

Aquarterly magazine

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www.iomm.org.my

Institute of Materials, Malaysia

NEW!!

- Introduction to Thermal Insulation
- ▶ Thermal Insulation Installer Certification Scheme





HIGHLIGHT

Coatings QA/QC-An Industry Driven Dialogue

CONTENTS

- 3 Renewal Notice
- 4 IMM Profile
- General Information on membership
 - Report on MOGSEC2016 Exhibition
- 8 IMM Council Members & Working Committee
- **11** Reports on :
 - Memorandum of Undertanding Signing Ceremony Between Institute of Materials, Malaysia and Universiti Teknologi Malaysia
 - Institute of Materials, Malaysia Launches Student Chapters at Universiti Teknologi Malaysia Johor Bahru
- **12** Thermal Insulation Hot & Cold Insulation article
- 16 Report on First hand Experiences for the UTAR-IMM Student Chapter's on How to be Technical Experts with an Insight into Career Opportunities in the Oil and Gas Industry
- **17** Report on Visit to Centre of Corrosion Research, Universiti Teknologi PETRONAS (UTP)
- **19** Report on IMM Vibration Friendly Golf Game 2016
- 20 ATB/ATC
- 21 MTE Organizing Chart

Free - Of - Charge



1-Day IMM Vibration Awareness Seminar

Venue : Promenade Hotel, Kota Kinabalu, Sabah Date : 17th November 2016 Time: 9.00 am - 5.30 pm

LIMITED SEATS ONLY! (First-Come-First-Served Basis)

For information/registration, please contact:

Ms. Zalilawati (zalilawati@mte.com.my) 018-322 7310 or Ms. Suhaila (suhaila@mte.com.my) 017-607 6084 Website: www.iomm.org.my



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www.iomm.org.my under Materials Mind Webpage

NOTICE FOR RENEWAL OF ANNUAL MEMBERSHIP SUBSCRIPTION 2017

Dear members,

Notice is hereby given for the renewal of your annual subscription for 2017. Please ignore this notice if you have already paid your subscription in advance, or if you are eligible for exemption. Kindly refer to the table below for IMM Annual Subscription Fee.

If you have moved residence or employment or changed your contact numbers / email address, we would appreciate if you can take some time to update your records.

As for student members, please notify us if you have graduated in order for us to update your membership status to the contact mentioned above.

Thank you and on behalf of IMM,

Ir. Mohd Suradi Yasin (admin@iomm.org.my)

Honorary Treasurer

08 September 2016

(This is an electronically generated document. No signature is required)

IMM MEMBERSHIP FEES

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

UPDATE OF MEMBER'S PARTICULARS

Title: Prof / Dato' / Dr	· / N	Ir. / other,			
Name	:				
MembershipNo	:				
Correspondence Address	:				
Office No.	:		Mobile phone No.	:	
Email Address	:				

UPDATE OF STUDENTS MEMBER

k	(indly tick t	ne appropriate box below (& put the year):
		Graduated & year:
ĺ		Still Studying & anticipated graduation year:
ı		

PAYMENT MODE

1) Payment can be made by cheque, telegraphic transfer & bank draft as follows:

Account Name: Institute of Materials, Malaysia

Account No: 032 000 273 16 Swift Code: HLBBMYKL

Bank Name: Hong Leong Bank (M) Berhad

Bank Branch: Shah Alam Branch

Country: Malaysia

Cheque can be sent to **No. 10-1, Jalan Bandar 3, Pusat Bandar Puchong , 47160 Puchong, Selangor Darul Ehsan** via post/mail or direct bank in to the account mentioned above.

2) Payment can also be made by IBG, GIRO or Cash Deposit Machine (CDM) as follows:

Account Name: Institute of Materials, Malaysia

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Updated on 10 September 2016.

INSTITUTE OF MATERIALS, MALAYSIA (IMM)

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 6500.

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 the 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 18 materials committees, and 5 regional chapters, and supported by a secretariat with full time staffs.

Membership of IMM 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 600 Coating Inspectors have been trained and certified as well as 2,500 Blasters & Painters, Supervisors and Corrosion technicians. Its certification programmes are recognized by PETRONAS and all oil & gas operators. Since January 2011, more than 40 Associate Welding Engineers, 30 Welding Engineers, 10 Senior Welding Engineers and 24 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, have been offered occasionally. Training on materials awareness has also been conducted in public listed companies.

The courses and programmes are being organised by Materials Technology Education Sdn Bhd (MTE), a joint-venture between IMM and InterMerger Group.

Collaborations with the Asian Welding Federation, The Society for Protective Coatings, US (SSPC), 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.



IMM Membership Benefits

- 1. IMM activities offer members to interact and network with representatives from the industry, academia and government related to the Materials profession.
- 2. Members get knowledge about the career opportunities for their children, friends etc as IMM offers certification courses in skilled trades *e.g.* Welding, Painting, Inspection, Corrosion *etc*.
- 3. IMM Coating Inspector Certification gets a school leaver possible salary of >RM3,000 per month in the oil & gas industry. Similar with IMM Welding Inspector, Corrosion Technician, *etc.*
- 4. IMM facilitates the JWES Welding Engineer Certification Program leading to a Welding Engineer Certification which offer great employment opportunities in the oil & gas, heavy industry, marine and energy sectors.
- 5. IMM publications quarterly magazine (MATERIALS MIND), international journal (IJIMM) plus annual conferences offer presenters an opportunity for their technical research or industry-academia papers to be published in open-access magazine and journal.
- 6. 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.

GENERAL INFORMATION ON MEMBERSHIP

Membership to the IMM is opened 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; +603-5882 3574 or email to admin@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 are having online application of membership for selected grades. Membership application forms in document format can be accessed from www.iomm.org.my

Kindly fill the form and email to admin@iomm.org.my or fax it to: +603-5882 3524 or send it to:

IMM SECRETARIAT

No. 10-1, Jalan Bandar 3, Pusat Bandar Puchong 47160 Puchong

Selangor Darul Ehsan, Malaysia

IMM Membership fees schedule as per below:-

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Fellow (F.I.M.M)	-	RM300.00	RM10.00	RM150.00
Professional member (M.I.M.M)	-	RM150.00	RM10.00	RM100.00
Associate Member (A.M.I.M.M)	-	RM150.00	RM10.00	RM80.00
Company	RM50.00	-	-	RM200.00
Ordinary	RM20.00	-	-	RM40.00
Student	RM10.00	-	-	RM10.00
Ordinary/ Company for affiliates	RM40.00/ RM50.00	-	-	NIL

IMM Participated in Malaysia Oil & Gas Services Exhibition and Conference (MOGSEC2016)



Reported by: Faaris, Materials Technology Education Sdn Bhd Edited by: Karen Cheng, Materials Technology Education Sdn Bhd

Institute of Materials, Malaysia (IMM) participated in the 3rd Malaysia Oil and Gas Services Exhibition and Conference 2016 (MOGSEC 2016) which was held at Kuala Lumpur Convention Centre from 28 to 30 September 2016.

MOGSEC 2016 received overwhelming support from the Malaysian Oil & Gas industry, including Malaysian oil giant, PETRONAS and 303 participating companies. The latest technology, equipment and machinery in the fields of Oil, Gas and Petrochemical Engineering were showcased by Malaysian Oil & Gas service providers. The exhibition attracted over 5900 trade visitors over the 3-day event.

The opening ceremony was officiated by Y.Bhg Datuk Wan Zulkiflee Wan Ariffin, President and Group Chief Executive Officer of PETRONAS. After the ceremony, he proceeded with a tour of the exhibition area and visited IMM's booth. It was a good opportunity for IMM to draw attention on IMM's educational and technical certification courses and activities.



Datuk Wan Zulkiflee Wan Ariffin, President & Group CEO, PETRONAS visited IMM booth



IMM representatives with US embassy delegates



IMM booth crowded by visitors

PRESS RELEASE



WELDING ALLOYS (FAR EAST) SDN BHD

(Company No. 48817-U) 28, Jalan Riang 21, Taman Gembira 81200 Johor Bahru, Johor, Malaysia

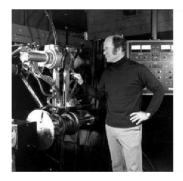
Phone: +60-7-3323753 Fax: +60-7-3319473 www.welding-alloys.com

Celebrating 50 years of success

Welding Alloys turns 50 - by Dominic Stekly (CEO Welding Alloys Group)

The Welding Alloys Group turns 50 this year – what a milestone! Ever since its creation in 1966 in Fowlmere, Cambridgeshire, UK by the late Dr. Jan J.K. Stekly, the Welding Alloys Group has continued to flourish. Starting out as a hardfacing wire manufacturer in the UK, the company has developed into a truly global company, with a reputation as the go-to provider for advanced welding consumables, automated equipment for wear protection, and engineered wear solutions.

The Welding Alloys Group is proud to remain a stable family owned company, staying true to its values, with a clear focus on innovation, customer focus, and customization - understanding and delivering exactly what the industry requires.



Dr Jan J.K. Stekly founder of Welding Alloys



Today, Welding Alloys Group has operations in 35 countries, with 1200 staff, and sells into more than 150 countries

Today, the Welding Alloys Group offers the widest range of advanced cored wires and tubular electrodes, a state-of-the-art machine product range for automatic cladding and surfacing, and a network of 25 INTEGRA workshops that provide global wear protection services from wear plates to fabricated components, from hardfacing and cladding to machining applications, from welding and spraying to ceramic and plastic coating, in-situ or in the workshop. The Welding Alloys Group's current turnover is around GBP120m, with a clear strategy to increase this to GBP200m by the year 2020.



The Welding Alloys Group's three activities: consumables, machines and welding services ("INTEGRA")





WELDING ALLOYS (FAR EAST) SDN BHD

(Company No. 48817-U) 28, Jalan Riang 21, Taman Gembira 81200 Johor Bahru, Johor, Malaysia

Phone: +60-7-3323753 +60-7-3319473 Fax: www.welding-alloys.com

To mark the occasion of the 50th anniversary, the business and sales leaders of the Welding Alloys Group celebrated the event in Spain. During this event, a charity drive was organised by Jan's grand-child Abbie Hughes, to help a school in Lesotho, and more than 17 000 Euros were raised. Welding Alloys' updated icon 'Sparky' was also unveiled during the celebrations.







Charity Drive Donation to Lesotho school

This event was a great opportunity to look back at the past 50 years, and it enhanced a unique team spirit and passion for what we do, summarised by our core purpose: Our Technical 'Spark' **Solves Your Industrial Challenges.**

For further details contact:

Welding Alloys (Far East) Sdn. Bhd. 28, Jalan Riang 21, Taman Gembira 81200 Johor Bahru, Johor, Malaysia

Chris Teoh – Product Manager Phone: +60-7-3323753 ext 123 Fax: +60-7-3319473



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8

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Ir. Max Ong Chong Hup NORIMAX Sdn Bhd

Members: Dr. Chew Khoon Hee Tunku Abdul Rahman University College

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Bhd

Cekap Technical Services Sdn

Compiled by: IMM Secretariat Officer, Institute of Materials, Malaysia The information has been updated as of 24th October 2016

Sofiyan Yahya

Memorandum of Understanding Signing Ceremony Between Institute of Materials, Malaysia and Universiti Teknologi Malaysia



Report by : Professor Dr. Esah Hamzah , Chairperson of IMM Southern Chapter / Universiti Teknologi Malaysia

Johor Bahru, 4 October 2016 - The Institute of Materials, Malaysia (IMM) has broadened the cooperation with institution of higher learning and academia. The collaboration was sealed with the signing of a Memorandum of Understanding (MoU) with Universiti Teknologi Malaysia (UTM) on Oct 4, 2016 at the University Johor Bahru campus. The MoU was signed by the Dean of Faculty of Mechanical Engineering, Professor Dr. Noordin Mohd Yusof witnessed by UTM Deputy Vice Chancellor of Academics & International, Professor Dr. Rose Alinda Alias while IMM was being represented by IMM President, Mr. Mohd Azmi Mohd Noor and IMM Honorary Treasurer, Ir. Mohd Suradi Yasin.

In his welcoming speech, Professor. Dr. Noordin added that the MoU will strengthen the existing collaboration between IMM and UTM and also provide more opportunities for both parties to co-organise various activities such as joint organisation of conferences, skill training, short courses and technical talks. In his brief remarks, the IMM President, Mr. Mohd Azmi, expressed his enthusiasm in the collaboration

between the academia and industries through IMM to assist the university in producing industry-ready graduates. The strategic networking and collaboration not only benefit the students but also the academic staff and IMM members.



The signing of IMM-UTM MoU documents. From left: UTM UTM Deputy Vice Chancellor of Academics & International-Professor Dr. Rose Alinda Alias, The Dean of Faculty of Mechanical Eng. UiTM - Prof. Dr. Noordin Mohd Yusof, IMM President - Mr. Mohd Azmi, IMM Honorary Treasurer - Ir. Suradi Yasin and UTM Head of Materials Eng. Panel - Dr. Engku Mohd Nazim Engku Abu Bakar.

Institute of Materials, Malaysia Launches Student Chapters at Universiti Teknologi Malaysia, Johor Bahru



Report by : Prof. Dr. Esah Hamzah , Chairperson of IMM Southern Chapter / Universiti Teknologi Malaysia

Johor Bahru, 4 October 2016 - The Institute of Materials, Malaysia (IMM) officially launched its Student Chapter at Universiti Teknologi Malaysia (UTM) Johor Bahru, which is the first research and public University to establish IMM Student Chapters in Malaysia. The establishment of UTM-IMM Student Chapters is one of the activities in the MoU between IMM and UTM signed on the same day.

The launching ceremony held at the Faculty of Mechanical Engineering, UTM Johor Bahru attended by more than 80 UTM Mechanical-Materials engineering undergraduate students. Also present at the ceremony were UTM Deputy Vice Chancellor of Academics & International, Professor Dr. Rose Alinda Alias, Faculty of Mechanical Engineering Deputy deans and Heads of Department and academic staff.

To kick off the launching ceremony, a short video on UTM and history of the Materials Students Society known as *Kelab Bahan* which was formed in 1999 was shown to the audience. This was followed by a presentation of an official launch certificate by Mr. Mohd Azmi, IMM President to the first UTM-IMM Student Chapter President, Mr. Muhammad Syahmi Afiq. This ceremony marked an official renaming and rebranding of UTM Materials Student Society from *Kelab Bahan* to UTM-IMM Student Chapters. The Student Chapters is a student society established by IMM to give students

some freedom to add to their learning which are not taught in classrooms that may add to their soft skills such as co-organising seminar, workshops, industrial and career talks and site visit. UTM is extremely honored to be selected to establish the student chapter, the first in Southern Region and the first Research University to do so.



IMM Council Members, Assoc. Prof. Eur. Ir. Nigel Brewitt

Two industrial talks were also delivered after the launching of the Student Chapters by IMM Council Members, Assoc. Prof. Eur. Ir. Nigel Brewitt from Nottingham University Malaysia and NORIMAX MTI entitled "Materials - Testing, Characterisation and the Way Forward" and Ir. Zainuddin Zulkifli, Chief Operating Officer from KNM Process System Sdn Bhd with a topic on "Excellent Career and Job Opportunities in KNM Group". The MoU between IMM and

signing ceremony, launching of UTM-IMM Student Chapter and technical talks were organised by IMM Southern Region and Materials Engineering Panel from the Department of Materials, Manufacturing and Industrial Eng. Faculty of Mechanical Engineering, UTM.

THERMAL INSULATION - HOT & COLD INSULATION



Prepared by : Mr. Danny KC Tan, Abadi Oil & Gas Services Sdn Bhd & Chairman of IMM Insulation Committee Edited by: Ir. Max Ong, Norimax Sdn Bhd & Chairman of IMM Education Committee



Hot insulation for Petro-Chemical Process Piping

There are many insulation applications in the industries where we provide Thermal Insulation for pipework, vessels, storage tanks and other hot or cold process equipment in the oil and gas, petrochemicals, oleo-chemicals, power, chemicals, marine, aerospace and manufacturing industries. The fundamental requirements for insulation systems include design calculations for thermal insulation, design of the insulation & cladding systems, insulation materials, system quality, materials thickness, weatherproofing, corrosion resistance, finishing and protection of the insulation systems.

The design issues related to the thermal or cold insulation include the selection of the type of insulation systems, corrosion under thermal insulation and general applications of insulation.

Thermal insulation materials can be based on organic (such as expanded plastics, wood, wool, cork, straw, technical hemp) or inorganic (such as foamed glass, glass, and mineral fibre) materials. Many new variations are being designed and tested, and new methods of analysing the properties of both insulation materials and insulation systems are also being devised. These insulation materials differ in their shape, insulating properties, flammability, composition and structure, which can offer different possibilities to designers' requirements in engineering applications.

Researchers in thermal science continue attempts to minimize capital and operational costs as well as heat loss or heat gain (i.e. improvement in thermal insulating efficiency). Multiple objective functions were applied by researchers for the design analysis of a piping system to minimize the heat loss and the amount of insulation used.

The required thickness of insulation for any specific application depends on the characteristics of insulating material as well as the purpose of the equipment. If a process is critical, the most important single consideration may be reliability.

If conservation of heat or power is the deciding factor, the savings per year as compared to the installed cost is the most important factor. In contrast, when insulation is to be used for a temporary function such as holding the heat in while a lining is being heat cured, then the lowest possible installed cost would be decisive. Thus, because of conflicting requirements, there can be no multipurpose insulation. Nor is there a "perfect" insulation for each set of requirements.

A low thermal conductivity is desirable to achieve a maximum resistance to heat transfer. Therefore, for any given heat loss, a material of low thermal conductivity will be thinner than an alternative material of high conductivity. This is of particular advantage for process pipes because thinner layers of insulation reduce the surface area emitting heat and also reduce the outer surface that requires protection. The main purpose of insulation is to limit the transfer of energy between the inside and outside of a system.



Hot insulation with non metallic cladding

A thermal insulator is a poor conductor of heat and has a low thermal conductivity. Insulation is used in buildings and in manufacturing processes to prevent heat loss or heat gain. Although its primary purpose is an economic one, it also provides more accurate control of process temperatures and protection of personnel. It prevents condensation on cold surfaces and the resulting corrosion. Such materials are porous, containing large number of dormant air cells.

Thermal insulation may be applied for one or a combination of the following purposes:

- · Saving energy by reducing the rate of heat transfer
- Maintenance of process temperature
- Prevention of freezing, condensation, vaporization, or formation of undesirable compounds such as hydrates
- Protection of personnel from injury through contact with equipment
- Prevention of condensation on surface of equipment conveying fluids at low temperature
- Avoidance of increase in equipment temperature from outside fire
- To conserve refrigeration
- Offers better process control by maintaining process temperature
- Prevention of corrosion by keeping the exposed surface of a refrigerated system above the dew point
- Absorption of vibration.



Cold insulation for Cyrogenic System - LNG or Gas processing

Cold Insulation

For equipment under very low temperatures (e.g. -160°C), high quality insulation materials must be designed for such extreme cold temperatures.

Insulation systems consisting of Poly Iso-cyanurate (PIR) Rigid Foam or Cellular Glass insulation, applied in multiple layers, in combination with high performance vapour barriers are used in order to produce the necessary degree of insulation.



Hot insulation for pipeline

Mechanical and weather protection to the installed insulation is achieved by the application of specified cladding materials, which include stainless steel, Aluminised steel or UV-cured Glass Reinforced Polymers.

The Poly-isocyanurate (PIR) Rigid Foam used for pipe, equipment and storage tank insulation is produced specifically for use in Cold insulation systems, and must possess the required mechanical properties in order to accommodate the thermal stresses involved in addition to the necessary thermal properties.

Cellular foamglass insulation is also used for cold insulation of pipe work, equipment, storage tanks, and ships. Cellular foamglass is a lightweight materials consisting of millions of packed glass cells. Each glass cell provides long-term performance, and together it can insulate the materials under all possible conditions.



Tank head insulation for heat conservation

NEW!!

INTRODUCTION TO THERMAL INSULATION



DATE: JANUARY 2017 VENUE: KL / BINTULU

The Introduction to Thermal Insulation Course is an introduction in thermal insulation for managers and engineers overseeing thermal insulation works.

Objective

Provide managers and engineers a good understanding of thermal insulation design, installation, QA/QC, HSE, repair and maintenance.

Course Contents

- 1. Insulation Specifications
- 2. Insulation Materials
- 3. Hot & Cold Insulation
- 4. Corrosion Under Insulation (CUI)
- 5. Measurement
- QA/QC & Inspection
- 7. Insulation Installation
- 8. Claddings (Metal & Non-Metal)
- 9. Health, Safety & Environment

Fees

IMM Member: RM 954.00 (inclusive 6% GST) Non Member: RM 1060.00 (inclusive 6% GST)

Who Should Attend?

This course is suitable for those who wish to understand the thermal insulation for industries, prevention of corrosion under insulation (CUI), QA/QC & inspection, theoretical background & developments.

Course conducted by Institute of Materials, Malaysia.

Certificate

Certificate of Attendance

Course Duration

2 days

Languages

Course will be conducted in English and Bahasa Malaysia







Materials Technology Education Sdn Bhd No 10-1, Jalan Bandar 3, Pusat Bandar Puchong, 47160 Puchong, Selangor Darul Ehsan

Tel: +603-5882 3574/3584 Fax: 03-5882 3524 Website: www.iomm.org.my

Email: admin@iomm.org.my

For more information, please contact:

ikmal@mte.com.my (H/p: 013-252 7660) aisya.azlin@mte.com.my (H/p: 016-358 7906) faaris@mte.com.my (H/p: 019-475 4169)



THERMAL INSULATION INSTALLER CERTIFICATION SCHEME

CODE: TII

Date : March 2017 Venue : KL/Bintulu



The Thermal Insulation Installer Certification Scheme is to train and upgrade individuals in thermal insulation materials applications as well as the trade of sheet metal shop fabrication plus field installations.

Objectives

It aims to provide participants with the knowledge and skills to carry out insulation works efficiently and effectively with the clear understanding of the following:

- Types of thermal insulation and sheet metal materials specified by the vendors and clients in insulation specifications.
- Equipment and piping systems components commonly seen in the oil and gas industries.
- Tools and aids usage during the preparation and field installation of thermal insulation materials.
- Sheet metal equipment and tools used during the layouts, cutting, fabrication and field installation works.
- Standard insulation calculation

Course Contents

- Introduction to insulating and sheet metal trade
- Equipment and piping system components in the Petrochemical, Oil & Gas and Energy industries
- Types of thermal insulation materials for hot, cold and dual temperature services
- Types of sheet metal materials
- Equipment and tools used in the insulating and sheet metal trade
- Basic safety for insulating and sheet metal trade
- Plan and isometric piping drawings
- Pattern Layout / Fabrication / Field Installation
 - Pipe
 - Elbow
 - Equal and unequal branch and header
 - Concentric and eccentric reducer
 - Valve
 - Flange
 - Strainer
 - Elbow Trunnion



Fees (include Exam)

Description		Amount
RM 4,000 + RM 240 (6% GST)		RM 4,240.00
5 years IMM membership Fees (Entrance fee : RM 20 + 5 years membershi RM 40/year)	ip f ee	RM 220.00
7	OTAL	RM 4,460.00

Who Should Attend?

The course is suitable for those persons who wish to begin a career in this field but have little or no experience and for Insulation Engineers, Specifier, Technicians, Supervisor and Inspector who desire to broader their knowledge in the usage and technique of thermal insulation and sheet metal application.

Certification by Institute of Materials, Malaysia.

Certificate

IMM Certified Thermal Insulation Installer

Course Duration

6 days

Languages

Course will be conducted in English and Bahasa Malaysia

MTE

For more information, please contact:

ikmal@mte.com.my (H/p : 013-252 7660) aisya.azlin@mte.com.my (H/p : 016-358 7906) faans@mte.com.my (H/p : 019-475 4169)

Materials Technology Education Sdn Bhd No 10-1, Jalan Bandar 3, Pusat Bandar Puchong, 47160 Puchong, Selangor Darul Ehsan. Tel: +603-5882 3574/3584 Fax: 03-5882 3524

> Website: www.iomm.org.my Email: admin@iomm.org.my





First-hand Experiences for the UTAR-IMM Student Chapter's on How to be Technical Experts with an Insight into Career Opportunities in the Oil and Gas Industry

(Event Secretary, UTAR-IMM Student Chapter Members) and Ms. Jessica Jong Kwang Yin (Chairperson of UTAR-IMM Student Chapter)

Edited by: Assoc. Prof. Eur. Ing. Nigel Patrick Brewitt (Chairman of Student Chapters Committee)

Bandar Sungai Long - 04 August 2016: The Institute of Materials Malaysia Student Chapter of University of Tunku Abdul Rahman (UTAR-IMM Student Chapter) organized a career development and technical talk on how engineers should strive to become technical experts and about career opportunities in the Oil and Gas Industry. Attending the talk was over 80 undergraduate engineering students and staff The career opportunity cum technical talks were presented by our two invited IMM Council Members; Ir. Associate Prof. Dr. Edwin Jong Nyon Tchan and Dato' Dr. Ir. Haji Mohd Karim Abdullah.

Prior to the commencement of the two technical talk sessions, our session emcee, Ms. Goo Kang Wei (Immediate past Chairperson) warmly greeted the two technical experts from our Malaysian O&G industry and all the UTAR participants. On behalf of the UTAR Engineering & Science Faculty Advisor, Associate Prof. Dr. Karen Wong, our UTAR-IMM Student Chapter chairperson, Ms. Jessica Jong Kwang Yin delivered her welcoming speech for the two invited speakers, thanked them for sharing their respective industrial experiences and delivering a clearer view of the career development path.

The technical talks were conducted in two separate sessions. The first session began with "Engineers - To be Technical Experts and Career Opportunities in the Oil and Gas Industry" presented by Associate Professor Ir. Dr. Edwin Jong. The second session was a talk entitled "Career in Vibration Technology" which was given by Dato' Ir. Dr. Haji Mohd Karim Abdullah.

This first technical talk introduced the career opportunities for future young engineers considering Oil & Gas as their chosen industry and also to give some insight into the career development routes and how to be competent engineers and technical experts.

In addition, Dr. Edwin also explained the importance of EPCIC contracts that all practising engineers in the O&G industry need to know and how to execute effectively. He also highlighted that all the different engineers such as reservoir engineers, drilling engineers, chemical/process engineers, mechanical engineers and materials and corrosion engineers are involved in every oil and gas field development. Furthermore, Dr Edwin also emphasized the importance of knowing one's own professional roles and responsibilities in any EPCIC project. From his 22-years of work experience in upstream and downstream O&G sectors, he always advised engineers to take up multiple skills and related competency certifications. He also advised that graduating with an engineering degree just means we have only acquired a basic and general knowledge of our discipline with no specialized

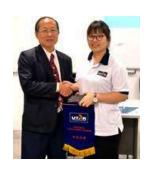
skills. In order to be attractive in today's market, all Engineers need to further their education and competency levels – a process known as continual professional development (CPD).

An important part of being a professional engineer is to be able to communicate within teams. This means that professional development should also include soft skills. Dr. Edwin also highlighted that IMM is currently organizing courses that provide global career opportunities, particularly in the field of welding technology starting from certified welders and on to certified welding inspectors and then to certified welding engineers. This type of certification is presently in demand in the O&G and shipbuilding industries. Lastly, Dr. Edwin also illustrated the benefits as professional engineers who registered as competent engineers in Malaysia with BEM and IEM.

The second invited speaker was Dato' Ir. Dr. Haji Mohd Karim Abdullah. He is an experienced and qualified professional mechanical engineer and CEO of Serba Dinamik Sdn Bhd. His company has a successful track record over the last 21 years and is an approved and certified DOSH boiler and unfired pressure vessel (UPV) repairer and maker. From an initial staff of three, the group now has around 1000 workers in various locations and six workshops/service centers in Malaysia equipped with highly specialized heavy machinery worth millions. Dr. Haji Karim briefly introduced the potential of a career in vibration technology and described the occupation. Using practical illustrations, he demonstrated the proactive maintenance practices by the vibration technician, on a daily basis. Lastly, he explained the application of vibration technology.

During the Q&A session after each presentation, the students really appreciated that all their queries and concerns were satisfactorily explained and supported with practical/industrial examples. All UTAR-IMM Student Chapter members would like to take this opportunity to express our heartfelt thanks to our two invited speakers.

On behalf of the UTAR-IMM Student Chapter, the Chairperson, Ms. Jessica Jong, presented a token of appreciation to the speakers.



First Speaker, Ir. Associate Prof. Dr. Edwin Jong receiving a token of appreciation from Ms. Jessica Jong



Second Speaker, Dato' Dr. Ir. Haji Mohd Karim Abdullah receiving a token of appreciation from Ms. Jessica Jong



Visit to Centre of Corrosion Research, Universiti Teknologi PETRONAS (UTP)

Reported by: Aisya Azlin Azizuddin Materials Technology Education Sdn Bhd Edited by: Ir. Ong Hock-Guan (Chairman of Corrosion Committee)

Date : 4th August 2016 **Time** : 11:00 am – 02.30 pm

Venue : Corrosion Research Centre, Block I2,

Universiti Teknologi Petronas

On 4th August 2016, members of Corrosion Committee of Institute of Materials, Malaysia (IMM) were invited by Ir. Dr. Mokhtar Che Ismail to visit the Centre of Corrosion Research (CCR), Universiti Teknologi PETRONAS (UTP) located in Seri Iskandar, Perak. One of the prime objectives of this visit is to generate awareness on the advanced corrosion testing facilities available in the CCR and the on-going research that can offer solutions to fulfil industrial needs.

The session began with the official welcome remarks by Ir. Dr. Mokhtar Che Ismail, Head of the Centre of Corrosion Research, who is also the Deputy Chairman of IMM Corrosion Committee. This was followed by a brief safety talk by Mr. Fauzi, the Research Scientist of UTP.

The Centre for Corrosion Research comprises of a number of laboratories equipped with a wide variety of modern equipment to perform corrosion research and testing in the area of protective coatings, corrosion inhibitors, corrosion monitoring and sensor using advanced sensor technology and microelectronics mainly for both oil and gas upstream and downstream. The various expertises in the corrosion center are able to provide comprehensive and fit for service solutions to manage corrosion challenges in the industries.



One of laboratories in Centre of Corrosion Research

The visit began with a tour to their General Laboratory where Ir. Dr. Mokhtar Che Ismail shared with the visiting members the overview of all the laboratories in the center including some ongoing corrosion research topics such as Microbial Influenced Corrosion (MIC). He also showed us the rotational cylinder electrode that can give optional flow simulator effect on corrosion. Then, committee members were guided to the Autoclave Laboratory where corrosion testing can be carried out in high pressure and high temperature.

All committee members were briefly explained on the

single phase flow cell corrosion test in the Thin Channel Flow Cell Laboratory and Multi-Phase Flow Loop (MFL) which is designed to test corrosion in a gas-liquid flow at various inclinations. The gas and liquid are pumped separately into the system which then directed into a gas-liquid separator (GLS) upon exiting the piping. Overall system height and weight are 25 m and 8 m respectively.



Guided tour session in Centre of Corrosion Research

The tour session continued with detailed explanation on how coating performance test and corrosion under insulation test work in the Coating Laboratory.

Microbial Influenced Corrosion (MIC) Laboratory was the last laboratory that members visited. At the end of the visit, IMM Corrosion Committee members were generally impressed with the modern lab facilities, equipment and test loops. IMM thanked Ir. Dr. Mokhtar and UTP representatives for hosting this valuable visit.



Group Photo from left to right: Mr. Kok Wai Chee (CSI System Sdn Bhd), Dr. Mazli Mustapha (UTP), Ms. Rachel Lee (Shell Malaysia), Ms. Syarifah Nazliah Syed Abdul Rahman (BSSTech CP (M) Sdn Bhd), Dr. Yoga Sugama Salim (NORIMAX Sdn Bhd), Ir. Suradi Yasin (IMM), Ir. Ong Hock Guan (Sarawak Shell Bhd), Y.Bhg. Datuk. Ir. Abdul Rahim Hashim (Petronas/ Advisor of IMM), Mr. Mohd Azmi Mohd Noor (President of IMM), Ir. Dr. Mokhtar Che Ismail (UTP), Ir. Max Ong (IMM), Dr. Lee Chee Hong (Synergy Asset Integrity Management Sdn Bhd), Mr. Chew Boon Kheng (GPT Resources Sdn Bhd), Ms. Elizah Samat (Sarawak Shell Bhd), Mr. Andrew Yeap (Sarawak Shell Bhd), Ms. Zalilawati Hasan (MTE), Ms. Aisya Azlin Azizuddin (MTE), Ms. Karen Cheng (MTE).

After the visit, Committee Members continued with the 2nd Corrosion Committee Meeting hosted by UTP. The fruitful meeting was adjourned at 1:00 pm. Subsequently, members were cordially invited to the welcome lunch session hosted by UTP which was graced by Datuk Ir. (Dr.) Abdul Rahim Hj. Hashim, Vice Chancellor of Universiti Teknologi Petronas, who is also the Advisor of IMM (2016-2018). At the end of lunch session, a group photo was taken and souvenirs from UTP were presented by Datuk Ir. (Dr.) Abdul Rahim Hj. Hashim to all committee members.

Celebrating IKM 50th Anniversary

World Forum on Advanced Materials

October 9-13, 2017 **Putra World Trade Centre** Kuala Lumpur, Malaysia

ANNOUNCEME

Call for **Abstracts**

: 1st October 2016 - 31st May 2017 Submission of Abstracts

THE PARTY IN THE PARTY IN

Notification of Acceptance: 1 month after submission

Full Paper Submission for Journals : 16th October - 31st December 2017

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> Materials for clean and sustainable energy

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Limited seats available (First-Come-First-Served Basis)

HRDF CLAIMABLE

COATINGS QA/QC - AN INDUSTRY DRIVEN DIALOGUE



Date : Thursday, 24th Nov 2016 Time: 9.00 am - 2.00 pm

Venue: Dewan Presiden, Kelab Golf Negara Subang, Kelana Jaya, Selangor

Highlights

- 1. An Engagement session between Coating Industry Vendors & Specifiers and End users on Quality Assurance and Quality Control in Coating operations.
- 2. Objective: Finalise improvement process of Malaysian Oil & Gas Operators Coatings QA/QC standards and practices, using industry best practices.
- 3. Discuss adoption of standard QA template and standard warranty clauses.
- 4. Will impact new warranty format adopted by End users which has legal implications.

Crucial for all parties, your presence will help give direction to this initiative, and make your voice heard.

PRIOR REGISTRATION REQUIRED **IMM MEMBERS NON-MEMBERS**

For registration and more information, please contact : Zalilawati (zalilawati@mte.com.my) 018-322 7310 or Suhaila (suhaila@mte.com.my) 017-607 6084

Event Secretariat:



IMM Vibration Friendly Golf Game 2016



Materials Technology Education Sdn Bhd Edited by: Dato' Dr. Ir. Haji Mohd Abdul Karim Abdullah (Chairman of Vibration Committee)

Website: www.iomm.org.my

Sponsors:





Group Photo

A number of 24 enthusiastic golfers gathered on Saturday 24th September 2016 morning at the Tasik Puteri Golf & Country Club in Rawang, Selangor. This IMM Vibration Friendly Golf Game 2016 brought together IMM members,

friends and guests. Individual players paid RM600.00 each while corporate sponsors paid RM2,000.00 per flight which contributed to the costs of goodies and prizes. The sponsors included Serba Dinamik Sdn Bhd, MOGEC, MRA International, Norimax Sdn Bhd, Binapuri Sdn Bhd, Rushoe Enterprises Sdn Bhd and Max Energy Sdn Bhd. IMM will continue such small group friendly golf networking sessions every 3 months (Quarterly IMM Golf Medals).







1st Runner-up: Fariz Nazrul Che Noh



2nd Runner-up: Mohd. Tarmizi Munir



INSTITUTE OF MATERIALS, MALAYSIA

AUTORIZED TRAINING BODY (ATB) FOR BLASTING & PAINTING TRAINING & CERTIFICATION SCHEME

NO	AUTHORIZED TRAINING BODY	LOCATION	STATE
1	BB TECH SDN BHD	PAKA	TERENGGANU
2	BORNEO SAFETY TRAINING SERVICES (BSTS)	MIRI	SARAWAK
3	CENTURY CONSULTANT SERVICES SDN BHD	MIRI	SARAWAK
4	JOTAC ACADEMY SDN BHD	PUCHONG	SELANGOR
5	MALAYSIA MARINE HEAVY ENGINEERING (MMHE)	PASIR GUDANG	JOHOR
6	MOCA RESOURCES SDN BHD	BANDAR PENAWAR	JOHOR
7	SABAH SKILL TRAINING CENTER	KOTA KINABALU	SABAH
8	SEA ACADEMY SDN BHD	MIRI	SARAWAK
9	TRI SOLUTION TRAINING & CONSULTANCY SDN BHD	MIRI	SARAWAK

AUTORIZED TRAINING BODY (ATB) FOR WELDER TRAINING & CERTIFICATION SCHEME

NO	AUTHORIZED TRAINING BODY	LOCATION	STATE
1	Advanced Metallurgy & Welding Technology SdnBhd	Miri	Sarawak
2	Advanced Technology Training Center (ADTEC)	Shah Alam	Selangor
3	Institut Kemahiran Belia Negara (IKBN)	Bandar Penawar	Johor
4	JOTAC Academy SdnBhd	Puchong	Selangor
5	Master Weld Academy Sdn Bhd		Kuala Lumpur
6	MALAYSIA MARINE HEAVY ENGINEERING (MMHE)	PasirGudang	Johor
7	MOCA Resources SdnBhd	Bandar Penawar	Johor
8	Politeknik Sultan Azlan Shah	Behrang	Perak

AUTORIZED TEST CENTER (ATC) FOR WELDER CERTIFICATION

NO	AUTHORIZED TEST CENTER	STATE
1	DNV-GL	KUALA LUMPUR
2	MALAYSIA MARINE HEAVY ENGINEERING (MMHE)	JOHOR
3	METALLURGICAL CONSULTANCY AND SERVICES SDN BHD	SELANGOR
4	NUSANTARA TECHNOLOGIES SDN BHD	SELANGOR
5	SABAH SKILLS & TECHNOLOGY CENTRE	SABAH
6	SIRIM BERHAD	SELANGOR
7	SGS (MALAYSIA) SDN BHD	SELANGOR
8	VELOSI (M) SDN BHD	SELANGOR
9	PROFESSIONAL TESTING SERVICES SDN BHD	JOHOR

updated: 10.10.2016

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Invitation to advertise in MATERIALS MIND, IMM quarterly magazine

For Materials Mind, our articles are read by over 8,000 readers in *print* and *online*. Online articles can be accessed on www.iomm.org.my. The profiles of the readers are summarized in Tables 1 and 2 (as of March 2016).

Yes, we confirm to advertise in Materials Mind 2016 for the following issue.

Please (√) your preferred timing for advertisement. (MM 2016 : Issue 16 & MM 2017 : Issue 17-19)

4 th Quarter – Issue 16	1 st Quarter – Issue 17	2 nd Quarter – Issue 18	3 rd Quarter – Issue 19

Advertisers will enjoy 10% discount on a full year (4 quarters) advertisement.

Category	Price	Category	Price
Facing Inside Front Cover*	RM 2,500	Facing Inside Back Cover*	RM1,500
Size: A4 210 (w) x 297 (h) mm	After 50% (RM1,250)	Size : A4 210 (w) x 297 (h) mm	After 50% (RM750)
Inside Back Cover* Size: A4 210 (w) x 297 (h) mm	RM 2,500 After 50% (RM1,250)	Standard Full Page* (even numbered page) Size: A4 210 (w) x 297 (h) mm	RM 1,000 After 50% (RM500)
Back Cover*	RM 2,500	Half Page Product/Services article without advertisement with one photograph	RM 800
Size : A4 210 (w) x 297 (h) mm	After 50% (RM1,250)		After 50% (RM400)
Inside Front Cover*	RM 2,000	Quarter Page Product/Services article without advertisement with one photograph	RM 500
Size : A4 210 (w) x 297 (h) mm	After 50% (RM1,000)		After 50% (RM250)
Standard Full Page* (odd numbered page) Size: A4 210 (w) x 297 (h) mm	RM 1,500 After 50% (RM750)	Name Card Size Classified Ads	RM 200 After 50% (RM100)

^{*}Note: Advertisers enjoy free half page technical article in Materials Mind. Please circle the price next to your chosen package.

Table 1 Profiles of Materials Mind readers

No	Company type	%
1	Operating company (oil & gas, marine and power)	30
2	Equipment / supplier	25
3	Engineering Consultant Company	10
4	Services (QA & QC)	10
5	Education	10
6	Contractor (Fabricator)	10
7	Others	5

Technical requirement

- JPG / Ai / PDF / PSD format
- Ai / Illustrator Text must be outline and saved together with high resolution picture embedded.
- All formats must be at least 300 dpi for pictures and / or embedded pictures in Ai.
- · Films are not acceptable.
- Artwork prepared by the advertiser.

Table 2 Profiles of Materials Mind readers

No	Job classification	%
1	CEO / Manager	30
2	Engineer scientist	20
3	Executive	20
4	Professor / academician	20
5	University student	5
6	Others	5

Payment

50% upon confirmation of booking advertisement space and full amount before publication of the magazine.

Cancellation

10-day notice before the publication, otherwise deposit will be forfeited.

We enclose our cheque payable to "Institute of Materials, Malaysia".

Advertisement Amount: RM Company Name:	Cheque Number:		2
Company Address:			
Contact Person:			
Telenhone:		HD.	

Bank Details:

Bank: Hong Leong Bank (M) Bhd

Account Name: Institute of Materials, Malaysia

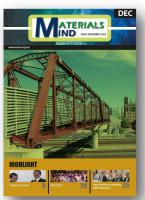
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For more information, please contact: Suhaila Suhaimi suhaila@mte.com.my
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ATERIALS

A Quarterly Bulletin

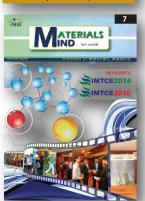










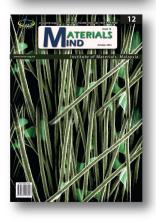




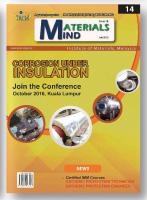












For Materials Mind, our articles are read by over **8,000** readers in *print* and *online*.

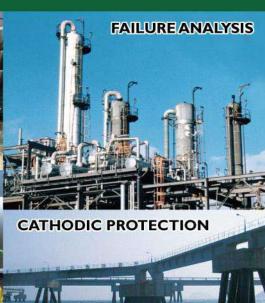
For more information please contact:

Suhaila Suhaimi suhaila@mte.com.my 03-5882 3574 / 017-6076084

MATERIALS INTEGRITY ENGINEERING & SERVICES







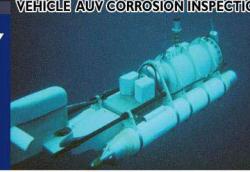
Why Materials Fail







- STRUCTURAL INTEGRITY
- PIPELINE INTEGRITY
- WELL INTEGRITY





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