Institute of Materials, Malaysia

Issue No.22
For Members Only
June 2011

IMM NEWSLETTER

INSIDE THIS ISSUE:

Special points of interest:

- IMTCE 2012
- IMM-IEM Joint Seminar
- IMM Ordinary Membership
- Golf Invitational Tournament 2011
- 3rd Regional Materials Technology Conference

3RMTC

A collage of participants networking at the 3RMTC

Miri, 26 April 2011

The IMM Miri chapter organized the third Regional Materials Technology Conference (3RMTC) at a local hotel in April. Under the able chairmanship of Chris Kettle, the conference attracted a total of 30 technical papers which were submitted for consideration for presentation. Topics cover Inspection, Failure Analysis, Welding, Corrosion and Corrosion Inhibitors and Coatings, with many young presenters holding court very well. Participants were hard- pressed to choose the sessions to attend. Many were seen scurrying from one room to another to catch specific subjects of personal interest.

Conference participants were treated to a banquet dinner after a hard day. Chris Kettle, in the Chairman's address, called on young engineers to "become professionally qualified and accredited materials, corrosion, welding and inspection engineers". He added "...then be prepared to seize the opportunities that will undoubtedly arise for you over the coming years" (see the full text of Chris' message on page 3). It was also an occasion

Continued on Page 8

IMM COUNCIL MEMBERS 2010 - 2012

Advisor: DATUK IR YEOW KIAN CHAI - PETRONAS
President: DATO' DR ONG ENG LONG - Kossan Rubber Industries Bhd
Dep. President: PROF DR MOHAMAD KAMAL HARUN - Universiti Teknologi MARA
Hon. Secretary: IR MAX ONG CHONG HUP - Norimax Sdn Bhd
Hon. Treasurer: IR MOHD SURADI YASIN - MTE/OSFAM
Immediate Past President:
ZAINUDDIN ISHAK - Ingress Fabricators Sdn Bhd
Council Members:
DATO' IR MOHD JAI SUBOH - Velosi (M) Sdn Bhd
DATUK IR WAHIRUDDIN WAHID - Offshore Works Sdn Bhd
PROF DR AHMAD FAUZI MOHD NOOR - Universiti Sains Malaysia
PROF DR CHE HUSNA AZHARI - Universiti Kebangsaan Malaysia
PROF DR ESAH HAMZAH - Universiti Teknologi Malaysia
ASSOC PROF DR ANDREW SPOWAGE - U of Nottingham M'sian C
DR ABDUL AZIZ MOHAMED - Agensi Nuklear Malaysia
DR AZMI IDRIS - SIRIM Bhd
DR TEH SER KOK - Metallurgical Consultant
ABDUL RAZAK HURAIRAH - Morecap Sdn Bhd
CHRISTOPHER KETTLE - Sarawak Shell Bhd
DAVID LIM CHEE CHEONG - ExxonMobil E & P (M) Inc
ENG KIM LENG - EKL Ventures Sdn Bhd
FRANKIE CHUA CHENG HUAT - PLC Laboratory Sdn Bhd
HARRY WOON - Bredero Shaw (M) Sdn Bhd
JOHAR JUHARI - APEX Energy Sdn Bhd
KANG KIM ANG - Corrtrol Corrosion Sdn Bhd
MAIMUNAH ISMAIL - Projects and Engineering Services (Shell P&T)
MOHD TAJUDIN ALIAS - MTE Sdn Bhd
NIGEL PATRICK BREWITT - MTIS Sdn Bhd
NOOR HISHAM ABDUL HAMID - UTM - PJSB
SITI HASLINA - PETRONAS Research Sdn Bhd
TUNGKU NOR MANIRA - Norimax Sdn Bhd
YII MING SING - Malaysia LNG Sdn Bhd
ZAMALUDDIN ALI - PETRONAS

Chairmen of Regional Chapters/Committees:
Welding: DR EDWIN JONG - Shell Deepwater Group
Kuching: NUZUL ADZWAN BIN SULAIMAN - Brooke Dockyard
Labuan: JOHN WONG PAK KUNG - Fumiko Sdn Bhd
Northern: PROF DR HANAFI ISMAIL - Universiti Sains Malaysia

Academy of Science Malaysia Representative:
DATUK FATEH CHAND

Past Presidents:
1988-1996 PROF DATO' DR HJ MOHD MANSOR HJ SALLEH - Universiti KL
1996-2000 DR IR SAMAD BIN SOLBAI - PT Gunanusa Utama Fabricators
2000-2004 DR AB. RAHIM BIN MOHD NOR - Teras Duta Sdn Bhd

INSTITUTE OF MATERIALS MALAYSIA

"To become the authority on materials science technology & engineering in Malaysia by 2020"

PROFESSIONALLY QUALIFIED ENGINEERS

Text of the Chairman's Address delivered by Chris Kettle at the banquet dinner of 3RMTC on 26 April 2011

Chris Kettle

Ladies and gentlemen, good evening.

My name is Chris Kettle and I am the Chairman of the Miri Chapter of the Institute of Materials, Malaysia and the Chairman of the Conference Organising Committee. Welcome to you all!

I wanted to speak briefly this evening on the matter of professional qualifications and accreditation and their importance to we specialist engineers. In the West young people in schools are increasingly turning away from what are commonly considered as 'hard' subjects; maths, physics, chemistry, biology and foreign languages. The evidence for this lies in the lower numbers of western educated people studying engineering and related sciences at universities. In Britain there are few kudos attached to studying to be an engineer. For most people an engineer is the person who comes round to fix their boiler, washing machine or other domestic appliance. An engineer is seen as a blue-collar worker and therefore has little status. Consequently young people opt for medicine, law, banking, commerce etc. The result of this seems to be an ever-decreasing number of engineers in the West.

What must also be considered is the difference between an engineer and a professionally qualified engineer. The student that leaves university with a degree in an engineering discipline is considered a qualified engineer but it is only after a suitable period in industry, gathering relevant experience that he can think about becoming a recognised professional engineer.

What do I mean here by a recognised professional engineer? The stress here is on the words 'recognised' and 'professional'. For the purposes of this occasion, I am considering a recognised professional engineer to be someone who has completed an accredited programme of study recognised by the signatories to the Washington Accord and who has then subsequently been accepted as a professional member by the body that governs his profession in his country.

Before I continue, a brief word on the Washington Accord. This was signed in 1989, and is an international agreement among bodies responsible for accrediting engineering degree programmes. It recognizes the substantial equivalency of programmes accredited by those bodies and recommends that graduates of programmes accredited by any one of the signatory bodies be recognized by the other bodies as having met the academic requirements for entry to the practice of engineering.

The original 1989 signatories included the professional associations of the UK (Engineering Council), Australia (Engineers Australia), Ireland (Engineers Ireland), New Zealand (Institution of Professional Engineers NZ), Canada (Engineers Canada) and the USA (Accreditation Board for Engineering and Technology), all obviously Anglophone countries. Since the original six, a further seven non-Anglophone countries have signed up including, most recently in 2009, the Board of Engineers Malaysia. At present, a further six countries, including Germany, India and Russia are currently in the process of joining this club.

So, the degree alone is not sufficient. All of these institutions offer a process by which the degree qualified engineer can, through relevant experience, obtain an internationally recognised professional engineering qualification. In the UK, for example, this is achieved through membership of a recognised professional association – in my case this is The Institute of Materials, Minerals and Mining. Completing a programme of relevant experience leads, through a process of evaluation and interview, to being granted Professional Member status of the institution. This, in its turn, leads to accreditation by the UK Engineering Council and the granting of the status of Chartered Engineer.

What does such professional status offer? In the UK, it overcomes to some extent the blue collar status that the Establishment and the public ascribe to an engineer; although in many cases people have no idea what a Chartered Engineer is. This can be seen when filling in on-line forms for car insurance, for example. The drop-down menu lists a myriad of professions, actors through engineers to zoologists. Amongst the list is 'Professionals', including lawyers, bankers etc. Insurers in the UK base their premiums to some degree on professions; some are deemed to be more risky than others. When you phone up and say that you're an engineer, the premium quoted is based on your being on the road a great deal so a typical response is, 'Yes sir, what make and type of van will you be driving?'

Continued on Page 6

IMM Working Committees 2010 - 2012

Examinations, Certification and Accreditation Panel (ECAP)
Chairman: Prof Dr Mohd Kamal Harun
Secretary: Kirk Keng Chuan
Co-Secretary: Azman Murad
Committee Members:
Maimunah Ismail (Corrosion)
Kang Kim Ang (Corrosion)
Johar Juhari (Coatings)
David Lim (Coatings)
Yeoh Tian Hock (Coatings)
Dr Edwin Jong (Welding)
Ismail Abu Bakar (Welding)
Noor Hisyam Noor Mohamed (Vibration)

Coatings Committee
Chairman: David Lim
Vice Chairman: Johar Juhari
Secretary: Yeoh Tian Hock
Committee Members:
Dato' Udani bin Dato' Seri Mohamed Daud
Chong Horng Yih
Danny Tan
Frankie Chua
Ting Lai Liong
Wong Ing Chiew

Corrosion Committee
Chairman: Maimunah Ismail
Vice Chairman: Kang Kim Ang
Secretary: Huraizah Zainal-Nor
Committee Members:
Muhamad Paizal Othman
Junaidy Abdullah
Eric Lay
Kenny Siew
Mohd Rais Sabiyah
Dr Dzaraini B Kamarun
Rozie Sazlee
David Lim
Jeffery Ngau Uvang

Nanomaterials
Chairman: Dr Azmi Idris

Composites Committee
Chairman: Siti Haslina Ramli
Secretary: Razman Marsoff Johar
Committee Members:
Dr KH Leong
Dr Caroline Jee
Zulkarnain Mohamad
Roslina Ismail

Green Materials Committee
Chairman: Dr Chen Sau Soon
Vice Chairman:
Prof Dr Saifollah Abdullah
Secretary: Abd Razak Hurairah
Committee Members:
Arnold Denes
Eng Kim Leng
Mohd Suradi Yasin
Frankie Chua
Max Ong Chong Hup
Kelvin Chan
Hahnas Mahbut
Zamaluddin Ali
Yeoh Eng Huei

Welding Committee
Chairman: Dr Edwin Jong
Vice Chairmen: Ismail Abu Bakar
Hj Ghalib Tham
Secretary: Md Hafidzuddin Mohd Salleh
Committee Members:
Prof Dr Mohd Kamal Harun
Abu Bakar Mohd Arif
Tan Yew Min
Mohd Shahrizal PKM Seeni Mohd
Dr Teh Ser Kok
Thomas Teo
Faisal Luis Amorsolo
Steve Yeong
Maruthamuthu Pushpanathan
Kirk Keng Chuan

Vibration
Chairman:
Noor Hisham Abdul Hamid

Miri Chapter
Chairman: Chris Kettle
Secretary: Lai Kok Leong
Committee Members:
Duan Kelvin Seling
Mackenzie Socret
Liew Wei Yew
Sylvia Laggat
Priscilla Henry

Bintulu Chapter
Chairman: Yii Ming Sing
Vice Chairman: Leong Yin Chin
Secretary: Felix Bantin Ak Amit
Committee Members:
Chung Yih Yenn
Steward Siran

Kuching Chapter
Advisor: Andrew Ronggie
Chairman:
Nuzul Adzwan Sulaiman
Secretary:
Wan Mohd Naguib Bin Wan Abd. Rahman
Committee Members:
Biran ak Atu
Dominic Christopher ak Keli

Labuan Chapter
Chairman:
John Wong Pak Kung
Secretary: Chrys Johanathan
Treasurer: Ooi Ling Lew
Committee Members:
Jeffery Ngau Uvang
Rohaiza Morshaid
Liew Ep Ping,
Bonaventure Petrus
Chieng Kung Lik,
M Lokman B Mat Nor

Southern Chapter
Chairman:
Prof Dr Esah Hamzah

East Coast Chapter
Chairman: Harry Woon

Northern Chapter
Chairman: Prof Dr Hanafi Ismail

IMM Events and Activities

Group photo of participants at the Technical Visit. Inset: Attendees at the Green Materials seminar.

Kelana Jaya, 18 March 2011

Several events were held this year since the kick off of the Associate Welding Engineer (AWE) training course held in January. In March, a technical visit was organized by the IMM Composites committee to Hexagon Composites Engineering Sdn Bhd, a fiberglass composites product manufacturing factory located in Nilai where 21 interested IMM members were given a tour of the facilities.

Following the visit, the Green Materials committee organized the 'Green Materials' Seminar in the afternoon. Topics on "Nanotechnology Paint: The Latest Evolution in Green Insulating Materials", "Nanotechnology Application in Green Materials" and "Thermal Spray Coating for a Better Environment" were presented by 3 distinguished speakers from the industry and academia. The day concluded with the IMM 21st AGM (see Page 10 for more details)

The following day, about 80 golfers teed off the IMM Golf Invitational Tournament at the Nilai Springs Golf and Country Club. The golf course, with Nines named the Mango, Island and Pines Nines, offers lush tropical landscape with fairways and greens set against numerous sand and water hazards that challenge the amateur and the professional golfer. (see Page 7)

In between, the Coatings committee was meeting representatives of SSPC, the Society for Protective Coatings for collaborative actions, whilst the Corrosion committee is planning to organise a seminar in July and a technical visit in October. Keep a look out for more details.

Career Carnival at UTeM

Malacca, 23 February 2011

Materials Technology Education Sdn Bhd (MTE) was represented at the Career Carnival held in the University Technical Malaysia Malacca (UTeM).

This yearly event was organized by the university & student body for Final year & Master's students. MTE was the first company to showcase Career Opportunity in Oil & Gas Sector in Malaysia among other companies selected from the non Oil & Gas industry. There were 49 exhibition booths with 80% occupancy. More than 200 students, mostly from Electrical Engineering, Materials and Mechanical Engineering faculties, visited the MTE booth, showing keen interest on IMM and courses offered.

MATERIALS ENGINEERS (Continued from Page 3)

When you enquire as to the premium payable for 'Professionals', it is significantly less. Stating then that you are a professional or Chartered Engineer you are told that the premium is the same, an engineer is an engineer. If you ask to be quoted as a professional, they cannot offer a rate because you're not a lawyer, banker etc. 'Please make up your mind sir, are you an engineer or a professional person?' It seems that in some cases you still cannot be both!

This has a lot to do with UK snobbery etc, but matters are improving. Where independent verification of documents is required in the UK, Professional Engineers are now on the list of people considered as 'approved' or respectable enough to have the responsibility for signing such things. Only a few years ago, despite working amongst a crowd of highly qualified engineers, I had to go and find a teacher, a 'recognised' profession, to endorse my passport application.

Status is important to people who have invested a great deal of money, time and energy in their education. As I say, matters are improving in the UK and in countries such as Germany, the engineer's status is recognised to be equivalent to that of the doctor and the lawyer. I am certain that the professional engineer's status will continue to rise through the good work of the various engineering institutions.

So we've covered status. What else does a recognised professional status offer? It offers mobility and, under the Washington Accord, that mobility now covers thirteen countries with a further six nations looking to join the list. Your Board of Engineers Malaysia accreditation is currently recognised in twelve other countries and, whilst you may have to sit a further exam in some cases (PE registration in the US, for example) your qualification will generally allow you to start work immediately. Whilst there is such a shortage of qualified engineers in the West, this offers great possibilities to those who may wish to emigrate, those who wish to try out the expatriate lifestyle or who simply wish for a change of scenery for a short period. Within Shell, many of our Malaysian cross-postees discover that there are many opportunities to be had around the world. Such travel and opportunities significantly enrich the experiences of the engineers who undertake them, enabling them to bring new techniques and ideas back to their home countries.

Status, tick! Mobility, tick! Additionally, flexibility, increased opportunities and a wider choice of employer also are all offered through recognised professional status. For many years, Shell did not pay much attention to professional accreditation. It wasn't thought necessary and was not particularly encouraged. Why would it be necessary for someone to be so qualified? After all, when you have a job with Shell, you have a job for life – no need to look elsewhere. Not any more, I'm afraid, jobs for life have largely gone the way of the dinosaur and, whilst Shell is a very good employer, it is not the only one. Being an engineering professional gives an engineer a distinct advantage when CVs are screened. After all, you only need to get to the interview as once there you know that you're going to impress!

Salary, package, perks etc are all improved through possession of appropriate professional accreditation. Again, I can only talk for the UK, but a Chartered Engineer might expect to earn some 20% more than his non-Chartered peer.

What then of the future? Will there be any work for us? Consider this; through several studies from the 70s to date, the annual cost of corrosion has been estimated at between 1-5% of Gross Domestic Product (GDP) for any particular nation. To put this into some context, a major study in the US in 1998 established the cost of corrosion to the US as U$276bn per year. Allowing for a 2% inflation rate, this would be U$350bn today or nearly U$1bn per day. Assuming an average cost of corrosion of 3% of GDP, the current EU GDP of around U$15.6tn gives a cost of U$470bn. Throw in Australasia and Japan at U$45bn and U$129bn respectively and the annual cost of corrosion for the 'developed' world is close to U$1tn. That is a thousand billion US Dollars!

Closer to home, with a GDP of around U$220bn, the 2011 cost of corrosion for Malaysia will be around U$7bn or around RM21bn. For those that say there is no future in engineering, I suggest that these are huge sums and they represent real potential for professionally qualified persons in the world of materials, corrosion, welding and inspection engineering. For ideas of what there is out there, just take a look at a few Oil & Gas Job Search websites.

Coming back somewhat to where I started which was my bemoaning the loss of qualified engineers in the West, I have to ask, 'Who is going to sort out the materials and corrosion issues that we have?' Where are we, in the West, going to find the professionals that we apparently will need to address these matters? Shell has recently established a technology centre in Bangalore, India – Shell Technology India. Why would such a well and long-established western-based company do such a thing? India offers a large pool of well-educated young people from technical disciplines who speak the world's business language, English. Our company needs such people in order to survive across its operations worldwide. The West's demographics are such that we older engineers are not being adequately replaced by enough home-grown talent and this will create a buyer's market. In such cases, the cost of the commodity always rises.

Whilst you may not now be interested in trekking off across the world to take advantage of the developing situation, professional accreditation will enable you to do so, should you subsequently decide that a bit of globe-trotting is what you fancy.

My message must be, 'Become professionally qualified and accredited materials, corrosion, welding and inspection engineers and then be prepared to seize the opportunities that will undoubtedly arise for you over the coming years.'

Before I leave you all in peace, as Chairman of the Conference Organising Committee, I would like to thank my committee members for all their efforts and, without whom this event would not have taken place. They have worked ceaselessly with the Institute of Materials Malaysia (IMM) and Materials Technology Education (MTE) to bring in the presentations, organise the venue, set up tomorrow's industry visits and golf. Thanks must also go to our exhibitors who bring a much welcomed additional dimension to such events, showing how ideas can be turned into practicalities and providing potential solutions for the challenges that face us. Thanks too to the students of Curtin University who have all volunteered (been volunteered?) to make the day's events run smoothly. Finally, I would like to thank the presenters themselves who have taken the trouble to develop and give their presentations in the interest of their discipline peers and who have been happy to share their thoughts, challenges and experience.

I wish you all a very good evening.

IMM Golf Invitational Tournament 2011

The winners with the chairman of the Organising Committee 2011, Razak Hurairah (4th from left) & other committee members.

Nilai, 19 March 2011

With more than 80 registrations for the tournament, and a sponsorship to match the excitement, this year's friendly was much anticipated and awaited.

Held at a prestigious golf club, the game played according to Stableford "System 36" began in earnest as the golfers promptly embarked onto the buggies allotted, and leaving the assembly point in military style and precision to their respective hole to tee-off whilst the siren sounded.

It was a great opportunity for networking and relaxation. A sudden heavy downpour briefly interrupted the game but was just as quickly blown away to provide a climax to the game. Some of the golfers returned to the club house wet but happy. The happy smiles on each face told a story of delight and an enjoyable morning of golf amongst friends and new acquaintances.

Trophies awaiting winners

Hungry lot, these golfers. They swarmed the buffet lunch table and like locusts finished the food with gusto. Following lunch, 5 winners were presented with pewter trophies as well as other prizes. There were other winners in the Novelty Prize category - nearest to pin, nearest to Line and the longest drive (no, not the one with a beemer or merc).

Sexy golf - 'How do I look?'

Those who did not win the competition did not fret as they too received a souvenir each of a variety of electrical products. That should please the Mrs., No??

Team golf was not in the agenda

If you missed this year's event, no problem - just sign up now for next year's tournament. See you then!

90% of the candidates passed the examinations after a gruelling 6-day training programme

MALAYSIANS DID WELL IN 1ST AWE

Syabas!! Well done!! Congratulations! The trainees at the first Associate Welding Engineer (AWE) training course held in January in Malaysia was hugely successful. 90% of the candidates passed the examinations after a gruelling 6-day training programme conducted by the Japanese Welding Engineering Society and supported by the Japanese government under the Ministry of Economy Trade and Industry (METI) and implemented by the Association for Overseas Technical Scholarship

The next AWE course is to be held in Kuala Lumpur in September 2011. At about the same time, the Welding Engineer (WE) training course will be conducted. Subsequent plans include a training course for the Senior Welding Engineer (SWE) in February 2012. The SWE is the highest level in the JWES Welding Coordination Personnel Scheme.

Interested parties with the relevant experience and qualifications for the AWE and WE in September are invited to apply for the course. Please contact the Institute of Materials Malaysia (IMM) at tel: (603) 5882 3574 or email: info@mte.com.my for the application

3RMTC (continued from Page 1)

where the Vice Chairman of the organizing committee, Mohamad Adaham a season guitar player, entertained the guests to some of his best songs. The audience turned ecstatic when a crowd favorite was played.

Representatives of exhibitors were out in full force, promoting their wares and services to the delegates during the breaks where opportunities for networking were aplenty. Many took time out to meet old friends and make new ones as well business contacts.

The golf enthusiasts were not left out either when 20 of them enjoyed a round of golf, whilst another 20 took part in a Technical Visit to Shin Yang Shipyard (2) in Miri, learning how a shipyard operates.

We look forward to another regional show in Miri, and in other regions too.






MANPOWER OPTIMISATION SYSTEM

The Manpower Optimization System (MOS) was introduced to oversee the continuous work experience of skilled tradesmen. It has now more than seven hundred workmen in its register. Those registered in MOS are automatically re-certified as long as their records are up to date and in order. The scheme is easily accessible to project owners, clients, fabricators and contractors who can seek qualified, experienced and skilled workers from the database via the internet.

For more information, call Primos at Tel: (603) 5882 3574 or visit www.primos.com.my or email info@mte.com.my

GREEN COATING TECHNOLOGY DEVELOPMENTS

Kelana Jaya, 9 May 2011

IMM, in collaboration with the Society for Protective Coatings (SSPC), organised a seminar on Green Coating Technology Developments, to create an awareness amongst the fraternity of the commercialization and education of green coatings.

Dr Chen Sau Soon

There was great interest in issues pertaining Green Products Commercialization when the challenges of commercialising green products, production of really green products and the multiple environmental issues which ought to be the driver of environmental solutions and environmentally sound technologies were highlighted in the presentation by Dr Chen Sau Soon, Chairman of the IMM Green Materials Committee.

Bill Shoup, Executive Director of SSPC, explained the Impact of Green Movement in the Coatings Industry, where environmentally "green" techniques were used for controlling ambient conditions, surface preparation equipment, coating application equipment, coating selection and inspection documentation.

Bill Shoup of SSPC

The Society for Protective Coatings was founded in 1950 as the Steel Structures Painting Council, a non□profit professional society concerned with the use of coatings to protect industrial steel structures. SSPC is the only non□profit association that is focused on the protection and preservation of concrete, steel and other industrial and marine structures and surfaces through the use of high performance protective, marine and industrial coatings.

In his closing remarks, David Lim, Chairman of IMM Coatings Committee, envisage more collaboration with SSPC particularly in the area of education in the near future for the mutual benefit of members of both societies. The Coatings committee has been conducting the very popular Blaster & Painter Assessment as well as career enhancement course, Coatings Inspector Level 1 and 2, for many years.

AWF MEETING

Shanghai, 1-3 June 2011

At the Asian Welding Federation (AWF) Task Force Meeting and Governing Council Meeting in Shanghai, China, the delegates felt a need to develop a strategic plan to promote the Common Welder Certification Scheme (CWCS) amongst the industries in the thirteen AWF member nations.

The CWCS will be governed by rules and regulations in line with international standards such as ISO 9606. Each country will be represented by an Authorised Certification Body (ACB) which will be responsible for the appointment and quality of Approved Test Laboratory (ATC) and Approved Training Body (ATB) within the AWF.

IMM is an active member of the AWF and have fully supported the CWCS since the inception of the federation. In addition to Malaysia, the other members of AWF are China, India, Indonesia, Iran, Japan, Korea, Mongolia, Myanmar, Philippines, Singapore, Thailand and Vietnam. Pakistan would be the fourteenth member upon approval.

IMM Delegation at AWF. Left to right: Prof Dr Mohd Kamal Harun, Dr Edwin Jong, Ir Surdai Yasin, Tan Yew Min and Dato Dr Ong Eng Long. Not in picture: Ir Max Ong

IMM AGM 2011

The President, Dato' Dr. Ong Eng Long (3rd from left), with (from left) Ir Suradi Yasin (Hon. Treasurer), Prof. Dr. Mohd Kamal Harun (Deputy President) and Ir Ong Chong Hup (Hon. Secretary)

Kelana Jaya, 18 March 2011

The Annual General Meeting was held at the Kelab Golf Negara Subang (KGNS) in Kelana Jaya, Selangor.

In the Presidential address, Dato' Dr Ong Eng Long said "Two new working committees, Green Materials Committee and Vibration Committee were established in 2010." He also added "The Coatings Committee, being the 'anchor committee' of the institute, have taken steps to upgrade its training and certification programs and will work with international professional institutions to offer international certification via IMM schemes."

One major step taken to move IMM forward during the meeting was a milestone proposal by the IMM Council to offer free " Ordinary Grade " membership to members of other professional institutes and societies. This will encourage more acceptance of IMM's objectives to be progressive and innovative in its approach towards recognition as an authority in materials technology in Malaysia.

Dato' Dr. Ong Eng Long addressing the meeting

The Council had noted that paying too many annual subscriptions is a burden to many society members and this offer may generate more members from other societies to acknowledge the importance of materials technology in our daily lives. The IMM Council had since then prepared a list of recognized societies such as the Institution of Engineers (Malaysia & other countries), Institut Kimia Malaysia, Persatuan Arkitek Malaysia, Malaysian Medical Association, Plastics & Rubber Institute of Malaysia, National Association of Corrosion Engineers, Steel Structures Painting Council, Institute of Corrosion UK, amongst others.

The meeting was also informed of the initiation of the formation of IMM Student Chapters in universities.

IMM Activities & Events

July
- Coatings Inspection
- Corrosion Control by Protective Paints
- Blasting & Painting
- Welding - SMAW, GMAW, GTAW
- Calculation of Strength of Welded Members
- Cost & Estimation of Welding Projects
- Interpretation of Weld Quality by Welding Codes
- Vibration Specialist (Level 3)
- Road Show – PETRONAS Penapisan Malacca

August
- Blasting and Painting Supervisor
- Blasting & Painting
- Welding - SMAW, GMAW, GTAW
- Welding Inspection Scheme
- Interpretation of Weld Quality by Radiographic Method

September
- Coatings Quality Control Technician (QC)
- Blasting & Painting
- Welding - SMAW, GMAW, GTAW
- Thermal Spray Coatings Inspection

October
- Coatings Inspection
- Corrosion Control by Protective Paints
- Blasting & Painting
- Welding - SMAW, GMAW, GTAW
- Thermal Spray Applicator
- Calculation of Strength of Welded Members
- Cost & Estimation of Welding Projects
- Interpretation of Weld Quality by Welding Codes
- Corrosion Technician
- Vibration Specialist (Level 3)

November
- Blasting and Painting Supervisor
- Blasting & Painting
- Welding - SMAW, GMAW, GTAW
- Vibration Specialist (Level 4)
- Road Show - Pasir Gudang

December
- Coatings Quality Control Technician (QC)
- Blasting and Painting Supervisor
- Blasting & Painting
- Welding - SMAW, GMAW, GTAW

The above information is correct at the time of print, and is subject to change without notice. For the latest schedule, please contact:

Materials Technology Education Sdn Bhd
10-1 Jalan Bandar 3, Pusat Bandar Puchong,
47160 Puchong, Selangor
Tel: (603) 5882 3574
Email: info@mte.com.my
Website: www.mte.com.my

1st Announcement - CALL FOR PAPERS

8th International Materials Technology Conference and Exhibition (IMTCE 2012)

Theme: Green Technologies for Sustainability & Innovations in Materials

Date: 9-12 July 2012

(Note: 7 July 2012 - IMM Golf Invitational Tournament)

Topics for presentation include, but not limited to the following:

- Biomaterials
- Composites
- Glass & Ceramics
- Green Materials
- Iron & Steel
- Minerals
- Natural Fibres
- Non-ferrous Materials
- Polymers & Elastomers
- Processing & Products
- Thin Film Technology
- Nanotechnology
- Power & Energy Materials
- Structural and Functional Materials.
- Fundamental & Characterisation
- Materials Modelling Testing and Evaluation
- Materials Performance –Vibration
- Corrosion & Materials Degradation
- Environmental Interaction - Coatings
- Welding Technology and Allied Processes
- Integrity and safety of materials

Abstracts are to be submitted before 1st October 2011 to the Institute of Materials, Malaysia at email address: IMTCE2012@gmail.com for the attention of the Technical Programme Director. Authors shall submit their abstracts in no more than 300 words plus a personal CV, in MS Word format.

Both oral and poster papers are welcome. Papers will be subjected to peer review & published in Scopus Index Journal

There will also be a undergraduate student Poster Contest for graduates, and a Speaking Contest for undergraduates as well as post graduates.

Venue: Sunway Resort Hotel & Spa, Selangor, MALAYSIA

Organised by:

Institute of Materials Malaysia (IMM)
10-1 Jalan Bandar 3, Pusat Bandar Puchong
47160 Puchong, Selangor, Malaysia
Phone: +603-5882-3574
Fax: +603-5882-3524
Email: iomm@po.jaring.my

IMM INSTITUTE OF MATERIALS MALAYSIA

Features of IMTCE2012:

* Oral and Poster presentations
* Golf Tournament
* Banquet Dinner
* Advertising in souvenir book
* Exhibition of products and services
* Sponsorship opportunities
* Networking of key industry captains
* Selected papers listed in Scopus Index
* 1000 delegates & participants expected
* Latest research papers
* Masterclasses
* Industry Visits

THE STAINLESS STEEL AWARD

By Maimunah Ismail
Miri, April 2011

They honoured me with the Stainless Steel Award
They... the staff members of SSB MCI team
They held SS with such high regards
They likened me to such high esteem

They said...its unique lustre as can be seen
From the Gateway Arch of Saint Louis in the West
To Petronas Twin Towers of KL,
THE Eastern sheen
Symbols of timeless beauty and
Engineering Quest

Lest...have they forgotten?
SS are almost like the Mortals
Outwardly, indeed flawless impression
Disastrous when in 'reducing' portals

A thin Cr2O3 layer not to disproof
Its difference amongst the Ferrous
It stains...less but not stain proof
It does pit and crack when under stress

Its welds decay with 'knifeline' attack
Its body can 'Rouge' and split at the grains
Crevice and Galvanic Corrosion
upon wrong contact
It galls on rubbing and degrades
to microbial ingrain

Needing 11% Cr as a minimum to improve
Variety of alloys with Ni, Mo, Mn and others
To achieve higher PREN in order to prove
Its adaptability to any conditions en masse

Their choice of award is indeed concurrence
Just like SS that require... O2
For its Self Healing, Self Repair and endurance
I strive, I live.. on my own special molecule...F2

...which are my...
Family and Friends

Corrosion & Materials Degradation Seminar

& Technical Visit

Jointly organised by IEM (Terengganu Branch (Kerteh Committee) & IMM

Date:	4 July 2011
Time:	8.30 am - 2.00 pm
Venue:	Ethylene Malaysia Sdn Bhd (Seminar & Technical Visit) Dewan Bunga Raya, 24300 Kerteh, Kemaman, Terengganu
Fee:	RM100.00 • IEM members enjoy CPD points • Payments to be made to Materials Technology Education Sdn Bhd

To register, contact: info@mte.com.my or (03) 5882 3574

ORDINARY MEMBERSHIP FOR AFFILIATES

The Institute of Materials, Malaysia (IMM) recognizes the value of members of other institutes and associations who has interest in matters of materials, materials technology and science which affect and is essential to their profession and work. After all, materials is relevant in the human daily lives. Nanomaterials are being used in the cosmetics to help ladies look fairer, enjoy smoother skins and good complexion, steel lined tyres with the right mixed of rubber provide better traction and adhesion of the vehicles we drive daily for better safety, babies need feeding bottles made of materials that will not leach and harm them. Materials is material in our lives - silently, effectively and daily.

All professionals deal with materials in one way or another - architects who design green buildings will want to know the materials they use are green, experienced nurses will be able to tell certain fabrics are better for care of patients than others, even sound engineers know that some materials are preferred over others for better quality audio. Materials!

IMM will recognize various professional institutions and societies for free membership at " Ordinary Grade ". Members of the recognized professional institutions and societies can become Ordinary Members of the IMM without any annual subscriptions. The Council of the IMM approved the proposal in accordance to IMM Rules clause no. 3.2.3 and the members at its 21st Annual General Meeting unanimously approved the proposal on 19th March 2011. Eligible members will need to fill up an application form and submit a copy of their membership certificate from their institute/society plus a one-time payment of RM40.00 for the IMM membership certificate and ID card.

Please contact the IMM Secretariat at iomm@po.jaring.my for the application form or obtain it from IMM website www.iomm.org.my/v3

Institute of Materials, Malaysia

INSTITUTE OF MATERIALS MALAYSIA

http://materialsimm.blogspot.com/

Institute of Materials, Malaysia (IMM) is a professional society that promotes honorable practice, professional ethics and encourages education in materials science, technology and engineering. Engineers, academicians, technicians, skilled workers and professionals are amongst its members exceeding 3000.

Vision

To Become the Authority on Materials Science Technology & Engineering in Malaysia by 2020

Mission

- *To Become the Centre for Materials Information in Malaysia*
- *To Provide Route to Attaining Professional Status for Materials Specialists in Malaysia*
- *To Provide Technical Skill Certification and Educational Programmes in Materials Science, Technology & Engineering*

Brief

The Malaysian Materials Science & Technology Society (MMS) was registered with the Registrar of Societies on 6th November, 1987. The MMS was actively promoting the awareness of Materials in Malaysia. In 1996, the change of name to the Institute of Materials, Malaysia (IMM) was submitted to the Registrar of Societies and approved on 16th June 1997.The new name was to be synergistic with the rest of the world. For example in the case of The United Kingdom, The Institute of Metals, The Institute of Ceramics and The Plastics & Rubber Institute were merged into a single Institute of Materials in 1992 where its members are recognized as professionals with the status of a Chartered Engineer (C.Eng). The technology of materials is advancing day-by-day throughout the world. We must keep up with the pace of technological advancement. 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.

The long term objective of the IMM is to attain professional recognition for its members in line with that which is accorded to the other disciplines of science, technology and engineering. Membership of IMM is opened to all individuals and companies keen in developing and contributing toward the growth of materials science, technology and engineering in Malaysia. Materials cover a very wide field such as metals, polymers, rubber, wood, concrete, ceramics, semiconductors, advanced materials, cellulose, textiles, etc. Membership to the IMM will enable networking and exchange of knowledge from a very wide variety of specialized areas of expertise. The IMM is also committed to seeking affiliations with overseas Materials and Engineering/ Scientific professional institutions to gain access to technological developments worldwide.

IMM Working Committees

Please see page 4 for details.

IMM Activities and Events

Please see page 10

Institute of Materials, Malaysia

10-1 Jalan Bandar 3
Pusat Bandar Puchong
47160 Puchong, Selangor
Malaysia

Phone: (603) 58823574
Fax: (603) 58823524
E-mail: iomm@po.jaring.my

We're on the web
www.iomm.org.my

Towards a Knowledgeable Skilled Workman

INSTITUTE OF MATERIALS MALAYSIA

http://materialsimm.blogspot.com/

IMM Membership grades

Honorary Fellow (Hon. FIMM) - Fellow (FIMM)

Professional Member (MIMM) - Associate Member (AMIMM)

Company Member - Ordinary Member - Student Member

* *Details and forms are available in IMM website*

* *Term and condition apply for each grade of membership*

Membership Subscription fee

Category / Fee	A	B	C	D
Fellow (F.I.M.M)	-	*RM 300.00*	*RM10.00*	*RM150.00*
Professional Member (M.I.M.M)	-	*RM150.00*	*RM10.00*	*RM100.00*
Company Member	*RM50.00*	-	-	*RM200.00*
Associate Member (A.M.I.M.M)	-	*RM150.00*	*RM10.00*	*RM80.00*
Ordinary Member	*RM20.00*	-	-	*RM40.00*
Student Member	*RM10.00*	-	-	*RM10.00*

Note: (A) Entrance (B) Processing (C) Transfer (D) Annual Subscription

For membership details, contact the Secretariat at:
Tel: (603) 5882 3574 Fax: (603) 5882 3524 Email: iomm@po.jaring.my

UNITEN CAREER TALK

Bangi, 20 June 2011

Upon the invitation from the Universiti Tenaga Nasional (UNITEN), Kang Kim Ang, IMM Council member and Vice Chairman of the Corrosion and Materials Degradation Committee, presented a Career Talk to more than 70 very interested engineering students. Kang's presentation took the audience through his personal experience of his own career path as a Materials engineer. From a humble beginning, the serendipity of incidents led him to his current status of being an owner of his own business, and enjoying it.

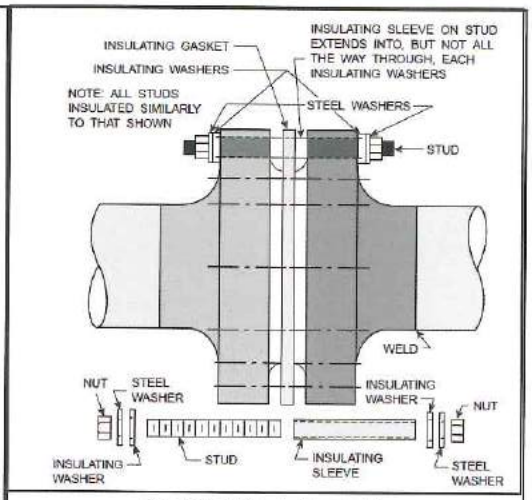
He stressed "the materials professional has several career options available in metal & steel manufacturing, paint, composites, construction, advanced materials amongst many others."

There were four PSD scholars in the eager crowd who are bound for further studies in Illinois, USA, come August 2011.

Kang Kim Ang, stressing a point during his presentation

CORROSION OF BURIED PIPELINE/PIPING IN PROCESS PLANTS DUE TO GALVANIC COUPLE

Monolithic Isolation Joint (MIJ)



Insulated Flange Assembly

Dissimilar metals and alloys have different electrode potentials and when two or more come into contact in an electrolyte a galvanic couple is set up. A galvanic couple can also be set up on a single metal or alloy as the metal surface is not homogeneous or if the electrolyte varies in composition, forming a concentration cell. Galvanic coupling can result in galvanic corrosion. Metal which is relatively more electronegative will corrode more substantially than others.

Galvanic coupling is commonly found in process plant because different metals are used to meet the requirements to achieve each individual technical purpose. Pipeline and piping are commonly made of carbon steel whilst earthing system from copper based materials. Steel reinforcement encased in concrete mixture could also project different electrode potentials as compared to pipeline/piping installed outside concrete encasement.

In order to avoid galvanic corrosion due to the galvanic coupling, pipeline and piping are often designed to be electrical isolated from other plant structures. Insulating flange kits (IF kits) or monolithic isolation joints (MIJ) are installed at the extreme ends of the pipeline/piping. Irrespective of the fact where isolation of galvanic coupling has been designed and implemented in most of the process plant, galvanic coupling remains a common problem due to a lack of technical knowledge or ignorance by some parties (typically the pipeline/piping contractors). Some common causes of failure on the IF kits installation are the breakage of insulation sleeves, wrong placement of insulation washer, flanges in contact with highly conductive electrolyte etc. Indirect electrical contact, when bypassing both sides of IF kits and MIJ, usually happen when resting on a common metallic support or base. This indirect contact will defeat the effectiveness of the electrical isolation for galvanic couple. Metal-to-metal contact can also happen in the process plant when pipeline/piping cross steel reinforcement concrete wall or foundation.

Galvanic coupling in process plant not only results in corrosion on buried pipeline and piping, but also often adversely impact the effectiveness of the cathodic protection system. This problem would not be effectively solved by the corrosion engineer. As most of the problems start from the day the installation of pipeline and piping, the contractor should be fully responsible in ensuring the problem is well handled from the beginning. Consultation from corrosion engineers should be considered. Rectification works post installations, especially after plants are already in operation, are more complex and costly.

Article contributed by Kang Kim Ang, Managing Director of Corrtrol Group of Companies

CORRTROL SERVICES SDN.BHD. (Company Registration No. 694145-W)

Your Corrosion Specialist Partner

CorrTrol

- Feasibility, Economic Studies, Economic Studies & Site Investigations
- Consultancy, Specialist Advises & Training
- Planning, Project Designs, Project Management
- Materials Supply, Installation, Supervision & Commissioning
- Corrosion and Operation Failure Analysis
- Corrosion Monitoring
- Special Survey:
  - ECDA, DCVG, CIPS, CDS

14, Jalan BP 6/6,
Bandar Bukit Puchong,
47120 Puchong,
Selangor Darul Ehsan,
West Malaysia.
Tel : +603 8068 2616
Fax: +603 8060 3816

www.corrtrolgroup.com