee Fai

Honorary Treasurer

Ir. Dr Siow Chun Lim

Immediate Past President

Dato' Ir. Prof. Dr Norlida binti Buniyamin

Past Presidents

Y.Bhg. Academician Tan Sri Dato' Ir. Prof. Dr Chuah Hean Teik, Y.Bhg. Dato' Paduka Ir. (Dr) Hj. Keizrul bin Abdullah, Y.Bhg. Dato' Ir. Lim Chow Hock, Ir. Dr Tan Yean Chin, Ir. Ong Ching Loon

Civil Representative

Ir. Tu Yong Eng

Mechanical Representative

Ir. Ng Yong Kong

Electrical Representative

Ir. Mohd. Aman bin Hj. Idris

Structural Representative

Ir. Dr Tan Kuang Leong

Chemical Representative

Ir. Kim Kek Seong

Representative to Other Disciplines

Ir. Assoc. Prof. Dr Wong Yew Hoong

ICT and Multimedia Representative

Ir. Assoc. Prof. Dr Lai Khin Wee

Women Engineers Representative

Ir. Ts. Assoc. Prof. Dr Syuhaida binti Ismail

Young Engineers Section Representatives

Mr. Muhammad Ashiq Marecan bin Hamid Marecan, Grad. IEM, Mr. Lim Yiren, Grad. IEM, Mr. Darshan a/l Balasubramaniam, Grad. IEM, Mr. Chuah Pei Lim, Grad. IEM, Ms. Ong Ye Shian, Grad. IEM

Council Members

Ir. Rusnida binti Talib, Ir. Prof. Dr Lau Hieng Ho, Ir. Muhammad Azmi bin Ayub, Ir. Arul Hisham bin Abdul Rahim, Ir. Razmahwata bin Mohd Razali, Ir. Simon Yeong Chin Chow, Ir. Dr Chan Seong Phun, Ir. Yam Teong Sian, Ir. Kwok Yew Hoe, Ir. Dr Lee Choo Yong, Ir. Sharifah Azlina binti Raja Kamal Pasmah, Ir. Ts. Dr Wan Syakirah binti Wan Abdullah, Ir. Dr Mui Kai Yin, Ir. Shamil bin Abu Hassan, Ir. Ts. Wan Rizaluddin Abdullah bin Wan Ali, Ir. Dr Lam Wei Haur, Ir. Dr Angelia Liew San Chuin, Ir. Prof. Dr Zuhaina binti Zakaria, Ir. Begum Irdawati binti Dowlad Rahuman, Ir. Chong Chee Yen, Ir. Khoo Chee Min, Ir. Abdul Razak bin Yakob, Ir. Dr Chan Swee Huat, Ir. Alex Looi Tink Huey, Ir. Sukhairul Nizam bin Abdul Razak, Y.Bhg. Dato' Ir. Ting Chek Choon (casual vacancy for Y.Bhg. Dato' Ir. Nor Hisham bin Mohd Ghazali)

Council Members by Invitation

Y.Bhg. Dato' Ir. Ts. Abdul Razib bin Dawood, Ir. Gopal Narian Kutty, Ir. Oon Chee Kheng

Branch Chairman

1. Pulau Pinang: Ir. Chan Wah Cheong
2. Selatan: Ir. David Puen Ming Shen
3. Perak: Ir. Assoc. Prof. Dr Nursyarizal bin Mohd Nor
4. Pahang: Ir. Ab Rahman bin Hashim
5. Kedah-Perlis: Ir. Roshasmawi bin Abdul Wahab
6. Negeri Sembilan: Ir. Dr Oh Seong Por
7. Kelantan: Ir. Abrizan bin Abdul Kadir
8. Terengganu: Ir. Mazlan bin Che Ku Ahmad
9. Melaka: Ir. Lim Su Hian
10. Sarawak: Ir. Sim Hui Kheng, Stephanie
11. Sabah: Ir. Mohd Yaakob bin Jaafar
12. Miri: Ir. Meheron Selowara Joo

STANDING COMMITTEE ON INFORMATION AND PUBLICATIONS 2024/2025

Chairman: Ir. Fam Yew Hin

Vice Chairman: Ir. Alex Looi Tink Huey

Secretary: Ir. Ts. Assoc. Prof. Dr Hum Yan Chai

Chief Editor: Ir. Fam Yew Hin

Principal Bulletin Editor: Ir. Alex Looi Tink Huey

Principal Journal Editor: Ir. Ts. Prof. Dr Teo Fang Yenn

Chairman Webportal: Ir. Dr Hasril bin Hasini

Resource Centre Chairman: Ir. Razmahwata bin Mohd Razali

Committee Members: Ir. Ong Guan Hock, Ir. Lee Chang Quan, Ir. Lau Tai Onn,

Ir. Dr Oh Seong Por, Ir. Yee Thien Seng, Ir. Dr Lee Choo Yong, Ir. Ts. Dr Tan Kim Seah,

Ir. Assoc. Prof. Dr Lee Tin Sin, Ir. Tu Yong Eng, Ir. Dr Bhuvendhraa Rudrasamy, Ir. Rusnida binti

Talib, Ir. Dr Nor Ilia Anisa binti Aris, Ir. Ts. Wong Chee Fui, Ir. Dr Moey Lip Kean, Ir. Abdul Azim

bin Abdul Rahman, Ir. Dr Aidil bin Chee Tahir, Ir. Kwok Yew Hoe, Ir. Begum Irdawati binti Dowlad

Rahuman, Ir. Dr Sara Lee Kit Yee, Dr Sudharshan N. Raman, Grad. IEM, Ms. Michelle Lau Chui

Chui, Grad. IEM, Ms. Loo Suk Sin, Grad. IEM, Mr. Muhd. Afiq Irfan bin Zaharudin, Grad. IEM

EDITORIAL BOARD 2024/2025

Chief Editor: Ir. Fam Yew Hin

Principal Bulletin Editor: Ir. Alex Looi Tink Huey

Committee Members: Ir. Lau Tai Onn, Ir. Ong Guan Hock, Ir. Yee Thien Seng, Ir. Dr Oh Seong

Por, Ir. Ts. Prof. Dr Teo Fang Yenn, Dr Sudharshan N. Raman, Ir. Tu Yong Eng, Ir. Lee Chang

Quan, Ir. Dr Lee Choo Yong, Ir. Ts. Dr Tan Kim Seah, Ms. Michelle Lau Chui Chui, Grad. IEM

Secretariat: Janet Lim, Nurul Aida binti Mustafa, Nur Illyarnie binti Rosman

THE INSTITUTION OF ENGINEERS, MALAYSIA

Bangunan Ingenieur, Lots 60 & 62, Jalan 52/4, P.O. Box 223, (Jalan Sultan),

46720 Petaling Jaya, Selangor Darul Ehsan.

Tel: 603-7890 0130 Fax: 603-7957 7678

E-mail: sec@iem.org.my Homepage: <http://www.myiem.org.my>

Number 09,
September 2024

In this month's
issue of *JURUTERA*:

05 COVER NOTE & EDITOR'S NOTE

06 COVER STORY

- Empowering Engineers for Project Success

11

14 FEATURE

- Port Development Project Incorporating Biodiversity Conservation and Land Degradation Control in Malaysia

Mastering Project Management Field:
Combining Soft & Hard Skills

Comparative Analysis of End-of-Life Vehicle
Management Practices in Indonesia & Malaysia

30 FORUM

- Retreat Programme:
Harnessing the Committee's Potential

Adopting AI in ESG Strategies:
AI-driven Insights for ESG Compliance

37 NEWS FROM BRANCH

- 31st Annual General Meeting
and 30th Anniversary

41 PERSPECTIVE

CAAM Part 147 MTO Category B Students:
New Era in Professional Development

43 ENGINEER'S ADVENTURES

Educational Trip to Melbourne

44 PINK PAGE

Temuduga Profesional

Upcoming Bulletin Issues Theme 2024:

October:

Alternative Energy: Powering a Safer Future

November:

Challenges in Revitalising Malaysian Mining Industry

December:

Sustainable Development of Urban Engineering in Malaysia – Current Trend and Future Prospect

EXPLORE OUR FULL SET
OF PROFESSIONAL &
INTEGRATED

PUBLISHING MANAGEMENT SERVICES



PROJECT
MANAGEMENT



CREATIVE
MANAGEMENT



AD SPACE
MANAGEMENT



PRINT
MANAGEMENT



MAILING
MANAGEMENT

- Annual Reports
- Booklets
- Brochures
- Buntings
- Business Cards

- CD / DVD Replications
- Calendars
- Cards & Invitations
- Certificates
- Custom Printings

- Envelopes
- Folders
- NCR Bill Books
- Notepads
- Leaflets

- Letterheads
- Paper Bags
- Posters
- Stickers
- Others

For enquiries, please contact:



dimensionpublishing

The Choice of Professionals

Authorised Publisher: The Institution of Engineers, Malaysia (IEM) - JURUTERA

Dimension Publishing Sdn Bhd [199701034233 (449732-T)]

Level 18-01, PJX-HM Shah Tower,
No. 16A, Persiaran Barat, 46050 Petaling Jaya,
Selangor Darul Ehsan, Malaysia.

+603 7493 1049
+603 7493 1047
info@dimensionpublishing.com

Joseph How : +6011 1234 8181
Shirley Tham : +6016 283 3013



DIMENSION PUBLISHING SDN. BHD. [199701034233 (449732-T)]

Level 18-01, PJX-HM Shah Tower, No. 16A, Persiaran Barat,
46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia.
Tel: +(603) 7493 1049 Fax: +(603) 7493 1047
E-mail: info@dimensionpublishing.com
Website: www.dimensionpublishing.com

CHAIRMAN
ROBERT MEBRUER

CEO/PUBLISHER
SHIRLEY THAM • shirley@dimensionpublishing.com

HEAD OF MARKETING & BUSINESS DEVELOPMENT
JOSEPH HOW • joseph@dimensionpublishing.com

PRODUCTION EDITOR
TAN BEE HONG • bee@dimensionpublishing.com

CONTRIBUTING WRITERS
PUTRI ZANINA • putri@dimensionpublishing.com
HANNA SHEIKH MOKHTAR • hanna@dimensionpublishing.com

SENIOR GRAPHIC DESIGNER
SOFIA HANIS • sofia@dimensionpublishing.com

GRAPHIC DESIGNER
NICOLE THENG • nicole@dimensionpublishing.com

ADVERTISING CONSULTANTS
THAM CHOON KIT • ckit@dimensionpublishing.com

ACCOUNTS CUM ADMIN EXECUTIVE
YEN YIN • yenyin@dimensionpublishing.com

For advertisement placements and subscriptions, please contact:

DIMENSION PUBLISHING SDN. BHD. [199701034233 (449732-T)]
Level 18-01, PJX-HM Shah Tower, No.16A, Persiaran Barat,
46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia.
Tel: +(603) 7493 1049 Fax: +(603) 7493 1047
E-mail: info@dimensionpublishing.com

Subscription Department
E-mail: info@dimensionpublishing.com

JURUTERA is published and printed monthly by
Dimension Publishing Sdn. Bhd.

JURUTERA MONTHLY CIRCULATION: OVER 50,000 MEMBERS

Submission or placement of articles in JURUTERA could be made to the:-

Chief Editor
THE INSTITUTION OF ENGINEERS, MALAYSIA (IEM)
Bangunan Ingenieur, Lots 60 & 62,
Jalan 52/4, P.O. Box 223 (Jalan Sultan),
46720 Petaling Jaya, Selangor.
Tel: +(603) 7890 0130 Fax: +(603) 7957 7678
E-mail: pub@iem.org.my or sec@iem.org.my
IEM Website: <http://www.myiem.org.my>

© 2024, The Institution of Engineers, Malaysia (IEM) and
Dimension Publishing Sdn. Bhd.

PUBLICATION DISCLAIMER

The publication has been compiled by both IEM and Dimension with great care and they disclaim any duty to investigate any products, process, services, designs and the like which may be described in this publication. The appearance of any information in this publication does not necessarily constitute endorsement by IEM and Dimension. There is no guarantee that the information in this publication is free from errors. IEM and Dimension do not necessarily agree with the statement or the opinion expressed in this publication.

COPYRIGHT

JURUTERA Bulletin of IEM is the official magazine of The Institution of Engineers, Malaysia (IEM) and is published by Dimension Publishing Sdn. Bhd. The Institution and the Publisher retain the copyright over all materials published in the magazine.

No part of this magazine may be reproduced and transmitted in any form or stored in any retrieval system of any nature without the prior written permission of IEM and the Publisher.

COVER *Note*

by **Ir. Dr Harris Abd Rahman Sabri**
Chairman, Project Management Technical Division



Commitment to Excellence

It is with great pleasure that the IEM Project Management Technical Division (PMTD) presents the September issue of *JURUTERA* with the theme, Empowering Engineers for Project Success: A Commitment to Excellence.

At the heart of the IEM mission lies a commitment to excellence and we recognise that engineers are the driving force behind our achievements. Empowering our engineers is not just a goal; it is a fundamental principle that guides our actions and decisions. By providing them with the tools, resources and support, we enable them to unleash their creativity, innovation and expertise.

We believe in fostering collaboration, continuous learning and personal growth where all engineers will have the opportunity to thrive and contribute their best. Together, we will be stronger, more resilient and able to overcome challenges and seize opportunities.

PMTD is committed to supporting the the empowerment of engineers and to ensuring that they have the autonomy, encouragement and recognition that they deserve. Together, let us strive for excellence in everything we do, knowing that by empowering engineers, we empower organisations to achieve greatness in delivering their project goals. ■

EDITOR'S *Note*

by **Ir. Alex Looi Tink Huey**
Principal Bulletin Editor



Engineering the Future: Unity in Innovation

As we step into September, a month that resonates deeply with Malaysians, we're reminded of the power of unity – both in our nation and in the field of engineering. With Malaysia Day on the horizon, it's the perfect moment to reflect on how our collective efforts in innovation and technology mirror the spirit of togetherness that our nation was built upon.

This issue of *JURUTERA* dives into the theme, Leading the Charge: Empowering Engineers for Project Success, a nod to the relentless drive of our professionals who turn ambitious blueprints into reality. As we honour our nation's journey towards independence and unity, let us also celebrate the innovative spirit that defines our engineering community – always ready to lead, innovate and inspire.

So, this Malaysia Day, let's also celebrate the ingenuity that drives our profession forward because, like our nation, the strength of engineering lies in unity and shared visions. Happy reading! ■





Empowering Engineers for Project Success



Allahyarham Tan Sri Ir. Dr. Jamilus Md. Hussin
*President and Chief Executive
Officer of KLIA Premier Holdings
Sdn. Bhd.*

This interview was conducted on 22 March 2024, three months before we received the unexpected news of the demise of the Allahyarham Tan Sri Ir. Dr. Jamilus Md. Hussin on 28 June 2024. The sudden departure of this truly inspirational leader has left us all in shock and disbelief. Our deepest sympathies go to his family and may our prayers ease the pain of their loss.

Allahyarham Tan Sri Ir. Dr. Jamilus Md. Hussin was the man behind the remarkable feat of completing the construction of Kuala Lumpur International Airport (KLIA) in record time. As President and Chief Executive Officer of KLIA Premier Holdings Sdn. Bhd., he shared with JURUTERA how he steered and managed the airport project from ground zero to sky-high success.

The man who spearheaded the mammoth KLIA project construction in Sepang, Allahyarham Tan Sri Jamilus Md. Hussin, was a man who didn't mince his words. "Completing the project within six years was a record by any standard, given the huge task of developing and constructing an international airport from ground zero," he said. KLIA was his most challenging project, yet it was also his most successful undertaking in almost five decades of his career in engineering.

Allahyarham Tan Sri Jamilus, 80, recalled how, in 1992, he was given only 24 hours to report for duty as head of the project task force to build the new airport. He was then an engineer with PWD. Though the directive floored him, he could not say no as it was a call for national duty.

"I was told overnight to head a multi-billion-ringgit project. I was part of the key task force comprising 12 senior government officials to oversee the new airport project. The task force was called KLIA Project Management Group, but we were eventually dubbed the Dirty Dozen," he said.

They immediately got their hands dirty, inspected site location and conditions, and worked in makeshift premises. They spent long hours poring over pages of the KLIA Development Master Plan. The plan was devised in 1992 and reviewed in 1993 by government officials and appointed consultants.

A new airport was urgently needed to replace the old Subang Kuala Lumpur International Airport, which was built nearly six decades earlier in 1965. Renamed Sultan Abdul Aziz Shah Airport or SAAS Airport but more popularly called Subang Airport, it eventually became overstretched and overcrowded. To make things worse, there was no room for growth and extension.

Fast-Track Project

Allahyarham Tan Sri said the Dirty Dozen evolved to become the project team and was subsequently “parked” under a separate company to spearhead what was, at the time, one of the world’s biggest civil engineering projects. The company, KL International Airport Bhd. (KLIAB), quickly grew into a 400-strong outfit the same year. The formation of KLIAB was unprecedented to fast-track the mammoth project and to cut government red tape to ensure the airport would be completed in time for the Commonwealth Games in 1998.

Malaysia was host for the international-level games, the first held in an Asian country. The Kuala Lumpur Games achieved a new record of 70 participating countries with more than 5,000 athletes and officials taking part and attracting thousands of spectators. The need for a larger airport to welcome the huge numbers flocking to Kuala Lumpur was undeniably urgent.



KLIAB and its Board reported directly to a special Cabinet Committee set up to oversee the KLIA development. The nucleus group in KLIAB not only studied and reviewed the KLIA Master Plan but also focused on the Project Definition and Engineering Design Proposal (PEDP) prepared by a consortium of Japanese and British consultants and contractors called the Anglo Japanese Airport Consortium (AJAC), which was appointed to develop and construct the airport. There was however a fallout with AJAC, resulting in KLIAB taking over the reins to develop and build the airport.

“To deliver a world-class airport from a greenfield site within a short time frame of six years and with a limited budget was a tall order but we managed to accomplish the task,” said Allahyarham Tan Sri. KLIA began operations in 1998 when Malaysia hoisted the nation’s flag as host of the Commonwealth Games.

Addressing Challenges

The greenfield site spanning 10,000 hectares where the new airport would be built, was located in sparsely populated agricultural land in Sepang, Selangor. It had a land reserve of more than 10,000 hectares and was forecasted to have the capability to cater to an additional 100 million passengers per year for the next 100 years. It met all other criteria for the new airport construction, including a large expanse of relatively flat land that fulfilled aeronautical requirements and a strategic location in potentially high growth areas of three states, namely Selangor, Negeri Sembilan and Melaka.

"KLIAB's initial role was limited to project management. We were only to oversee the work of AJAC. But, when we took over the development and construction work, we had to work fast to design, construct, test and commission the facilities within a specified time and budget. It was very, very challenging," said Allahyarham Tan Sri. Turning challenge into opportunity, the KLIAB team developed an innovative management matrix to integrate some 30,000 people from diverse work cultures and disciplines into one cohesive unit for the project.

"People management was the biggest challenge. There were the elements of unpredictability and even irrational behaviours. We had to push and, at the same time, pacify the staff members whenever issues and problems arose. Every morning, we held meetings with the team members who highlighted their issues and pointed out how these impacted operations. Then we formulated resolutions. Using this IIR (Issue, Impact & Resolution) concept enabled us to make fast decisions. The success in our decision making was based on the bottom-to-top approach and the empowerment of our staff members, including engineers."



"The next biggest challenge was managing the project to meet the stipulated deadline. We emphasised on devising a sound procurement strategy that prioritised fast-track methods. This revolved around a selective combination of fast-track design-and-build and conventional fast-track methods."

The strategy also involved dividing the entire project into three geographically manageable areas, namely passenger terminal complex, core facilities and privatised facilities. KLIAB also awarded work contracts according to respective areas. There were three types of contracts under the following categories: Fast-track conventional tenders, fast-track design-and-build tenders and conventional tenders for privatised facilities, such as aircraft maintenance and airside petrol stations.

Tan Sri Jamilus's Profile

Allahyarham Tan Sri Ir. Dr Jamilus Md. Hussin held a Doctor of Philosophy (Technology Management) (Honoris Causa) degree from Universiti Utara Malaysia (2010), a Doctor of Philosophy (Engineering Technology) degree from Universiti Tun Hussein Onn Malaysia (2018), a Master of Geotechnical degree from SUNY Buffalo, USA (1978) and a Bachelor of Civil Engineering degree from University Strathclyde from Glasgow, UK (1973). A former President of the Project Management Institution Malaysia (PMIMY), he held several fellow memberships with engineering associations in Malaysia. Prior to the KLIA project, he held numerous key positions in the Government, including the Public Works Department (PWD). He was also the Advisor of KLIA Professional & Management College (KLIA College), a subsidiary of KLIA Premier Holdings Sdn. Bhd., which conducts training and research in various industry-relevant disciplines.



CHNT

Empower the World

SAFETY & RELIABILITY ALL IN A COMPACT SIZE



TRANSMIT & TRANSFORM

FOR YOUR INDUSTRY
APPLICATION NEEDS



Standards:



IEC 60076-11, IEC 60076-1

Certificates:



Standards:



SWITCHES & SOCKET OUTLETS



CHINT MALAYSIA

(Formerly known as Alpha Automation (Selangor) Sdn Bhd) (372711-D)

11, Jalan Pelukis U1/46B, Kawasan Perindustrian Temasya,

40150 Shah Alam, Selangor

www.chintmalaysia.com

Tel : +603-5569 7787

chintmalaysia@alphasel.com

Fax : +603-5569 9295

A CHNT COMPANY

KLIAB invited tenders based on preliminary engineering and architectural designs, with just enough information for contractors to tender. KLIAB then issued to the successful contractors just-in-time working drawings during the construction stage.

He said the just-in-time fast-tracking approach, coupled with competitive tendering, saved KLIAB a great deal of time, allowing contractors to quickly start work. Another successful strategy involved the procurement and contract package distribution. However, he said this posed yet another big challenge, namely interfacing between thousands of work activities and contractual overlaps. The KLIAB management matrix aforementioned was used for complex planning, monitoring and controlling a project of such huge scale and fast pace. The matrix was hailed as a model for managing large projects. It was driven and controlled by inter-supporting project and service units. It also facilitated a smooth flow of information between the project and service units and the executive level, resulting in quick decision making and solving in case of conflicts.

Mammoth Systems Integration

KLIAB also had to address the matter of complex computer integration. The company successfully conquered the challenge and commendably produced the world's first total airport management system. Called Total Airport Management System (TAMS), it integrated and interfaced full design, construction and separate airport systems covering flight management, facilities management and airport management systems into one giant centralised computing network with nearly 50 sub-systems connected to the Central Information Broker. The sub-system included interfacing and integrating the majority of electronic information



Allahyarham Tan Sri Ir. Dr Jamilus Md. Hussin with PMTD Committee Members. From left: Ir. Kong Yik Kong, Ir. Nur Islam Nur Iskandar, Ir. Wan Rizaluddin Abdullah Wan Ali, Allahyarham Tan Sri Ir. Dr Jamilus Md. Hussin, Ir. Dr Nor Azhar Mohd Arif and Ir. Mohd Amri Mohamed Khairi during the interview session

within the airport to ensure maximum flow of information for operations, management and security.

The fully functional entity helped in the efficient management of KLIA and ensured passenger convenience as well as cargo handling, storage and clearing. This entity and many more contributed toward KLIA's stellar achievements encompassing manpower, machines, materials and systems.

Delivering Value to a Project

The KLIA project management experience had given Tan Sri Jamilus and his team tremendous knowledge and hands-on skills. In a paper titled *What It Takes to Deliver Value to a Project*, Allahyarham Tan Sri wrote that "the essence of project management is really about delivering value".

According to him, a project must offer value to the client, contractors and sub-contractors, consultants and the public at large. The project manager must meet the client's project implementation objectives involving time, budget, quality and scope, as well as fulfill the client's strategic, technical and commercial aspects of the project.

He pointed out that project management was not just a science but also an art. He further emphasized that science relied on proven and repeatable processes and techniques to achieve project success, while art involved the managing of and relating to people.

"A good project management methodology provides the frameworks, processes, guidelines

and techniques to manage the people and the workload thus increasing the odds of being successful", he said.

Hard skills relating to the science of project management involved utilisation of tools and techniques that made people more efficient in carrying out tasks, whereas the soft skills in the art of project management covered

communication, issues management, business and financial acumen, leadership, organisational/conflict and relationship management as well as team building. It also involved strategic thinking, problem-solving and decision making and, being flexible, creativity and trustworthiness.

Project Development Phases

Allahyarham Tan Sri said it was equally important to embark on Phased Project Development. A project manager must develop Project Phasing by dividing the overall project development into distinct project phases, each with its unique development content. He stressed that the basis for the project management working method covered phasing as well as decision-making and control, which form the cornerstones of project management. Project Phasing can be divided into six phases:

Phase 1. Idea/Inception: Need and intention to build, feasibility studies, technical and economic study, project budget, project brief (design, technical, cost, quality, time parameters) as well as external and internal stakeholders.

Phase 2. What – Definition: Requirement capture from internal and external stakeholders, scope of work, deliverables, time and budget, technical and design concept, project implementation strategy, master implementation programme, organisational structure, system and procedure, quality assurance/quality control (QA/QC); communication and information plan as well as document control.



Phase 3. How – Design: Detail design development and materials search, value engineering, procurement strategy and tender documentation, detailed cost estimate and budget and cost control system, performance and technical specifications and client approval.

Phase 4. How to Make – Procurement: Tendering process and award, evaluation criteria, spreadsheet presentation for comparison of different tender proposal/pricing and recommendation.

Phase 5. Do – Construction: Site planning, detail construction work programmes, contract administration, design and technical site review and adjustment, QA/QC, Health, Safety, Security & Environment (HSSE) implementation and control, operational readiness and maintenance plan as well as testing, commissioning and handover, including obtaining the certificate of fitness (CF).

Phase 6. Preserve – Operation & Maintenance (O&M): Performance of day-to-day activities required to maintain facilities, including buildings, grounds, equipment and systems to the maximum extent possible for the benefit of the facility users.

He said all phases must be formulated upfront, followed by the plan for execution processes, which would make the Total Development Scope manageable. Each phase must be subjected to controlling processes in time, cost, quality, organisation

and information. Effective control was important to ensure that the project development aligned with the project end result or goal.

Lifelong Learning

At the helm of KLIA Premier Holdings Sdn. Bhd., an investment holding company and the parent company of various subsidiaries under the KLIA flagship, Allahyarham Tan Sri was overseeing a multitude of services and activities, including construction, property development, project management, consultancy, education and training, engineering, design and information as well as communication technology. Most services were outsourced to appointed parties with the necessary expertise.

One piece of advice that he would like to impart to project managers was: “Never make decisions on your own, especially when it involves money. Unless you are very sure and it is within the limits of your authority, always get the approval of the decision makers who oversee finance matters. Never try to be a champion. Every department or entity has procedures, so abide by them.”

He also touched on the academic aspect. “The exposure to the subject of project management at the university level is very practical, derived mainly by being on the job after graduation. Universities give strong fundamentals in various disciplines, helping students to acquire fundamental knowledge. If our fundamentals are strong, we can evaluate problems and come out with solutions. If these are weak, we will have problems when it comes to solving issues and tackling challenges,” he said.

“Project management is a part of lifelong learning. Never stop learning and continue working for as long as possible. Project managers must know what the industry wants and constantly update themselves. Likewise, university professors must do the same. It is not enough to just read and teach. Whether you are a project manager or a university professor, go to the field and get your hands dirty.” ■





For advertising enquiries, please contact:



dimensionpublishing
The Choice of Professionals

Dimension Publishing Sdn. Bhd.

[199701034233 (449732-T)]

Level 18-01, PJX-HM Shah Tower, No. 16A, Persiaran Barat,
46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia.

☎ +603 7493 1049

✉ info@dimensionpublishing.com

☎ +603 7493 1047

👤 Joseph How : +6011 1234 8181
Shirley Tham : +6016 283 3013

JURUTERA

THE MONTHLY BULLETIN OF THE INSTITUTION OF ENGINEERS, MALAYSIA

The monthly magazine, **JURUTERA**, has a circulation of over 50,000 among certified members of IEM.

Our esteemed readership consists of certified engineers, decision making corporate leaders, CEOs, government officials, project directors, entrepreneurs, project consultants, engineering consulting firms and companies involved with engineering products and services.

Advertising Benefits

Our business partners can be assured that their products and services will be given the circulation and exposure they deserve, thus maintaining a sustained advertising presence to our core readers of decision-making engineers and technical experts. Our website offers an even wider market reach, with added international presence, aided by our international affiliation with official engineering bodies all over the world. Our online and offline advertising features such as banner advertising, article sponsorship and direct e-mail announcements have proven to be successful marketing strategies that will set the businesses of our partners apart from their competition.

ADVERTISING RATES

PRICES PER INSERTION IN RINGGIT MALAYSIA (RM)

SPECIFIED POSITION (Full Colour Ad)	1 INSERTION	3 INSERTIONS	6 INSERTIONS	9 INSERTIONS	12 INSERTIONS
Outside Back Cover (OBC)	7,800	7,050	6,750	6,450	6,150
Inside Front Cover (IFC)	7,250	6,650	6,350	6,050	5,750
Inside Back Cover (IBC)	6,750	6,250	5,950	5,650	5,350
Page 1	6,650	6,150	5,850	5,550	5,250
Facing Inside Back Cover (FIBC)	6,150	5,850	5,550	5,250	4,950
Facing Cover Note (FCN)	5,850	5,300	5,100	4,900	4,700
Facing Contents Page (FCP)	5,700	5,150	4,950	4,750	4,550
Centre Spread	11,200	9,500	9,000	8,500	8,000
ROP Full Page	4,900	4,500	4,300	4,100	3,900
ROP Half Page	2,900	2,650	2,550	2,450	2,350
ROP 1/3 Column	2,200	2,000	1,900	1,850	1,800
ROP 1/4 Page	1,950	1,750	1,650	1,600	1,550

Special Position: +15%
Overseas Advertiser: +25% (Full Advance Payment Required)
All prices shown above exclude Computer to Plate (CTP) charges

Please note that the above prices will be subjected to SST
Advertising rates displayed do not include 15% advertising agency commission

Port Development Project Incorporating Biodiversity Conservation and Land Degradation Control in Malaysia

Port development is essential for economic growth and international trade. With 6,000 ports around the world and 61,000 ships in service, global trade is facilitated by 2 million seafarers who keep the movement of goods (Abdul Majid, 2021). According to the Organisation for Economic Co-operation & Development (OECD) (2010), global container handling in ports is forecasted to increase to four times its current level by 2030 and to 5-6 times by 2050. In fact, ports facilitate the movement of goods through the supply chains, with 40% of the global transport being through ocean freight (MyDello OU, 2022).



Notably, ports provide economic benefits but this is not without environmental consequences (Felsenstein *et al.*, 2014). Port development generally confronts biodiversity conservation problems due to environmental pollution and land degradation (Puig & Darbra, 2019). Apart from environmental issues, port development also faces many limitations from social, available land and economic pressures which constrain economic advancements (Schipper, 2019). To address these challenges, incorporating biodiversity conservation and land degradation control into port development projects

is crucial towards the project success. This approach not only helps preserve the environment but also ensures sustainable growth.

This study will assess the critical success factors which also function as the comprehensive strategy for such integrated port development projects in Malaysia by considering the conservation and controlling efforts on biodiversity and land degradation, respectively. The findings of this paper ensure that environmental sustainability and economic development go hand in hand throughout the port development projects in the country.

Strategic Policy Framework

A comprehensive policy that can be adequately monitored to achieve a competitive advantage in the maritime industry is crucial (Mohamad Rosni *et al.*, 2011). This paper suggests that a coherent and supportive policy framework is one of the critical success factors for integrating biodiversity conservation and land degradation control into port development.

Malaysia has made strides in this direction through various national policies and commitments. The National Transport Policy (NTP) 2019-2030 focuses on the efficient use of resources and reducing pollution, setting a clear mandate for sustainable practices in port development (MOT, 2019). The National Policy on Biological Diversity 2016-2025 aims to preserve biodiversity across various sectors, including transportation, ensuring that port development projects incorporate biodiversity conservation measures from planning to execution (MNRE, 2016).

Additionally, the Guideline for Erosion & Sediment Control in Malaysia (GESCM) within the Erosion & Sediment Control Plan (ESCP) specifically targets the control of erosion, sediment and siltation in ports, harbours and foreshores, directly addressing land degradation issues in these environments (DID, 2010). These policies work in tandem to ensure that port development not only advances economic growth but also upholds

environmental integrity by integrating critical ecological considerations into the planning and operational stages.

Nature-Based Solutions (NbS) and Nature-Based Infrastructure (Nbi)

Nature-based solutions (NbS) and nature-based infrastructure (Nbi) are increasingly recognised as essential approaches for developing resilient and sustainable port solutions globally (van der Spek *et al.*, 2020). These strategies are crucial in mitigating the environmental impacts of port development projects.

By integrating NbS and Nbl, such as mangrove and wetland restoration, Malaysia can effectively address ecosystem restoration and pollution reduction, aligning with national efforts in biodiversity conservation and land degradation control. These natural systems not only protect shorelines and sequester carbon but also provide essential habitats for marine life and enhance resilience against sea-level rise and extreme weather events (Friess *et al.*, 2020; Sutton-Grier, 2015).

Furthermore, spatial management plans that incorporate NbS and Nbl are vital for balancing ecological protection with port functionality. Establishing robust monitoring systems to assess the effectiveness of these solutions is essential for ongoing adaptation and environmental stewardship in port development.

Leveraging Financial Mechanisms & Public Investment

Securing adequate funding is undeniably a major challenge for sustainable port development (Prashanth *et al.*, 2020) and is recognised as one of the critical success factors for projects that incorporate biodiversity conservation and land degradation control. These measures often require significant financial resources, including advanced technologies, NbS and Nbl, environmental impact assessments (EIA) and long-term monitoring. Leveraging innovative financial mechanisms is essential to ensure sufficient funds are available, as traditional funding sources alone may not be adequate.


To bridge this funding gap, aligning public investment strategies with financial instruments such as Environment, Social & Governance (ESG) financing, green bonds, sustainability-linked loans, and tax reforms can be highly effective. For instance, the Port of Rotterdam has successfully utilised green bonds to finance projects focused on reducing carbon emissions and enhancing biodiversity in port areas. Similarly, the Port of Los Angeles has leveraged sustainability-linked loans to support initiatives that reduce air pollution and improve water quality.

These examples illustrate how targeted financial mechanisms can attract both public and private investments, offering economic, environmental and social returns. By adopting similar approaches, sustainable practices can be promoted from the very start of port development projects to ensure that biodiversity conservation and land degradation control are integral to the entire process.

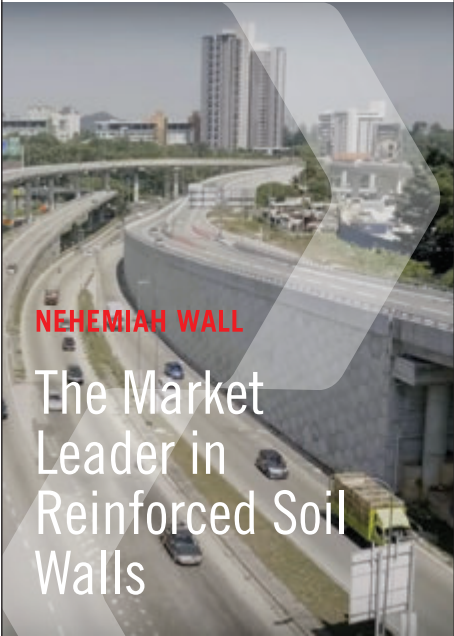
Stakeholder Engagement & Community Involvement

The sustainable development of ports hinges on the implementation of appropriate planning and management strategies that harmonise environmental, social and economic interests through facilitative mediation and transparent discourse (Wakeman, 1996). Central to the success of port development is the proficient management of diverse stakeholders and the interactions among them (Henesey *et al.*, 2003). Therefore, it is crucial to engage all stakeholders from the initial stages of the port development planning process, with their involvement tailored to different phases of planning.


Stakeholders encompass any identifiable group or individual who can affect or be affected by the achievement of an organisation's objectives (Freeman & Reed, 1983). In the context of port development, one must consider the interests and expectations of a broad spectrum of stakeholders, including non-governmental organisations (NGOs), the media, and the public. This approach underscores the responsibility of ports to go beyond merely satisfying shareholders, as the needs of these diverse groups must be considered to align project goals with broader environmental and socio-economic objectives. By engaging these groups, port development projects can tap into a wealth of knowledge and experience, which will lead to more innovative and sustainable solutions.



NEHEMIAH WALL
The Market Leader in Reinforced Soil Walls



DUTA ULU KLANG EXPRESSWAY



NEHEMIAH REINFORCED SOIL
SDN. BHD. 263860-V

PETALING JAYA (HQ)
No.45-3, Jalan PJU 5/20, The Strand,
Kota Damansara, 47810 Petaling Jaya,
Selangor Darul Ehsan
T +603 6142 6638 **F** +603 6142 6693
email enquiry@nehemiah-grp.com

PENANG
27C, Medan Angsana, Bandar Baru Air Itam
11500 Pulau Pinang
T +604 826 5071 **F** +604 826 5860

www.nehemiah-grp.com

***Quality and Sustainability
for Smart Water Networks***

TOM

High hydrostatic and impact resistance, corrosion immunity, complete watertightness and maximum ductility.

The first PVC-O pipe to reach a nominal diameter of 1200 mm.

From DN90 up to DN1200 mm
PN12.5, 16, 20 and 25 bar

ECOFITOM

The only fittings in the world made of oriented PVC to create more uniform and resistant piping networks.

The line includes couplers, sliding couplers, reducers and bends.

From DN110 up to DN400 mm
PN16 bar

Quality
recognised by:



A prime example of successful stakeholder engagement is the development of the Maasvlakte 2 extension at the Port of Rotterdam. The project involved extensive consultations with various stakeholders, including environmental groups, local communities and government agencies. Through a collaborative approach, the project team addressed environmental concerns by incorporating nature-based solutions, such as creating new wetlands and implementing advanced air quality monitoring systems.

The transparent dialogue with stakeholders not only mitigated potential conflicts but also resulted in a more sustainable and widely supported development. The Maasvlakte 2 case demonstrates that early and meaningful stakeholder engagement can lead to innovative solutions that balance economic growth with environmental stewardship and social responsibility.

Capacity Building

Capacity building is a critical success factor that ensures stakeholders have the necessary skills, knowledge and resources to effectively implement and manage biodiversity conservation and land degradation control measures in port development projects.

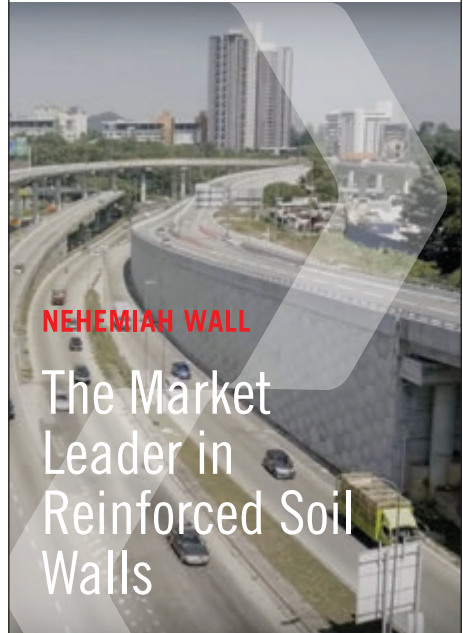
Workshops, seminars and online courses are vital for keeping stakeholders updated on the latest advancements and best practices in biodiversity conservation and land degradation control. These educational initiatives address gaps in knowledge and skills by equipping stakeholders with the tools needed for successful port development projects (Sebastian *et al.*, 2023). Additionally, the development of comprehensive guidelines, manuals and toolkits provides practical instructions, supported by on-the-ground technical assistance during the planning, implementation and monitoring phases of port development. This ensures the effective integration and management of environmental considerations.

Capacity building also involves enhancing organisational capacities, restructuring, improving governance frameworks and developing strategic plans which align with biodiversity conservation and land degradation control goals. Establishing and strengthening collaborative networks among stakeholders further facilitates knowledge sharing, resource pooling and coordinated action, which contribute to effective knowledge management.

A notable example of successful capacity building through stakeholder engagement is the Port of Antwerp's Sustainable Transition initiative. Recognising the importance of biodiversity conservation, the port authorities organised a series of capacity-building programmes involving local communities, environmental NGOs and industry partners. These programmes included workshops on sustainable port operations, training sessions on implementing nature-based solutions and the development of tailored guidelines for stakeholders.

The port authorities also established a Biodiversity Task Force, which brought together experts and stakeholders to create a strategic plan for integrating biodiversity into port development. This collaborative approach not only enhanced the capacities of all involved but also fostered a shared commitment to sustainability, hence resulting in tangible improvements in environmental management and stakeholder relations.

The experience at the Port of Antwerp highlights how capacity building, when combined with stakeholder engagement, can lead to more effective and sustainable port development. By equipping stakeholders with the necessary knowledge and resources as well as fostering a collaborative environment, the project successfully integrated biodiversity conservation and land degradation control into its operations, thus setting a benchmark for other ports globally.



NEHEMIAH REINFORCED SOIL
SDN. BHD. 263860-V

PETALING JAYA (HQ)

No.45-3, Jalan PJU 5/20, The Strand,
Kota Damansara, 47810 Petaling Jaya,
Selangor Darul Ehsan

T +603 6142 6638 **F** +603 6142 6693

email enquiry@nehemiah-grp.com

PENANG

27C, Medan Angsana, Bandar Baru Air Itam
11500 Pulau Pinang

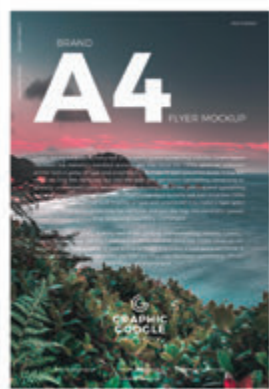
T +604 826 5071 **F** +604 826 5860

www.nehemiah-grp.com

Print Service

Special Promotion

Flyer / Leaflet
Art Paper (Full Color)



A4	105gsm	
	500pcs	RM 130
	1000pcs	RM 160
	128gsm	
	500pcs	RM 160
	1000pcs	RM 190
A5	105gsm	
	500pcs	RM 100
	1000pcs	RM 130
	128gsm	
	500pcs	RM 130
	1000pcs	RM 160

- Annual Reports
- Booklets
- Brochures
- Buntings
- Business Cards

- CD / DVD Replications
- Calendars
- Cards & Invitations
- Certificates
- Custom Printings

- Envelopes
- Folders
- NCR Bill Books
- Notepads
- Leaflets

- Letterheads
- Paper Bags
- Posters
- Stickers
- Others



dimensionpublishing
The Choice of Professionals

Authorised Publisher: The Institution of Engineers, Malaysia (IEM) - JURUTERA

For other quantity and material,
please contact:



Joseph How (+6) 011 1234 8181
Shirley Tham (+6) 016 283 3013

Knowledge Management

Knowledge management involves systematically capturing, distributing and effectively using knowledge to support the integration of biodiversity conservation and land degradation control in port development. It is recognised as one of the critical success factors of port development projects incorporating biodiversity conservation and land degradation control in Malaysia. This includes conducting awareness campaigns to inform stakeholders and the public (Frits *et al.*, 2013) about the importance of biodiversity conservation and land degradation control in port development by utilising various media and public events.

Knowledge management also includes the development of online portals and databases that provide easy access to information, including research findings, technical reports, best practices and policy guidelines. For example, the Port of Rotterdam's PortForward platform integrates real-time data sharing with stakeholders and provides a repository of best practices related to sustainable port operations.

Similarly, the World Ports Sustainability Programme (WPSP) offers a global knowledge-sharing platform that includes case studies, guidelines and tools focused on sustainable port development. These facilitate stakeholder engagement through online forums, webinars and regular meetups, encouraging collaborative research initiatives between academic institutions, government agencies and the private sector as well as organising policy dialogues and developing position papers and policies in providing evidence-based recommendations for policy reforms and new regulations related to port development projects incorporating biodiversity conservation and land degradation control in Malaysia.

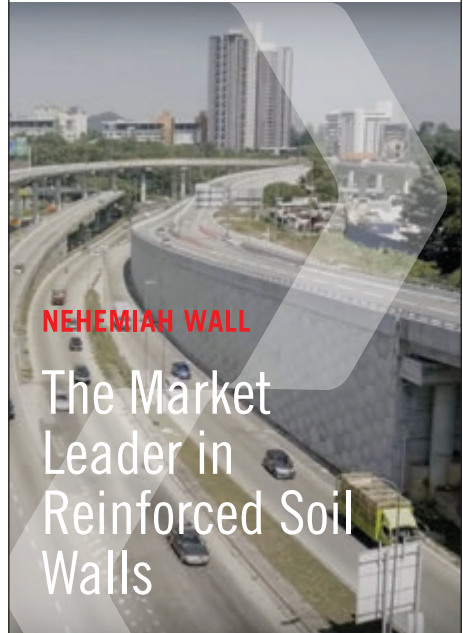
Monitoring & Evaluation

Monitoring and evaluation are critical success factors in any port development project that seeks to incorporate biodiversity conservation and land degradation control. By systematically tracking progress, evaluating outcomes and providing continuous feedback, monitoring and evaluation (Stem *et al.*, 2005) ensures that port development projects achieve their intended environmental and developmental objectives.

Effective monitoring and evaluation not only demonstrate the impact of the port development project but also foster adaptive management and continuous improvement, which are essential for sustainable infrastructure development. Through comprehensive baseline assessments, well-defined performance indicators, a structured monitoring framework, rigorous evaluation mechanisms and transparent reporting and feedback processes, for example baseline assessments (Port of Los Angeles), performance indicators (Port of Brisbane) and monitoring framework (Port of Rotterdam), monitoring and evaluation serve as the backbone of successful port development project implementation and sustainability.

Conclusion

Incorporating biodiversity conservation and land degradation control into port development projects is crucial for sustainable growth. The success of port development project in Malaysia, which integrates biodiversity conservation and land degradation control, relies heavily on several critical factors. The critical success factors of these projects hinge on strategic policy frameworks, implementation of NbS and Nbl, leveraging financial mechanisms and public investment, stakeholder engagement and community involvement, capacity building, knowledge management as well as monitoring and evaluation. By adopting these critical success factors, we can ensure that port development projects which incorporate biodiversity conservation and land degradation control will contribute positively to the environment and the economy. ■



NEHEMIAH REINFORCED SOIL
SDN. BHD. 263860-V

PETALING JAYA (HQ)

No.45-3, Jalan PJU 5/20, The Strand,
Kota Damansara, 47810 Petaling Jaya,
Selangor Darul Ehsan

T +603 6142 6638 **F** +603 6142 6693

email enquiry@nehemiah-grp.com

PENANG

27C, Medan Angsana, Bandar Baru Air Itam
11500 Pulau Pinang

T +604 826 5071 **F** +604 826 5860

www.nehemiah-grp.com

REFERENCES

- [1] Abdul Majid, M. (2021). Development of Smart Ports amid the COVID-19 Pandemic. In the Impact of COVID-19 Pandemic on Malaysia's Maritime Sectors and Way Forward. Kuala Lumpur: MIMA.
- [2] Felsenstein, D., Lichter, M., and Ashbel, E. (2014). Coastal congestion: simulating port expansion and land use change under zero-sum conditions. Journal of Ocean Coast Management. Volume 101, Part B, Pages 89-101, ISSN 0964-5691, <https://doi.org/10.1016/j.ocecoaman.2014.08.001>.
- [3] Department of Irrigation and Drainage (DID) (2010). Guideline for Erosion and Sediment Control in Malaysia (GESCM). Kuala Lumpur: DID.
- [4] Freeman, R. E., and Reed, D. L. (1983). Stockholders and Stakeholders: A New Perspective on Corporate Governance. California Management Review, 25(3), 88-106. <https://doi.org/10.2307/41165018>.
- [5] Friess, D. A., Yando, E. S., Alemu, J. B., Wong, L., Soto, S. D., and Bhatia, N. (2020). Chapter 3 Ecosystem Services and Disservices of Mangrove Forests and Salt Marshes. Oceanography and Marine Biology. Taylor & Francis.
- [6] Frits, H., Goldstein, W., van Kempen, P. P., Garnett, T., and Dela, J. (2013). Communication, Education and Public Awareness (CEPA): A toolkit for NBSAP coordinators. Commission on Education and Communication.
- [7] Henesey, L., Notteboom, T. and Davidsson, P. (2003). Agent-based simulation of stakeholders relations: An approach to sustainable port and terminal management. Multi-Agent Systems for Container Terminal Management, 99.
- [8] Ministry of Natural Resources and Environment (MNRE) (2016). National Policy on Biological Diversity 2016-2025. Putrajaya: MNRE.
- [9] Ministry of Transport (MOT) (2019). National Transport Policy (NTP) 2019-2030. Putrajaya: MOT.
- [10] Mohamad Rosni, O., George, J. B., and Saharuddin, A. H. (2011). The strength of Malaysian maritime cluster: The development of maritime policy. Ocean & Coastal Management. Volume 54, Issue 8, 2011, Pages 557-568, ISSN 0964-5691, <https://doi.org/10.1016/j.ocecoaman.2011.02.004>.
- [11] MyDello OÜ (2022), Modes of Transportation Explained: Which is the Best for Your Shipment?. Tallinn, Estonia: MyDello OÜ.
- [12] Organisation for Economic Co-operation and Development (OECD) (2010). International Futures Programme. Paris, France: OECD. Retrieved from <https://www.oecd.org/futures/infrastructureto2030/48321781.pdf>.
- [13] Prashanth, B., Geetha, V., Wong, J. D., and Jason, T. (2020). Challenges in Attaining Sustainable Development Goals in Port Klang: Port Management Perspective. Int. J Sup. Chain. Mgt. Vol. 9, No. 1, February 2020.
- [14] Puig, M. and Darbra, R. M. (2019). Chapter 31 - The Role of Ports in a Global Economy, Issues of Relevance and Environmental Initiatives. Editor(s): Charles Sheppard in World Seas: An Environmental Evaluation (Second Edition), Pages 593-611, ISBN 9780128050521, <https://doi.org/10.1016/B978-0-12-805052-1.00034-6>.
- [15] Schipper, C. A. (2019). Understanding the Sustainable Development Goal Approach for Ports of the Future. 38th IAHR World Congress. September 2019. <http://dx.doi.org/10.3850/38WC092019-0877>.
- [16] Sebastian, E., Brown, H., and Sexton, D. (2022). Capacity building program in seaport engineering and operation at Makassar New Port. The Australia-Indonesia Centre.
- [17] Stem, C., Margoluis, R., Salafsky, N., and Brown, M. (2005). Monitoring and Evaluation in Conservation: a Review of Trends and Approaches. Conservation Biology.
- [18] Sutton-Grier, A. E., Wowk, K., and Bamford, H. (2015). Future of our coasts: The potential for natural and hybrid infrastructure to enhance the resilience of our coastal communities, economies and ecosystems. Environmental Science & Policy, 51, 137-148.
- [19] van der Spek, Bart-Jan, Eelco, B., van de Sande, B., Sanne, P., Dirk, H., and Bram, B. (2020). Sandbar Breakwater: An Innovative Nature-Based Port Solution. Water 12, no. 5: 1446. <https://doi.org/10.3390/w12051446>.
- [20] Wakeman, R. (1996). What is a sustainable port? The relationship between ports and their regions. Journal of Urban Technology, 3(2), pp. 65-79.

Prepared by:



**Ir. Ts. Assoc. Prof. Dr EUR. ING.
Syuhaida Ismail**

The Director of Research at Maritime Institute of Malaysia is also Chair of WE Section and Deputy Chair of PMTD.



ChM. Ts. Dr Nur Zulaikha Yusof

Senior Researcher at Centre for Coastal & Marine Environment, Maritime Institute of Malaysia.

Upcoming Activities

Physical Digital Class on "Crafting the Future: A Maker's Journey into Innovation and Creation"

Date	: 14 September 2024 (Saturday)
Time	: 11.00 a.m. - 1.00 p.m.
Venue	: Maker Space
Approved CPD	: 2
Speaker	: Various Speakers

Technical Visit to Pengerang Integrated Complex (PIC), Johor

Date	: 18 September 2024 (Wednesday)
Time	: 9.00 a.m. - 2.30 p.m.
Venue	: Pengerang Integrated Petroleum Complex (PIPC), 81600 Pengerang, Johor
Approved CPD	: 3

Water Resources Technical Division's Forum on Embracing Nature: Water Resilience Through Nature Based Solutions

Date	: 19 September 2024 (Thursday)
Time	: 9.00 a.m. - 5.00 p.m.
Venue	: KLCC
Approved CPD	: 7
Speaker	: Various Speakers

Power Talk Cleanroom Requirements for Hospital and Health Care Facilities

Date	: 19 September 2024 (Thursday)
Time	: 9.00 a.m. - 5.00 p.m.
Venue	: KLCC
Approved CPD	: 2
Speaker	: Ir. Al-Khairi Mohd Daud

METD Symposium on Building Services Solutions Sustaining Futures, Embracing ESG

Date	: 21 September 2024 (Saturday)
Time	: 9.00 a.m. - 5.00 p.m.
Venue	: KLCC
Approved CPD	: 6
Speaker	: Various Speakers

WE IEM Conference 2024 "ESG: Leveraging Global Talents and Diversity"

Date	: 21 September 2024 (Saturday)
Time	: 9.00 a.m. - 5.00 p.m.
Venue	: KLCC
Approved CPD	: 6
Speaker	: Various Speakers



EMPOWERING TODAY'S INFRASTRUCTURE

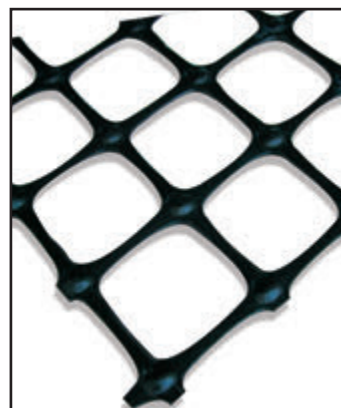
Sustainability With Innovation Geosynthetic Solutions

For over 30 years, geogrids have reinforced and strengthened soils, enabling the soil to perform better than it would in its unreinforced state.

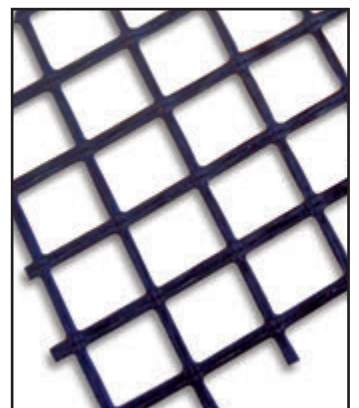
Maccaferri's geosynthetic solutions offer cutting-edge technology to address various civil engineering challenges. From soil stabilization to erosion control, our geosynthetics provide durable and environmentally-conscious infrastructure, paving the way for a sustainable future.

Stability & Asphalt Reinforcement

Geogrids are used to extend the life of unbound and asphalt pavements. MacGrid® AR is a composite geogrid specifically designed to reduce reflective cracking in asphalt pavements and overlays. MacGrid® EG high modulus extruded geogrids are used to strengthen unbound pavements, reducing rutting and the required thickness of granular material.



MacGrid EG



MacGrid AR

MACCAFERRI

Maccaferri (Malaysia) Sdn Bhd
Unit 511, Block G, Phileo Damansara 1,
No. 9 Jalan 16/11, Petaling Jaya, Selangor.
info.my@maccaferri.com
www.maccaferri.com/my

Find out more here



Maccaferri World



Mastering Project Management Field: Combining Soft & Hard Skills



In today's dynamic work environment, the terms "soft skills" and "hard skills" are increasingly becoming focal points in conversations concerning employee growth, effectiveness and advancement in careers. Although the terms are sometimes used as if they are synonymous, indicating that they share similarities in relevance and application within the workplace, a closer look into their meanings and implications uncovers distinct differences that are worth noting. Both skills are crucial for professional success at all levels in an organisation.

In rapidly changing and highly competitive markets, technical knowledge alone is no longer sufficient for career advancement and organisational growth. Soft skills ensure that employees can collaborate effectively, adapt to new challenges and maintain a healthy workplace culture. Meanwhile, hard skills enable leaders to steer their teams through complexities, overcome obstacles and capitalise on opportunities. Together, both create a comprehensive toolkit that empowers individuals to excel in their roles, contribute to their teams and drive their organisations forward.



To succeed, project management requires a blend of hard skills and soft skills

Project management occupies a unique and pivotal position in the intersection of soft skills and hard skills, acting as a comprehensive discipline that demands a harmonious blend of both to achieve project success. The role of a project manager transcends the mere application of tools and techniques to meet project specifications; it encompasses the nuanced art of leading teams, managing stakeholder expectations and driving initiatives to completion amidst constraints and

uncertainties. Here's a detailed look at why soft skills are vital for project managers:

Effective Communication

Communication is the cornerstone of project management. A project manager must convey project goals, updates, feedback and changes clearly and persuasively to a broad audience which includes team members, stakeholders and clients. Strong communication skills ensure that information is transmitted effectively, misunderstandings minimised and that everyone remains aligned with the project objectives.

Leadership & Motivation

Project managers are leaders, regardless of their formal authority. They need to inspire and motivate their team members to achieve their best performances. This involves understanding team dynamics, recognising individual strengths or weaknesses and adapting leadership styles to meet the teams' needs. Emotional intelligence, a key soft skill, enables project managers to connect with their team members on a personal level, fostering trust and respect.

Conflict Resolution

Conflicts are inevitable in project management due to differing opinions, interests and pressures. Effective conflict resolution skills are essential for maintaining a positive work environment and keeping the project on track. Project managers with strong negotiation and problem-solving skills can mediate disputes, find common ground and turn conflicts into opportunities for growth and innovation.

Adaptability & Problem-Solving

Projects rarely go exactly as planned and unexpected challenges can arise. Adaptability and resilience are soft skills that empower project managers to respond to changes and obstacles calmly and efficiently. Being able to think on one's feet, develop creative solutions and make decisive adjustments are critical for navigating the complexities of projects.

Time Management & Organisation

While often considered hard skills, time management and organisation are deeply intertwined with soft skills such as prioritisation, goal setting and self-discipline. Effective project managers are adept at juggling multiple tasks, deadlines and priorities, ensuring that resources are allocated efficiently and milestones are met.

Stakeholder Management

Managing stakeholders' expectations and needs is a critical component of project success. Project managers must be adept at engaging with stakeholders, understanding their concerns and priorities as well as ensuring their involvement and satisfaction throughout the project lifecycle. This requires a combination of communication, negotiation and empathy.



Project managers must be adept at communication, negotiation and empathy

The importance of hard skills spans across all industries and job roles, playing a crucial role in workforce productivity and individual career advancement. Here, we will elaborate on their significance:

- **Essential for Job Performance**

Hard skills are the foundation for performing the core tasks of a job. Whether it's coding for a software developer, financial modelling for an accountant or surgical techniques for a doctor, hard skills allow professionals to execute their duties effectively and efficiently.

- **Enables the Use of Tools & Technologies**

In today's technologically-driven work environment, many hard skills revolve around the ability to operate specific software, machinery or equipment. Competency in these areas is often a prerequisite for employment, as businesses rely on technology to enhance productivity, maintain competitiveness and innovate.

- **Quantifiable and Measurable**

The quantifiable nature of hard skills makes it easier for employers to assess job candidates' qualifications during the hiring process. Certifications, degrees and portfolios serve as tangible proof of an individual's capabilities, reducing the risk in hiring decisions.

- **Facilitates Professional Development**

The acquisition of new hard skills is a key component of professional growth. Continuous learning and upskilling not only enhances an individual's competency and efficiency but also keeps them relevant in an ever-evolving job market. This is especially critical in fields that undergo rapid technological changes.

- **Critical for Achieving Results**

Hard skills contribute directly to producing tangible outcomes and achieving business goals. Whether it's developing a new product, improving service delivery or increasing operational efficiency, hard skills are at the heart of organisational performance and success.

Summary

Hard skills are indispensable for individuals to perform their job functions, advance in their careers and contribute to an organisation's success. As the workplace continues to evolve, the importance of continuously developing and updating one's hard skills cannot be overstated, ensuring both personal and professional growth. ■

Prepared by:



Ir. Vincent Wong Khien Ngie

Founder of Hacent Consultant and PMTD Committee Member. He is experienced in civil, geotechnical and structural engineering projects.

AUGUST 2024

IEM
The Institution of Engineers, Malaysia

JURUTERA
The Monthly Bulletin of The Institution of Engineers, Malaysia

JURUTERA
SUSTAINABLE MARITIME TECHNOLOGY

The latest copy of JURUTERA AUGUST 2024 issue is now available on the IEM Web Portal

Visit IEM Website at <https://shorturl.at/himY6> to download or scan the QR code to read online

IEM
The Institution of Engineers, Malaysia

ATTENTION

FOR DELETED GRADUATE MEMBER !!!

TO REACTIVATE YOUR MEMBERSHIP ONLY PAY

✓ **ANNUAL SUBSCRIPTION 2024**
✓ **REINSTATEMENT FEE RM 100**

CONTACT US

☎ **03-78900131**
✉ **Pn. Fatimah**
fatimah@iem.org.my

This promotional period is only valid until 31st December 2024

TOTAL SOLUTION APARTMENT BUILDING

With our integrated security system in place, apartment building residents can enjoy a safe and secure living environment, while property managers benefit from enhanced property protection and streamlined security management capabilities.

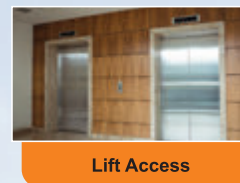
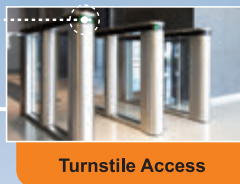
MicroEngine Community Apps

Feature Product :

1. Facility Booking
2. Visitor Registration
3. Bill Payment



Plato-Q82



Lobby

GuardHouse Car Park

Visitor/Resident Car Park

Security Room

For more information about our product, please scan the QR Code below :



1300-88-3925 | www.microengine.net | MicroEngine Malaysia

Copyright © 2024 MicroEngine Technology Sdn Bhd (535550-U)

All rights reserved. | July 2024

Patent Pending



Comparative Analysis of End-of-Life Vehicle Management Practices in Indonesia & Malaysia



Managing End-of-Life Vehicles (ELVs) presents global environmental, economic and safety challenges, significantly impacting countries like Malaysia and Indonesia. A booming car industry in Indonesia has led to a surge in ELVs, necessitating sustainable management practices. This article explores ELVs management in Indonesia, focusing on traditional practices and the role of the informal sector. We will also compare it with the Malaysian approach, highlighting unique strategies and regulatory frameworks. Through this comparative study, we hope to understand better the diverse methods and lessons in ELVs management, contributing to a more responsible and sustainable future in this critical industry.

Comprehensive View of ELVs Methods in Indonesia

Indonesia, an expansive South-East Asian archipelago, has undergone rapid urbanisation and economic expansion, fostering a flourishing car industry that positions it as a leading hub for car manufacturing and sales. With a considerable car population, the nation anticipates an increase in ELVs, posing significant threats to infrastructure due to the increasing complexity of managing these used vehicles. A thorough understanding of the broader context surrounding ELVs management is paramount to tackle these challenges and devise viable solutions.

Indonesia's burgeoning economy and car sector have led to a surge in the number of vehicles on the road, showcasing the country's remarkable economic prowess and exacerbating critical issues in ELVs management. These challenges span from environmental degradation to economic and safety risks, impacting the country's official and informal sectors.

To address the escalating concern of ELVs pollution, the Indonesian Ministry of Environment & Forestry introduced Regulation No. P.20/MENLHK/SETJEN/KUM.1/3/2017

which established stringent emission limits for new M (vehicles for transporting people), N (vehicles for transporting goods) and O (vehicles for towing trailers or attachments) vehicles. Non-compliant vehicles are prohibited to curb pollution and ensure safety, underlining the regulation's pivotal role in addressing environmental issues stemming from older, polluting vehicles.

Various entities in the country, including the recycling sector, scrapyards and government agencies, are tasked with implementing and enforcing ELVs disposal and recycling guidelines. However, challenges persist, particularly within the informal sector, where small-scale ELVs managers, known locally as Besi Tua collectors, operate without regulation yet play an increasingly vital role in ELVs management.



Traditional shop selling scrap metal

Resource shortages and environmental concerns further complicate ELVs management in Indonesia, emphasising the urgency of recycling and sustainable resource management practices. Effective ELVs management reduces waste and facilitates the recovery of precious metals and polymers, alleviating pressure on finite resources. Moreover, beyond environmental benefits, ELVs management activities can stimulate local economies, generate revenue for individuals and enhance livelihoods on a global scale.

Despite efforts to implement regulations, such as those issued by the Indonesian Ministry of No. 108/2019, challenges persist in ELVs management, particularly concerning enforcement and data collection. Inadequate management practices risk land and water pollution from improper disposal of car fluids and batteries, underscoring the ongoing need for comprehensive and practical solutions to address ELVs-related issues.

Revolutionary Methods in Madura's Informal Sector

Madura, an island in the Indonesian archipelago, has emerged as a beacon of innovative informal sector practices in ELVs management. Within this dynamic environment, a groundbreaking concept known as Besi Tua (Used Iron) has flourished, providing a sustainable solution to the multifaceted challenges posed by ELVs.

These dedicated Besi Tua collectors play an essential role in Madura's ELVs management, serving as the unsung heroes of this intricate system. To ensure a steady



SAFETY & RELIABILITY
ALL IN A COMPACT SIZE



TRANSMIT & TRANSFORM
FOR YOUR INDUSTRY APPLICATION NEEDS



Certificates:
CESI KEMA VDE
ASTA CTC

Standards:
ISO 9001 ISO 14001 IEC 60076-1, IEC 60076-2



Standards:
IEC 60076-1, IEC 60076-2



CHINT MALAYSIA
(Formerly known as Alpha Automation (Selangor) Sdn Bhd (1272111-D))
11, Temasya 18, Jalan Pelukis U1/46B, Seksyen U1,
40150 Shah Alam, Selangor
www.alphasel.com chintmalaysia@alphasel.com
Tel : +603-5569 7787 Fax : +603-5569 9295

A CHNT COMPANY

and reliable supply, they obtain ELVs from many sources, such as private individuals and junkyards. Once acquired, the ELVs are meticulously transported to designated sites for systematic dismantling. The well-coordinated process reduces the visual unpleasantness of ELVs in city centres and streamlines the intricate process of recovering resources.

The informal sector in Madura is steadfast in its dedication to the retrieval and reuse of resources. ELVs are carefully taken apart to enable the recycling of the valuable components they contain. The extraction procedure is carried out precisely, ensuring the preservation of vital metals, polymers and other constituents. This rigorous approach goes beyond waste reduction and directly contributes to preserving valuable resources as well as effectively tackles the pressing problem of resource shortage by reclaiming these resources.

The management philosophy is centred on prioritising component reuse. The local market offers salvaged components which are still usable, providing them at moderate cost to vehicle owners who need parts for repairs. By prolonging the lifespan of components, this effectively decreases waste and diminishes the need for new replacements.



Madura scrap metal (Besi Tua) collection point

The Besi Tua practice in Madura has significantly influenced the economic prosperity of the local inhabitants. People who are engaged in the gathering, dismantling and commerce of ELVs components, can sustain a satisfactory standard of living, enhance their financial stability and broaden their possibilities for respectable work in society.

Overall, Madura's informal sector has devised unique ELVs management strategies that integrate eco-consciousness, resource preservation, long-term economic viability and community empowerment. This initiative underscores the ingenuity and adaptability of the Indonesian people and serves as a model for sustainable ELVs management strategies globally. The profound lessons from the Besi Tua practice offer insights into building a more responsible and sustainable future for ELVs management worldwide, where tradition and innovation collaborate to address complex global challenges.

Traditional Practices in Indonesia

Indonesia's Besi Tua practice in Madura and a wide range of indigenous ELVs management traditions elsewhere in the country demonstrate the ingenuity and sustainability of local populations. Throughout the archipelago, ELVs recycling has evolved into a refined skill, as Indonesian communities recognise the worth of discarded vehicles as valuable assets rather than as refuse. This viewpoint has cultivated inventive methods for utilising ELVs materials for functional and even artistic reasons.

The traditional ELVs management demonstrates resourcefulness and skill in activities such as building dwellings/shelters and creating tools/implements. Highly skilled artists and crafters utilise their expertise to convert ELVs materials, specifically metal components, into various practical objects, from farming equipment to kitchen utensils. In addition, these are also ingeniously reused to craft sculptures that embody artistic values, showcasing the aesthetic appeal and adaptability of these items.

Reusing ELVs materials in Indonesia is culturally and environmentally significant as it demonstrates respect for Earth by decreasing waste and minimising the environmental consequences of ELVs disposal. These showcase Indonesian history and culture and enhance the bond between humans and Nature.

Moreover, conventional Indonesian ELVs management techniques provide excellent insights into resource recuperation and product lifespan extension. By highlighting the significance of valuing ELVs as crucial resources that can be recycled and reintegrated into communities, these approaches emphasise the possibility of sustainable management.

Indonesia combines traditional and modern ELVs management strategies in Madura's Besi Tua practice to tackle intricate difficulties effectively. These methods emphasise the need to acknowledge and safeguard the knowledge and skills of local communities in promoting long-lasting global solutions. Indonesia's extensive experience in conventional ELVs management offers significant knowledge for constructing a more responsible and environmentally aware future.

Malaysia's Rising Tide of Abandoned Vehicles: Navigating Legal, Environmental and Urban Challenges

The 2023 total industry volume (TIV) for all cars in Malaysia is around 800,000. Without a national ELVs policy, the suburban backstreets and urban parks will soon be filled with old, abandoned cars. In 2020, the Ministry of Housing & Local Authorities issued the Abandoned Vehicle Management Guidelines for Local Authority Operating Areas (KSU KPKT Circular No. 2/2020); this had helped local governments handle such vehicles.

Local authorities can remove derelict vehicles under section 46 of Act 133, their main enforcement power. Some locations lacked a clear definition of abandoned cars. Some developments illuminated the situation. For example, in *Ramli Wan v Shah Alam City Council*, 2021, unique traits were established to define abandoned cars. Road tax validity is the leading indicator of vehicle use. The owner usually ensures a car is insured to pay road tax. Ramli Wan did not pay road tax on two abandoned vehicles for one year. The Road Department only considers cars inactive after three years. However, the enforcement officer removed the cars after noting that both vehicles had flat tyres, dirty paint and broken engines/gearboxes.



Vehicle dismantling process

The new digital payment mechanism from the Ministry of Transport eliminates the use of road tax discs. This is a good step toward digitalisation, but identifying abandoned cars may then prove challenging. Road tax validity issues also make it difficult for the public to file a complaint and enforcement personnel will need to check with the Road

Transport Department's online system to find out if road tax has not been paid before they take action. Because of this, enforcement may be difficult.

Under the Education Ministry's Transdisciplinary Research Grant Scheme, a research group from Universiti Kebangsaan Malaysia studied ELVs. A literature search, surveys and focus group talks revealed several areas for improvement.

Local traffic wardens identified additional features which could help indicate abandoned cars such as broken mirrors, shabby paint, plants and unplugged parts. Based on the focus group conversations with local officials and community leaders, stakeholders primarily liked the findings.

The local authority's response to a car blocking traffic, spoiling vistas and reproducing pests in public parking spaces depends on urgency. They already have to deal with abandoned, immobile and damaged vehicles. Due to inadequate facilities, local authorities may struggle to tow away



OVM

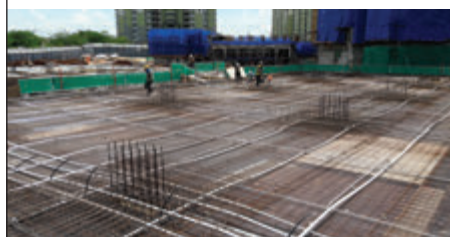
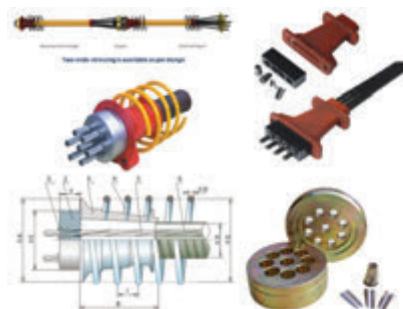
Nehemiah Prestress

1140945-A



Nehemiah-OVM provides the following products and services:

- Post-tensioning solution provider
 - Carpark Flat Slab
 - Transfer Plate
 - Beams, Box Girders
 - Alternative design solutions
- Cable systems (stay cable, main cable, hanger)
- Bridge bearing and expansion joint
- Construction solutions (heavy lifting, ILM, etc)
- Monitoring, repairing and strengthening for structures



Nehemiah Prestress Sdn Bhd (1140945-A)

No. 45-3, Jalan PJU 5/20
The Strand, Kota Damansara
47810 Petaling Jaya
Selangor Darul Ehsan

Tel : 603 6142 6638

Fax : 603 6142 6693

Email : enquiry-pt@nehemiah-grp.com

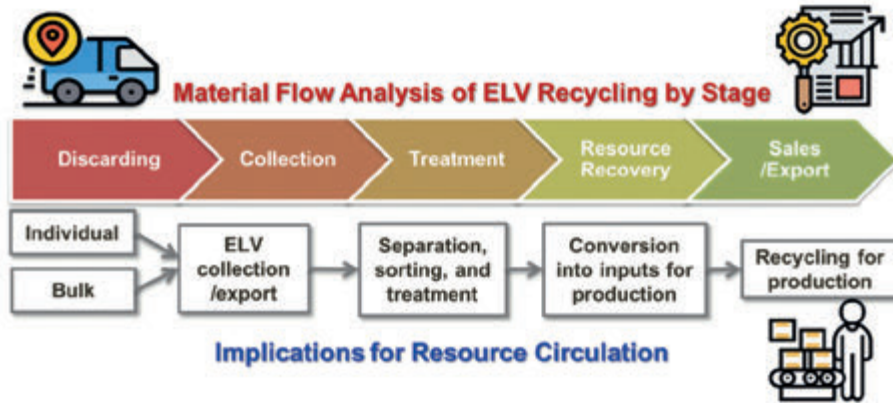


Nehemiah

A member of the Nehemiah Group

Certified by the European
Organization for Technical Approval





ELV Material Flow Analysis

and keep these vehicles at the depot which may already be filled with scrapped cars. Local and relevant authorities appear uncoordinated when tackling an issue.

Local authorities may need data from the Road Transport Department, National Registration Department and Chemical Department to identify the owner. Deregistration requires a forfeiture order from the court. Proper paperwork and documentation for each step can take a long time.

Managing Abandoned Vehicles in Malaysia

Managing ELVs is a growing problem in Malaysia, reflecting broader global environmental concerns. These vehicles, often left abandoned in urban and rural areas, pose significant challenges to local authorities. The first step in managing ELVs is identification and documentation, which demands considerable resources and coordination between various government departments and agencies.

The administrative process for handling these vehicles is intricate and lengthy, involving legal procedures to determine ownership and to make the final decision on whether to remove or dispose of the vehicles. This process must balance environmental regulations, public safety concerns and the logistical aspects of towing and storing such vehicles.

The impact of ELVs extends to beyond administrative challenges. These vehicles pose environmental risks, such as leakage of hazardous fluids and becoming breeding grounds for pests. They also negatively affect the aesthetics of neighbourhoods and occupy valuable urban space which can be used more productively. Thus the comprehensive management of ELVs is crucial for environmental conservation, urban planning and public health.

In Malaysia, managing and enforcing laws related to ELVs involve significant costs for towing, storage and legal procedures, which strain local authorities' resources. The complexity of these processes necessitates efficient strategies and specialised facilities. To address this, Malaysia has established the Authorised Automotive Treatment Facilities (AATF), which currently has two operational facilities. These play a vital role in ELVs disposal and recycling, ensuring environmental compliance and reducing the financial and administrative burden for local authorities. This integrated approach demonstrates

our commitment to responsible ELVs management.

The comprehensive ELVs treatment flow managed by AATFs (see diagram) starts with the discarding phase, where vehicles are categorised based on individual or bulk sources. Following this, a collection phase includes the accumulation and potential export of ELVs. The treatment phase involves meticulous vehicle parts separation, sorting and treatment. Resource recovery is the next crucial phase, where usable materials are converted into inputs

for new production processes. Lastly, the sales/export phase involves selling or exporting recycled materials/parts. This detailed flow ensures the efficient circulation of resources, reducing waste and promoting sustainability within the car industry.

Malaysia faces significant challenges in enforcing the Road Transport Act 333, which governs the de-registration and management of unused vehicles. The complex nature of the law, with its numerous procedures requiring coordination between various government agencies, often leads to bureaucratic entanglements which can delay the efficient handling of abandoned vehicles. This impedes enforcement and hinders timely environmental protection efforts and urban management.

Akta Pengangkutan Jalan 333 is designed to ensure that vehicles on our roads are safe, compliant and environmentally friendly. However, its stringent inspection requirements and the rigorous process for de-registering non-operational vehicles are challenging to implement effectively. The Act demands a high level of diligence from both vehicle owners and authorities, necessitating a streamlined approach to better serve the intended goals of road safety and environmental sustainability. ■

REFERENCES

- [1] Sitinjak, C., Ismail, R., Bantu, E., Fajar, R., & Simanullang, W. F. (2022). Study of Public Perception toward End-of-Life Vehicles (ELV) Management in Indonesia. *International Journal of Sustainable Development and Planning*, 17(4), 1341–1347. <https://doi.org/10.18280/ijstdp.170431>.
- [2] Sitinjak, C., Šimić, V., Ismail, R., Bačanić, N., & Musselwhite, C. (2023b). Barriers to effective implementation of end-of-life vehicle management in Indonesia. *Environmental Science and Pollution Research*, 30(37), 87286–87299. <https://doi.org/10.1007/s11356-023-28554-1>
- [3] Wong, Y. C., Al-Obaidi, K. M., & Mahyuddin, N. (2018b). Recycling of end-of-life vehicles (ELVs) for building products: Concept of processing framework from automotive to construction industries in Malaysia. *Journal of Cleaner Production*, 190, 285–302. <https://doi.org/10.1016/j.jclepro.2018.04.145>
- [4] Mamat, T. N. a. R., Saman, M. Z. M., Sharif, S., & Šimić, V. (2016). Key success factors in establishing end-of-life vehicle management system: A primer for Malaysia. *Journal of Cleaner Production*, 135, 1289–1297. <https://doi.org/10.1016/j.jclepro.2016.06.183>
- [5] Harun, Z., Mustafa, W. M. S. W., Wahab, D. A., Mansor, M. R. A., Saibani, N., Ismail, R., Ali, H. M., Hashim, N. A., & Paisal, S. M. M. (2021b). An Analysis of End-of-Life Vehicle Policy Implementation in Malaysia from the Perspectives of Laws and Public Perception. *Jurnal Kejuruteraan*, 33(3), 709–718. [https://doi.org/10.17576/jukm-2021-33\(3\)-29](https://doi.org/10.17576/jukm-2021-33(3)-29)

Prepared by:

**Mr. Charli Sitingjak**

A PhD. student at UKM. His research involves applying social, environmental and health psychology to understanding and improving relationships between the built environment and transportation and health and wellbeing.

**Prof. Dr Rozmi Ismail**

Professor at the Centre for Research in Psychology and Human Well-being, Faculty of Social Sciences and Humanities, UKM. Research focus is in social psychology, community psychology, applied psychology and transportation psychology.

**Assoc. Prof. Dr Zambri Harun**

Chairman of the Department of Mechanical & Manufacturing Engineering at the Faculty of Engineering & Built Environment, UKM. He actively conducts research in turbulence, fluid mechanics applications, renewable energy and ELVs.

**Prof. Dr Hasani Mohd. Ali**

Professor of Law at the Faculty of Law, UKM. He teaches company law and related areas including corporate governance, securities regulation and insolvency. His research and writing focus is on corporate governance and corporate responsibility.

Congratulations

IEM Council and Management would like to extend our heartiest congratulations to

YBhg. Dato' Ir. Roslan Ismail

on his appointment as
Ketua Pengarah Kerja Raya (KKR) Malaysia
effective 25 June 2024.

Upcoming Activities

New Structural Form for Highrise Transfer Structure - Prestressed Transfer Plate

Date : 21 September 2024 (Saturday)
Time : 11.00 a.m. - 12.30 p.m.
Venue : KLCC
Approved CPD : 2
Speaker : Ir. Dr Low Hin Fook

Webinar on Introduction & Path to become Registered Electrical Energy Manager (REEM)

Date : 21 September 2024 (Saturday)
Time : 10.00 a.m. - 12.00 p.m.
Venue : Digital Platform
Approved CPD : 2
Speaker : Ir. KT Lim

Digitalization for the process industry



We offer future-proof automation solutions for the process industry:

- end-to-end control platform from zone 0 to the cloud
- edge device for complete data acquisition with NAMUR Open Architecture
- flexible integration of Ethernet-APL with the compact ELX6233
- TwinCAT MTP for the modularization of plants with the Module Type Package

Discover our digitalization solutions for the process industry!



September 25–27, 2024
Kuala Lumpur
Convention Centre
Hall 5, Booth 5101

New Automation Technology **BECKHOFF**

Retreat Programme: Harnessing the Committee's Potential

Project Management Technical Division



On 11-12 May 2024, the Project Management Technical Division (PMTD) of IEM organised a retreat programme at The Westin Hotel, Kuala Lumpur for its committee members. The event was attended by 16 participants. The programme was aimed at strengthening ties between the committee members who convened to deliberate on the agenda and strategy of PMTD in order to boost its performance as a subdivision of IEM.

The event started with an ice-breaking session as there were a few new faces in the committee for 2023/2024. This was followed by the monthly meeting which began with a review, discussion and update of the list of action items from the previous meeting, the current programme and upcoming events. The committee members also engaged in a lively discussion regarding potential future initiatives for the strategic planning of PMTD activities for 2024-2025. Ideas were brainstormed and preliminary plans were outlined for further exploration.

The meeting also took note of the Presidential Award of Excellence requirements; lessons learnt from previous events were analysed and new strategies discussed and developed to help PMTD achieve higher scores in 2024-2025. Towards this end, the committee members will need to perform a total of 7 strategic actions in the coming months.

On the second day, the team brainstormed ideas for the upcoming Project Management Conference (PROMAC) event for 2024. They benchmarked the proposed organisation of activities against the previous successes of PROMAC and conducted a lessons-learnt session to identify areas for improvement for the forthcoming event. A small group of committee members was formed to manage and delegate the various tasks involved and to streamline the organisational process.

Before the retreat ended, Ir. Ts. Dr Harris, Chairman of PMTD, delivered a presentation on the Butterfly Effect. The key message was that overlooking small details could result in significant negative consequences. Thus, it was crucial to pay meticulous attention to minor tasks and contributions, holding them to the same standard of accountability as the larger ones.



Discussion in progress at the PMTD retreat



PMTD team at the 2024 retreat

In conclusion, the PMTD Retreat Programme instilled a sense of purpose and optimism in the committee. Through thought-provoking presentations, such as Ir. Ts. Dr Harris' insightful discussion on the Butterfly Effect, the committee members learnt to appreciate the critical importance of every detail in the organisation of PMTD activities. The retreat reinforced PMTD's commitment to excellence, teamwork and meticulous attention to both minor and major aspects of its work. ■

Prepared by:



Ir. Mohd Amri Mohamed Khairi



DEEPEST CONDOLENCES

On behalf of
The Institution of Engineers, Malaysia (IEM),
we would like to express our deepest condolence
to the bereaved family of the Late

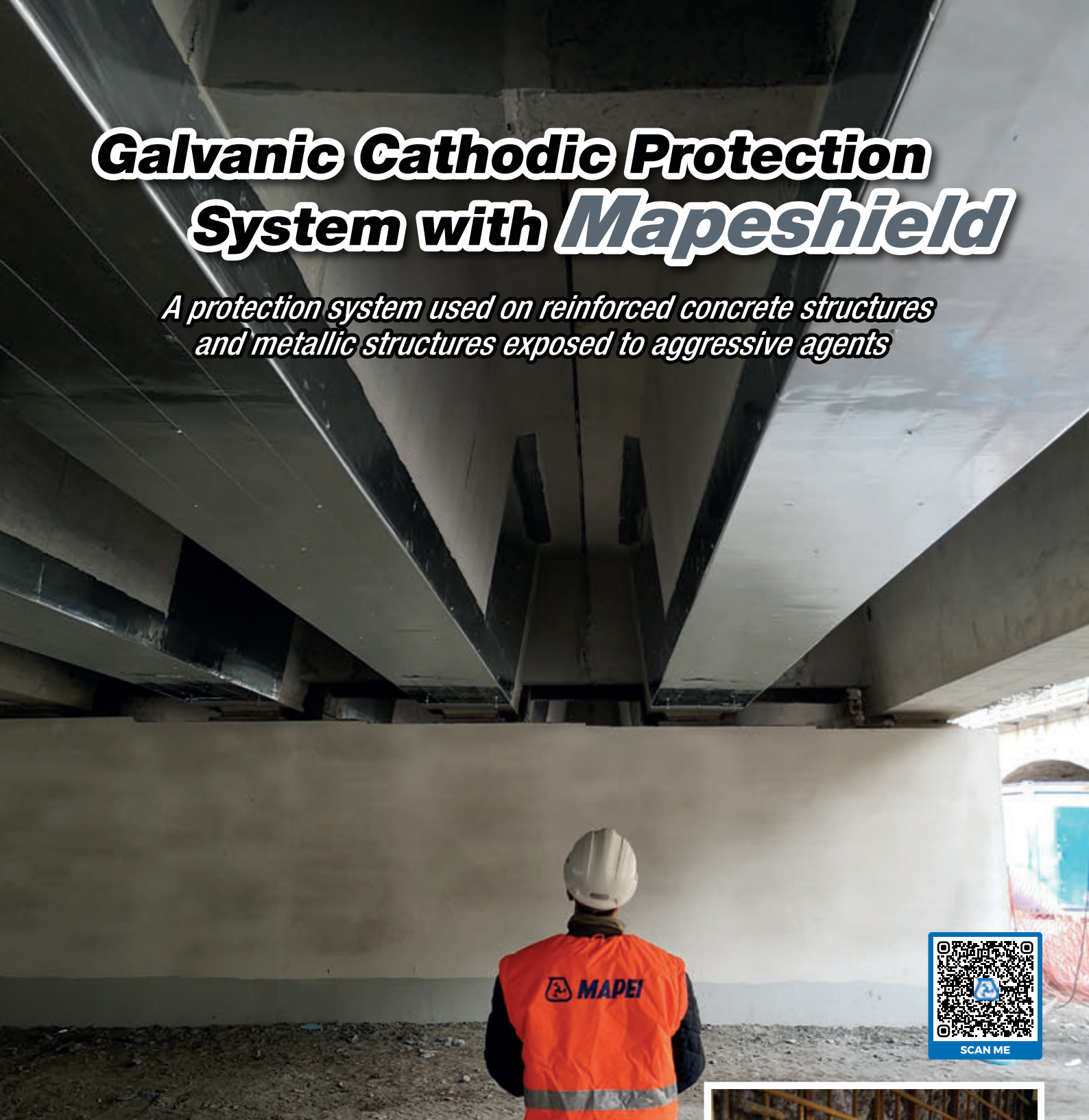
Cheong Chup Lim (F 00243)

on his passing dated 6 August 2024.

We at IEM, honour his contribution to the IEM as IEM Fellow.

Galvanic Cathodic Protection System with *Mapeshield*

A protection system used on reinforced concrete structures and metallic structures exposed to aggressive agents



A protection system to prevent corrosion on older structures with no signs of deterioration and to increase the durability of new structures

- no external wiring or energy sources are required and easy to install.
- generate enough current even in dry environments (in compliance with EN 12696 European Standards).
- difference in potential impedes corrosion with no risk to the structure.
- self-regulating, no maintenance is required for the entire service life of the nodes.
- guarantee long-lasting protection and each installation may be calculated and sized according to technical and economical requirements.
- selective, targeted repairs may be carried out.



Follow us on social network



HQ 03-7842 9098 | JB 07-595 3032 | Penang 04-642 9098 | Kuching 082-246 660 | www.mapei.com.my



Print Service Special Promotion

Business Card - 54mm x 90mm
Gloss / Matt Art Card (Full Color)



260gsm

200pcs	RM 40
300pcs	RM 50

310gsm

200pcs	RM 50
300pcs	RM 60

- Annual Reports
- Booklets
- Brochures
- Buntings
- Business Cards

- CD / DVD Replications
- Calendars
- Cards & Invitations
- Certificates
- Custom Printings

- Envelopes
- Folders
- NCR Bill Books
- Notepads
- Leaflets

- Letterheads
- Paper Bags
- Posters
- Stickers
- Others



dimensionpublishing
The Choice of Professionals

Authorised Publisher: The Institution of Engineers, Malaysia (IEM) - JURUTERA

For other quantity and material,
please contact:



Joseph How (+6) 011 1234 8181
Shirley Tham (+6) 016 283 3013

Adopting AI in ESG Strategies: AI-driven Insights for ESG Compliance

Project Management Technical Division



A webinar was conducted on 27 March 2024 by Ir. Dr Ahmad Nizar Harun titled Adopting Artificial intelligence in ESG Strategies: AI-driven Insights for ESG Compliance. Ir. Dr Ahmad is Deputy CEO of The eCEOs Sdn. Bhd., with over a decade of international experience in various technological and engineering projects. He holds a PhD focusing on IoT and Cloud Technology from Universiti Teknologi Malaysia (UTM) and an MSc in Business from Warwick University, UK. He is an active member of IEEE and PMI, contributing as a reviewer and keynote speaker at various conferences.

On AI and ESG Strategies

Artificial intelligence (AI) is transforming Environmental, Social & Governance (ESG) reporting by automating data collection from various sources, including unstructured data such as social media and news articles. This enables real-time and comprehensive analysis of a company's ESG performance. Machine learning algorithms enhance accuracy by identifying patterns and anomalies, reducing errors and ensuring reliable reporting. AI can be used to predict future ESG trends and risks, allowing proactive management and informed decision-making. Integrating AI with ESG strategies streamlines reporting processes, delivers deeper insights and promotes sustainable and socially responsible business practices.

What is ESG?

ESG represents a set of criteria used to evaluate a company's operations and performance in these following key areas:

- **Environmental**
Climate Change: How a company addresses its carbon footprint, energy usage and climate-related risks.
Resource Management: The sustainable use of resources, including water, minerals and biodiversity.

Pollution and Waste: Management of pollution, waste and other environmental impacts.

- **Social**
Labour Practices: Fair wages, working conditions and respect for workers' rights.
Community Engagement: A company's relationships with the communities in which it operates.
Diversity & Inclusion: Promoting diversity in the workplace and ensuring inclusive practices.
- **Governance**
Board Structure: How the company's board is structured, including independence and diversity
Ethical Conduct: Business ethics, transparency and anti-corruption practices.
Shareholder Rights: Protecting the interests and rights of shareholders.

Importance of ESG

Compliance to Sustainable Development Goals (SDGs) and ESG are increasingly intertwined, guiding businesses towards responsible practices. The SDGs, set by the United Nations, address global challenges like poverty, inequality and climate change by 2030. Aligning ESG strategies with SDGs enables companies to contribute to these objectives while enhancing sustainability and ethical standards.

By integrating ESG principles, companies can enhance their sustainability efforts and ethical standards. This includes adopting environmentally friendly practices, promoting social equity and ensuring strong governance. These efforts benefit the planet and society and improve the company's reputation and operational efficiency.

Environmental initiatives focused on reducing carbon footprints directly support SDG13 (Climate Action). Companies can implement energy-efficient technologies, reduce waste and invest in renewable energy sources. Promoting diversity and inclusion aligns with SDG5 (Gender Equality) and SDG10 (Reduced Inequality). Strong governance practices support SDG16 (Peace, Justice and Strong Institutions).



The United Nations' Sustainable Developments Goals (SDGs)

Leveraging AI for Enhanced ESG Reporting

Integrating AI into ESG reporting is revolutionising how companies track, analyse and report their sustainability efforts. The roles of AI in ESG reporting are Automated Reporting and Real-Time Data Processing (RDP).

Benefits of AI-Enhanced ESG Reporting:

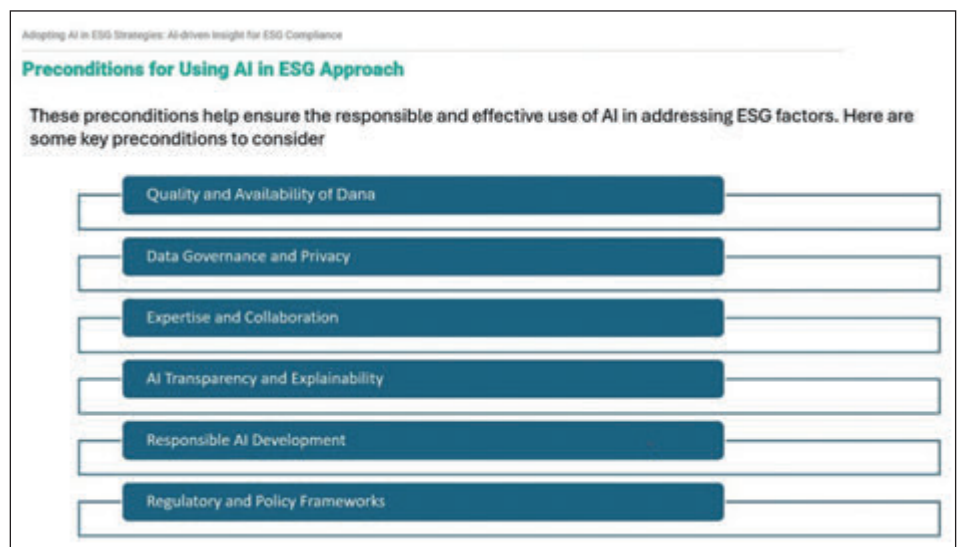
- **Improved Accuracy & Consistency:** AI systems reduce human error and ensure that data is processed uniformly. This leads to more accurate and reliable ESG reports, which are crucial for maintaining investor confidence and meeting regulatory standards.
- **Enhanced Transparency & Accountability:** AI-driven reporting tools provide transparent and easily accessible data which enhances accountability. Stakeholders, including investors, customers and regulators, can access up-to-date information on a company's ESG performance, fostering trust and credibility.
- **Proactive Risk Management:** AI's predictive analytics capabilities allow companies to foresee potential ESG risks and address them proactively. By analysing historical and current data, AI can identify patterns and predict future trends, enabling businesses to mitigate risks before they escalate.
- **Resource Efficiency:** Automation and real-time processing streamline the ESG reporting process, reducing the need for manual intervention and lowering operational costs. This efficiency enables companies to allocate more resources towards strategic initiatives that drive sustainability.

Challenges & Ethical Considerations

- **Algorithmic Bias:** AI systems must be trained on diverse and representative data to avoid perpetuating existing biases.
- **Transparency:** Lack of transparency in AI algorithms can hinder accountability. Increased transparency and explainability are essential.



Common standards used as a guide for accounting and reporting GHG emissions



Preconditions for using AI in ESG approach

- **Data Privacy & Security:** Protecting personal and sensitive information is crucial when implementing AI for ESG purposes.
- **Greenwashing:** Companies must avoid using AI and ESG initiatives for superficial claims of sustainability without meaningful actions.
- **Unintended Consequences:** AI systems must be carefully assessed to avoid negative impacts on other ESG criteria.
- **Job Displacement:** The adoption of AI can lead to workforce disruptions, necessitating strategies for reskilling and upskilling workers.

Conclusion

Integrating AI into ESG strategies offers a transformative approach for organisations to enhance their sustainability efforts. By leveraging AI technologies, companies can improve environmental management, social impact and

governance. Automated reporting and real-time data processing ensure accurate, timely and comprehensive ESG reporting, fostering transparency and accountability. The predictive analytics of AI allow proactive risk management, while resource efficiency frees up valuable assets for strategic sustainability initiatives.

Ultimately, AI-driven ESG strategies will contribute to a more sustainable and ethical business landscape, aligning corporate growth with global sustainability goals and building stronger relationships with stakeholders. ■

REFERENCES

- [1] The eCEOs Sdn. Bhd., Adopting AI in ESG Strategies: AI-driven Insight for ESG Compliance, 2024.
- [2] Global Reporting Initiative.

Prepared by:



Ts. Ainarull Assikin Abdul Hadi

Upcoming Activities

1-Day Workshop on IEC 60364 Standard Electrical Installation for Special Installation 5

Date : 23 September 2024 (Monday)
Time : 9.00 a.m. - 5.00 p.m.
Venue : Wisma IEM
Approved CPD : 6
Speakers : Various Speakers

1-Day Workshop on "Soil Parameters - Interpretation for Design"

Date : 24 September 2024 (Tuesday)
Time : 9.00 a.m. - 5.30 p.m.
Venue : Wisma IEM
Approved CPD : 7
Speaker : Mr. Micheal Dobie

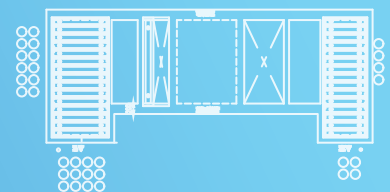
Webinar on Earth Levee Systems: From Katrina's Failure to Modern Evaluation in the Central Valley of California

Date : 25 September 2024 (Wednesday)
Time : 4.00 p.m. - 6.00 p.m.
Venue : Digital Platform
Approved CPD : 2
Speaker : Dr Ahmad (Adam) Mousa



COMPACT SUBSTATION UNIT (CSU) PLINTH

Your Trusted Electrical Precast Partner



WHY US?

- ✓ Approved & accepted by local electricity utility company
- ✓ Consistent precast according to specific standards
- ✓ Easy Installation
- ✓ Time-Saving
- ✓ Ease of Usage



Contact us for more info!
CMPC Sdn Bhd
Lot 258, No.4A, Batu, 19, Jalan Sungai Lalang, 43500 Semenyih, Selangor
Email: info@cmpp.com.my Tel: 03-89207929



dimensionpublishing

The Choice of Professionals

Authorised Publisher: The Institution of Engineers, Malaysia (IEM) - JURUTERA

Explore our full set of Professional and Integrated PUBLISHING MANAGEMENT SERVICES:

- » Project Management
 - » Creative Management
 - » Ad Space Management
 - » Mailing Management
 - » Print Management
-
- Annual Reports
 - Booklets • Brochures
 - Buntings • Business Cards
 - CD / DVD Replications
 - Calendars • Cards & Invitations
 - Certificates • Custom Printings
 - Envelopes • Folders
 - NCR Bill Books • Notepads
 - Leaflets • Letterheads
 - Paper Bags • Posters
 - Stickers • Others



For enquiries, please contact:



dimensionpublishing
The Choice of Professionals

Dimension Publishing Sdn. Bhd. [199701034233 (449732-T)]

Level 18-01, PJX-HM Shah Tower, No. 16A, Persiaran Barat,
46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia.

Tel: +603 7493 1049 Fax: +603 7493 1047 E-mail: info@dimensionpublishing.com

Shirley Tham: +6016 283 3013 Joseph How: +6011 1234 8181

31st Annual General Meeting and 30th Anniversary

IEM Negeri Sembilan

On 3 August 2024, The Institution of Engineers, Malaysia, Negeri Sembilan Branch (IEMNS) held a joint event – its 31st Annual General Meeting and 30th Anniversary – at the IEMNS building in Oakland Commercial Square, Seremban. The event was attended by IEM Deputy President Ir. Yau Chau Fong, representing IEM President Ir. Prof. Dr Jeffrey Chiang Choong Luin.



Group picture: IEMNS members with Ir. Yau, Chairman Ir. Dr Oh and Past Chairmen

Ir. Shahrin Amri, Chairman for session 2023/2024, welcomed the participants and expressed gratitude to Ir. Yau for attending the event. He also thanked the committee members, members, consultants, manufacturers and business partners who attended the Biennial Award & Appreciation Night 2024 on 5 July 2024 at d'Tempat Country Club, Bandar Sri Sendayan, Negeri Sembilan. The event attracted about 300 people, including the guest of honor, Negeri Sembilan Exco Member YB Teo Kok Seong.

IEMNS carried out 57 activities from January 2023 to July 2024, including technical talks, technical visits, conferences, HQ and IEM branch engagement, university as well as polytechnic events and courtesy visits, all of which were organised or participated in by IEMNS members. A total of 8 articles written by Ir. Dr Oh Seong Por (DPT) were also published in the *JURUTERA* Bulletin during the same period. The details were explained by Honorary Secretary Ir. Mohd Firdaus Zainal.

Ir. Yau read the President's speech. In his inaugural Presidential Address in April 2024, Ir. Prof. Jeffrey had selected the topic, ESG Catalyst for Engineering Evolution, which was intended for IEM to promote the following ESG initiatives:

1. Preserving and protecting environment.
2. Fostering the relationship and interlinks of engineering technology with society.
3. Adherence to rules and regulations comprehensively in engineering practices.

The ESGs will be adopted as the core tagline for this year's 3 major events: IEM Annual Dinner on 1 June 2024 at One World Hotel PJ, IEM Convention & Exhibition 2024 scheduled for 16-21 September 2024 at KL Convention Centre and CAFE0 42 scheduled for 22-25 October 2024 at Kota Kinabalu, Sabah. Prof. Jeffrey acknowledged that IEMNS members had made huge contributions to the development of Negeri Sembilan despite it being a small branch. The committee also worked hard to acquire a building for members to congregate and perform activities. Members such as Ir. Tiong Ngo Pu, Ir. Dr Oh Seong Por and Ir. Chong Chee Yen are still actively engaging and serving the IEM HQ council under various standing committees.

Ir. Tan Chee Nian, the honorary treasurer, presented the financial statement ended 31 December 2023. Earlier, it was scrutinised by internal auditors Ir. Dr Leong Yeng Weng and Ir. Arthirah Mustamir DT Bandharo as well as endorsed by an external auditor, Chartered Accountant Morison LC PLT, represented by the company director, Mr. Pang.

Ir. Dr Oh, the election officer, announced the names of candidates elected to the committee for session 2024/2025 (see Table 1). Ir. Shahrin announced that the committee had re-elected Ir. Dr Oh as Chairman of IEMNS committee for session 2024/2025.

Table 1: IEMNS Committee 2024 / 2025

Executive Committee, IEM Negeri Sembilan Branch Session 2024/2025	
Chairman	Ir. Dr Oh Seong Por (DPT) <i>Unanimously re-elected by committee</i>
Vice Chairman I	Ir. Mohd Firdaus Zainal
Vice Chairman II	Ir. Azlan Othman
Honorary Secretary	Ir. Prem Rakesh Subramaniam
Honorary Treasurer	Ir. Tan Chee Nian
Committee Member	Ir. Richard Khoo Nee Kheong Ir. Hazlin Harun Ir. Teh Wee Teck Ir. Azizi Ahamad
Immediate Past Chairman	Ir. Shahrin Amri Jahari *
Past Chairman	Ir. Chong Chee Yen *
Young Engineer Section NS Chairman	Mr. Muhamad Shaiful Hussain

* appointed to the position by the committee according to the guideline of the branch operation manual.

Ir. Dr Oh thanked the committee members for their trust in re-electing him as Chairman (2024/2025), a position he once helmed and, together with committee members, successfully revitalised IEMNS during the period 2018-2020. Now, with the lifting of strict movement control during COVID-19 and a better financial situation, IEMNS will be organising more member-centric activities to help members develop skills, acquire CPDs, advance their professional engineer careers and create networking for more business opportunities.

IEMNS will also like to respond to a proposal by YB Teo who has invited IEMNS members to train and share knowledge with trainees at Yayasan Kemahiran Negeri Sembilan. Introducing IEMNS and establishing cordial connectivity with government agencies, especially with the directors of BOMBA, DOE, DOSH, CIDB, JKR and JPS are also in the list of future activities.

Ir. Dr Oh also mooted the idea of starting an education benevolent fund (with the support of IEM HQ) for children of IEMNS members. However, he said these activities can only be executed effectively with the support and participation of fellow members.

He also announced that IEMNS had reached its 30th year anniversary since its establishment on 20 July 1994. Over the years, IEMNS had attained many achievements such as increasing its membership (exceeding 1,700), acquiring the IEMNS building, conducting numerous activities and supporting communities.

Even the Young Engineer Section (YES) was established as part of efforts to encourage young people to take up the profession. All these developments were the accumulated effort led by the past chairmen and committees. Ir. Dr Oh expressed gratitude to the past chairmen who attended the event. They were 2nd Chairman Dato' Ir. Wong Chiang Choy, 5th Chairman Ir. Tiong Ngo Pu, 11th and 15th Chairman Ir. Shahrin Jamri Amri and 14th Chairman Ir. Chong Chee Yen and 13th/16th Chairman Ir. Dr Oh Seong Por.

Then came a round of applause for Ms. Suriya, the secretariat, for her excellent service to IEMNS. The AGM was adjourned at noon.

The highlight of the joint event was cutting a cake to mark the 30th anniversary of IEMNS, accompanied by singing the birthday song by all present. ■



Marking the 30th Anniversary of IEMNS with a cake cutting ceremony



Celebrating the 30th Anniversary of IEMNS

Prepared by:



Ir. Dr Oh Seong Por

NOTICE ON CONGRATULATIONS

IEM Council and Management would like to extend our heartiest congratulations to the IEM Penang Branch recipients listed below on the Penang State Award from TYT of Pulau Pinang on his 75th Birthday.

Past Chairman	Dato' Ir. Yau Ann Nian, DSPN, DJN, PKT	Darjah Setia Pangkuan Negeri
Past Chairman	Ir. Phor Chi Wei, DJN, PJK	Darjah Johan Negeri
Honorary Secretary	Ir. Ts. Choo Lay Guat, PJM	Pingat Jasa Masyarakat
IEM members	Dato' Ir. Pathmanathan Krishnan Raman Nair, DSPN	Darjah Setia Pangkuan Negeri
IEM members	Ir. Chen Chee How, PKT	Pingat Kelakuan Terpuji
IEM members	Ir. Ts Amir Shafiq Adham, PJM	Pingat Jasa Masyarakat
IEM members	Ir. Dr Ngoo Seong Boon, DJN	Darjah Johan Negeri



Strong Tensile . Anti-Rust

COST EFFECTIVE & CARBON REDUCTION REINFORCEMENT ALTERNATIVE INNOVATION

STARBARS ARE:

- 1. GLASS FIBRE REINFORCED POLYMER (GFRP) BARS**
- 2. CHEAPER BY 15% COMPARED TO STEEL**
- 3. CORROSION RESISTANCE**
- 4. 2X HIGHER TENSILE STRENGTH**
- 5. 4X LIGHTER THAN STEEL**
- 6. NON-CONDUCTIVE TO THERMAL AND ELECTRICAL**
- 7. 70% CARBON EMISSION REDUCTION**



SMT Technologies, Penang



Sime Darby, Shah Alam



PKNS, Sepang



MINDEF, Johor Baharu



Sunway Construction, Puchong



Shantawood, Melaka

IN COMPLIANCE WITH:



‘WHEN CHANGES BECOME A CHALLENGE, LOOK US FOR A SOLUTION’

CRT MANUFACTURING SDN BHD

8, JALAN PAHAT 16/8A, SEKSYEN 16 40200,
SHAH ALAM SELANGOR

Contact us:

www.crtm.com.my

HQ (office): 03-5524 2557

Sales: 017-336 3130 (Virmen)



SCAN US
TO FIND OUT MORE



3RD ENGINEERING EXHIBITION & CONFERENCE 2024, MALAYSIA

An Event of  **IEM CONVENTION**

CONCURRENT EXHIBITION:



3RD AIR-CONDITIONING, REFRIGERATION & VENTILATION EXHIBITION 2024, MALAYSIA

ASEAN's Most Anticipated **ENGINEERING & ACMV & R** Exhibition & Conference

- Mechanical & Electrical
- Civil & Structural
- Air-Conditioning, Mechanical Ventilation & Refrigeration

REGISTER HERE
FOR EXHIBITION VISIT



Engage with nearly
200 leading companies
from **9 countries & regions**



100+ hours of
knowledge sharing
from **120+ speakers**



Featuring new **Live Data Centre Infrastructure & Cleanroom Showcase**



Earn more than
30 BEM CPD Hours

www.ENGINEERMALAYSIA.com.my

Supported By :



Endorsed By:



Joint Organiser
for ENGINEER:



Joint Organiser
for MARVEX:



Joint Organiser:



CAAM Part 147 MTO Category B Students: New Era in Professional Development



For the first time in the history of Civil Aviation Authority of Malaysia (CAAM) Part 147 Maintenance Training Organisation (MTO) in Malaysia, students enrolled in the category B courses have a new, golden opportunity. They can now join the Institution of Engineers, Malaysia (IEM) as student members, marking a significant milestone in their professional journey.

This eligibility is not just a formality; it's the gateway to a plethora of benefits that can shape the careers of budding engineers. As part of IEM, they will be welcomed into a community that values professional development and offers a pathway to progression that is both structured and supportive.

Membership with IEM provides access to resources that are invaluable in letting them stay abreast with the latest industry trends and technological advancements. Workshops, seminars and conferences become avenues for learning and networking, connecting the students with seasoned professionals and industry leaders.

Moreover, this membership also paves the way for mentorship opportunities where experienced engineers will help guide students through the complexities of the field. It's an exchange of knowledge and skills which can enrich the learning experience beyond the classroom.

The professional pathway progression offered by IEM is designed to help students achieve their aspirations. Whether it's attaining professional certification status or climbing the career ladder, IEM supports its members in different facets. It recognises the importance of nurturing the next generation of engineers who will continue to push the boundaries of aviation maintenance technology.

For CAAM Part 147 MTO category B students, this is more than just an addition to their resume; it's an invitation to be part of a legacy of excellence in engineering. It's an acknowledgment that they are not just students but are also future innovators and leaders in aviation engineering and maintenance.

As we witness this historic moment, it's clear that the future will be bright for these students. The collaboration between CAAM Part 147 MTO and IEM is testament to their

commitment to foster talent and to ensure that Malaysia continues to be at the forefront of aviation engineering.

In conclusion, the eligibility of CAAM Part 147 MTO students to join IEM as student members is a transformative development. It opens doors to professional growth and sets them on a path filled with opportunities for success. It's an exciting time for aviation maintenance training in Malaysia and we look forward to seeing the heights these students will soar to as IEM members. ■



Meeting between IEM and APR Resources to discuss MoU to promote CAAM Part 145 MTO student membership drive

Prepared by:



Ir. Ricky Liew Chee Leong

Upcoming Activities

Webinar Talk on "How STEM Education to Youngsters Create Better Engineers?"

Date	: 26 September 2024 (Thursday)
Time	: 3.00 p.m. - 5.00 p.m.
Venue	: Digital Platform
Approved CPD	: 2
Speakers	: Ir. Hor Kok Luen : Mr. Lim Zhi Hao

Webinar Talk on "Sustainable Energy Project from Equity & Inclusion Perspective in ESG and SDG Environment"

Date	: 28 September 2024 (Saturday)
Time	: 9.00 a.m. - 11.00 a.m.
Venue	: Digital Platform
Approved CPD	: 2
Speaker	: Ir. Noor Iziddin Abdullah Ghazali



Held Concurrently With:



18 > 21
SEPT 2024
10AM > 6PM

KLCC
KL CONVENTION
CENTRE, MALAYSIA

ADVANCING THE INDUSTRY THROUGH ESG

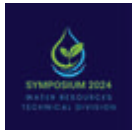
Symposiums and Forum



ASEAN
Electrotechnical
Symposium



Mechanical
Engineering
Symposium



Water Resources
Symposium



Women Engineers
IEM Conference



MALAYSIA'S LARGEST ENGINEERING SYMPOSIUM & CONFERENCES

Concurrent Conferences:



- ✓ Featuring 40 local & international visionary speakers
- ✓ 20 Engaging topics
- ✓ Future forward ESG-themed subjects
- ✓ Thought-provoking discussions and updates on critical issues and industry policies
- ✓ Held concurrently at ENGINEER 2024, the region must-attend exhibition for Engineering and Air-Conditioning, Mechanical Ventilation & Refrigeration

Interested to join as a symposium delegate or sponsor?
Kindly get in touch with the **IEM Representative:**

✉ convention@iem.org.my
☎ +603-7890 0133 [Pn. Roselein]

Educational Trip to Melbourne

On a trip to Monash University near Melbourne in the state of Victoria, Australia, in 2023, I took the opportunity to visit some tourist sites there. Melbourne is a well-designed and well-maintained city with an efficient urban transport system comprising buses and trams.

My family and I found it easy to get around and we eventually arrived at the Victoria State Library which had a splendid neoclassical architectural façade. There were many rooms and halls but we only had time to wander through 3 areas: The Quad, the La Trobe Reading Room and the Redmond Barry Reading Room. It was a sanctuary for those craving intellectual pursuits or who just wanted to spend the time alone with their thoughts. One could easily spend a whole day there.

The next day, we decided to take a walk to Brighton Beach. Although it was June and the weather was cold and slightly windy, we had a pleasant walk along the beach. The huge attraction here were the Brighton Bathing Boxes which were



The famous Brighton Bathing Boxes

built originally in the 1860s, primarily for beach goers to use as changing rooms. Today, they are listed as a heritage feature in Victoria and there are a total of 93 beach boxes painted in pretty colours lined up along the beach.

On the third day, we headed for Monash University, 25km from where we were staying in the Melbourne Central Business District. The campus area had an interesting mix of old and contemporary engineering and architectural structures.

One such structural system that caught my eye was a flat slab with a mushrooming drop panel which is not commonly found in modern structural engineering designs.

As we walked around the campus grounds, I saw a banner that



Ir. Faizal A. Sanusi

He has served the Project Management Technical Division in IEM since 2005, including as its Chairman in 2012.

provided information on a bridge that had collapsed, the Westgate Bridge. Work on the bridge started in 1968 but it collapsed in 1970, killing 35 men. It finally opened in 1978.

Engineering staff members from Monash University were involved in the royal commission to uncover the cause of the disaster and to learn from it to prevent similar mishaps in the future. What they eventually discovered was that the bridge had collapsed due to an attempt to correct a vertical misalignment of 110mm between two halves of a bridge span. The attempt to correct the camber involved loading the higher half of the span with 80 tonnes of concrete blocks to reduce the misalignment and removing bolts which eventually propagated structural buckling of the steel elements and led to the tragedy. Some other sources which documented the disaster made references to poor project management practices between the designer and the constructor of the bridge. ■



Victoria State Library



Poster with information on the Westgate Bridge Collapse

Temuduga Profesional

Tarikh: 22 Ogos 2024

Kepada Semua Ahli,

SENARAI CALON-CALON YANG LAYAK MENDUDUKI
TEMUDUGA PROFESIONAL TAHUN 2024

Berikut adalah senarai calon yang layak untuk menduduki Temuduga Profesional bagi tahun 2024.

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 2024.

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.

Ir. Prof. Dr Tan Chee Fai
Setiausaha Kehormat, IEM

PERMOHONAN BARU

Nama	Kelayakan
KEJURUTERAAN ELEKTRIK	
WINCHES MAXIMILLIAN BIN SAMUEL	BE (UMS) (ELECTRICAL & ELECTRONICS, 2009)

KEJURUTERAAN KIMIA

NURZUREEN BTE AMIHABIL	BE (UITM) (CHEMICAL, 2013)
CHANG JANG SEN	BE HONS (UCSI) (CHEMICAL, 2025) PhD (MONASH) (2020)

PERMOHONAN MENJADI AHLI KORPORAT

Nama	Kelayakan
KEJURUTERAAN AWAM	
MUHAMAD AZLY BIN ABDUL AZIZ	BE HONS (UM) (CIVIL, 2006)

KEJURUTERAAN ELEKTRIKAL

HAFAZA BT YOB	BE HONS (UTM) (ELECTRICAL, 2001)
---------------	----------------------------------

PERPINDAHAN AHLI

No. Ahli	Nama	Kelayakan
KEJURUTERAAN AWAM		
125717	CHIENG SIONG MING	BE (UNIMAS) (CIVIL, 2003)
71969	LEE JIA RONG	BE (UTP) (CIVIL, 2018)
66090	LUM SHEE NGAI	BE (TASMANIA) (CIVIL, 2005)
107637	TAN WENG SOON	BE HONS (USM) (CIVIL, 2000)
108286	WONG YEW SHAN	BE HONS (SWINBURNE) (CIVIL, 2012)
108442	YEK NAI CHUANG	BE HONS (UTM) (CIVIL, 2011)
29679	MUHAMMAD SAFWAN BIN SHIKH ANUAR	BE HONS (UTHM) (CIVIL, 2006)
26882	NORZILAILI BINTI ZAKARIA	BE HONS (UITM) (CIVIL, 2021)

KEJURUTERAAN ELEKTRIKAL

108446	HEMA CHANDRAN A/L JAYASEELAN	BE HONS (UKM) (ELECTRICAL & ELECTRONICS, 2017)
105615	LIM MUN SIENG	MENG (HONS) ELECTRICAL & ELECTRONIC (ENGINEERING)
87066	THA KHING SHUM	ME HONS (NOTTINGHAM) (ELECTRICAL & ELECTRONIC, 2014)

KEJURUTERAAN MEKANIKA

126101	SOH SHANG QUAN	BE HONS (NEWCASTLE) (MECHANICAL, 2013)
116679	SHAHIRIL BIN ABD RASID	BE HONS (UTM) (MECHANICAL, 2002)
115261	YUSDI BIN YUSUF	BE HONS (UTHM) (MECHANICAL, 2013)
39417	MUHAMMAD AUF ASYRAF BIN RAHMAT	BE HONS (UITM) (MECHANICAL, 2013) MSc HONS (UTM) (MECHANICAL, 2023)

KEJURUTERAAN KIMIA

42768	ALIF AZWAN BIN ABDUL WAHAB	BE HONS (UITM) (CHEMICAL, 2010) MSc (UITM) (CHEMICAL, 2017)
-------	----------------------------	--

PERPINDAHAN MENJADI AHLI KORPORAT

No. Ahli	Nama	Kelayakan
KEJURUTERAAN AWAM		
89608	MOHAMAD AIDIL BIN ABD KASSIM	BE HONS (UMP) (CIVIL, 2015)

KEJURUTERAAN MEKANIKA

115987	AHMAD EXSAN BIN OTHMAN	BE HONS (UTP) (MECHANICAL, 2008)
--------	------------------------	----------------------------------

KEJURUTERAAN ELEKTRIKAL

111582	AHMAD AMINULAH BIN SHAMSUDIN	BE HONS (UITM) (ELECTRICAL, 2014)
--------	------------------------------	-----------------------------------

KEJURUTERAAN MARIN

10767	AHMAD SABIRIN BIN ARSHAD	BSc (CALIFORNIA OF SCIENCE) (MARINE, 1986) ME HONS (UM) (ENGINEERING, 1990) PhD (CARDIFF) (1994)
-------	--------------------------	--

KEJURUTERAAN PEMBUATAN

54576	YEW MING KUN	BE HONS (UM) (MANUFACTURING, 2008) ME HONS (UM) (SCIENCE, 2012) PhD (UM) (2015)
-------	--------------	---

Pengumuman
yang ke-190

SENARAI PENDERMA KEPADA WISMA DANA BANGUNAN IEM

Institusi mengucapkan terima kasih kepada semua yang telah memberikan sumbangan kepada tabung Bangunan Wisma IEM. Ahli-ahli IEM dan pembaca yang ingin memberikan sumbangan boleh berbuat demikian dengan memuat turun borang di laman web IEM <http://myiem.org.my> atau menghubungi sekretariat di +603-7890 0130 / 136 untuk maklumat lanjut. Senarai penyumbang untuk bulan Julai 2024 adalah seperti jadual di bawah:

No.	No. Ahli	Nama
1	14432	Mr. Zulkifly bin Yusof
2	21285	Ir. Ng Weng Liang
3	77953	Sdr. Yeong Chian Fuong
4	13551	Ir. Abdullah Halim bin Jamaluddin
5	13295	Ir. Teh Han Heng
6	43906	Mr. Che Fisol bin Abdul Hamid
7	14337	Ms. Lim Yuek Luh
8	55019	Sdri. Siti Halimah binti Nordin
9	25658	Mr. Liew Voon Hing
10	15362	Mr. Yu Kiang Hock

NOTICE OF NOMINATIONS FOR ELECTION TO FILL
VACANCIES FOR THE COUNCIL SESSION 2025/2026

The IEM Council at its 442nd meeting on 15 July 2024 had decided to fill Council vacancies for the Session 2025/2026 in accordance with Article 5.2 of the Constitution. An election programme had also been approved by the Council for implementation.

The following Council vacancies will arise for Session 2025/2026 as a result of Council members retiring at the end of Session 2024/2025.

Office	No of Vacancies	Term of Office
Vice President	Four (4)	2 sessions (2025/2026 and 2026/2027)
Honorary Secretary	One (1)	1 session (2025/2026)
Honorary Treasurer	One (1)	1 session (2025/2026)
Council Member – Other Discipline	One (1)	3 sessions (2025/2026, 2026/2027 and 2027/2028)
Council Member – Ordinary Representative	Ten (10)	3 sessions (2025/2026, 2026/2027 and 2027/2028)

Notice inviting nominations for the Election of Council Member for Session 2025/2026 will be posted on the IEM Notice Board and on the website on **1 November 2024** for the information of all Corporate Members.

Nomination Forms may be obtained at the IEM Secretariat or downloaded from the IEM website www.myiem.org.my on and after 1 November 2024.

All Nomination forms, duly completed, shall be sent in a sealed envelope marked **“Confidential: Nomination Paper for Session 2025/2026”** to:

The Honorary Secretary
The Institution of Engineers, Malaysia
Bangunan Ingenieur, Lots 60/62, Jalan 52/4
P.O. Box 223 (Jalan Sultan)
46720 Petaling Jaya, Selangor Darul Ehsan
Tel: 03-79684001/2

and to reach her not later than 12.00 noon on **Saturday, 7 December 2024.**

Dato' Paduka Ir. Hj. Keizrul bin Abdullah
Election Officer 2024/2025

CONTINUATION FROM
AUGUST 2024 ISSUE

PERMINDAHAN KEPADA AHLI SISWAZAH

No. Ahli	Nama	Kelayakan
KEJURUTERAAN MEKANIKAL		
102083	PRASATH REUBEN MATHEW	BE HONS (SEGI) (MECHANICAL, 2022) BE HONS (UCLAN) (MECHANICAL, 2022)
115794	TNEH XUAN	BE HONS (UNI. of SUNDERLAND) (MECHANICAL, 2022) ME (UTAR) (MECHANICAL, 2023)

KEJURUTERAAN MEKATRONIK

80442	LEE WEN YAN	BE HONS (A.P.U) (MECHATRONICS, 2019)
107683	POY YI LER	BE HONS (UTAR) (MECHATRONICS, 2023)
107679	TAN XUAN QING	BE HONS (UTAR) (MECHATRONICS, 2023)
42591	TEOH DE ZHI, VICTOR	BE HONS (USM) (MECHATRONIC, 2014)

KEJURUTERAAN SUMBER MINERAL

24644	ASMALINA BINTI MOHAMED SAAT	BE (USM) (MINERAL RESOURCES., 2005) ME (USM) (MATERIALS ENG., 2006) PhD (UM) (MINERAL RESOURCES, 2016)
-------	-----------------------------	--

KEJURUTERAAN PETROLEUM

51371	LEE SHAU MENG	BE HONS (UTP) (PETROLEUM, 2015)
-------	---------------	---------------------------------

PERMOHONAN MENJADI AHLI SISWAZAH

No. Ahli	Nama	Kelayakan
KEJURUTERAAN AGRIKULTURAL		
123640	NURSHAZREEN ALYA BINTI JAMSARI	BE HONS (UPM) (AGRICULTURAL & BIOSYSTEMS, 2018)

KEJURUTERAAN BIOPERUBATAN

123255	JOSEPH LIM YI JIE	BE HONS (UTAR) (BIO-MEDICAL, 2023)
123239	SAW KAI LI	BE HONS (UTAR) (BIO-MEDICAL, 2023)

KEJURUTERAAN KIMIA

123271	BELTON NGAN CHING HUNG	BE HONS (UTAR) (CHEMICAL, 2023)
123270	CAROL LEE	BE HONS (UTAR) (CHEMICAL, 2023)
123267	CHAN SEE YI	BE HONS (UTAR) (CHEMICAL, 2023)
122809	CHIN LI MIN	BE HONS (CURTIN UNI.) (CHEMICAL, 2021)
123263	CHRISTOPHER SOH CHUN MIN	BE HONS (UTAR) (CHEMICAL, 2023)
123261	EILEEN KI LI SZE	BE HONS (UTAR) (CHEMICAL, 2023)
122830	GUHEN RAJ RAJANDRAN	BE HONS (TAYLOR'S UNI.) (CHEMICAL, 2017)
123293	HAHJAY KUMAR A/L SELVA KUMAR	BE HONS (SEGI UNI.) (CHEMICAL, 2022)
122779	HOR KHOON FOONG	BE HONS (UTAR) (CHEMICAL, 2021)
123257	JOANNE LING SOON NING	BE HONS (UTAR) (CHEMICAL, 2023)
123254	KEK MING XUAN	BE HONS (UTAR) (CHEMICAL, 2023)
123253	LEE XUE LI	BE HONS (UTAR) (CHEMICAL, 2023)
123252	LEE YEE SIN	BE HONS (UTAR) (CHEMICAL, 2023)
122800	MARIANAH BINTI TAIB	BE HONS (UMS) (CHEMICAL, 2018)
122834	MOHAMMAD HAFIZ BIN MOHD ZABIDI	BE HONS (UniMAP) (BIOPROCESS ENG., 2017)
123245	MOK JEN SHEN	BE HONS (UTAR) (CHEMICAL, 2023)
122817	NORAINI BINTI MOHD	BE HONS (USM) (CHEMICAL, 2010) MSc (USM) (CHEMICAL, 2014) PhD (CURTIN UNI.) (CHEMICAL, 2018)
123303	NUR IYLIANA MUSTAPHA	BE HONS (UITM) (CHEMICAL, 2011)
123284	NURKUNASEGRI DEVI NURKUNASEGRAN	BE HONS (UTP) (CHEMICAL, 2013) MSc (UM) (CHEMICAL, 2022)
123242	ONG HUEE PIN	BE HONS (UTAR) (CHEMICAL, 2023)
123287	SITI SURAYA DOLAH	BE HONS (UM) (CHEMICAL, 2003)
123237	TAI YONG HONG	BE HONS (UTAR) (CHEMICAL, 2023)
122814	TEE WEI FAI	BE HONS (MONASH UNI.) (CHEMICAL, 2022)
123234	TEO HSIN HANG	BE HONS (UTAR) (CHEMICAL, 2023)
123233	THAM KE YUAN	BE HONS (UTAR) (CHEMICAL, 2023)

123232	TIEN HUI XIAN	BE HONS (UTAR) (CHEMICAL, 2023)
123231	TING LEE LEE	BE HONS (UTAR) (CHEMICAL, 2023)
122836	WONG LI YAA	ME HONS (UNI. of BIRMINGHAM) (CHEMICAL, 2016)
123647	AHMAD FAIZ BIN ABDUL MALEK	BE HONS (UMP) (CHEMICAL, 2022)
123654	RAMAN A/L VENKATACHALAM	BE HONS (UCSI) (CHEMICAL, 2021)
123649	YAP FU SENG	BE HONS (UTAR) (CHEMICAL, 2017)

KEJURUTERAAN AWAM

123273	AARON OON	BE HONS (UTAR) (CIVIL, 2023)
123644	AHMAD RAZIN BIN IZUDDIN	BE HONS (UITM) (CIVIL, 2021)
122824	AININ SOFEA BINTI MD YAASIN	BE HONS (UPM) (CIVIL, 2022)
122831	ALFRED CHUA CHENG YEE	BE HONS (SWINBURNE UNI. of TECH.) (CIVIL, 2020)
123283	AMIN SIM ENG YONG	BE HONS (SWINBURNE UNI. of TECH.) (CIVIL, 2020)
122802	ANDREA ANAK SOW	BE HONS (UNIMAS) (CIVIL, 2013)
123052	AW TING HUI	BE HONS (UM) (CIVIL, 2022)
123274	BASYID HAMID	BE HONS (UMS) (CIVIL, 2009)
123277	BONG PAUL CENG	BE HONS (SWINBURNE UNI. of TECH.) (CIVIL, 2017)
122808	CARWEN WONG KAH VUN	BE HONS (MONASH UNI.) (CIVIL, 2021)
123269	CHAI HAO CHENG	BE HONS (UTAR) (CIVIL, 2023)
122772	CHAI SHI WEN	BE HONS (CURTIN UNI.) (CIVIL & CONSTRUCTION ENG., 2019)
123266	CHANG JIAH HUA	BE HONS (UTAR) (CIVIL, 2023)
123265	CHEAH QI YUN	BE HONS (UTAR) (CIVIL, 2023)
122807	CHIN TZE MING	BE HONS (UM) (CIVIL, 2019)
122812	CHONG CHEN SENG	BE HONS (CURTIN UNI.) (CIVIL & CONSTRUCTION ENG., 2018)
123222	CLEMENT CHU JIA HE	BE HONS (CURTIN UNI.) (CIVIL & CONSTRUCTION, 2021)
123641	Dr. LING CHIE HUI, PHILIP	BE HONS (UTM) (CIVIL, 2016) PhD (UTM) (CIVIL, 2022)
123260	ERIC LEE CHEN YII	BE HONS (UTAR) (CIVIL, 2023)
123288	FARHANAH BINTI JULIAHI	BE HONS (UITM) (CIVIL, 2012) ME (UNIMAS) (CIVIL, 2016)
123258	GOH QING YAN	BE HONS (UTAR) (CIVIL, 2023)
123653	GOH SHEN HONG	B.TECH HONS (UTHM) (CIVIL (ENVIRONMENT), 2020) ME (UKM) (CIVIL, 2022)
123295	HOO YI ZHI	BE HONS (UM) (CIVIL, 2019)
123220	IBNOR HARIZ BIN IBRAHIM	BE HONS (UITM) (CIVIL - INFRASTRUCTURE, 2021)
122823	IZZUAN IMAN BIN ZULKIFLI	BE HONS (UM) (CIVIL, 2022)
123223	KOAY CHIN KUAN	BE HONS (UTAR) (CIVIL, 2020)
123636	LAU JIA SHEN	BE HONS (UTP) (CIVIL, 2020) MSc (USM) (STRUCTURAL, 2021)
123302	LEE HANG YONG	BE HONS (UTAR) (CIVIL, 2022)
123053	LIM WAN SIN	BE HONS (UM) (CIVIL, 2021)
123631	LIM WEI YEE	BSc HONS (IOWA STATE) (CIVIL, 2015)
123638	LINDA PILIK	BE HONS (UKM) (CIVIL & ENVIRONMENTAL, 2005)
123249	LING TECK LONG	BE HONS (UTAR) (CIVIL, 2023)
123651	MALIK FAHAD	BSc BE HONS (SWINBURNE) (CIVIL, 2020)
122803	MOHAMMAD DANIAL FARHAN BIN MOHAMAD ARES	BE HONS (USM) (CIVIL, 2022)
123624	MOHD AZRAN BIN UDDIN	BE HONS (UITM) (CIVIL, 2022)
122828	MOHD FAIZ BIN ZAKARIA	BE HONS (UITM) (CIVIL, 2014)
123276	MOHD SHAH NOR AFENDI BIN BORHAN	BE HONS (UTM) (CIVIL, 2021)
122833	MOHD SYUJAIIRI BIN HASHIM	BE HONS (UTM) (CIVIL, 2021)
123244	MOO PUJ YEE	BE HONS (UTAR) (CIVIL, 2023)
123296	MUHAMAD IZZAT SABIQ BIN HAMSAN	BE HONS (IUKL) (CIVIL, 2020)
122801	MUHAMAD SYAHMI BIN ZULKARNAINI	BE HONS (UTM) (CIVIL, 2018)
122825	MUHAMMAD HAIKAL BIN TAUFIK	BE HONS (UM) (CIVIL, 2022)
123297	MURNI BINTI TABID	BE HONS (UTM) (CIVIL, 2021)
123221	NG PENG WU	BE HONS (UTAR) (CIVIL, 2023)
123243	NG WAN WIN	BE HONS (UTAR) (CIVIL, 2023)
123646	NORHAIZA SUZIRAH BINTI RAHIMAN	BE HONS (UMS) (CIVIL, 2017)
122796	NUR ATIKAH BINTI AHMAD LATIFFI	BE HONS (UITM) (CIVIL, 2010) MSc (UITM) (CIVIL, 2012) PhD (UTHM) (CIVIL, 2018)
122810	NUR BAIZURA TALIF	BE HONS (SWINBURNE UNI. of TECH. SARAWAK) (CIVIL, 2023)
123045	NUR FADHILAH BINTI ADNAN	BE HONS (UTHM) (CIVIL, 2010) ME (UTHM) (CIVIL, 2012)
123298	NUR FATHIN NABILAH BINTI MAZELAN	BE HONS (UITM) (CIVIL - INFRASTRUCTURE, 2021)
121923	NUR SYAZA ILYANA BINTI MAHATHIR	BE HONS (UITM) (CIVIL, 2023)
123289	NURUL FARHANA BINTI SA'FALI	BE HONS (UITM) (CIVIL, 2021)
123286	ONG BEE POH	BE TECH HONS (UniMAP) (CIVIL, 2019) ME (UTM) (STRUCTURE, 2022)
122797	RAPHAEL KENNETH LO KA KIONG	BE HONS (UPM) (CIVIL, 2017)

123050	RICHARD LIM CHEE KIONG	BE HONS (UNIMAS) (CIVIL, 2022)
123240	SAU JIUH YONG	BE HONS (UTAR) (CIVIL, 2023)
122805	SHAFIRA MAYFARDA WAHID	BE HONS (UMS) (CIVIL, 2020)
123044	SHARIF MOHAMED MOHSIN BIN MOHAMED ASHRAF	BE HONS (UNITEN) (CIVIL, 2018)
123238	SIOW HWA JIAN	BE HONS (UTAR) (CIVIL, 2023)
122724	SURESH ARUNAGIRI	BE HONS (UM) (CIVIL, 1996)
123009	TAN BOON YAW	BE HONS (UM) (CIVIL, 2021)
123054	TAN HONG YEE	BE HONS (UM) (CIVIL, 2020)
123043	TAN KAI CHE	BE HONS (MONASH UNI.) (CIVIL, 2023)
123235	TAN XUE JUN	BE HONS (UTAR) (CIVIL, 2023)
122811	VISBAM KANAGARAJOO	BE HONS (INFRASTRUCTURE UNI.) (CIVIL, 2022)
123229	WONG WAI KIT	BE HONS (UTAR) (CIVIL, 2023)
123228	WONG WAI YIK	BE HONS (UTAR) (CIVIL, 2023)
123294	WONG WEI JIE	BE HONS (MONASH UNI.) (CIVIL, 2022)
123292	YAP SHEIN HONG	BE HONS (ROYAL MELBOURNE INST. of TECH.) (CIVIL & INFRASTRUCTURE, 2015)
122818	YEO CHIN YAP	BE HONS (UTP) (CIVIL, 2013)
123643	ZARA ELENA SHARON BINTI LAH	BE HONS (UITM) (CIVIL, 2012)
123629	KUMAR C THANABALAN	BE HONS (UTM) (CIVIL, 2002)

KEJURUTERAAN ELEKTRIKAL

123224	ASYRAF BIN ANUAR AFANDI	BE HONS (UM) (ELECTRICAL, 2018)
123268	CHAN JIA CHING	BE HONS (UTAR) (ELECTRICAL, 2023)
123648	CHAN JOE WIN	BE HONS (UTAR) (ELECTRICAL AND ELECTRONIC, 2022)
122819	CHARLENE PRIMUS	BE HONS (UNITEN) (ELECTRICAL POWER ENG., 2019)
122793	CHIN JING EN	BE HONS (UCSI UNI.) (ELECTRICAL & ELECTRONIC, 2022)
122835	CHNG CHEE KOK	BE HONS (AIMST UNI.) (ELECTRICAL & ELECTRONIC ENG., 2018)
123634	GEOFFREY TAN KAY MENG	BE HONS (SWINBURNE) (ELECTRICAL & ELECTRONIC, 2022)
122178	GO DAT LIM	ME HONS (THE UNI. of NOTTINGHAM) (ELECTRICAL & ELECTRONIC, 2022)
122822	IKHWAN HAKIM BIN WABISNA	BE HONS (UNITEN) (ELECTRICAL POWER ENG., 2017)
122829	ISRA ABBASI	BE HONS (UTP) (ELECTRICAL & ELECTRONIC, 2015) MSc (UTP) (SYSTEM ELECTRONIC, 2015)
123218	JALIL NOR IQBAL BIN JALARLUDIN	BE HONS (UNITEN) (ELECTRICAL, 2018)
123633	KEERTHAN UTHAYASURIAN	BE HONS (UNIMAP) (ELECTRICAL, 2022)
123247	LOUIS TANG JIA JUN	BE HONS (UTAR) (ELECTRICAL, 2023)
123246	LOW WENG HONG	BE HONS (UTAR) (ELECTRICAL, 2023)
122832	MOHAMAD AMIRUL ADLI BIN ABD WAHAB	BE HONS (UNITEN) (ELECTRICAL POWER ENG., 2022)
123642	MOHAMAD AMMAR BIN MAT DAUD	BE HONS (UNITEN) (ELECTRICAL POWER, 2016)
122798	MUHAMMAD MARZUKI BIN ROSTAM	BE HONS (UNITEN) (ELECTRICAL POWER ENG., 2017)
122813	MUHAMMAD ZAKUAN BIN NOR AZLAN	BE HONS (UNIKL) (ELECTRICAL, 2021)
123645	NG KONG TAI	BE HONS (MONASH) (ELECTRICAL & COMPUTER SYSTEMS, 2007)
123290	NOORASITA BT ISMAIL	BE HONS (UTP) (ELECTRICAL & ELECTRONICS, 2004)
123280	NOR IZZATI BINTI HASSIN	BE HONS (UITM) (ELECTRICAL, 2016)
123291	NORSALIZAWATI BINTI HASHIMAWI @ YUSOF	BE HONS (UNITEN) (ELECTRICAL & ELECTRONICS, 2005)
123301	NURSAIFUL AZIZAD BIN MOHD ZAIN	BE HONS (UTM) (ELECTRICAL, 2022)
123046	REVINNATH A/L TENGGA DARAM	BE HONS (UTeM) (ELECTRICAL - INDUSTRIAL POWER, 2013)
123236	TAN HAO ZHE	BE HONS (UTAR) (ELECTRICAL, 2023)
123230	WONG JING TIAN	BE HONS (UTAR) (ELECTRICAL, 2023)
122870	WONG LIN YONG	BE HONS (UTP) (ELECTRICAL & ELECTRONICS, 2022)
123225	YONG YUAN LONG	BE HONS (UTAR) (ELECTRICAL, 2023)

KEJURUTERAAN ELEKTRONIK

123625	AHMAD TAUFIQ BIN MOHAMAD	ME (ESIEE) (TELECOMMUNICATIONS & SIGNAL PROCESSING, ST. 2010)
123632	CHAN HUEY YI, TIFFANY	ME HONS (BRISTOL) (ELECTRICAL & ELECTRONIC, 2015)

Keahlian

123299	CHEN CHAI PHING	BE HONS (MMU) (ELECTRONIC - ROBOTICS & AUTOMATION, 2007) PhD (UNITEN) (ELECTRONIC, 2019)
123259	GAM WEI XIAN	BE HONS (UTAR) (ELECTRONIC - COMPUTER NETWORKING, 2023)
122794	MAK CHUN HOE	BE HONS (MMU) (ELECTRONIC, 2016)
123281	MUHAMMAD FADHIL IZRAN BIN MOHD ISHAK	BE HONS (UTM) (ELECTRICAL - TELECOMMUNICATION, 2016)
123639	NASHRUL HAZIQ BIN RAMLI	BE HONS (IIUM) (COMMUNICATION, 2020)
123219	RONNIE JOHAN ISWANDY	BE HONS (SWINBURNE UNI. of TECH.) (ELECTRICAL & ELECTRONIC, 2021)

KEJURUTERAAN ALAM SEKITAR

123051	KHOO NEE KAI	BE HONS (TSINGHUA) (CHEMICAL & TECHNOLOGY, 2003)
123628	LIM FONG JUN	BE HONS (UNIMAP) (ENVIRONMENTAL, 2016)

KEJURUTERAAN PEMBUATAN

123275	MUHAMMAD ZUFAR BIN JURUJ	BE HONS (UTeM) (MANUFACTURING - ROBOTICS & AUTOMATION, 2011)
123304	SUMINDER SINGH A/L DALGIT SINGH	BE (UNIVERSITAIRE DE TECHNOLOGIE) (MANUFACTURING, 2018)

KEJURUTERAAN BAHAN

123626	SALEHUDDIN BIN OMAR KAMAL	BE HONS (IIUM) (MATERIALS, 2013)
--------	---------------------------	----------------------------------

KEJURUTERAAN MEKANIKAL

123264	CHEW ZEN WEI	BE HONS (UTAR) (MECHANICAL, 2023)
122725	CHI JIA MIN	BE HONS (UCSI UNI.) (MECHANICAL, 2021)
122827	CHONG YUAN SHING	BE HONS (TSINGHUA UNI.) (MECHANICAL, 2021) MSc (MONASH UNI.) (APPLIED ENG., 2023)
122177	CINDY OOI BEE AI	BE HONS (MMU) (MECHANICAL, 2018)
122804	DANIEL KONG LEN HAO	BE HONS (MONASH UNI.) (MECHANICAL, 2023)
123278	FATIMAH BINTI DZAHARUDIN	BE HONS (THE UNI. of MELBOURNE) (MECHANICAL, 2008) PhD (THE UNI. of MELBOURNE) (MECHANICAL, 2015)
123282	HAIRULNIZAM BIN SHAMSUDDIN	BE HONS (UTM) (MECHANICAL, 2021)
122799	HONG HEE YANG	BE HONS (MMU) (MECHANICAL, 2014)
123650	HUBAEINTHRA SELVADORAI	ME (HERIOT WATT) (MECHANICAL, 2021)
122795	KAMELIA BINTI ABU RAZAK	BE HONS (UTP) (MECHANICAL, 2022)
123250	LIM YOU YI	BE HONS (UTAR) (MECHANICAL, 2023)
123248	LOH KEN TENG	BE HONS (UTAR) (MECHANICAL, 2023)
122815	LOOI WOON WEE	BE HONS (UNI. of LEICESTER) (MECHANICAL, 1996)
123300	LUQMAN BIN AYOB	BE HONS (UITM) (MECHANICAL, 2019)
123637	MUHAMMAD JAZRUL NUR HAFEZ BIN JAZLI	BE HONS (UNITEN) (MECHANICAL, 2020)
123635	NICOLAS IAN RICHARDS	BE HONS (MONASH) (MECHANICAL, 2019)
123279	RAVEEN A/L THIYAGUGOPAL	BE HONS (UNITEN) (MECHANICAL, 2018)
123241	SAM CHEE YANG	BE HONS (UTAR) (MECHANICAL, 2023)
122816	SELVARAJA VERAIAH	BE HONS (UTM) (MECHANICAL, 2021)
123286	TAN JUN YEN	ME HONS (THE UNI. of NOTTINGHAM) (MECHANICAL, 2013)
122806	WAN HARIZ ISKANDAR BIN WAN IZHAN	BE HONS (UNITEN) (MECHANICAL, 2017)
123227	WONG ZONG QI	BE HONS (UTAR) (MECHANICAL, 2023)
122826	YAU WAI KIN	BE HONS (UTAR) (MECHANICAL, 2019)
123226	YEE CAI ZHI	BE HONS (UTAR) (MECHANICAL, 2023)
123652	AHMAD NASRI BIN OTHMAN	BSc HONS (VIRGINIA POLYTECHNIC UNI. & STATE UNI.) (MECHANICAL, 2018)

KEJURUTERAAN MEKATRONIK

123272	ALVIN LIM YI XUAN	BE HONS (UTAR) (MECHATRONICS, 2023)
123262	CHU JIE YONG	BE HONS (UTAR) (MECHATRONICS, 2023)
123256	JONATHAN YEO ING JING	BE HONS (UTAR) (MECHATRONICS, 2023)
123251	LEONG POU YEE	BE HONS (UTAR) (MECHATRONICS, 2023)
122821	MUHAMAD MUAZ BIN ALIM	BE HONS (UMP) (MECHATRONICS, 2017)
123627	TAN XIU QIN	ME HONS (NOTTINGHAM) (MECHATRONIC, 2019)

KEJURUTERAAN NUKLEAR

123630	Dr. MOHD IDZAT BIN IDRIS	BE (KYUSHU) (ENERGY SCIENCE & ENGINEERING, 2011) MSc (UKM) (RADIATION AND NUCLEAR SAFETY, 2012) PhD (TOKYO INST. OF TECH) (NUCLEAR, 2016)
--------	--------------------------	---

PERMOHONAN KEPADA AHLI "ENGINEERING TECHNOLOGIST GRADUATE MEMBER"

No. Ahli	Nama	Kelayakan
123739	SAILESH SINGH RAKHRA	DCAM PART 66 B1 HOLDER

KEJURUTERAAN AWAM

123740	THAM ZHAO LUN	BTECH HONS (UNIMAP) (CIVIL-CONSTRUCTION, 2020)
--------	---------------	--

KEJURUTERAAN ELEKTRIKAL

123049	EROLD JOEL BAEREN	BTECH HONS (MSU) (ELECTRICAL & ELECTRONIC, 2022)
122837	ISMAIL BIN MOHD SOBKI	BTECH HONS (UNIKL-BMI) (ELECTRICAL, 2011)
123741	NUR ZULAICHA BINTI ZAHARI	BTECH HONS (UMP) (ELECTRICAL, 2022)

KEJURUTERAAN INTEGRATED

122838	KARAMJOTT SINGH A/L GURNAM SINGH	BE HONS (KINGSTON UK) (AIRCRAFT ENGINEERING, 2021)
123047	MUHD FARID BIN ZAWAWI	BTECH HONS (UNIKL-MFI) (MECHATRONICS, 2012)
123048	NOOR IDORA BINTI MOHD SUKARNOOR	BACH APPLIED SCIENCE (UMT)(MARITIM TECHNOLOGY, 2012) PhD (UTM) ENGINEERING & ENGINEERING TRADES, 2022)

PERMOHONAN MENJADI AHLI 'INCORPORATED'

No. Ahli	Nama	Kelayakan
123313	ASHOK KUMAR	B.E HONS.(HERIOT-WATT UK) (MECHANICAL, 2023)

PERMINDAHAN KEPADA AHLI "ENGINEERING TECHNOLOGIST GRADUATE MEMBER"

No. Ahli	Nama	Kelayakan
100662	ROSHARIZAL BIN ROSLI	B HONS (UITM) (CONSTRUCTION MGT, 2022)

PERMOHONAN MENJADI AHLI 'ASSOCIATE'

No. Ahli	Nama	Kelayakan
122727	DINESH KUMAR S/O SELVAKKUMARAN	DIP.(POLITEKNIK TUANKU SULTANAH BAHYAH)(CIVIL, 2018)

KEJURUTERAAN MEKANIKAL

122726	ABDUL RAHMAN BIN JULAIHI	DIP.(INT COLLEGE ADVANCE SARAWAK)(MECHANICAL, 2011)
--------	--------------------------	---

PERMOHONAN MENJADI AHLI 'AFFILIATE'

No. Ahli	Nama	Kelayakan
40796	SHRREEFE BIN SIM MEE HUI	BEd (OUM)(ELECTRICAL ENGINEERING, 2022)

ADMISSION TO THE GRADE OF STUDENT MEMBER

No. Ahli	Nama	Universiti
123438	AKMAL MUSTAFA BIN MOHD FUAD	USM
123441	CHUA CHIA YEE	USM
123453	DHARMEHNDRAN A/L NAHENTTA KUMAR	USM
123437	JISHEAN GUALAKRISNAN	USM
123442	KOSHANTHINI A/P CHELLIAH	USM
123435	SHANGGAMITHARA A/P PARAMESWARAN	USM
123434	SRITHAR A/L SHANMUGANATHAN	USM
123436	ZIYYAD IMANHADI BIN YAZID	USM
123439	MOHAMAD AFIF JAZIMIN BIN ROSLI	USM
123440	NATASHA MARK KAR YEE	USM

KEJURUTERAAN BIO-PERUBATAN

122746	NATASYA BINTI ABD JALIL	UM
--------	-------------------------	----

KEJURUTERAAN KIMIA

122842	CHONG CHEE HIN	SUNWAY UNI
122349	GUO YUBEI	XIAMEN
122350	YAN HAO	XIAMEN
123451	AAINAA BINTI ABDUL RAZAK	USM

123471	AFNAN BINTI ADNAN	USM
123454	AHMAD FIKRI BIN AHMAD FAIZ	USM
123450	ANDY STEFANUS CHUK	USM
123447	BEH YAN HENG	USM
122898	CHALLENGES KONG ZHE NEE	SWINBURNE SARAWAK
122892	DELIA CHENG YI SHI	SWINBURNE SARAWAK
123446	FAKHRUL RAZI BIN MOHAMAD KHOIRY	USM
122352	GAN TIAN BAO	XIAMEN
122355	HUANG HUAYI	XIAMEN
123482	KHONG XIN YI	USM
122351	KOOK MING-JO	XIAMEN
123466	LEE KAI YEE	USM
122869	LOGESH SANKARNARAYANAN THIYAGATHURAIVAN	SUNWAY UNI
123448	LU MEE CHUEN	USM
123473	MOHAMAD FARIS FIRDAUS BIN AZMAN	USM
123462	MUHAMMAD AZHAD RASHDAN BIN ROSLI	USM
123449	MUHAMMAD ISLAH BIN SARUJI	USM
123461	NUR AYUNI BINTI MOKHTAR	USM
123460	NUR EDRYANA EZZATY BINTI MUHAMMAD KAMAL	USM
123472	NUR SYAFIQAH BINTI ZULKEFLI	USM
123463	NUR SYIFA BINTI ZAIDI	USM
123467	NURRUL SYAHIRAH BINTI MOHAMAD TARMIZI	USM
122840	POON SHU TING	SUNWAY UNI
123464	SARANYAH A/P SADIRYAN	USM
123457	SITI NOR ATIRAH BT AZMI	USM
123445	SITI NUR AISHAH BINTI MOHD SUFRI	USM
123465	SYAZA NASRIN ALIAH BINTI MOHD ZAMRI	USM
122859	TAN YEE HENN	SUNWAY UNI
122854	THAM WING YI	SUNWAY UNI
122851	ADRIAN TAN JIAN SHENG	SUNWAY UNI
123452	AISYAH MAISARA BINTI ROHIZAD	USM
123399	AMYTASHA ANAK CHRISTOPHER	UNIMAS
123400	ANGELINA LYN PANTI ANAK LIUS @ LUIS	UNIMAS
123353	ASHTON MYRON SINGO	UNIMAS
123389	CATHERINA EMILY ANAK JOHANES	UNIMAS
123483	CHAW KE XIN	USM
123483	CHIN YI KAI	USM
122861	CHOO XUAN LIANG	SUNWAY UNI
123385	DANIAL HARIZ BIN HABIRI	UNIMAS
122353	EUNICE TEOH SHU YONG	XIAMEN
123395	FELIX IAN ANAK VINCENT	UNIMAS
123362	FENNESCIA EVIA ANAK WODLES @ WOOLLES	UNIMAS
122357	GAO YAYI	XIAMEN
122985	HO YEE HANG	UNIMAS
123428	HUBERT BELAYONG ANAK HUMPHREY RAYANG	UNIMAS
123382	JANICE LIMAN	UNIMAS
123404	JOSHUA ANYI NGAU	UNIMAS
123360	LAYAU ANAK NGINDANG	UNIMAS
123456	LEE JIA YING	USM
122361	LIEW MUI FUNG	XIAMEN
123458	LIM WEI YUAN	USM
122860	LIM ZHAN HONG	SUNWAY UNI
122744	MOHAMMAD ARIF HAMIZAN BIN RAMLEE	UPM
123470	MUHAMAD AMZAR HADI BIN MOHD RIZAL	USM
123392	MUHAMMAD HAZIQ BIN JUHAIRI	UNIMAS
123378	NOOR FATIN AIN BINTI MUSA	UNIMAS
123384	NUR ATIRAH IZZATI BINTI ABANG MOHAMMAD REDUAN	UNIMAS
123472	NUR SYAMIMI BINTI SYRUL EMERTO	UNIMAS
123371	NURSAIDATUL NAJIAH BINTI SHARIFF	UNIMAS
123348	ROSMINA DIDIK ANAK KILAT	UNIMAS
122856	TAN CHIAO PIN	SUNWAY UNI
122855	TAN JIN SHEN	SUNWAY UNI
122867	TAN XIN MING	SUNWAY UNI
122348	TEH NIAN YAO	XIAMEN
123455	TEO JIN ER	USM
123459	THOMAS KEE LIANG CHIEN	USM
122874	VERON ONG CHIN KHAI	SWINBURNE SARAWAK
122863	YONG KAI YU	SUNWAY UNI
122919	ZAFIRAH BINTI ZAINAL ABIDIN	UNIMAS
122356	ZENG GUIMEI	XIAMEN
123329	ABDUL RAHMAN ABDULLAH	UNIMAS
122853	CHONG LI JIAN	SUNWAY UNI
123420	CLINTON ANAK JINSHAMSUDIN	UNIMAS
121806	FARIDIZZUDDIN BIN ROSLI	UITM SA
122920	FAUSTINA ANAK ANYAI	UNIMAS
121804	HAZIM BIN HARIS	UITM SA
122946	HENG GU JIA	MONASH
123326	IVY TING SHI YING	UNIMAS
122864	LIEW ZHEN GUAN	SUNWAY UNI
123403	MAIZANA AZFARINA AZWA BINTI PAGO	UNIMAS
121799	PUTERI YASMIN BINTI AZNI EFFENDY	UITM SA
122866	SAW CHEE HONG	SUNWAY UNI
122358	SIM JIAN HAO	XIAMEN
123415	VIVIAN ANAK ANDREW	UNIMAS
122862	XAVIER HENRY	SUNWAY UNI
122912	AININ SOFIYA BINTI ABDUL HAMID	SWINBURNE SARAWAK
123314	LEE WEI LUN, DANNY	UNIMAS
122360	LIM KAE TONG	XIAMEN
121841	MUHAMMAD RIDZUAN SHAH BIN SHAHROLNIZAM YUS	UITM SA

Note:

Continuation would be published in October 2024. For the list of approved "ADMISSION TO THE GRADE OF STUDENT", please refer to IEM web portal at <http://www.miem.org.my>.

Subscribe to IEM's Publications Now!

Yes! I would like to be a subscriber of The Institution of Engineers, Malaysia's publications

Name: _____

Mailing Address: _____

Country: _____

Company/Institution: _____

Title: _____

Telephone No: _____ Fax: _____ Email: _____

☐ New Subscriber ☐ Renewal

Please commence my subscription from: _____ (month/year) Signature: _____

To start your subscription of IEM's publications, complete this form and mail it back to the address below. For faster processing, fax it to: +603 7493 1047. Thank you.

What is your primary job title?

- ☐ Corporate Management (including chairman, president, proprietor, partner, director, vice president, general manager, division manager, import/export manager, other corporate title)
- ☐ Management (including project/contract/equipment/service/transport district manager, clerk of works, other technical or operating manager)
- ☐ Engineering/Design (including chief engineer, chief designer, civil/highway/mechanical/planning engineer, other engineering/design title)
- ☐ Buying/Purchasing (including chief buyer, buyer, purchasing officer, other buying/purchasing title)
- ☐ Titles allied to the field (architect, consultant, surveyor, research and development professor, lecturer, supervisor, superintendent, inspector or other allied title)
- ☐ Others (please specify) _____

What type of organisation do you work in? (Tick one box only)

- ☐ Contractor
- ☐ Sub-contractor specialist
- ☐ Design and build contractor
- ☐ Consulting engineering/architectural/quantity surveying practice
- ☐ Mining/quarrying/aggregate production company
- ☐ Petroleum producer
- ☐ International/national authorities
- ☐ National/regional/local government
- ☐ Public utilities (electricity, gas, water, deck and harbour, other)
- ☐ Manufacturer
- ☐ Distributor/importer/agent
- ☐ Construction department of large industrial/Commercial concern
- ☐ Association/education establishment/research
- ☐ Construction equipment hire/rental company
- ☐ Project/construction management consultancy
- ☐ Others (please specify) _____

What are the main activities of your organisation? (Tick all that apply)

- | Constructions of: | Manufacturer of: |
|--|--|
| <input type="checkbox"/> Roads/bridges | <input type="checkbox"/> Construction equipment |
| <input type="checkbox"/> Dams/reservoirs/irrigation | <input type="checkbox"/> Cement |
| <input type="checkbox"/> Harbours/offshore structures | <input type="checkbox"/> Other construction materials |
| <input type="checkbox"/> Foundations/tunnels | <input type="checkbox"/> Distribution |
| <input type="checkbox"/> Pipelines/refineries | <input type="checkbox"/> Construction equipment |
| <input type="checkbox"/> Structures/steel work | <input type="checkbox"/> Construction materials |
| <input type="checkbox"/> Building (commercial, industrial) | <input type="checkbox"/> Hire/rental of construction equipment |
| <input type="checkbox"/> Housing | <input type="checkbox"/> Design |
| <input type="checkbox"/> Construction management | <input type="checkbox"/> Earth-moving/open cast mining |
| <input type="checkbox"/> Deep mining | <input type="checkbox"/> Aggregate production |
| <input type="checkbox"/> Others (Please specify) _____ | |

Rate (Please tick)

- ☐ RM360.00 - 12 issues of JURUTERA
- ☐ RM84.00 - 2 issues IEM Journal (Half-yearly)

Terms and Conditions:

- 1) The subscription is to be prepaid.
- 2) Please make cheque payable to **Dimension Publishing Sdn. Bhd.**
- 3) Subscriptions are not refundable.
- 4) Magazine/s will be sent to the mailing address given.
- 5) Students are entitled for a 20% discount from the above subscription rate.
- 6) Students must submit a photocopy of the student identification card together with the payment.
- 7) The above rate is inclusive of delivery charges and applicable in Malaysia only.
- 8) Additional delivery charges will apply to overseas subscribers.

For subscription enquiries, please contact +603-7493 1049 or email to info@dimensionpublishing.com.



dimensionpublishing
The Choice of Professionals

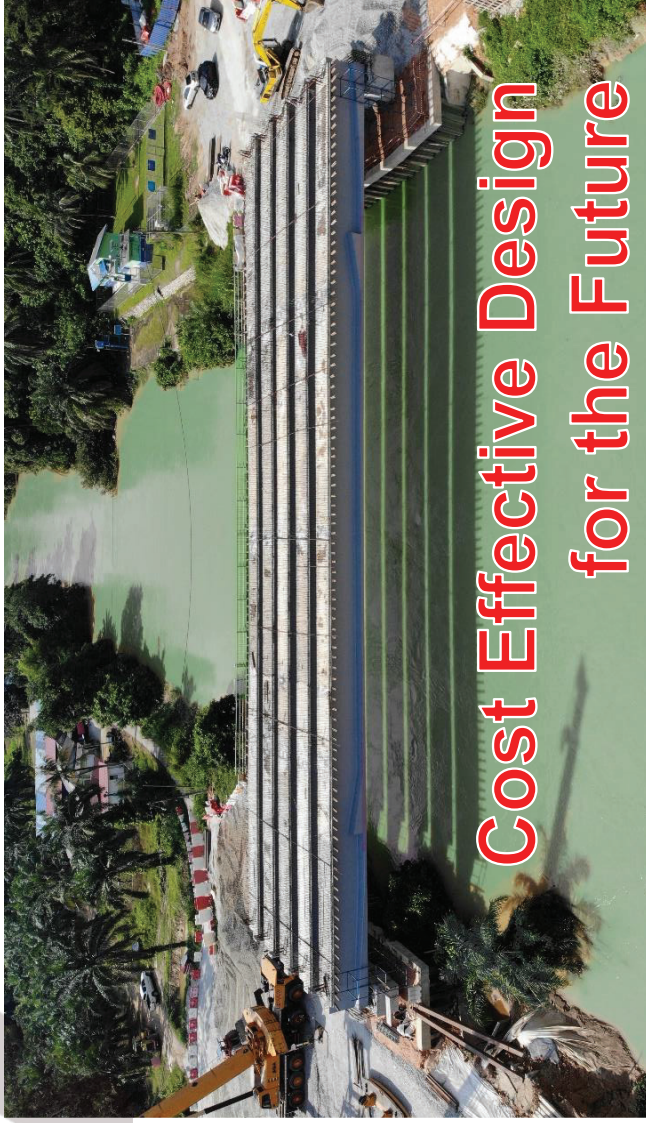
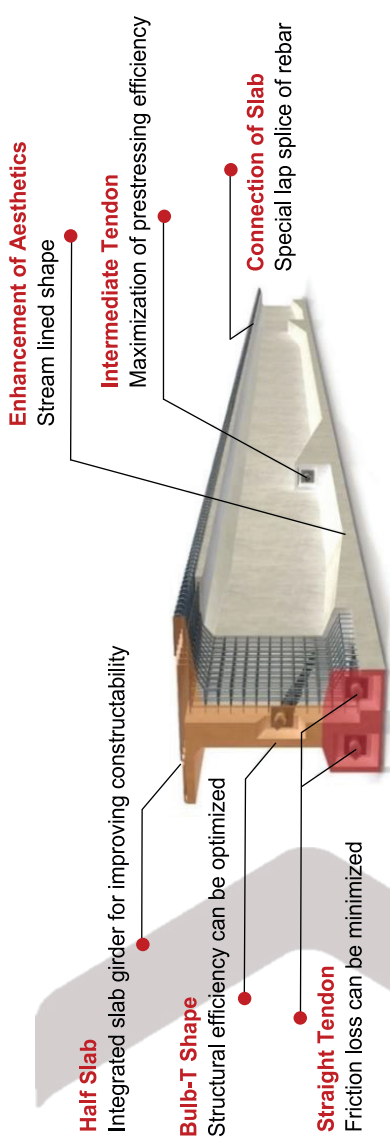
DIMENSION PUBLISHING SDN. BHD. [199701034233 (449732-T)]

Level 18-01, PJX-HM Shah Tower, No. 16A, Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia
Tel +603 7493 1049 Fax +603 7493 1047 Website www.dimensionpublishing.com

Updated May 2018



The **BH Girder** is an innovative and enhanced version of prestressed concrete Girder that utilizes the Bulb-T shape integrated with Half Slab which enables it to be applied over a span of longer than 60m. By adopting the latest cutting-edge technologies and innovation, the BH Girder has been designed to achieve the ultimate goals of **Cost Effectiveness, Rapid Construction, Aesthetics and Safety.**



**Cost Effective Design
for the Future**

Nehemiah
Towoong Bridgetech
Sdn.Bhd.

NEHEMIAH HEAD OFFICE
No. 45-3, Jalan PUJ 5/20, The Strand
Kota Damansara, 47810 Petaling Jaya
Selangor Darul Ehsan
T +603 6142 6638 **F** +603 6142 6693
T +6012 218 6693 (Tan CC)
E enquiry@nehemiah-grp.com
E tancc@nehemiah-grp.com

TOWOONG E&C HEAD OFFICE
#202, KOAST Building, 21-4
Teheran-ro 34 gil. Gangnam-gu
Seoul 06222, Korea
T +82 2 451 5700 **F** +82 2 565 5706
E towoong@hanmail.net

A partnership of
Nehemiah
We Build Integrity
TOWOONG E&C
Towoong Engineering and Construction

