Proudly presents to you

IMM Coating Fingerprint Certification Scheme

Tentative IMM Coating Fingerprint Certification Scheme comprises certification courses

1. **IMM Coating Fingerprint Foundation Course** (a 1-day classroom & laboratory course) *(pre-requisite for IMM Certified Coating Fingerprint Quality Controller)*.
2. **IMM Certified Coating Fingerprint Quality Controller** (a 2-day classroom & laboratory course, with an exam consisting of 100 multiple-choice questions to be answered within 3 hours at the end of the course).

Objective: To assure the quality of protective coatings products used in the oil &gas industry.

Who shall attend and be certified?
For all those who produce, inspect, review and validate *Coating Fingerprint Certificate*.

The flow of Coating Fingerprint Certificate

1. **Coatings manufacturer / supplier**
   In-house QA&QC personnel
2. **Fabricator / contractor / sub-contractor**
   In-house QA&QC personnel
   Coatings inspector
3. **External auditor**
   QC inspector
   QA&QC personnel
4. **End-user**
   In-house QA&QC personnel

3rd-party testing laboratory
Signatory analyst

Others who shall know about this scheme
Consultants
Government Corporations
MOGEC members
MOGSC members etc.

IMM's initiative

WHY FINGERPRINT COATINGS?

By Ms. Nurul Asni Mohamed,
Chairperson, IMM Task Force on Coatings Fingerprinting
Principal Engineer (Corrosion), Group Technical Solutions, Technical & Engineering Division, PETRONAS GTS, Malaysia

Why do we need to FINGERPRINT coatings when anti-corrosion paint failures have never caused structural collapse or direct loss of primary containment?

Time and again, this question is being raised. **Are QUALITY and SAFETY not a major concern** in our industry and our daily lives? Do we need a catastrophe or fatality to occur before someone says "we should have foreseen this could happen"?

Corrosion of **METALS** are known to be the biggest culprit in catastrophes and fatalities when they fail despite having MILL CERTIFICATES (FINGERPRINTS). Therefore, it is generally assumed that even with a Coating Fingerprint, paint failures would still be anticipated. The only known result of poor quality paint supply is the increase in costs of repair and maintenance. But should the industry allow non-conforming paints to be supplied just because the price of non-conformance is not a direct cause of leak or structural failure?

Since 1990, IMM has identified three possible causes of paint failures (i) Painting Work Inspection, (ii) Surface Preparation & Paint Application, and (iii) Paint Supply. This led to the development of **IMM Coatings Inspector Certification program** in 1990 to improve the quality of local painting inspectors. In 2000, IMM developed the **IMM Blaster & Painter Certification program** to improve the quality of blasters & painters. IMM is continuously reviewing its training & certification programs to identify gaps and improve the programs to address ongoing coating failures particularly in the oil and gas industry. Paint supply had no means of quality assurance in the past until the FTIR spectroscopy technique was developed in the last 10 years. **The FTIR spectroscopy technique enables paint manufacturers and customers to be assured that the paint products supplied from reputable paint manufacturers were not tampered.** Customers can now be assured that the overall quality of paint they had purchased will not be affected, regardless of the raw materials sourcing.

Background of Coating Fingerprint Certificate and all related articles can be accessed at http://iomm.org.my/coating-fingerprint-certificate/background-of-coating-fingerprint-certificate/

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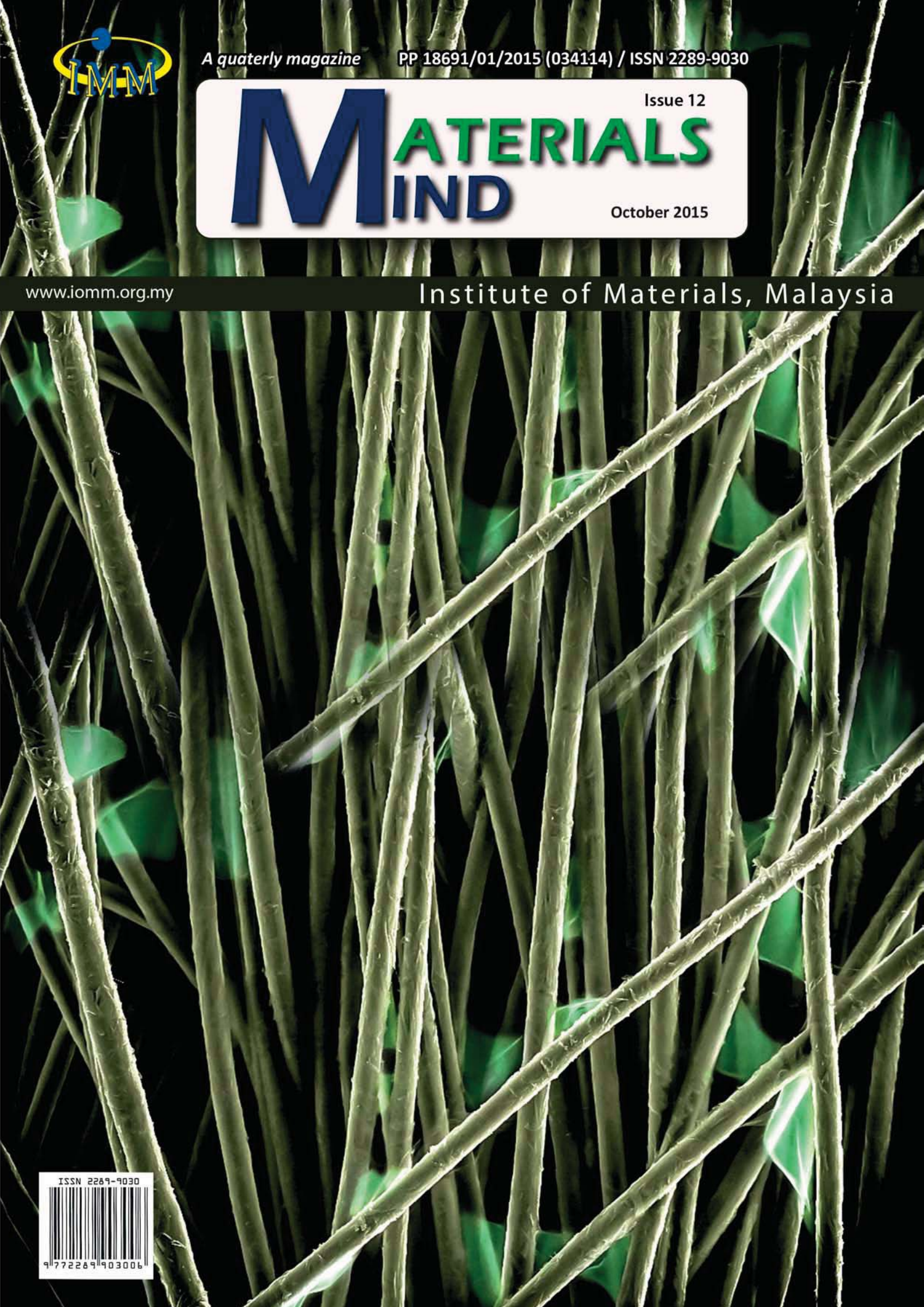

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Materials Mind Photography Competition Winning Photograph Issue 12

Congratulations to Mr. Chee Wei Kit from Chemistry Department, Faculty of Science, Universiti Putra Malaysia for his captivating photo. He won RM 500.00 and a certificate.

Title: Graphene bamboo forest

Photograph description:

The image illustrates formation of graphene "bamboo", as a result of electropolymerization of polypyrrole/reduced graphene oxide on a woven carbon cloth at which uniform layers of the nanocomposite enveloped the carbon fibers (diameter ~ 10 μm) compeletely. The highlighted "green leaves" indicated the graphene sheets.