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Institute of Materials, Malaysia

HIGHLIGHT\$

- IMM Yearbook
- IMM Training and Certification Schemes
- The Danger of Wet Insulation and Its Contribution To Corrosion Under Insulation (CUI)
- Fabrication of Cocoa Pod Husk (CPH) and Polyethylene Terephthalate Glycol (PETG) 3D Printing Filaments





Materials Mind		
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COVER STORY		Suite 1006, Level 10, Block A, Kelana Centre Point,
IMM Training and Certification Services	8	No. 3 Jalan SS 7/19, 47301 Petaling Jaya, Selangor. Tel: 03-76611591
IMM YEAR BOOK		03-76611592
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ANNUAL GENERAL MEETING 3:00IRTUAL LIVE EVENT ИАКСН 2023 AGENDA OF THE MEETING **1.ADOPTION OF THE AGENDA** 2. PRESIDENT'S ADDRESS 3. TO APPROVE THE MINUTES OF THE 32ND ANNUAL GENERAL MEETING 4.TO RECEIVE AND ADOPT THE 2022 REPORT OF THE COUNCIL PRESENTED BY THE HONORARY SECRETARY OF IMM 5.TO RECEIVE AND ADOPT THE 2022 STATEMENT OF ACCOUNTS PRESENTED BY THE HONORARY TREASURER OF IMM 6. PROPOSED AMENDMENT TO IMM CONSTITUTION 7. TABLING THE APPOINTMENT OF AUDITOR(S) FOR 2023 BY THE HONORARY TREASURER **OFIMM** 8. ANY OTHER MATTERS

institution in

Materials Science and

Technology.

CLICK HERE TO DOWNLOAD THE REPLY SLIP AND PROXY VOTING FORM

JANUARY 2023 Issue 37



INSTITUTE OF MATERIALS, MALAYSIA

(PPM-004-10-11061987)

TO ALL IMM MEMBERS,

NOTICE OF 33RD ANNUAL GENERAL MEETING

Notice is hereby given that the 33rd Annual General Meeting of the IMM will be held as follows:

Format : Virtual Live Event

Date : 17th March 2023 (Friday)

Time : 3.00 pm - 6.00 pm

AGENDA

- 1. Adoption of the agenda
- 2. President's address
- To approve the minutes of the 32nd Annual General Meeting (*)
- 4. To receive and adopt the 2022 report of the council presented by the Honorary Secretary of IMM (*)
- 5. To receive and adopt the 2022 statement of accounts presented by the Honorary Treasurer of IMM (*)
- 6. Proposed amendment to IMM Constitution (*)
- 7. Tabling the appointment of auditor(s) for 2023 by the Honorary Treasurer of IMM
- 8. Any other matters

(*) can be accessed electronically on IMM website (www.iomm.org.my) after 10th Feb 2023...

By order of the Council, Prof. Ts. ChM. Dr. Melissa Chan Chin Han Honorary Secretary, IMM Date: 2nd January 2023

REPLY SLIP

I hereby confirm that I will be able / not be able* to attend the AGM above.

SIGNATURE: _____

NAME: _____

ORGANIZATION NAME:

MEMBERSHIP NO.: _____

DATE: _____ MOBILE NO: _____ EMAIL: _____

Please indicate confirmation via email to secretariat@iomm.org.my before 12:00 pm, 10th March 2023.

*Delete whichever not applicable.

ANNUAL GENERAL MEETING PROXY VOTING FORM

l	(please print name in full) and IMM Members	hip no wish to
record my apologies for	absence and hereby appoint	(please print name in full) and
IMM Membership no.	(or, failing him/her, the Chairman of the Me	eting) to act as my proxy at the 33rd
Annual General Meeting	of the IMM.	

Signature:

Date:

This Proxy Voting Form should be returned to the IMM office via email (secretariat@iomm.org.my) before 12:00 pm, 10th March 2023.



NOTICE FOR RENEWAL OF ANNUAL MEMBERSHIP AND SUBSCRIPTION

FEES 2023

	APPLICATION	FOR REN	WAL	OF MEMBERSHIP			
PARTICULARS OF MEMBER (upd	ate where nece	essary)					
PERSONAL INFORMATION							
FULL NAME	:						
TITLE	:			IC/PASSP	ORT NO	O. :	
DATE OF BIRTH	:	AGE :					
CORRESPONDENCE ADDRESS	:						
MOBILE PHONE NO.	:			HOUSE P	HONE I	NO. :	
EMAIL ADDRESS	:						
IMM MEMBERSHIP NO.	:						
CURRENT JOB INFORMATION							
NAME OF COMPANY	:						
DESIGNATION/POSITION	:						
ADDRESS OF COMPANY	:						
OFFICE PHONE NO.	:			OFFICE F	AX NO.	:	
	MEMBERSH	IP SUBSCR	IPTION	I AND PAYMENT			
GRADE (Thick the appropriate box) SUBSCRIPTION PERIOD							
Fellow (F.I.M.M)		1-ye	1-year				
Professional (M.I.M.M)		Mor	More than 1-year, please : years				
			state				
Associate (A.M.I.M.M)			ount pa	id	:		
Company							
Ordinary							
	MEMBERSHIP A	NNUAL SUE	SCRIP	ION FEES SCHEDU	LE		
				Amount (RM))		
Description	Fellow	Professi	ional	Associate	Company		Ordinary
	(F.I.M.M.)	(M.I.M	.M.)	(A.M.I.M.M.)	Com	ipany	Ordinary
Annual Subscription	150.00	100.0	00	80.00	200	0.00	40.00
PAYMENT			SUBMISSION OF DOCUMENTS				
Payment can be made by chequ			Send your completed form together with the proof of				
bank draft, cash deposit machine or via online/internet			payment either via email to				
banking as follows:		secretariatoffice.imm@gmail.com or WhatsApp 018- 9113480 or send by courier/post to:			••		
Account Name : Institute of Materials, Malaysia		,					
Account : 800905	5156		The Secretariat Institute of Materials, Malaysia				
Bank : CIMB			Suite 1006, Block A, Kelana Centre Point				
Swift Code : CIBBMY	′KL		No.3, Jalan SS3/17, Kelana Jaya				
	47301 Petaling Jaya, Selangor						

The membership renewal online form can be accessed through IMM website at this link

https://www.iomm.org.my/membership-renewal/







ONE-DAY IMM FACILITY INTEGRITY & MAINTENANCE **CONFERENCE 2023**

16th March 2023

© 7.30am - 5.00pm

🖄 The Marina, Goldenbay Hotel, Bintulu

Asset integrity and maintenance are critical to ensuring the continuous production and a safe workplace. It is critical in effectively managing industrial assets in order to achieve operational excellence and long-term profitability while ensuring asset reliability, integrity, and safety, as well as the smooth operation of the plant without any failures, leaks, accidents, or unplanned shutdowns.

The current COVID-19 mitigation strategy of working at home and social distancing is resulting in an increasing backlog of inspection and maintenance work. Furthermore, the situation is forcing asset inspection management service providers to perform critical asset inspections with fewer personnel. However, the roles of asset management leaders are no longer the same and are undergoing significant change. Remote inspection and collaboration are examples of digital technologies being used to assist organisations in maintaining safe and productive assets.

Today's industries must constantly improve and innovate in order to achieve higher efficiency and lower unit costs of production. Industries cannot continue to operate in the same manner and expect to see improved results. It is critical that technicians and engineers keep up to date on new knowledge and technologies, as well as new ways of operating equipment and facilities.

This Conference aims to bring experiences and knowledge together to share issues, challenges and potential solutions.

WHO SHOULD ATTEND?

Functional Heads of Asset Integrity, Maintenance & Reliability, Operations, Installations, Manufacturing & Production, Corrosion Management, Inspection, Design & Engineering, Loss Prevention, Non-Destructive Testing from the following industries:

Oil, Gas, Energy & Utilities

Petrochemicals

Process Manufacturing

- Manufacturing & heavy engineering
- Chemicals
- Others affected by asset integrity & maintenance issues.

Chairman:	RAYMOND PHEN	ASEAN Bintulu Fertilizer Sdn Bhd	
Deputy Chairman:	FOO HWA CHIT	Petronas LNG 9 Sdn Bhd	
Secretary:	Philip Tsen	Ultradex Engineering Supply Sdn Bhd	
Treasurer:	LEONG YIN CHIN	Kumus Sdn Bhd	
Members:	FELIX BANTIN AK AMIT	Kumus Sdn Bhd	
	ALEX TAY	Burni Tech Coatings San Bhd	
	DZULASIS AUSKA	ASEAN Bintulu Fertilizer Sdn Bhd	
	FIRDAUS MAAROP	Shell MDS Sdn Bhd	
	GEORGE KUA YIEN HUIKTA	Sarawak Sdn Ehd	
	JOSHUA SIA KEE WEI	Paling Construction Sdn Bhd	
	BONG YUNG FOO	Malaysia LNG San Bhd	
	STEWARD SIRAN	Ultradex Engineering Supply Sdn Bhd	
	YII MING SING	Retired	
	LIZA RAYMOND	Laku Management	
	RAYMOND HO	In-Situ Petro Services Sdn Bhd	

Organised by: Market of Markets Markets Index of Markets Index of



Event organiser:

Programme

0730am	Registration & Light Breakfast	1210pn
0830am	Welcome Note by Emcee & Safety Briefing by Hotel Staff	1220p
0840am	Opening Speech by Dato' Dr. Ir. Ts. Mohd Abdul Karim Bin Abdullah, IMM President	1400p
0845am	Revolutionized PRBI for future Asset Integrity Management	1420p
0905am	Q&A By Aid Farhan Maarof and Ahmad Naim A Khairudin (GTS, PETRONAS)	1425p
0910am	Holistic Approach Towards Asset Integrity Management Through Digitalisation	1445p
0930am	Q&A By Mathews Varkey	
	(Ankaa Consulting (M) Sdn Bhd)	1450p
	_ 쪥	1510pr
0935am	Completing The Service Cycle	
0955am	Q&A By Andrew Thomas (Lava Protocols Sdn Bhd)	
1000am	Tea Break / Exhibition	1515pr
	_ 쪥	1535p
1030am	Sea Water Corrosion on Heat Exchanger Tube Q&A	
1050am	By Ir Foo Hwa Chit (Petronas LNG Sdn Bhd)	1540p
	_ 祝	
1055am	On-line leak sealing & pipe reinforcement by composite repair as per ASME PCC-2/ ISO 24817	1600p
1115am	Q&A By Ahmad Sanusi Awang	1620p
	(In-Situ Petro Services Sdn Bhd)	
	_ 2	
1120am	Digitalization of Cathodic Protection System - Remote Monitoring	1625p
1140am	Q&A	
	By Muhammad Syafiq Bin Alwi (Ultradex Engineering Supply Sdn Bhd / Norimax Sdn Bhd)	1645p
	- 祝	1650p
1145am	Grooving at Overhead Condenser, Hydrogen or Erosion?	
1205pm	Q&A	1700p
	By Nurjaimi Ali and Rohana Jaafar (GTS, PETRONAS)	

1210pm	Group Photo
12100	
1220pm	LUNC H/EXHIBITION
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1400pm	Are my Storage Tanks Safe? Storage Tanks
	Asset Grading Visualization for Better Asset
	Integrity Management
1420pm	Q&A By Hanafi Basri (Petronas Carigali Sdn Bhd)
1420pm	by Hallan basil (Fellonias caligail outrona)
	┌ ॡ ─────
1425pm	Overview of Engineered Composite Repair
	System for Aboveground Storage Tanks in accordance with API 653
1445pm	Q&A
	By Shann Liew (HJ3)
1450	
1450pm	Failure Analysis of Linkage Eyebolt Fracture at Hydro Power Turbine
1510pm	Q&A
	By Ir Abdul Rohim Md Said (TNB Repair and
	Maintenance Sdn Bhd (REMACO))
	_ %3
1515pm	Valve Management System: Balancing HSE Risk
	and Value Leakage
1535pm	Q&A
	By Mohd Fazli bin Abdul Kadir (Petronas Carigali Sdn Bhd)
1540pm	Tea Break/Exhibition
1600pm	Using FMC-TFM Imaging to improve Weld Defect
looopm	Characterizations and Identification
1620pm	Q&A
	By Dr. Muhammad Nur Farhan Saniman
	(Integrated PDP Sdn Bhd)
	_ ka
1625pm	The Paradox of PWHT for Austenitic Stainless
	Steel
1645pm	
	By Ir. Sia Hua Jiuh (Asean Bintulu Fertilizer Sdn Bhd)
1650pm	Closing Remarks from Mr Raymond Phen,
	Chairman of IMM Bintulu Chapter
170.0	All Access
1700pm	Adjourn





Event organiser:

REGISTRATION FORM

REGISTRATION FORM			
Name (Prof. / Dr. / Ir. / Ts. / Mr. / Ms.)			
Institution / Company Name			
Institution / Company Address			
Tel No (Office)		Mobile No	
Email address			

		FEES (RM)	Please tick (✓)
Delegates	IMM member	RM 350.00**	
	Non-IMM member	RM 450.00**	
Exhibitor		**	

** Note : Delegate fee is subject to 6%SST

EVENT SPONSOR / EXHIBITOR (Please tick <)

EVENT SPONSOR – RM5,000.00**	TABLE-TOP EXHIBITION STAND – RM3,000.00**
A. Package includes :	A. Package includes :
 1 Technical presentation slot 1 Promotional table with 2 chairs 1 Free pass for Presenter 2 Free passes as Conference Delegates 2 Free passes for Exhibition Promoters 	 Promotional table with 2 chairs Free passes Exhibition Promoters B. Please reserve (Table Top Number) for us. (Refer to Exhibition Layout Plan for Table Top Exhibition stand number)
B. Please reserve (Table Top Number) for us. (Refer to Exhibition Layout Plan for Table Top Exhibition stand number)	

Note: a) Additional pass will be charged RM300.00 (IMM Member) or RM400.00 (Non-IMM Member) b) Exhibition stand does not come with a wall. Exhibitors are advised to bring in their own promotional materials.

" Fee is subject to 6%SST

PAYMENT must be made by Electronic Transfer, Telegraphic Transfer, Cheque or Bank Draft to	For any enquiries, please contact:
Account Name: Materials Technology Education Sdn Bhd Account No: 5621 0669 2397 Bank Name: Maybank Berhad Bank Branch: Shah Alam Branch	Ms. Zaimah Mohamad Ms. Karen Cheng 012 503 1410 012 295 2668 zaimah@mte.com.my karen@mte.com.my info@mte.com.my
Country: Malayala	Materials Technology Education Sdn Bhd 13-2, Pusat Dagangan Shah Alam Lot 13, Persiaran Damai.
 Payment must be made at least two weeks before the conference 	Seksyen 11, 40100 Shah Alam, Selangor Tel : +603 5524 3704
 Onsite payment is not acceptable Proof of payment to be sent via email to zaimah@mte.com.my 	website: www.mte.com.mv

JANUARY 2023 Issue 37



IMM TRAINING AND CEI

Prepared by: Secretariat of II

BACKGROUND

Over the past three decades, Institute of Materials, Malaysia (IMM), previously known as the Malaysian Materials Science & Technology Society (MMS) has been associated with Training and Certification of Technical Practitioners. Through its competency development and certification programmes, 30-Member Council administered IMM has certified more than 9000 skilled practitioners for the Oil & Gas Industry in Malaysia.

IMM trained and certified competent persons in the Oil & Gas Industry have made IMM perceived as a reliable Training and Certification Body. IMM certification programs are widely recognized by PETRONAS and all Oil & Gas operators in Malaysia. More than 200 Welding Engineers and 30 Coating Fingerprint Quality Controllers have received training and certification from IMM since January 2011.

The Institute of Materials, Malaysia (IMM) received accreditation as а Persons Certification Body (ISO/IEC 17024) by Standard Malaysia on March 29, 2021, making it another historically significant day for the organisation and currently breaking into the Construction, Energy, and Transportation sectors in its quest to become the PRECURSOR among all domestic certification body.

BENEFITS OF IMM CERTIFICATION SCHEME

IMM-approved training programmes and the associated certification programmes are especially created to provide practitioners with the necessary abilities and information for admission into the industrial sector. To prospective employers, the IMM certification



Figure 1: Benefits for Persons Certified to IMM Certification Schemes

serves as evidence and assurance that certified individuals have attained a certain degree of proficiency in a certain subject. The emphasis is not only on fostering competencies and abilities in new hires, but also on enhancing current competencies to go along with work experience, as this serves as a tremendous springboard for career growth in the sector. The workers will be exposed to such formal certification programmes for skill enhancement, which will expose them to be well-prepared for the industrial new technologies for operational efficiency.

Additionally, IMM certification raises the worker's value to the organisations where they work. As industry work standards increasingly call for certified workers for contract tasks, IMM certification opens more opportunities since many positions function better with a qualified hire in place. Employers are more likely to favour qualified candidates over those who lack certification. Furthermore, IMM's certification programmes provide qualified individuals with access to more resources and improved networking chances with peers and industry experts, opening a variety of opportunities for professional and business development. The advantages of IMM training and certification programmes are outlined in Figure 1.

DEVELOPMENT OF CERTIFICATION SCHEMES

As a precursor certification body for skilled practitioners in the Materials Science and Technology fields, IMM can assess and certify a person for his/her competency to standards established and required by the industry in various sub-fields. Competence-based certification requires IMM to assess a candidate's knowledge, skill, personal attribute, and qualification in relation to the programme and/or scope of certification.

IMM's certification schemes, as well as the competence criteria, have evolved over time. Technical Committees comprised of subject matter experts continue to play an important role in developing new certification schemes, upgrading existing schemes, and ensuring competency standards meet industry requirements. The certification schemes are developed or reviewed by the respective Technical Committees. The Technical Committee and the IMM Secretariat, which collaborates closely with the Examination and Certification Panel to approve all matters relating to examination and certification, including examination sets, examiners, examination results, certification schemes and details, quality manuals and standard operating procedure (SOP), and other documents.

RTIFICATION SERVICES

nstitute of Materials, Malaysia



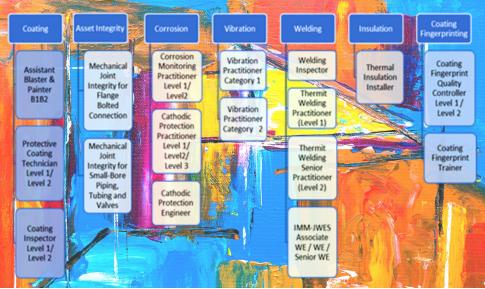
IMM's certification schemes for each category of competency cover the following elements in line with ISO requirements:

- Scope job and certification title
- Job and task description description of the tasks required to perform the audit
- Required competence knowledge and skills
- Prerequisites qualifications, work experience and training
- Assessment methods written, oral, practical and observations
- Examination structure and duration
- Criteria for certification -assessments/examination pass scores
- Criteria for recertification confirmation of continuing satisfactory work, work experience, examination/ interview, continuous professional development

To maintain the ongoing competency of the certified individuals, IMM has established re-certification standards, which call for certification renewal after 3 or 5 years, depending on the specific scheme. Recertifying entails evaluating the work experience that was recommended by a manager or supervisor throughout the certification cycle, demonstrating compliance with the CPD standards, and sometimes requiring the completion of a review course before the examination. Figure 2 shows the list of IMM Certification Schemes according to their respective courses.

MAINTAINING THE STANDARDS, IMPARTIALITY AND CREDIBILITY OF IMM CERTIFICATION SCHEMES

IMM has implemented a system in accordance with ISO/IEC 17024, Conformity assessment - General requirements for entities performing certification of persons, to further bolster the legitimacy of its certification activities. After being evaluated by technical assessors from the national accreditation agency, the Department of



Standards Malaysia.

The organisational setup of IMM guarantees impartiality, which is a key criterion under ISO/IEC 17024 due to the separation of training certification and activities. Prerequisite training is contracted out to authorized training bodies who oversee (ATBs), the instruction, while IMM oversees certification managing the examination, which are separate from the training. However, in most cases, the examinations are scheduled immediately after the the candidates' training for convenience, ensuring that the examiner assigned is not the trainer.

Figure 2: List of IMM Certification Scheme

In order to develop training and certification programmes and to

determine whether a candidate complies with the skill sets needed to work in the industry in accordance with established requirements/specifications, IMM collaborates with the industry and academic institutions to create a strong position for IMM as a Leading Certification Body. IMM Certification Programs, which were created by the industry and academia in collaboration, have thus been shown to increase employee and employer confidence in the quality of the services provided by certified individuals.

CONCLUSION

IMM's competency training and certification programmes are well recognised by multinational corporations, small and medium-sized businesses, as well as authorities and clients in Malaysia and beyond. With reviews and improvements up and running, IMM will continue to further excel and lead Malaysia's domestic training and certification bodies.

Materials Mind

IMM YEAR BOOK

LIST OF HONOURS

IMM ADVISOR



2020 - 2022 Prof. Ts. Dr. Mohamad Kamal Harun



2013 - 2018 Datuk Ir. (Dr.) Abdul Rahim Hj. Hashim



2007 - 2012 Datuk Ir. Yeow Kian Chai



2002 - 2006 Dato' Dr. Mohd Ariffin Aton



1996 - 2001 Prof. Dato' Dr. Hj. Mohd Mansor Salleh

HONORARY FELLOWS OF IMM

2020	PROF. TS. DR. MOHAMAD KAMAL HARUN	2010	YAB. PEHIN SRI HAJI ABDUL TAIB MAHMUD
2020	IR. MOHD SURADI MOHD YASIN	2008	DR. A. RAHIM MD. NOR
2020	IR. MAX ONG CHONG HUP	2007	DATUK IR. YEOW KIAN CHAI
2018	DATUK IR. (DR.) ABDUL RAHIM HASHIM	2004	DR. IR. SAMAD SOLBAI
2017 D/	DATO' DR. IR. HAJI MOHD ABDUL	0000	
KARIM ABDULLAH		2002	ROY VOGELPOEL
2016	DATO' DR. ONG ENG LONG	2000	PROF. DATO' DR. HJ MOHD MANSOR
2013	DATUK ANUAR TAIB		SALLEH
2012	EN. ZAINUDDIN ISHAK	1992	BRIAN SHONE

IMM PAST PRESIDENTS



2016 - 2020 Ts. Mohd. Azmi Mohd. Noor



2012 - 2016 Prof. Ts. Dr. Mohamad Kamal Harun



2008 - 2012 Dato' Dr. Ong Eng Long



2004 - 2008 Mr. Zainuddin Ishak



Dr. A. Rahim Md. Nor



1996 - 2000 Dr. Ir. Samad Solbai



1988 - 1996 Prof. Dato' Dr. Hj. Mohd Mansor Salleh

IMM COUNC

2022-2024

Advisor

Prof. Ts. Dr. Mohamad Kamal Harun Razak School of Government President Dato' Dr. Ir. Ts. Haji Mohd Abdul Karim Abdullah Serba Dinamik Group Berhad **Deputy President** Ts. Dr. Chew Khoon Hee Tunku Abdul Rahman University College Prof. Ts. ChM. Dr. Melissa Chan Chin Han **Honorary Secretary** Universiti Teknologi MARA **Honorary Treasurer** Ts. Dr. Mohamed Ackiel Mohamed Serba Dinamik Group Berhad **Immediate Past** Ts. Mohd. Azmi Mohd. Noor President Triple EEE Sdn Bhd **Council Members** Ir. Ong Hock Guan Shell Malaysia Exploration & Production Ir. Ts. Noor Hisham Yahaya Safe Asbestos Solutions Sdn Bhd Ir. Dr. Edwin Jong Nyon Tchan Advanced Metallurgy & Welding Technology Sdn Bhd Ts. Wan Mohd Arif Wan Ibrahim Universiti Malaysia Perlis Ir. Mohd Syukri Mohd Khalid Sarawak Shell Berhad Kang Kim Ang CorrTrol Synergy Sdn Bhd Ts. CEng. Dr. Bernard Maxmillan Sim Bureau Veritas (M) Sdn Bhd Nik Khairil Azman Nik Abdullah Temperlite Insulation Sdn Bhd Mark Hew Yoon Onn Universal Corrosion Engineering (M Sdn Bhd Assoc. Prof. Dr. Tuty Asma Abu Bakar Universiti Teknologi Malaysia Devinakumar Ratanam Topfields Borneo Sdn Bhd Assoc. Prof. Dr. Lim Teck Hock Tunku Abdul Rahman University College Dr. Amalina Muhammad Afifi Universiti Malaya Ts. Brian Lim Siong Chung Geopolitan Sdn Bhd Daniel Sagoh Mui Lee Enterprise Sdn Bhd Danny Tan Kim Chew Abadi Oil & Gas Services Sdn Bhd Dr. Dasline Sinta Dreamcatcher Karen Cheng Siew Hoon Serba Dinamik Group Berhad Asst. Prof. Dr. Maxine Yee Swee Li University of Nottingham Malaysia Dr. Nazatul Liana Sukiman Universiti Malava Ts. Dr. Nur Aimi Jani Universiti Teknologi MARA Ts. Ong Thai Kiat Tunku Abdul Rahman University College Assoc. Prof. Ts. Dr. Tay Chia Chay Universiti Teknologi MARA Ir. Ts. Dr. Tan Kim Seah Oryx Advanced Materials Sdn Bhd Asst. Prof. Ts. Dr. Yu Lih Jiun **UCSI University**

2020-2022

Advisor

President

President

Prof. Ts. Dr. Mohamad Kamal Harun Universiti Teknologi MARA Dato' Dr. Ir. Ts. Haji Mohd Abdul Karim Abdullah Serba Dinamik Group Berhad Ts. Dr. Chew Khoon Hee **Deputy President** Tunku Abdul Rahman University College Prof. Ts. ChM. Dr. Melissa Chan Chin Han **Honorary Secretary** Universiti Teknologi MARA Ts. Dr. Mohamed Ackiel Mohamed **Honorary Treasurer** Serba Dinamik Group Berhad Ts. Mohd. Azmi Mohd. Noor Immediate Past Kebabangan Petroleum Operating Company Sdn Bhd **Council Members** Ir. Ong Hock Guan Shell Malaysia Exploration & Production Ts. Dr. Mahmood Anwar Curtin University Malaysia Mark Hew Yoon Onn Universal Corrosion Engineering (M) Sdn Bhd Assoc. Prof. Ts. Dr. Tay Chia Chay Universiti Teknologi MARA Asst. Prof. Ts. Dr. Yu Lih Jiun UCSI University Ir. Max Ong Chong Hup Norimax Sdn Bhd Assoc. Prof. Dr. Lim Teck Hock Tunku Abdul Rahman University College Ts. Brian Lim Siong Chung Geopolitan Sdn Bhd Kang Kim Ang CorrTrol Synergy Sdn Bhd Nik Khairil Azman Nik Abdullah Temperlite Insulation Sdn Bhd Dr. Amalina Muhammad Afifi Universiti Malaya Danny Tan Kim Chew Abadi Oil & Gas Services Sdn Bhd Ir Ho Choon Fei **KVA Konsult** Jason Yap Haw Shin Leading Concept Engineering Sdn Bhd Mohd Fairuz Mohd Salleh Serba Dinamik Group Bhd Mohd Iqbal Yaakup Petron Malaysia Refining & Marketing Bhd Dato' Seri Mohd Jai Suboh Velosi (M)Sdn Bhd Ir. Mohd Syukri Mohd Khalid Sarawak Shell Bhd Dr. Nazatul Liana Sukiman Universiti Malava Ir. Ts. Noor Hisham Yahaya Safe Asbestos Solutions Sdn Bhd Ts. Ong Thai Kiat Tunku Abdul Rahman University College Raymond Phen Asean Bintulu Fertilizer Sdn Bhd ChM. Dr. Shahrul Nizam Ahmad Universiti Teknologi MARA Sobendran Vengadasalam Eco Movement Sdn Bhd Ts. Wan Mohd Arif Wan Ibrahim Universiti Malaysia Perlis

IL MEMBERS

2018-2020

		Advisor
Advisor	Datuk Ir. Dr. Abdul Rahim Hj. Hashim Universiti Malaya	President
President	Ts. Mohd Azmi Mohd Noor Kebabangan Petroleum Operating Company Sdn Bhd	Deputy President (2016-2017)
Deputy President	Dato' Dr. Ir. Haji Mohd. Abdul Karim Abdullah Serba Dinamik Group Bhd	Deputy President (2017-2018) Honorary Secretary
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	Assoc. Prof. Dr. Lim Teck Hock Tunku Abdul Rahman University College	
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	Ir. Ong Hock Guan Shell Malaysia Exploration & Production Ts. Brian Lim Siong Chung NTT Quality Construction	
	Danny Tan Kim Chew Abadi Oil & Gas Services Sdn Bhd	
	Nurul Asni Mohamed PETRONAS Group Technical Solutions	
	Rehan Ahmed PETRONAS Carigali Sdn Bhd	
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2012 - now (in-print and online) What are coming.....

S,UUU readers !!!	Issue	Month	Theme
Contractor Others (Fabricator) 5% Operating Company 10% [Oil & Gas, Marine & Power]	36	Oct 2022	Corrosion
10% 30% Services (QA & QC)	37	Jan 2023	IMM Year Book, IMM training and certification schemes
10% Equipment/ Engineering Supplier Consultant 25%	38	Apr 2023	Environmental Social Governance
Company 23%	39	July 2023	Coating fingerprinting + Polymer

1999 - 2011

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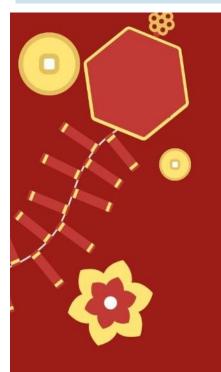
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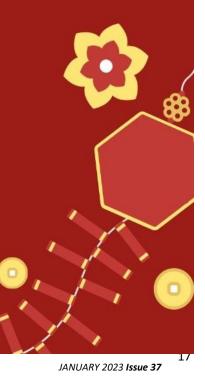


From all of us at Institute of Materials, Malaysia

Happy Chinese New Year!

May you have a pleasant and happy year ahead!

Sincerelly from:



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No.	Event	Date	Venue
1.	32 ND ANNUAL GENERAL MEETING	18 th March 2022	Online Meeting
2.	OFFSHORE TECHNOLOGY CONFERENCE ASIA (OTC ASIA) 2022	22 nd – 25 th March 2022	Kuala Lumpur Convention Ce
3.	INSIGHT INTO POLYMER PROCESSING AND ANALYSIS	18 th March 2022	DKE, Tunku Abdul Rahman University College (TAR UC) Google Meet
4.	1 ST IMM COUNCIL MEETING (TERM:2022-2024)	13 th May 2022	Online Zoom Meeting
5.	PARTICIPATION IN THE IMM-MIRI AWARENESS SEMINAR: "BEHAVIOURS OF STEEL MATERIALS DURING WELDING"	30 th May 2022	SK3-206, Curtin University Malaysia (CUM)
6.	THE 9T ^H SABAH OIL & GAS CONFERENCE & EXHIBITION 2022 (9 TH SOGCE 2022)	9 th – 10 th June 2022	Sabah International Convention Centre, Kota Kinabalu, Sabah
7.	IMM ONE-DAY CONFERENCE ON CORROSION MANAGEMENT AND KOSSAN PAINT (M) SDN BHD VISIT	20 th October 2022	DoubleTree Hilton Kuala Lum

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No.	Event	Date	Venue
8.	THE 2 ND ANNUAL CLEAN POWER & NEW ENERGY 2022	20 th – 21 st July 2022	Mandarin Oriental, Kuala Lumpur
9.	MATERIALS LECTURE COMPETITION 2022	16 th June 2022 (Semi- final) & 7th July 2022 (Final)	Xiamen University Malaysia (XMUM)
10.	OIL AND GAS ASIA CONFERENCE & EXHIBITION 2022	13 th – 15 th September 2022	Kuala Lumpur Convention Centre
11.	UTHM-IMM MATERIALS LECTURE COMPETITION 2022	30 th May 2022	Online Zoom Meeting
12.	WORKSHOP ON ANALYSIS OF RUBBER WITHOUT USING INSTRUMENT	4 th October 2022	Online Microsoft Teams
13.	1-DAY IMM CORROSION CONFERENCE 2022 – HOLISTIC CORROSION PREVENTION & MANAGEMENT	20 th October 2022	DoubleTree by Hilton Hotel Kuala Lumpur







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No.	Event	Date	Venue
8.	VIRTUAL INDUSTRIAL TALK- INJECTION MOLDING- WHAT YOU NEED TO KNOW?	29 th July 2020	Online Google Meet Platform
9.	UTHM-IMM MATERIALS LECTURE COMPETITION 2020	9 th March 2020	Universiti Tun Hussein Onn Malaysia, UTHM
10.	MALAYSIA BOARD OF TECHNOLOGIST (MBOT) WITH THE TECHNICAL EXPERT PANEL (TEP) WORKSHOP	9 th July 2020	Begonia Room, Palm Garden Hotel IOI Resort City, Putrajaya
11.	THE FIRST-OF-ITS-KIND VIRTUAL TRAINING COURSES FOR "IMM COATING FINGERPRINT CERTIFICATION SCHEME"	22 nd - 24 th July 2020	Online Zoom Platform
12.	MEETING WITH AUTHORIZED TRAINING BODY (ATB)	18 th September 2020	Online Zoom Platform
13. 14	HARI PROFESION TEKNIKAL NEGARA 2020 (HPTN 2020) YOUNG PERSONS' WORLD LECTURE COMPETITION	14 th December 2020 12 th November 2020	Online Google Meet Platform Online Final 2020
	2020		



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			20050
No. 9.	Event MEMORANDUM OF UNDERSTANDING BETWEEN INSTITUTE OF MATERIALS, MALAYSIA AND UNIVERSITI TUN HUSSEIN ONN MALAYSIA TO ESTABLISH UTHM-IMM MATERIALS STUDENT CHAPTER	Date 29 th August 2019	Venue Mudzaffar Hotel, Melaka
10.	YOUNG PERSON'S WORLD LECTURE COMPETITION 2019	10 th October 2019	297 Euston Road, London, United Kingdom
11.	IMM CORROSION CONFERENCE	17 th October 2019	Sheraton Imperial KL
12.	29 TH ANNUAL GENERAL MEETING	22 nd March 2019	Kelab Golf Negara Subang
13.	MLC SEMI-FINAL 2019	4 th April 2019	Centre of Graduate Studies, UTeM main campus, Melaka
14.	STRATEGIC COLLABORATION BETWEEN POLITEKNIK KOTA KINABALU (PKK) AND INSTITUTE OF MATERIALS MALAYSIA	23 rd February 2019	Bilik Tetamu PKK, Kota Kinabalu, Sabah
15.	MOGEC GOLF CHAMPIONSHIP 2019	2 nd March 2019	Mines Resort Golf Club
16.	UITM MATERIALS LECTURE COMPETITION	13 th March 2019	Faculty of Mechanical Engineering, UiTM Shah Alam
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	1	HALF-DAY SEMINAR "CORROSION CONTROLS AND PREVENTION" AND SITE VISIT TO NAVY BASE, LUMUT	14 th May 2018	Cawangan Penguasa Kejuruteraan Armada Pangkalan Tentera Laut Diraja Malaysia, Lumut
\bigcirc	2	YOUNG PERSON'S WORLD LECTURE COMPETITION 2018	11 th October 2018	Fairview Course Arena, Port Elizabeth, South Africa
	3	28 TH ANNUAL GENERAL MEETING	16 th March 2018	Impiana KLCC Hotel, Kuala Lumpur
6	4	MATERIALS LECTURE COMPETITION 2018	3 rd May 2018	Universiti Teknologi Malaysia, Kuala Lumpur Campus
	5	MEMORANDUM OF UNDERSTANDING SIGNING CEREMONY BETWEEN UNIVERSITI TEKNOLOGI MARA AND INSTITUTE OF MATERIALS, MALAYSIA	13 th September 2018	Universiti Teknologi MARA Shah Alam
	6	4 TH MALAYSIAN OIL AND GAS SERVICES EXHIBITION AND CONFERENCE (MOGSEC 2018)	25 th - 27 th September 2018	Kuala Lumpur Convention Centre
G	7	STRATEGIC COLLABORATION BETWEEN POLYTECHNIC OF SULTAN AZLAN SHAH, MINISTRY OF HIGHER EDUCATION AND INSTITUTE OF MATERIALS, MALAYSIA	16 th August 2018	Dewan Mualim, Behrang



No.	Event	Date	Venue	
8	CORROSION FORUM: CORROSION AND COATINGS DEVELOPMENT IN INDUSTRY	5 th July 2018	Universiti Teknologi MARA Shah Alam	
9	PETROEDGE & NRGEDGE SIGNED MEMORANDUM OF UNDERSTANDING WITH INSTITUTE OF MATERIALS, MALAYSIA	20 th April 2018	Holiday Inn Glenmarie, Kuala Lumpur	0
10	MALAYSIA BOARD OF TECHNOLOGIST STRATEGIC TECHNOLOGY FIELD OPTIMIZATION WORKSHOP	4 th - 6 th May 2018	WP Hotel, Kuala Lumpur	
11	FIRST IMM INTERNATIONAL APPLIED VIBRATION CONFERENCE (IAVIC)	21 st - 22 nd November 2018	Parkroyal, Bukit Bintang, Kuala Lumpur	\geq
12	MALAYSIA BOARD OF TECHNOLOGISTS: PROFESSIONAL ASSESSMENT PANEL WORKSHOP	19 th - 21 st October 2018	Royale Chulan, Bukit Bintang, Kuala Lumpur	
13	SEMINAR ON VIBRATION TECHNOLOGY IN THE ERA OF INDUSTRY 4.0	16 th March 2018	Impiana KLCC Hotel, Kuala Lumpur	Q
14	INAUGURAL SYMPOSIUM ON RAILWAY INFRASTRUCTURE AND ENGINEERING	24 th January 2018	Universiti Tunku Abdul Rahman Sungai Long Campus	
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	Event	Bale	Vende
ິງ 1	1-DAY COATING CONFERENCE	18 th May 2017	Corus Hotel, Kuala Lumpur
2	IMM AWAY DAY	14 th January 2017	Amverton Resort, Pulau Carey
3	1-DAY CONFERENCE ON PIPELINES CORROSION MANAGEMENT	27 th September 2017	Corus Hotel, Kuala Lumpur
ک 4	27 TH ANNUAL GENERAL MEETING	16 th March 2017	Universiti Teknologi Malaysia Space, Kuala Lumpur
5	MEMORANDUM OF UNDERSTANDING SIGNING CEREMONY BETWEEN IMM AND SOUTH WEST JIATONG UNIVERSITY	16 th November 2017	Corus Hotel, Kuala Lumpur
6	IMM & SOCIETY FOR PROTECTIVE COATINGS COOPERATION AGREEMENT SIGNING CEREMONY	17 th March 2017	PETRONAS Twin Tower, Kuala Lumpur

ITIES 2017

No.	Event	Date	Venue
7	30 TH ANNIVERSARY IMM DINNER	6 th November 2017	Intercontinental Hotel, Kuala Lumpur
8	1-DAY CONFERENCE ON PREVENTION OF LOSS OF PRIMARY CONTAINMENT	31 st October 2017	Bintulu
9	MATERIALS LECTURE COMPETITION 2017	16 th May 2017	Asia Pacific University Auditorium, Bukit Jalil, KL
11	1-DAY SYMPOSIUM ON MATERIALS PROCESSING, INSPECTION & TESTING	24 th August 2017	Puteri Pacific Hotel, Johor Bahru
10	IMM VIBRATION CONFERENCE	16 th November 2017	Corus Hotel, Kuala Lumpur
12	1-DAY CONFERENCE ON INSULATION	16 th March 2017	Universiti Teknologi Malaysia Space, Kuala Lumpur

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No.	Free Free <th< th=""><th></th><th>Venue</th></th<>		Venue
7.	COATINGS & CORROSION, FABRICATION & WELDING 2016	17 th - 19 th May 2016	Putra World Trade Centre
8.	MATERIALS LECTURE COMPETITION 2016	26 th May 2016	Universiti Malaya
9.	MATERIALS LECTURE COMPETITION 2015	14 th May 2015	Bangi-Putrajaya Hotel
10.	THE-FIRST-OF-ITS-KIND IMM COATING FINGERPRINT FOUNDATION COURSE IN THE WORLD	10 th September 2015	Holiday Inn Glenmarie
11.	IEM-IMM-UMS FORUM ON OIL & GAS INDUSTRY	19 th November 2015	The Palace Hotel
12.	24 TH ASEAN WELDING FEDERATION COUNCIL MEETING		Majapahit Hotel, Surabaya, Indonesia



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No.	Event	Date	Venue
8.	FORUM ON TOWARDS FINGERPRINTING OF POLYMERIC COATINGS II	11 th October 2013	Tanjung Puteri Golf Resort
9.	YOUNG PERSON'S WORLD LECTURE COMPETITION 2014	23 rd October 2014	California, USA
10.	ASIAN WELDING FEDERATION (AWF) - AMERICAN WELDING SOCIETY (AWS) COLLABORATION	14 th - 15 th November 2013	
11.	WELDING INTEGRITY INPROVEMENT TASK FORCE (WII TF)	28 th November 2014	0
12.	PIPELINE INTERGRITY SEMINAR & NETWORKING COCKTAIL	20 th September 2012	Kuala Lumpur
13.	EVENING TALK ON THE "GOOD & BAD PRACTISE IN FABRICATION AND USE OF STAINLESS STEEL"	6 th December 2012	Kuala Lumpur
14.	8 TH INTERNATIONAL MATERIALS TECHNOLOGY CONFERENCE & EX-HIBITION 2012	9 th - 12 th July 2012	Sunway Resort & Spa, Selangor
			GUN





The Danger of Wet Insulation and Its **Contribution To Corrosion Under Insulation** (CUI)

Danny Tan IMM Insulation Committee Co-Chairman

TECHNICAL ARTICLE This article describes the "wet in a tightly enclosed insulation" insulation after the system has been in service for an extended period and its contribution to Corrosion Under Insulation (CUI).

We always use phrases like "remove all wet insulation" or "do not install wet insulation" which often appear in insulation specifications or guidelines in insulation tender documents but the actions to be taken once we find "wet insulation" in the enclosed insulation system is the KEY to mitigate Corrosion Under Insulation (CUI).

company to identify potential moisture or wet insulation or to check the underlying pipe or equipment substrate for signs of corrosion.

CUI often remains undetected until the insulation is removed physically or there is a leak or other event, some of which can be extremely hazardous. Routine insulation inspection involves physically removing the insulation and will incur costs for scaffolding, physical inspection, physical repairs, and physical replacements after opening the cladding to investigate damaged insulation.



Figure 1: Corrosion of insulated pipe due to Wet Insulation contribution to Corrosion Under Insulation.

For most insulation materials, there is an ASTM test to determine the maximum allowable moisture in the material, usually expressed in a percentage by weight or volume. But this does not address the core question of defining "wet" insulation during installation on the project at the site or enclosed insulation after the system has been in service.

With wet insulation, there will be a loss of insulation efficiency, increased energy consumption, and increased insulation weight plus many other issues. The discussion of wet insulation is driven by many factors, including dripping water or liquid, and condensation, and all these will lead to CUI on carbon steel and alloy steel surfaces. This is unfortunately a common problem affecting many industries due to ineffective corrosion management programs.

CUI preventive measures should include routine visual inspections and maintenance with some form of Non-Destructive Testing (NDT) to identify wet insulation, but all these inspections and maintenance programs are on a periodic basis and could be ineffective in monitoring water ingress or wet insulation.

All these routine inspections involve manpower to be deployed to the ground of the facilities to take thermal imaging measurements or to engage a 3rd party NDT Insulation does not cause corrosion until the ingress of water and prolonged contact of the water with the metal surface and the contaminants (salts) leaching out from the insulation blankets. The water can come from rainwater penetrating cladding leakage, deluge system water, wash water or condensation from the cyclical temperature or low-temperature operation.

In three simple terms, CUI occurs when: (1) Temperature range of -4 °C to 175 °C provides the ideal CUI temperature, (2) Prolonged exposure to moisture or water (wet insulation) and, (3) contaminants (salts) leaching from insulation blankets or from the environment.

Without water, corrosion will not occur. Therein lies the core issue - water/moisture (wet) and why the importance of removing wet insulation or identifying wet insulation becomes critically important.

The problem of corrosion occurs in carbon steel and stainless steel and CUI manifests as generalized corrosion or localized corrosion resulting in wall thickness loss in carbon steel while with stainless steel piping and vessels, it is often seen as pitting and corrosion-induced stress corrosion cracking.

The following are some actions recommended for implementation in the insulation systems.

Materials Mind

(1) Drying Out Insulation is the key word, as sometimes a pipe or valve will develop a leak and moisture will get trapped between the insulation and the pipe, creating the initiation of wet insulation. In some cases, drain valves, drain vents, drain perforated wrap or some other method of drainage can be used on above-ambient systems (not below-ambient service) to allow moisture an exit point.

These types of CUI integrity Insulation Ventilation drain accessories (e.g. drain valve, drain vent, and drain Figure 3: Water detector or water indicator in the insulation perforated wrap) work together to promote airflow along the insulation system which limits moisture and condensation build-up in the insulation and can assist in drying out wet insulation. Please refer to the Figure 2 & Figure 3 for better understanding of drain valve and drain vent to promote airflow along the insulation system.

(2) There are moisture meters available to check for moisture in the insulation. The challenge is identifying where to check. Is it easy to miss a pocket of moisture in the insulation, where it is a fibrous, cellular, granular, or other insulation material? This can lead to erroneous moisture-content reading assumptions.

(3) It is important to look for damaged insulation on hot thermal insulation where damaged insulation (wet insulation) will lead to loss of insulation efficiency thus heat will transfer to the external metallic cladding surface. Typically, the surface temperature for hot thermal insulation cladding should not exceed the ambient temperature and is normally around 32 - 38 °C in our environment.

The best Holistic approach method to identify wet insulation or damaged insulation is by Visual Inspection without opening the external Cladding using Thermal Indicating Coating (TIC) as an active visual inspection method. Please refer to the Figure 4 for better understanding of Thermal Indication Coating (TIC).



Figure 2: CUI insulation ventilation drains accessories to promote airflow along the insulation system - Drying out wet insulation.

There is no easy answer to the question of how to handle "wet insulation" when it comes to mechanical insulation systems. However, a few basic principles may apply to all insulation systems as the industry's best practices.

1. Keep all insulation materials dry during storage, handling, and installation, until they are totally protected (watertight) with the specified protective covering/external cladding.



system.



Figure 4: Thermal Indicating Coating with an irreversible colour change at 60 to 80 °C to red (Visual inspection to identify wet insulation/damaged insulation) without the need to open the cladding.

2. Not all insulations are the same, and each should be addressed given its own characteristics, water resistance, hydrophobic properties, and when in doubt, consult the insulation materials supplier.

3. Take into consideration of the installation conditions, surrounding environment, and operating temperatures as we are in humid environments and are not the same as those from lower humidity countries.

4. Ask these questions - has the surface that is being insulated been properly protected externally (cladding) or coated with the right coating systems on the steel substrates with a coating such as NACE 0198 specified CUI coating systems for cyclical environment insulation system?

5. Has the system been designed to allow for the escape or venting of any moisture that may enter or will enter the enclosed insulation systems?

6. Have CUI Drain Accessories been considered to allow airflow in the insulation system in case of moisture ingress?

7. Have the piping and equipment systems been designed with consideration of the insulation system to guard against any areas where ponding or accumulation of water can occur?

8. Installation should never take place in rainy weather or when the weather is anticipated to rain.

9. On installed insulation systems, all areas where the protective covering or cladding have been compromised, and other areas that potentially allow for the entrance of moisture or other contaminants, must be examined in a timely manner to determine the extent of any damage to the total insulation systems, and the required repairs/ replacement should be executed in a timely and proper manner by experienced insulation personnel.

10. For lower temperate insulation requirement, with corners and blind spots, an active visual inspection temperatures lower than 90 °C, Insulative Coatings may be considered instead of the traditional insulation systems for personnel protection as per ASTM 1055.

11. Do we have a Thermal Indicative Coating (TIC) as a In conclusion, if in doubt, always consult the respective proactive visual inspection apart from RBI to identify wet insulation without opening the protective cladding?

With Thermal Indicating Coatings at visible locations coupled with Remote Thermal Sensing Cameras for recording temperature changes of claddings in hidden

program can identify wet insulation more effectively. Refer to Figure 5 for Thermal Sensing Camera for remote thermal imaging.

insulation manufacturer(s) or reliable insulator companies the installation before beginning work for recommendations relating to the mitigation of wet insulation and handling of the materials.

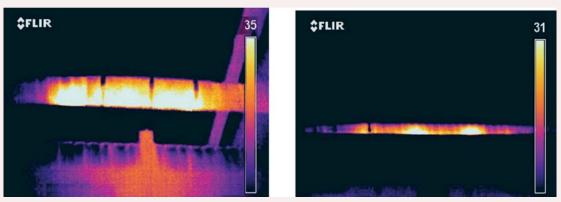


Figure 5: Thermal Sensing Cameras for remote hidden corners and blind spots



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STUPENT EDITORIAL

Materials Mind

Fabrication of Cocoa Pod Husk (CPH) and Polyethylene Terephthalate Glycol (PETG) 3D **Printing Filaments**

Abstract

established 17 Development Goals (UNSDG) to aid rapid global growth, with the 12th goal specifically addressing worldwide consumption and production of materials. The global cocoa industry, with an annual global exportation revenue of up to USD \$47 billion has severe natural waste issues due to the composition of cocoa fruits. Among all cocoa wastes, cocoa pod husk (CPH) is the main waste, with an annual production of approximately 664 tons. These wastes are normally buried, with side effects causing black pod disease which affects cocoa crop quality. Additive Manufacturing (AM) of CPH and polyethylene terephthalate glycol (PETG) composite is a feasible solution as it repurposes waste into valued products like kitchenware with decent market demand and selling price, which targets especially the Food & Beverage (F&B) industry. The project was constantly reviewed to ensure product quality and the estimated proposed project time is met. Goals were achieved and CPH-PETG was successfully fabricated.

Introduction

In 2016, the cocoa industry produced 3.9 million tons of cocoa beans worldwide and had a global exportation value of USD \$47 billion [1, 2]. These cocoa beans are responsible for producing chocolates, one of the most craved foods due to their taste and the enjoyable physiological effects of their ingredients [3]. However, after the cocoa beans (CB) are extracted from the cocoa fruit, three waste products will be produced, namely the cocoa bean shell (CBS), cocoa mucilage (CM), and cocoa pod husk (CPH).

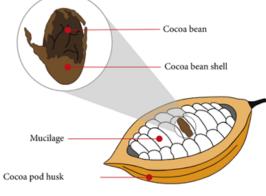


Figure 1: Breakdown of cocoa fruit [12]

Approximately 800,000 metric tons of cocoa waste is produced every year on average [4]. In the year 2015 to 2016, the International Cocoa Organization (ICCO) [1] reported that although 3.9 million tons of cocoa beans have been produced, 16 million tons of cocoa waste were also generated, which was 4.1 times more than the sent to the 3D printer to print. production of cocoa beans. Around 60% of the world's

agricultural waste is crops that have lignocellulosic The United Nations (UN) characteristics, due to their strong structures, this type of Sustainable waste are hard to manage. CPH is lignocellulosic in nature and contributes to 70-80% of the cocoa's fruit dry weight, making it the main waste generated by the cocoa fruit and causing concerns in terms of its waste management [5-8]. According to researchers [7, 10, 11], when CPH is not being used as fertilizers, farmers will improperly discard them. One of the improper disposal methods of CPH is burying them in the ground to biodegrade. The problem relating to this is that under favorable climatic factors, this CPH waste will become a reservoir for unwanted fungi pathogens like the Phytophthora spp. This pathogen causes black pod disease in a few cocoa plant genotypes, where small dark lesions will spread across the fruit's internal tissues and surface, ultimately failing to be exported [7, 11]. Such an issue will take a big toll on the next few crop harvesting periods, leading to major economic losses in the cocoa industry [7]. Other than this, due to the decomposition of cocoa waste, West Africa which produces 66% of the world's cocoa beans has accumulated 1.1 billion tons of carbon dioxide emissions by the year 2017 and this number is expected to increase even further over the coming years [12]. Thus, the waste management issues of CPH have caused environmental, economic, and social concerns that require urgent attention.

Objectives

To lower the amount of CPH waste in the environment, CPH waste will be repurposed into a value-added product. It was found that CPH can create bioplastics through the extrusion method [13], hence the fabrication of CPH based Biocomposites and repurposing them into reusable kitchenware through processes of Additive Manufacturing (AM) and Fused Deposition Modelling (FDM). Since the target audience of this project is the Food and Beverage (F&B) industry and the users of household kitchenware, Polyethylene Terephthalate Glycol (PETG) was chosen as it is a food-grade and great mechanical amorphous thermoplastic with properties in terms of strength, low shrinkage, and decent chemical resistance. Besides this, PETG is also widely available in the market at a low cost [13].

Methodology

To fabricate the CPH-PETG composite, impurities, and moisture content from both these materials have to first be removed by placing them into a food-grade industrial oven. Next, both CPH and PETG were mixed at a weight percentage ratio of 30:70 with the help of a binding agent, silicone oil [14]. This mixture was then placed into a single-screw desktop filament extruder to create the CPH-PETG filament. Then, this extruded filament was loaded into an FDM 3D printer. Finally, customizable kitchenware designs of choice were designed in (CAD) Computer-Aided Design software like SOLIDWORKS and converted into G-code that will be

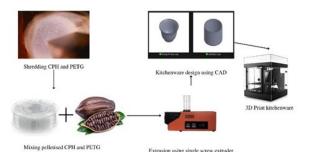


Figure 2: Flowchart of fabricating CPH-PETG



Figure 3: Extruding CPH-PETG using a singlescrew extruder

Preliminary Testing

As shown in Figure 4, a 1.75mm diameter 3D printing filament roll was successfully extruded as a working prototype, as it can be 3D printed into potential physical kitchenware products in the future. This filament also caught the attention of a 3D filament seller, thus proving [9] V. Barisic et al., Difficulties with 03e of 06ee 2 ball of 0. Production and High Voltage Electrical Discharge as a Possible Solution, that it has the potential to be a high-value business. Mechanical and thermal tests such as tensile tests and thermogravimetric analysis (TGA), as well as the printing of custom kitchen wares will be carried out in the future.



Figure 4: Extruded CPH-PETG

Conclusion

The waste issue of the cocoa industry is tackled through the repurposing of cocoa waste. This will not only create lastly to consumers, but the products created will also raise awareness to the public regarding the wastage issues of the cocoa industry. CPH-PETG filament has the unique selling point of being customizable through FDM 3D printing, hence providing options in terms of repurposing cocoa waste into useful applications. The cost of CPH-PETG is also extremely low, as CPH is a waste with close to no value to begin with. Hence, through the business value estimation, CPH-PETG is expected to return with a lucrative income.

References

[1] The International Cocoa Organization, "ICCO Quarterly Bulletin of Cocoa Statistics, Vol. XLIV, No. 3, Cocoa year 2017/18", 2018. [Online]. Accessed: Apr. 23, 2022. Available: https://www.icco.org/wp-content/ uploads/2019/06/Production QBCS-XLIV-No.-3.pdf

[2] List of exporters for the selected product: 18 - Cocoa and cocoa preparations, International Trade Center, 2019. [Online]. Available: https://www.trademap.org

[3] B. P. Meier, S. W. Noll, and O. J. Molokwu, "The sweet life: The effect of mindful chocolate consumption on mood," Appetite, vol. 108, Sept. 2016. Accessed: Jul. 4, 2022. doi: 10.1016/j.appet.2016.09.018. [Online]. Available: https://pubmed.ncbi.nlm.nih.gov/27642035/ [4] Mensah, M., Asiedu, N.Y., Neba, F.A. et al. "Modeling, optimization

and kinetic analysis of the hydrolysis process of waste cocoa pod husk to

reducing sugars". SN Appl. Sci. 2, 1160, 2020. [Online]. Available: https:// doi.org/10.1007/s42452-020-2966-y [Accessed: 4 Jul 2022].
[5] C. Rodrigues. et al., "Materiais lignocelulósicos como matéria-prima para a obtenção de biomoléculas de valor commercial," Biotecnol. Aplicada a Agroindustria, vol. 4, pp. 283-314. Accessed: Jul. 4, 2022. doi: 10.5151/0788521211150-08. [Online]. Available: https:// 10.5151/9788521211150-08. [Online]. Available: https:// openaccess.blucher.com.br/article-details/materiais-lignocelulosicoscomo-materia-prima-para-a-obtencao-de-biomoleculas-de-valor-

comercial-20259

[6] R. Martínez, P. Torres, M.A. Meneses, J.G. Figueroa, J.A. Pérez-Álvarez, and M. Viuda-Martos, "Chemical, technological and in vitro antioxidant properties of cocoa (Theobroma cacao L.) co-products," Food Res. Int., vol. no. 49, pp. 39-45, Nov. 2021. Accessed: Jul. 4, 2022. doi: 10.1016/j.foodres.2012.08.005. [Online]. Available: https://

 10.1016/j.100dres.2012.08.005. [Online]. Available: https:// www.sciencedirect.com/science/article/pii/S0963996912003146
 [7] Z. S. Vásquez et al., "Biotechnological approaches for cocoa waste management; A review," Waste Management, vol. 90, pp. 72-83, May 2019. Accessed: Jul. 4, 2022. doi: 10.1016/j.wasman.2019.04.030.
 [Online]. Available: https://www.sciencedirect.com/science/article/pii/ 20205020445004540. (V20) S0956053X19302454?via%3Dihub)

[8] K.P. P. Nair, "Cocoa (Theobroma cacao L.)," The Agronomy and Economy of Important Tree Crops of the Developing World, 1st ed. London, Great Britain: Elsevier Science, pp. 131–180, 2010. Accessed: Jul. 4, 2022. [Online]. Available: https://doi.org/10.1016/B978-0-12-384677-8.00005-9

[9] V. Barišić et al., "Difficulties with Use of Cocoa Bean Shell in Food Sustainability, vol. 12, no. 10, May 2020. Accessed: Jul. 4, 2022. doi: 10.3390/su12103981. [Online] Available: https://www.mdpi.com/2071-1050/12/10/3981

[10] E. Antwi, N. Engler, S. Narra, A. Schüch, and M. Nelles, Environmental effect of cocoa pods disposal in 3 West African Countries. Universität Rostock, Agrar- und Umweltwissenschaftliche Fakultät, 18051 Rostock, 2019. Accessed: Jul. 4, 2022. [Online]. Available: https:// www.researchgate.net/

publication/338544455_Environmental_effect_of_cocoa_pods_disposal_i n_3_West_African_Countries

[11] D. Guest, "Black pod: diverse pathogens with a global impact on Cocca yield," Phytopathology, vol. 97, no. 12, pp. 1650-1653, Dec. 2007. Accessed: Jul. 4, 2022. doi: 10.1094/PHYTO-97-12-1650. [Online]. Available: https://pubmed.ncbi.nlm.nih.gov/18943728 [12] C. J. Mendoza-Meneses, A. A. Feregrino-Pérez, and C. Gutiérrez-

Antonio, "Potential Use of Industrial Cocoa Waste in Biofuel Production," Food Waste as a Source of Value-Added Industrial Compounds, vol. 2021, Dec. 2021. Accessed: Jul. 4, 2022. doi: 10.1155/2021/3388067. [Online]. Available: https://www.hindawi.com/journals/ jchem/2021/3388067/

[13] M. A. Acquavia, R. Pascale, G. Martelli, M. Bondoni, and G. Bianco, "Natural polymeric materials: A solution to plastic ...," Natural Polymeric Materials: A Solution to Plastic Pollution from the Agro-Food Sector, Jan 2021. [Online]. Available: https:// pdfs.semanticscholar.org/6ca7/4c992105d1c3f3d563bb0c231c1277aa9d 8b.pdf. [Accessed: 4 Jul 2022].

[14] W. Cui and T. A. Pakkanen, "ICEPHOBIC performance of one-step silicone-oil-infused slippery coatings: Effects of surface energy, oil and nanoparticle contents," Journal of Colloid and Interface Science, 30-Septhe repurposing of cocoa waste. This will not only create 2019. [Online]. Available: https://www.sciencedirect.com/science/article/ money opportunities that benefit the entire supply chain abs/pii/S0021979719311646casa_token=PZvQnEjJXJoAAAAA%3A3Poof the cocoa industry from farmers to producers and jyGiAxaz9we_vvoQbQYpjPh5Dv7TK7riOzoTk1QStGusEiybAb8UN_pv32 z9xQo3R-74_g8g. [Accessed: 4 Jul 2022].



Reported and edited by:

Ng Yong Pong, Taylor's University School of Engineering Undergraduate Student (IMM-TULC Student Chapter)

Supervised by Dr. Choo Hui Leng

Participation in the IMM One-day Technical Awareness Seminar – "Introduction of Advanced NDT and Industrial Damage Mechanisms"



Reported by: Ms. Phang Yeen Yeen, Bureau Veritas (M) Sdn. Bhd., Miri, Sarawak (IMM-Miri Committee) and Ir. Dr. Christine Yeo, Curtin University Malaysia, Miri, Sarawak (IMM-Miri Education Officer cum IMM-Curtin Student Advisor).

Edited by: Ir. A.P. Dr. Edwin Jong, (Committee Chairman of IMM-Miri Chapter).

Date: 20th October 2022 Venue: Curtin University Malaysia

Following from the outcomes of the 3rd IMM Miri Committee Meeting on 16th July 2022 at Grand Palace Hotel, Miri with the co-leaderships and initiatives, Ms. Phang Yeen Yeen and Ir. Dr. Christine Yeo, both from IMM-Miri Regional Chapter have successfully organized a One-day seminar entitled "Introduction of Advanced Non-Destructive Techniques (NDT) Industrial Damage Mechanisms" on 29th October 2022 (as depicted in Figure 1), venued at SK3-206, Curtin University Malaysia (CUM) via hybrid mode, i.e., physical and virtual Webex platform) as illustrated in Figures 2. The venue was setup by IMM-CUM student chapter and the complete set of systems/facilities at SK3 206 have been kindly provided by CUM management free of all charges. The speakers for this seminar were Ir. A.P. Dr. Edwin of IMM-Miri Region Chapter and Mr. Sujit Chakravarty from Velosi (M) Sdn Bhd, Kuala Lumpur.



Figure 1: IMM-Miri Regional Chapter organized the first awareness seminar on 29th October 2022

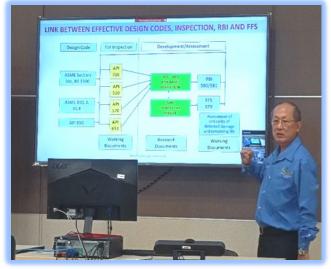


Figure 3: A photo of the speaker, Ir. A.P. Dr. Edwin who was physically present in the seminar hall.



Figure 4: A photo of the speaker, Mr. Sujit Chakravarty who was physically present in the seminar hall.

The objective of this one-day technical awareness course covers a wide range of electrochemical processes service-induced degradation for and damages, including some common corrosion mechanisms and other forms of metallurgical damages that are commonly encountered in industrial processing sectors. The various advanced NDT techniques that can help to identify accurately and deliver better inspection outcomes, facilitate easier interpretation, and speed up procedures compared to conventional NDT techniques have also constituted a major focus of this technical awareness course.



Figure 2: A view of the technical awareness seminar hall at SK3-206 in CUM with some participants physically participated in the seminar hall.

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Upon completion, participants are able to define the general damage mechanisms applicable to their respective industries and identify their features and functions with appropriate mitigation approaches. They are also able to recognize the fundamentals of advanced NDT techniques and compare their efficiency with conventional NDT techniques. In summary, this technical awareness seminar is designed for the benefit to inspectors, engineers, designers, and experienced maintenance personnel who are involved in the operations, maintenance, repair, inspection, analysis of pressure vessels, piping, tanks, and pipelines for safe operations in the oil and gas and other related industry fields.

Based on the registration record, the 43 participants in this seminar are operations and maintenance engineers from the oil and gas industries, lecturers and engineering students. The organizers were required to strictly adhere the CUM's mandatory safety and health requirements in order to accommodate for both in-person/face-to-face and hybrid attendees who were connected virtually with other seminar attendees simultaneously during the midst of the COVID-19 pandemic restrictions.

Upon completion, participants are able to define the In general, the feedbacks from participants were general damage mechanisms applicable to their excellent with many affirmative remarks and further respective industries and identify their features and requesting IMM-Miri to organize more technical functions with appropriate mitigation approaches. They are also able to recognize the fundamentals of advanced community.

In conclusion, the seminar has successfully and practically covered the essential technical knowledge of engineering materials especially on various advanced NDT techniques in the Malaysian industries, such as visual inspection test, electromagnetic test method, Alternate Current Field Measurement (ACFM), Computing and Digital Radiography, Eddy Current Testing, Phased Array Ultrasonic Testing and Time of Flight Diffraction which were presented and illustrated to all registered participants.

Finally, this one-day technical awareness seminar has successfully completed a short question-and-answer session at 5:15 p.m. Before the seminar adjourned, the speaker, Ir. A.P. Dr. Edwin presented the certificates of participation to all physically attending participants as illustrated in Figure 5. Likewise, Ms. Phang also sent out the e-copy of certificates of participation to those online participants via their registered emails respectively.



Figure 5: Presentation of certificates to participants after the half-day awareness seminar.



Polymer Webinar: Insights into Plastic Additive Manufacturing





Reported by: Dr. Lee Xiau Yeen, Tunku Abdul Rahman University of Management and Technology (Secretary of IMM Polymer Committee) Edited by: Ts. Dr. Chan Ming Yeng, Tunku Abdul Rahman University of Management and Technology

Date : 5th October 2022 Venue: Online Platform - Google Meet Time : 10 a.m – 12 p.m

the light of In manufacturing, also known as 3D printing in the second speaker was Mr. Ng Cheng Wei from IME manufacturing industry, IMM Polymer Committee has Trading Sdn. Bhd. who shared his experience on the worked with the Faculty of Engineering and Technology application of plastic additive manufacturing techniques (FOET), Tunku Abdul Rahman University of Management in current manufacturing industries as shown in Figure 2. and Technology (TAR UMT) to organize a webinar Last but not least, Ts. Dr. Choo Hui Leng from Taylor's entitled "Insights into Plastic Additive Manufacturing" on University walked students through the plastic additive 5th October 2022 from 10 a.m. to 12 p.m. via an online manufacturing for medical applications as well as the platform for the students from FOET, TAR UMT. The latest research and advancement on the additive main objective of this event is to provide engineering students with some insights into plastic additive manufacturing through experts in this field. A total of 3 speakers have been invited to share their knowledge with the students.

The first speaker was Ir. Ts. Dr. Koay Seong Chun from Universiti Tunku Abdul Rahman (UTAR). His talk covered the fundamental

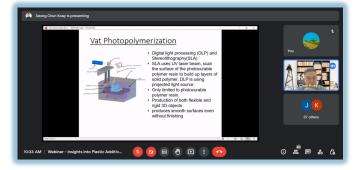


Figure 1: Presentation by Dr. Koay Seong Chun from Universiti Tunku Abdul Rahman.

55% of AM decision makers say they use at least a quarter of their 3D printing capability to produce functional or end-use parts. * E • • • •

Figure 2: Presentation by Mr. Ng Cheng Wei from IME Trading Sdn. Bhd.

popularity gained by additive manufacturing as shown in Figure 1. Meanwhile, the manufacturing technology as shown in Figure 3.

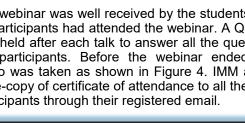
The webinar was well received by the students. A total of 50 participants had attended the webinar. A Q&A session was held after each talk to answer all the questions from the participants. Before the webinar ended, a group photo was taken as shown in Figure 4. IMM also issued the e-copy of certificate of attendance to all the registered technology of plastic additive participants through their registered email.



Figure 3: Presentation by Dr. Choo Hui Leng from Taylor's University.



Figure 4: Group photo of the speakers and participants.



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Young Persons' World Lecture Competition 2022



Prepared by: Dr. Nor Akmal Fadil, Universiti Teknologi Malaysia (Chairperson, IMM-MLC Committee)

Date: 10th November 2022 Venue: ZOOM Platform

The IOM3 Young Persons' World Lecture Competition The judging panel of YPWLC 2022 included the (YPWLC) has been held annually in different locations President of IOM3 as the Chair of the judging panel, Mr. around the globe including Brazil, South Africa, Malaysia, and Australia since 2005 in London. This year's CEng CSci FIMMM, (Senior Vice-President of IOM3) and competition, YPWLC 2022 took place virtually on 10 Dr. Aimee Goodall CSci MIMMM (Chair, Student & Early November 2022 at 20:00 – 11:30 MYT (12:00 – 15:30 Career Committee of IOM3). GMT). This is the third time the competition is held virtually due to the COVID-19 pandemic. The competition was organized by IOM3 Student & Early Career Committee and participated by the finalists from around the world (Malaysia, South Africa, China, Canada, and Hong Kong) who had won their respective finals and represented their countries at this year's final.

Malaysia's representative, Mr. Rathosivan A/L Gopal, a postgraduate student from Universiti Teknologi Malaysia, has made history by winning first prize at the competition The main objective of the YPWLC competition is to with his topic 'Immobilisation of Factor VII through polydopamine grafting on polycaprolactone membrane for cardiac bleeding application' to bring home a prize money of GBP £2500. Besides, he was awarded a oneyear IOM3 free membership to be part of a dynamic and vibrant professional community.

Earlier in July 2022, he won the Materials Lecture Since 2013, Malaysia's finalist that has been selected Competition 2022 (MLC 2022) organized virtually by the through IMM Materials Lecture Competition has won Institute of Materials, Malaysia (IMM) and Xiamen University Malaysia (XMUM). The competition rules of the MLC 2022 were adopted from the YPWLC 2022. Each participants gave a 15-minute lecture followed by a Q&A session from the three judges on a topic related to both public and private universities in the country. materials, minerals, mining, packaging, clay technology and wood science and engineering.

Neil Glover FREng CEng FIMMM, Dr. Kate Thornton

The second prize went to Ms. Lauren Eggleton representing the UK, with her talk on 'A sticky situation: The contradictory materials properties of snail mucus'. Kate Fraser from Canada won third place for her lecture on 'Plastics for renewable energy devices'. All the prerecorded videos of the lectures by the finalists are made available at IOM3 website (https://www.iom3.org/eventsawards/ems-event-calender/2022-ypwlc-final.html).

encourage young materials scientists and engineers to develop their communication and presentation skills. Delivering informative complex technical knowledge in an enthusiastic and understandable way to a non-specialist audience has become an essential communication skill in today's dynamic world.

second and third prizes multiple times at the YPWLC. In 2022, we made history by winning first prize for the first time. For ten years, Malaysia through IMM, has continuously participated in the event with support from



Figure 1: The first prize winner of IOM3 Young Persons' World Lecture Competition 2022, Mr. Rathosivan A/L Gopal, from Universiti Teknologi Malaysia (UTM), Malaysia.

Materials Mind

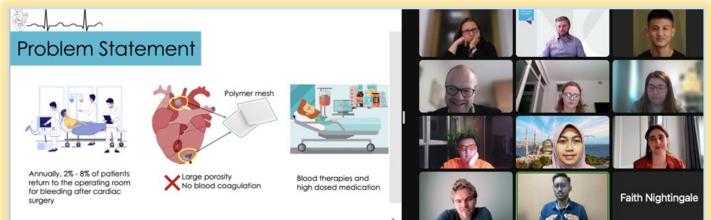


Figure 2: Mr. Rathosivan and the panel of judges and other finalists during the competition (a snapshot photo via ZOOM Application).

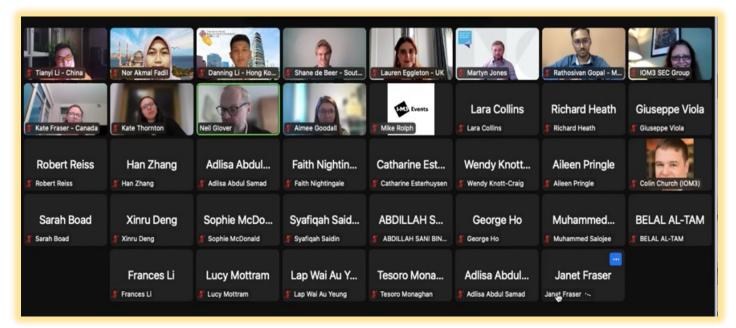


Figure 3: Some of the participants, panel of judges, organizing committees, and the audience (a snapshot photo via ZOOM Application).



NEW IMM PROFESSIONAL MEMBERS

ASSOC. PROF. TS. DR. TSHAI KIM YEOW

Age: 47 years old

Organization: University Of Nottingham Malaysia

Position: Associate Professor

Working experience(s):

- 7 years as Associate Professor at University of Nottingham Malaysia
- 7 years as Assistant Professor at University of Nottingham Malaysia
- 1 year as Assistant Professor at University Tunku Abdul Rahman
- 2 years as Project Manager (Global Packaging Platform) at DANONE, Evian-Ies-Bains, France
- 1 year as Post-Doctoral Research Assistant at Queen's University Belfast, UK

Qualification(s):

• PhD in Engineering [Queen's University Belfast, UK]

Professional membership(s):

- Member (MBOT)
- Member (FHEA)
- Member (IMechE)

Involvement in IMM committees:

• Polymer Committee (2020-2024)

DR. ZAINUDIN BIN A. RASID

Age: 56 years old

Organization: Universiti Teknologi Malaysia, Kuala Lumpur **Position:** Senior Lecturer

Working experience(s):

- 8 months as Lecturer at MJIIT, UTMKL
- 10 years as Lecturer at PPD/KST/SPACE, UTMKL
- 5 years as Tutor at PPD, UTMKL
- 1 year as M&E Engineer at Building Services Sdn Bhd
- 1 year as M&E Engineer at Perunding AC dan Rakan-rakan

Qualification(s):

- PhD in Aerospace Engineering [Universiti Putra Malaysia] **Professional membership(s):**
- Member (BEM)
- Member (AEROS)

Age: 35 years old

Involvement in IMM committees: NIL

DR. ABDUL HAKIM BIN MD YUSOP

Organization: Universiti Teknologi Malaysia Position: Senior Lecturer Working experience(s): • 8 years as Operation Associate at FPG Oleochemical Sdn Bhd • 4 years as Researcher Assistant & Postdoctoral Fellow at Universiti Teknologi Malaysia Qualification(s): • PhD in Biomedical Engineering- Materials [Universiti Teknologi Malaysia, Johor] Professional membership(s): • Member (BEM) Involvement in IMM committees: NIL







MOHD ALIFEE BIN OTHMAN

Age: 35 years old
Organization: PETRONAS Technical Services Sdn Bhd
Position: Project Quality Engineer
Working experience(s):

10 years as QA/QC Engineer at Sapura Pinewell Sdn Bhd

Qualification(s):

Bachelor of Engineering (Mechanical Engineering) [Universiti Kebangsaan Malaysia]

Professional membership(s):

Member (BEM)

Involvement in IMM committees: NIL

MR. OON KOK WOI (DENNIS)

Age: 38 years old Organization: Petronas Floating LNG 1 (L) Ltd Position: Senior Inspection Executive Working experience(s):

• 3 years 3 months as Senior Inspection Engineer at Sea Hibiscus North Sabah PSC

• 4 months as Static Equipment Inspector at Petronas MLNG, Sarawak

• 2 years 4 months as Inspection Engineer at IDC Plant Technology Sdn Bhd & IDC Training House Sdn Bhd

• 4 months as Senior Engineer, Project at OAG Group, Selangor

• 4 years 7 months as Project & QAQC Engineer at IEV Group SEA **Qualification(s)**:

•Master of Science in Petroleum Engineering (Distinction) [London South Bank University] Professional membership(s): NIL

Involvement in IMM committees: NIL

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EMBE

ANNOUNCEMENT

RECOMMENDATION OF 3RD-PARTY TESTING LABORATORY IN RELATION TO FINGERPRINT COATING CERTIFICATE FOR RETAINED PAINT SAMPLE





LABORATORIES ARE INVITED TO REGISTER!



IMM TRAINING AND CERTIFICATION PROGRAM OVERVIEW

The Institute of Materials, Malaysia (IMM) offers engineering & technical professionals and practitioners a range of Certification Schemes and technical training courses to meet the requirements of the oil & gas, refining, petrochemical, transport, construction and other industries. Our programs have been developed together with the industry, academia and relevant stakeholders to ensure that the technical training and certification provided meet the relevant industry standards and requirements.

PROGRAM: COATING

IMM Certification Schemes and Courses	Technical Training Courses (Non-certification)
 Certified Protective Coating Technician (Blaster and/or Painter) Level 1 and Level 2 Certified IMM-B1/B2 Assistant Blaster & Painter Certified Coating Inspector Level 1 Certified Coating Inspector Level 2 Certified Blasting and Painting Supervisor Certified Thermal Spray Coating Applicator Certified Coating Quality Control Technician 	 Refresher Course of Certified Protective Coating Technician (Blaster and/or Painter) Level 1 and Level 2 Refresher Course of Certified Coating Inspector Basic Knowledge on Corrosion Protection for Technicians and Engineers Corrosion Control by Protective Coating Basic Corrosion & Coating Course

PROGRAM: COATING FINGERPRINTING

IMM Certification Schemes and Courses	Technical Training Courses (Non-certification)
 Certified Coating Fingerprint Quality Controller Level 1 Certified Coating Fingerprint Quality Controller Level 2 Certified Coating Fingerprint Trainer 	 Coating Fingerprint Foundation Course Refresher Course of Certified Coating Fingerprint Quality Controller Level 1/Level 2

PROGRAM: CORROSION

IMM Certification Schemes and Courses	Technical Training Courses (Non-certification)		
 Certified Corrosion Monitoring Practitioner Level 1 Certified Corrosion Monitoring Practitioner Level 2 Certified Corrosion Monitoring Practitioner Level 3 Certified Cathodic Protection Practitioner Level 1 Certified Cathodic Protection Practitioner Level 2 Certified Cathodic Protection Practitioner Level 3 Certified Cathodic Protection Practitioner Level 3 Certified Cathodic Protection Practitioner Level 3 	Corrosion Control by Cathodic Protection		

PROGRAM: VIBRATION

IMM Certification Schemes and Courses	Technical Training Courses (Non-certification)
 Certified Vibration Practitioner Category 1 Certified Vibration Practitioner Category 2 Certified Vibration Specialist Category 3 Certified Vibration Specialist Category 4 	-



PROGRAM: MECHANICAL JOINT INTEGRITY (MJI)

IMM Certification Schemes and Courses	Technical Training Courses (Non-certification)
 Certified Technician in Mechanical Joint Integrity (MJI) for Flange Bolted Connection Certified Technician in Mechanical Joint Integrity (MJI) for Small Bore – Piping, Tubing, Valves 	 Mechanical Joint Integrity Pressure Safety Valve Small Bore Tubing

PROGRAM: THERMAL INSULATION

IMM Certification Schemes and Courses	Technical Training Courses (Non-certification)
Certified Thermal Insulation Installer	Introduction to Thermal Insulation

PROGRAM: WELDING

IMM Certification Schemes and Courses	Technical Training Courses (Non-certification)
 Certified Welding Inspector IMM-JWES Certified Associate Welding Engineer IMM-JWES Certified Welding Engineer IMM-JWES Certified Senior Welding Engineer 	 Repair Welding of Pressure Equipment in Refineries & Chemical Plants Welding & Joining Technology for Non-Welding Personnel Steel Technology for Non-Technical Personnel

MISCELLANEOUS MATERIALS SCIENCE AND TECHNOLOGY (NON-CERTIFICATION) COURSES

Technical Training Courses	Technical Training Courses
 Materials Selection & Corrosion Metallurgical Failure Investigation Basic Course on Operation of Mobile Air Compressor Competent Mobile Industrial Compressor Operator Competent Mobile Industrial Equipment Inspector Practical Approach to Inspection and Maintenance of Steam Turbine 	 Practical Approach to Precision Alignment Methods Practical Approach to Precision Balancing Methods Reciprocating Compressors: Operations, Maintenance, Inspection and Troubleshooting Troubleshooting Techniques for Rotating Equipment Valve Operations, Maintenance and Inspection Including Flange Breaking

Note: A certificate of attendance will be issued to all participants of non-certification professional development training courses while candidates who pass the assessment/examination of IMM-certification schemes will be certified with the issue of IMM competency certificate and IMM certification ID card in addition to the certificate of attendance.

More information on training and certification is available on IMM's website at www.iomm.org.mv.

For further enquiries:

Call	:	+603 7661 1591
Email	:	secretariat@iomm.org.my
WhatsApp	2	+6018 911 3480

INSTITUTE OF MATERIALS, MALAYSIA Suite 1006, Level 10, Block A, Kelana Centre Point, No. 3 Jalan SS 7/19, 47301 Petaling Jaya, Selangor.

IMM AUTHORIZED TRAINING BODY (ATB)/ AUT **TRAINING PARTNER (ATP) FOR**

AUTHORISED TRAINING BODIES (ATBs)

(Offer IMM Certification Training Programs and Courses)

ATBs Training Programs & Courses Coating S Certified Assistant Blaster & Painter Level 1 & Level 2 Seacademy Sdn. Bhd. (Sarawak) S Certified Protective Coating Technician (Blaster and/or S Topfields Borneo Sdn. Bhd. Painter) Level 1 & Level 2 (Sarawak) S Certified Blasting and Painting Supervisor Sabah Skills & Technology Centre S Certified Coating Inspector Level 1 & Level 2 (Sabah) S Certified Quality Control Technician* SRC Global Resources Sdn. Bhd. S Certified Thermal Spray Coating Applicator* (Peninsular Malaysia) Basic Knowledge on Corrosion Protection for S Advance Multiskills Training Centre Sdn. Bhd. Technicians and Engineers* [Excludes courses marked with *] S Corrosion Control by Protective Paints* (Sarawak) Sorrosion Control by Protective Coating* **Mechanical Joint Integrity** Sabah Skills & Technology Center S Certified Mechanical Joint Integrity for Small-bore Piping, Tubing and Valves (Sabah) SRC Global Resources Sdn. Bhd. S Certified Mechanical Joint Integrity for Flange Bolted Connections (Peninsular Malaysia)

Thermit Welding

🌀 Prasarana Malaysia Berhad (Malaysia)

- Gertified Thermit Welding Practitioner (Level 1)
- S Certified Thermit Welding Senior Practitioner (Level 2)

Note: The respective coverage area is indicated in brackets.

AUTHORISED TESTING CENTRE (ATC)

(Offers IMM Examination and Assessments)

ATC: JOTAC Academy Sdn. Bhd. (Peninsular Malaysia)

Certification Examination/Assessments

- S Certified Protective Coating Technician (Blaster and/or Painter) Level 1 & Level 2
- S Certified Coating Inspector Level 1 & Level 2
- Gertified Corrosion Monitoring Practitioner Level 1
- S Certified Cathodic Protection Practitioner Level 1

FOR

NNOUNCEMENT IMM

CHANGING OF IMM CERTIFIED PROGRAMS NAME FOR **CATHODIC PROTECTION TECHNICIAN (CPT)** AND **CORROSION TECHNICIAN (CT)**

With effective date 01 April 2022, we will be using the new names for all IMM official purposes.
Certified Cathodic Protection Practitioner (CPP) AND
Certified Corrosion Monitoring Practitioner (CMP)

.

HORIZED TESTING CENTRE (ATC)/ AUTHORIZED

ASSOCIATE TRAINING PARTNER (ATP)

(Offers IMM Certification Training Programs and Courses)

ATP: Materials Technology Education Sdn Bhd (Malaysia and Overseas)

IMM Training Programs & Courses

Coating

- Sertified Protective Coating Technician (Blaster and/or Painter) Level 1 & Level 2
- Sefresher Course for Certified Protective Coating Technician (Blaster and/or Painter) Level 1 and Level 2
- S Certified Assistant Blaster & Painter Level 1 & Level 2
- S Certified Blasting and Painting Supervisor
- S Certified Coating Inspector Level 1 & Level 2
- Sefresher Course for Certified Coating Inspector Level 1 and Level 2
- S Certified Coating Quality Control Technician
- S Certified Thermal Spray Coating Applicator
- Sasic Knowledge on Corrosion Protection for Technicians and Engineers
- S Corrosion Control by Protective Paints
- S Corrosion Control by Protective Coating

Coating Fingerprinting

- S Coating Fingerprint Foundation Course
- S Certified Coating Fingerprint Quality Controller Level 1
- S Certified Coating Fingerprint Quality Controller Level 2
- Sefresher Course of Certified Coating Fingerprint Quality Controller Level 1/Level 2

Train-the-Trainer

Scertified Trainer

Corrosion

- Sertified Corrosion Monitoring Practitioner Level 1
- S Certified Corrosion Monitoring Practitioner Level 2
- S Certified Corrosion Monitoring Practitioner Level 3
- S Certified Cathodic Protection Practitioner Level 1
- S Certified Cathodic Protection Practitioner Level 2
- Sertified Cathodic Protection Practitioner Level 3
- S Certified Cathodic Protection Engineer
- S Corrosion Control by Cathodic Protection

Thermal Insulation

- Introduction to Thermal Insulation
- S Certified Thermal Insulation Installer

Vibration

- Sertified Vibration Practitioner Category 1
- S Certified Vibration Practitioner Category 2
- S Certified Vibration Specialist Category 3
- S Certified Vibration Specialist Category 4

Welding

- S Certified Welding Inspector
- Sepair Welding of Pressure Equipment in Refineries & Chemical Plants
- Welding & Joining Technology for Non-Welding Personnel
- Steel Technology for Non-Technical Personnel

IMM-JWES Courses

- S Certified Associate Welding Engineer (AWE)
- S Certified Welding Engineer (WE)
- S Certified Senior Welding Engineer (SWE)

Mechanical Joint Integrity

- S Certified Mechanical Joint Integrity for Small-bore Piping, Tubing and Valves
- S Certified Mechanical Joint Integrity for Flange Bolted Connections
- Valve Operations, Maintenance
 & Inspection Including Flange
 Breaking

Loss of Primary Containment

- Mechanical Joint Integrity
- Series Pressure Safety Valve
- Small Bore Tubing

Rotating Equipment

- S Competent Mobile Industrial Compressor Operator
- S Competent Mobile Industrial Equipment Inspector
- Inspection & Maintenance of Pumps
- Practical Approach to Inspection and Maintenance of Stream Turbine
- S Practical Approach to Precision Alignment Methods
- S Practical Approach to Precision Balancing Methods
- Seciprocating Compressors: Operations, Maintenance, Inspection & Troubleshooting
- S Troubleshooting Techniques for Rotating Equipment

Other Materials Courses

- Materials Selection & Corrosion
- Metallurgical Failure Investigation
- Sasic Course on Operation of Mobile Air Compressor



CONTINUING PROFESSIONAL DEVELOPMENT REPORT

NAME:	YEAR:
IMM MEMBERSHIP NO:	CERTIFICATION NO:

CONTINUING PROFESSIONAL DEVELOPMENT (CPD) LOG (Supporting documents to be submitted wherever applicable)

Date or Period	Professional Development Activity Code & Description	Role	No. of Activity Hours	Weightage	No. of CPD Points
			1	TOTAL	

Professional Development Activity Code	Professional Development Activity Scope	Weightage Factor
A	Attending Online or Physical Training Courses/Workshops	4
В	Online or Physical Course Trainer/Facilitator/Examiner/ConferencePresenter	3
С	Attend Online or Physical Seminar/Conference/Webinar	2
D	Paper Author Main Author (max 30 hours/year)Co-author (max 10 hours/year)	2
E	Attend Online or Physical Committee Meeting	1
F	Fieldwork (max claimable 480 hours per year) **	0.1

** 1. Need to submit an endorsement from the superior/supervisor as evidence.

- Calculated based on the assumption that the minimum project duration of 3 months and 8 hoursper day for 20 days.
- 3. The minimum number of CPD Points accumulated for 5 consecutive years shall be 100 points.

CPD Points per year : 10 points minimum.

CPD Points per 5 year for re-certification : 100 points.

Year			Total CPD Points
CPD Points			

I hereby declare that the information and particulars provided by me in this form is true and correct.

(Signature)

(Date)

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Materials Mind

	IKM PROFESSIONAL CE TRAINING CALENDAR 2	
Date	Training Topics	Trainer
7 - 8 Feb 2023 (Tuesday - Wednesday)	Calibration of Test and Measuring Instruments and Metrological Traceability (ONLINE TRAINING)	MR CHEN SOO FATT
15 - 16 Feb 2023 (Wednesday - Thursday)	Method Validation & Quantification of Measurement Uncertainty in Microbiological Testing (In-Person Training)	DR NEW CHIA YEUNG
6 Mar 2023 (Monday)	Decision Rules and Conformity Assessment Meeting The MS ISO/IEC 17025:2017 Requirements (ONLINE TRAINING)	CHM CHANG HON FONG
7 Mar 2023 (Tuesday)	Root Cause Analysis and Corrective Actions on Unsatisfactory PT Performance (In-Person Training)	ChM LI HUI LING
8 - 9 Mar 2023 (Wednesday - Thursday)	Measurement Uncertainty in Chemical Analysis (In-Person Training)	CHM CHANG HON FONG
11 - 12 Mar 2023 (Saturday - Sunday)	Basic Laboratory Skills & Techniques (ONLINE TRAINING)	PROF CHM DR SHARON TEH GEOK BEE
6 - 7 Apr 2023 (Thursday - Friday)	Management of Chemicals & Chemical/Lab Wastes (ONLINE TRAINING)	ChM DR MALARVILI RAMALINGAM
8 - 9 May 2023 (Monday - Tuesday)	Chemical Safety and Security (In-Person Training)	DATIN CHM DR ZURIATI ZAKARIA
17 - 18 May 2023 (Wednesday - Thursday)	Basic Nuclear Magnetic Resonance Spectroscopy (In-Person Training)	ASSOC PROF ChM DR JALIFAH LATI
30 - 31 May 2023 (Tuesday - Wednesday)	Advanced Nuclear Magnetic Resonance Spectroscopy: 2 Dimensional 1H and 13C NMR (In-Person Training)	ChM DR CHE PUTEH OSMAN
7 - 8 June 2023 (Wednesday - Thursday)	Interpretation Of Infra Red Spectra (In-Person Training)	ASSOC PROF CHM DR INTAN SAFINA ISMAIL
14 - 15 June 2023 (Wednesday - Thursday)	General QA/QC Procedures for Testing Laboratories (In-Person Training)	ChM PUA HIANG
21 - 22 June 2023 (Wednesday - Thursday)	MS ISO/IEC 17025:2017 Management Systems Internal Auditing (In-Person Training)	ChM PUA HIANG

Email us for more information:

ayu@ikm.org.my Tel: 03-77283272



https://ikm.org.my/ikm-professional-centre/training-calendar/



INSTITUTE OF MATERIALS, MALAYSIA

Updated on 30th December 2022

Institute of Materials, Malaysia (IMM) is a non-profit professional society that promotes honourable practice, professional ethics and encourages education in materials science, technology and engineering. Engineers, academicians, technicians, skilled workers and professionals are amongst its members exceeding 6800.

Registered with the Registrar of Societies on 6th November 1987, the Malaysian Materials Science & Technology Society (MMS) changed its name to the Institute of Materials, Malaysia (IMM) on 16th June 1997. The objectives of IMM include the training and development of individuals and companies in Malaysia to attain professional recognition in various fields of materials science, technology and engineering.

IMM is administered by a council of 30 members, with volunteers leading more than 15 materials committees and more than 4 regional chapters, and supported by a secretariat with full time staff.

IMM Vision

To be internationally recognised leading institution in Materials Science and Technology.

IMM Mission

(1) To be the technical authority on material science and technology

- (2) To develop an enhance competency and skills for all categories and practitioner
- (3) To become an internationally recognized certifying body
- (4) To be the forum for industry and academia collaboration
- (5) To positively contribute to society and quality of life

The IMM membership is categorised into 6 different grades and open to anyone above the age of 17 years - individuals and companies keen in developing and contributing towards the growth of materials science, technology and engineering in Malaysia.

Over the years, IMM have conducted courses on coatings, coatings fingerprinting, corrosion, welding, vibration etc in support of the oil and gas industry in Malaysia. Over 750 Coatings Inspectors have been trained and certified as well as more than 3300 Blasters & Painters, Supervisors, Corrosion Technician and Vibration Practitioners. Its certification programmes are recognized by PETRONAS and all oil & gas operators. Since January 2011, more than 80 Associate Welding Engineers, more than 90 Welding Engineers, more than 30 Senior Welding Engineers and more than 45 Coating Fingerprint Quality Controllers were trained and certified.

IMM has also organised 10 International Materials Technology conferences (IMTCE) on a biennial basis, and numerous technical seminars, educational programmes, technical visits, and materials awareness programmes since 1988.

Public courses, such as Microbiologically Influenced Corrosion (MIC) and Welding Technology for Non-Welding Personnel, are being offered occasionally. Training on materials awareness has also been conducted in public listed companies.

The courses and programmes are being organised by Authorized Training Body/Bodies and Authorized Event Organizer/Organizers.

Collaborations with the Asian Welding Federation, Sabah Skills Technology Centre (SSTC), and local universities continue to be part of IMM's vision and long term mission to educate, train and serve the materials fraternity.



GENERAL INFORMATION ON MEMBERSHIP

The IMM Membership is open to all individuals and companies in developing the contribution of Materials science, technology and engineering towards industrial growth in Malaysia. The technology of materials is advancing day-to-day throughout the world. Membership to the IMM will enable networking and exchange of knowledge from a very wide variety of specialised areas of expertise. Please feel free to download or print a copy of the application form together with the IMM regulations. If you have any doubt, please do not hesitate to contact our secretariat through the phone; +603-76611591 or email to secretariat@iomm.org.my

Annual subscriptions shall be payable in advance on 1st January of each year. Those admitted into the IMM between 1st July and 31st December in any year shall pay only half the annual subscription. Seniors (above 55 years old) get 50% discount off their annual subscriptions.

We have an online application for membership for selected grades. Membership application forms in document format can be accessed from www.iomm.org.my.

IMM SECRETARIAT

Suite 1006, Level 10, Block A, Kelana Centre Point, No. 3 Jalan SS 7/19, 47301 Petaling Jaya, Selangor

IMM MEMBERSHIP BENEFITS

- (1) IMM activities offer members to interact and network with representative from the industry, academia and government related to the Materials profession.
- (2) Members will gain knowledge on career opportunities for their children, friends etc as IMM offers certification courses in skilled trades e.g. Welding, Painting, Inspection, Corrosion etc.
- (3) IMM-JWES Welding Engineer Certification program leading to a Welding Engineer Certification which offers great employment opportunities in the oil & gas, heavy industry, marine and energy sectors.
- (4) IMM publications quarterly magazine plus annual conferences offer presenters an opportunity for their technical research or industry-academia papers to be published in ISI- and Scopus-index journals.
- (5) IMM organizes many free technical events for members to acquire new knowledge and networking opportunities. Participants to these events will also receive Certificate of Attendance for their Continuing Professional Development records.

IMM MEMBERSHIP FEES SCHEDULE AS PER BELOW:

	Amount					
Description	Entrance Fee	Processing Fee	Transfer Fee	Annual Subscription		
Fellow (F.I.M.M)	-	RM 300.00	RM 10.00	RM 150.00		
Professional (M.I.M.M)	-	RM 150.00	RM 10.00	RM 100.00		
Associate (A.M.I.M.M)	-	RM 150.00	RM 10.00	RM 80.00		
Company	RM 50.00	-	-	RM 200.00		
Ordinary	RM 20.00	-	-	RM 40.00		
Student	RM 10.00	-	-	RM 10.00		
Ordinary/ Company for affiliates	RM 40.00/ RM 50.00	-	-	NIL		



INSTITUTE OF MATERIALS, MALAYSIA

Updated on 30th December 2022

REGULATIONS GOVERNING ADMISSION AND TRANSFER OF MEMBER GRADES

The Council shall establish a Membership Committee which will be responsible for these Regulations and for review of applications for new membership and transfer to other grades (upgrades). The Membership Committee shall recommend for Council approval for admission and transfer of membership. All grades of memberships are awarded at the discretion of the Council and may be withheld or withdrawn in the event of conduct likely to prejudice the standing of the Institute. Every member shall receive a membership certificate.

Every application for membership, individual or company, shall be proposed and seconded according to these regulations and shall be forwarded to the IMM Secretariat who on behalf of the Honorary Secretary will process for consideration and approval of the Membership Committee before tabling for Council's endorsement. The Council may at its discretion reject any application without assigning any reason thereof. The Council may use its discretion to exempt the need for proposer and seconder for Student, Ordinary and Company membership.

Each company on admission as a member shall be entitled to nominate one representative to exercise all rights of membership. Only representatives of Company membership, as well as Fellows (F.I.M.M.). Professional Members (M.I.M.M.) and Ordinary members shall have the right to vote and to hold office in IMM.

Only Malaysian Citizens can become Ordinary Members, Associate Members (A.M.I.M.M.), Professional Members (M.I.M.M.) and Fellow Members (F.I.M.M.) with voting rights. Foreigners can have membership to similar grades but shall have no voting rights.

MEMBERSHIP GRADE & REQUIREMENT

Honorary Fellow (Hon. F.I.M.M.)

The Council shall have the power to elect Honorary Fellows who shall be persons of eminence in science or industry. The election shall be based on a majority vote within the Council. Honorary fellows shall enjoy such privileges as may from time to time be determined by the Council.

Fellow (F.I.M.M.)

A person at least 35 years of age with approved academic qualifications, training and 8 years relevant responsible experience who has made significant contributions to the science and practice of profession of Materials Science and Engineering or has given distinguished service to industry or education.

Professional Member (M.I.M.M.)

A person at least 25 years of age, with approved academic qualifications and training, having at least 3 years responsible experience in Materials Science and Engineering, or a person at least 40 years of age, with at least 15 years of experience with practical responsibility, as demonstrated by thesis/dissertation or report and interview.

Associate Member (A.M.I.M.M.)

A person at least 25 years of age, who possesses an interest in Materials Science and Engineering but have not acquired the necessary experience or obtained the qualification, governing entry to Member grade. An Associate Member, on obtaining the necessary qualifications, may apply for transfer to Member grade.

Company Member

Any company that is involved or has interest in Materials Science and Engineering will be qualified to join as a company member.

Ordinary Member

Any Malaysian Citizen and above the age of 18 years engaged in activities related to research, development and applications in Materials Science and Engineering shall qualify for Ordinary Membership. Only Ordinary Members who meet the necessary minimum requirements may apply for transfer to membership grades of Fellow, Member and Associate Member and may use the abbreviated titles upon transfer.

Student Member

A student member shall be a person not under 17 years of age who at the time of application satisfies the Council that he has received a good general education and is studying subjects related to Materials Science or Engineering. A student member shall transfer to the grade of Ordinary Member after graduation provided he or she is suitably qualified and as soon as he or she is earning a full-time salary. A Student shall not become member of the IMM without the prior approval of the Vice-Chancellor or Head of Department of the university or relevant authority concerned.





1-Day IMM Corrosion Conference 2022 – Holistic Corrosion Prevention & Management

 Offshore
 Technology
 Conference
 Asia
 Materials
 Lecture Competition 2022 (MLC 0TC Asia) 2022

 (OTC Asia) 2022
 2022)
 2022)
 2022)
 2022)

FREE Ordinary Membership for Affiliates:

The Institute of Materials, Malaysia will recognize members of various professional institutions and societies for membership at "Ordinary Grade" without any annual subscriptions. Such members shall submit to IMM proof of their current membership of the respective institutions together with their application.

Members of the following institutions and societies are eligible to apply for affiliate membership:

- 1.American Welding Society
- 2.Asian Welding Federation
- 3.Board of Architects Malaysia
- 4.Board of Engineers, Malaysia
- 5. Engineering Institutes under the Engineering Council of UK
- 6.Geological Society of Malaysia
- 7.Institut Kimia Malaysia
- 8.Institute of Corrosion UK
- 9.Institute of Materials Singapore
- 10.Institute of Physics Malaysia
- 11.Institution of Engineers, Malaysia
- 12. Jabatan Minerals & Geoscience
- 13.Malaysian Medical Association
- 14 Malaysian Nurses Association
- 15.Malaysian Society for Non-Destructive Testing
- 16.Malaysian Welding & Joining Society
- 17.Persatuan Arkitek Malaysia
- 18.Plastics & Rubber Institute of Malaysia
- 19.Singapore Welding Society
- 20. Society of Petroleum Engineers
- 21.The Welding Institute UK

FREE Company Membership for Affiliates:

The Institute of Materials, Malaysia will recognize various professional institutions and associations for membership at "Company Grade" without any annual subscriptions.

Companies registered with the following Trade Associations are recognized for Affiliate Company Memberships:

- 1.Federation of Malaysian Manufacturers (FMM)
- 2. Malaysian Offshore Contractors Association (MOCA)
- 3.Malaysian Oil & Gas Engineering Council (MOGEC)
- 4.Malaysian Oil & Gas Services Council (MOGSC)

The companies shall submit to IMM proof of their current membership at the respective trade associations together with their application.

NOTE: The above provisions for affiliate membership for individuals and companies was approved by the IMM Council in accordance with the powers vested in the Council as per Clause 6.1.3 of the IMM Constitution and was subsequently endorsed by members at its 21st Annual General Meeting held on 19th March 2011.



Education Examination & Certification Panel

Dr. Nazatul Liana

Sukiman

IMM COUNCIL MEMBERS & COMMITTEES

2022-2024 SESSION

		2022 202-	+ 5L55101V				
Advisor:		Prof. Ts. Dr. Mohamad Ka	amal Harun (Razak Sc	hool of Government)			
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		Ts. Wan Mohd Arif Wan It	· ·	. ,			
		Ir. Mohd Syukri Mohd Kha	· ·	rhad)			
		Kang Kim Ang (CorrTrol S Ts. CEng. Dr. Bernard Ma	, ,	(oritae (M) Edn Bhd)			
		Nik Khairil Azman Nik Abo	,				
		Mark Hew Yoon Onn (Uni	· ·	,			
		Assoc. Prof. Dr. Tuty Asm	0	0()			
		Devinakumar Ratanam (T	opfields Borneo Sdn E	3hd)			
		Assoc. Prof. Dr. Lim Teck	· ·	, ,)		
		Dr. Amalina Muhammad A	· · · · · · · · · · · · · · · · · · ·	·			
		Ts. Brian Lim Siong Chun		a)			
		Daniel Sagoh (Mui Lee Er Danny Tan Kim Chew (Ab	• • •	s Sdn Bhd)			
		Dr. Dasline Sinta (Dreamo					
		Karen Cheng Siew Hoon	,	Berhad)			
		Asst. Prof. Dr. Maxine Yee					
		Dr. Nazatul Liana Sukima	• •				
		Ts. Dr. Nur Aimi Jani (Uni	-	,			
		Ts. Ong Thai Kiat (Tunku		• • •			
		Assoc. Prof. Ts. Dr. Tay C Ir. Ts. Dr. Tan Kim Seah (
		Asst. Prof. Ts. Dr. Yu Lih					
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Bintulu	Raymond Phen	Asean Bintulu Fertilizer		Chung			
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Examination &	Dr. Nazatul Liana	Universiti Malava					

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2022-2024 SESSIONS

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ecretary:	Abdullah Syarifah Nazliah Syed	Bhd BSSTECH CP (M) Sdn		Jiun Ts. Wan Mohd Arif Wan	
reasurer:	Abdul Rahman Leow Chun Ho	Bhd Sarawak Shell Berhad		Ibrahim Dr. Choong Wai Heng	
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	Yip Han Wei	Sarawak Shell Berhad		Meng Siti Haslina	
	Junaidy Abdullah	Norimax Sdn Bhd		Nurjaimi Ali	
	Kang Kim Ang	Corrtrol Synergy Sdn Bhd		-	21-
	Karen Cheng Siew Hoon	Serba Dinamik Group Berhad		D CERTIFICATION PANEL (EC ator: Nurhasanah Sahri	٩ř
	Dr. Kee Kok Eng	Universiti Teknologi PETRONAS	Alternate: Aberamy Acting Chairperson		
	Kent Ooi	Chong Wah-NTIA Sdn Bhd	Member:	Sukiman Dr. Goh Yingxin	
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Chong Wah-NTIA Sdn

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Wee Ching Yun

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2022-2024 SESSIONS

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Alternate: Ainur Afini I Chairperson	Puaze Kang Kim Ang	CorrTrol Synergy Sdn		Вао	Malaysia
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	Kamal Harun	Government		Jamadon	Malaysia
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Freasurer:	Nurul Fatahah Asyqin Zainal	Universiti Teknologi MARA		Ms. Nurfanizan Mohd Afandi	Universiti Tenaga Nasional
Members:	Abdul Aziz Haron	SIRIM QAS		Dr. Mohd Edeerozey Abd	Univeriti Teknikal
	Ahmad Badli Shah Abdul	International Sdn Bhd International Paint Sdn		Manaf Ts. Dr. Mohd	Malaysia Universiti Putra Malaysi
	Aziz Aik Siaw Chuin	Bhd Eurofins NM Laboratory		Salahuddin Mohd Basri	
	Goh Yong Sean (alt)	Sdn Bhd Eurofins NM Laboratory		Mr. Ong Thai Kiat	Tunku Abdul Rahman University College
	U ()	Sdn Bhd		Ts. Dr. Pua Fei Ling @ Grace Pua	Universiti Tenaga
	Ts. Dr. Chew Khoon Hee	Tunku Abdul Rahman		Assoc. Prof. Ts. Dr.	Nasional Universiti Malaysia
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	Hairunnisa Ramli	Universiti Teknologi		lsmail Dr. Abdillah Sani Bin	Universiti Teknologi
	Ismaliza Ismail	Malaysia Rubber Board		Mohd Najib Dr. Muhammad Khairi	Malaysia Universiti Malaya
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	Mohamad Ariff Sukur Mokhtar Othman (alt)	Sarawak Shell Malaysia International Paints (M)			Sdn Bhd
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	Teh Tiong Poh (alt) Norsyazlin Rashid	Jotun (M) Sdn Bhd Universiti Teknologi	Member:	Ir. Dr. Christine Yeo	Holdings Berhad Curtin University
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2022-2024 SESSION

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	Shukri Johari	Bureau Veritas (M) Sdn		Dr. Choo Hui Leng	Taylor's University
	Phang Yeen Yeem	Bhd Bureau Veritas (M) Sdn		Dr. Liew Chiam Wen	Tunku Abdul Rahman University College
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,		University College	Secretariat Coordinato	r: Syafika Azis	
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	Hee	University College	Chairperson:	Dr Bernard Maxmillan	Bureau Veritas (M) Sdn
	Assoc. Prof. Dr. Albert	University of Nottingham	Deputs Ob -!	Sim In Dr. Edwin Jong Niven	Bhd
	Tshai Kim Yeow Banaa Taa Yang Yin	Prukor (M) Can Dha	Deputy Chairperson:	Ir. Dr. Edwin Jong Nyon Tchan	Advanced Metallurgy & Welding Technology Sd
	Renee Teo Yong Yin	Bruker (M) Sdn Bhd		ronan	welding rechnology So
	Stephen Su Ts. Dr. Ong Huei Ruey	BASF Malaysia Sdn Bhd	Secretary:	Abdul Alaziz	Sapura Energy Berhad
	TS. Dr. Ong Huer Ruey	DRB-HICOM University of Automotive Malaysia	Treasurer:	Darren Lim	Euro Potential Sdn Bhd
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	or: Syazana Shahabudin				Engineering Works
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	Jamadon	Malaysia		Danial Liana	Corporation
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Weinberg.	Choe Peng			Shukri Johari	Bureau Veritas (M) Sdn
	Prof. Dr. Ir. Mariatti	Universiti Sains Malaysia			Bhd Malaysia LNG
	Jaafar @ Mustapha	I had a second to a second		Haziq Ariffin Ir. Desmond Chin Teck	Malaysia LNG Ocean Line Dockyard
	Dr. Nor Ishida Zainal	University of Malaya		Eng	Sdn Bhd
	Abidin Assoc. Prof. Dr. Nadras	Universiti Sains Malaysia		Karen Cheng Siew	Serba Dinamik Group
	Othman Norhashidah Talip	Malaysian Nuclear	Notes:	Hoon	Berhad
		Agency	1) obs: observer		
	Assoc. Prof. Dr. Roslina	University of Malaya	alt: alternate		
	Binti Ahmad Dr. Ummi Hani Abdullah	Universiti Putra Malaysia			
	Dr. Tuan Zaharinie	Universiti Malaya			
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Alternate: Aberamy Da				HONORARY SECRETARY	
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Members:	William Soon Guok Hau	Armacell Asia Ltd	Syatikaazis.imm@		HADI STAILIRMAN HASMADI ADMIN EXECUTIVE
	Dr. Andrew Ng Kay Lup	Xiamen University Malavsia	SYAZANA SHAH	ABUDIN	hadihasmadi.imm@gmail.com

Abdul Aziz Haron

Ts. Dr. Mahmood Anwar

Xiamen University Malaysia SIRIM QAS International

Curtin University Malaysia



Compiled by: IMM Secretariat, The information was updated as of 8th February 2023

ANNUAL REPORT OF THE COUNCIL

(FOR THE YEAR ENDING 31ST DECEMBER 2022)

Dear IMM Members,

On behalf of the IMM Council, I am pleased to present the report of the activities of IMM covering the period from 1^{st} January 2022 to 31^{st} December 2022.

(I) IMM MANAGEMENT COMMITTEE AND COUNCIL-MEETINGS

Date	Management Committee Meeting (Term 2020-2022)
29 th January 2022	8 th Meeting
Date	Management Committee Meeting (Term 2022-2024)
23 rd April 2022	1st Meeting
6 th August 2022	2nd Meeting
29 th October 2022	3rd Meeting
Date	Council Committee Meeting (Term 2020-2022)
11 th February 2022	8th Meeting
Date	Council Committee Meeting

2022	
Date	Council Committee Meeting
	(Term 2022-2024)
13 th May 2022	1st Meeting
11 th August 2022	2nd Meeting
4 th November	3rd Meeting
2022	

(II) IMM ACTIVITIES CARRIED OUT IN THE YEAR 2022

Date	Activity
9 th Feb 2022	CPD Committee Meeting No. 4 (Term: 2020 – 2022)
21 st Feb 2022	Standard Development Committee Meeting No. 3 (Term: 2020 – 2022)
21 st Feb 2022	Insulation Committee Meeting No. 2 (Term: 2020 – 2022)
23 rd Feb 2022	Polymer Committee Meeting No. 6 (Term: 2020 – 2022)
3 rd Mar 2022	Education Committee Meeting No. 1 (Term: 2022 – 2024)
10 th Mar 2022	Corrosion Committee Meeting No. 1 (Term: 2022-2024)
14 th Mar 2022	Polymer Committee Meeting No. 7 (Term: 2020 – 2022)
17 th Mar 2022	IMM Education Committee / IMM MTFIP Working Sub - Committee Meeting
17 th Mar 2022	MLC Committee Meeting (Term: 2020 – 2022)
18 th Mar 2022	IMM – TARC Polymer Seminar
18 th Mar 2022	IMM Annual General Meeting No. 32

Date	Activity
22 nd – 25 th Mar 2022	OTC Asia 2022
19 th Apr 2022	Coating Committee Meeting No. 1 (Term: 2022 – 2024)
17 th May 2022	Insulation Committee Meeting No. 1 (Term: 2022 – 2024)
23 rd May 2022	Standard Assurance Committee Meeting No. 1 (Term: 2022 – 2024)
24 th May 2022	Coating Committee Meeting No. 2 (Term: 2022 – 2024)
31 st May 2022	IMM Materials Failure Investigation Practitioners Skill Certification (Reschedule of Meeting No. 3)
9 th – 10 th Jun 2022	9 th SOGCE, Sabah Oil & Gas Confer- ence & Exhibition
14 th Jun 2022	Engagement Session on KPI – Group 1
14 th Jun 2022	IMM Materials Failure Investigation Practitioners Skill Meeting No. 4
14 th Jun 2022	Asset Integrity Committee Meeting No. 1 (Term: 2022 – 2024)
15 th Jun 2022	MLC 2022 Semi-Final
16 th Jun 2022	CPD Committee Meeting No. 1 (Term: 2022 – 2024)
20 th Jun 2022	Vibration Committee Meeting No.1 (Term: 2022 – 2024)
21 st Jun 2022	Engagement Session on KPI – Group 2
22 nd Jun 2022	Discussion on Thermal Insulation Certification Program
24 th Jun 2022	Materials Fingerprinting Committee Meeting No. 1 (Term: 2022 – 2024)
27 th Jun 2022	IMM Materials Failure Investigation Practitioners Skill Meeting No. 5
30 th Jun 2022	CPD System Short Meeting
27 th Jun – 1 st Jul 2022	IMM ISO/IEC 17024: 2012 Internal Audit
4 th Jul 2022	IMM Materials Failure Investigation Practitioners Skill Meeting No. 6
7 th Jul 2022	MLC 2022 Final
8 th Jul 2022	Corrosion Committee Meeting No. 2 (Term: 2022 – 2024)
12 th Jul 2022	Examination and Certification Panel Meeting No. 1 (Term: 2022 – 2024)
19 th Jul 2022	IMM Materials Failure Investigation Practitioners Skill Meeting No. 7
20 th – 21 st Jul 2022	2nd Annual Clean Power New Energy
16 th Aug 2022	Corrosion Committee Meeting No. 3 (Term: 2022 – 2024)
18 th Aug 2022	IMM Materials Failure Investigation Practitioners Skill Meeting No. 9
25 th – 26 th Aug 2022	ISO/IEC 17024: 2012 Surveillance Audit
5 th Sep 2022	Amendments of the IMM Constitution Meeting No. 1

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6 th Sep 2022	IMM Materials Failure Investigation Practitioners Skill Meeting No. 10
12 th Sep 2022	Amendments of the IMM Constitution Meeting No. 2
13 th – 15 th Sep 2022	Oil & Gas Asia 2022
19 th Sep 2022	Amendments of the IMM Constitution Meeting No. 3
26 th Sep 2022	Amendments of the IMM Constitution Meeting No. 4
28 th Sep 2022	IMM Materials Failure Investigation Practitioners Skill Meeting No. 11
30 th Sep 2022	IMM Advisor Gathering at Concorde Hotel (Shah Alam)
3 rd Oct 2022	Amendments of the IMM Constitution Meeting No. 5
5 th Oct 2022	Polymer Seminar - Insights into Plastic Additive Manufacturing
6 th Oct 2022	JWES - Remote meeting for Proposal of New Procedure for Assessment Ex- amination of Welding Coordinator in Malaysia
13 rd October 2022	IMM Materials Failure Investigation Practitioners Skill Meeting No. 12
17 th October 2022	Amendments of the IMM Constitution Meeting No. 6
31 st Oct 2022	Amendments of the IMM Constitution Meeting No. 7
1 st Nov 2022	IMM Materials Failure Investigation Practitioners Skill Meeting No. 13
7 th Nov 2022	Amendments of the IMM Constitution Meeting No. 8
15 th Nov 2022	IMM Materials Failure Investigation Practitioners Skill Meeting No. 14
30 th Nov 2022	IMM Materials Failure Investigation Practitioners Skill Meeting No. 15
4 th Dec 2022	Corrosion Committee Meeting No. 4 (Term: 2022 – 2024)
4" Dec 2022	

(III) HIGHLIGHTS OF ACTIVITIES IN 2021

FULL REPORT ON SECTION (III) CAN BE ACCESSED ELECTRONICALLY ON IMM WEBSITE (www.iomm.org.my).

(IV) SUMMARY AND MOVING FORWARD

The IMM Management Committee and the IMM Council would like to express their heartfelt gratitude to all the Working Committee members, Regional Chapter members, IMM Secretariat staff, and other parties for their ongoing efforts and support in achieving the goals of IMM in 2022.

IMM will continue to develop new initiatives and enhance current systems to stay relevant and competitive. We anticipate a prosperous 2023.

On behalf of the Council



Assoc. Prof. Ts. Dr. Tay Chia Chay Honorary Secretary (Acting), IMM

Date:

Due to limited printed pages, full article can be accessed electronically on IMM website or through scan the QR code given below.



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Interaction and

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