

9th NATIONAL SEMINAR ON MATERIAL AND STRUCTURAL INTEGRITY



Organised by:



MALAYSIAN ASSOCIATION OF RESEARCH SCIENTISTS

Co-Organised by



Navigation the Future: Challenges and Innovations in Material Integrity

12
CPD POINTS
(MBOT)

11
CPD POINTS
(BEM)

20
CCD POINTS
(CIDB)

28 & 29
OCTOBER
2024

Hotel Grand
Darul Makmur,
KUANTAN, PAHANG

PREAMBLE

Structural integrity is the backbone of robust infrastructure, defining its ability to withstand designed loads and challenges. While effective maintenance practices stand as the ultimate solution, the dynamic industrial landscape in Malaysia presents unforeseen circumstances that may unexpectedly shorten the lifespan of critical components. The pressing need for a meticulous assessment in each scenario is paramount to avert potential failures and ensure longevity.

Our attention spans across cutting-edge techniques for characterizing materials – be it metals, ceramics, or polymers – aligning with the latest findings tailored for the Malaysian industry. Emphasizing non-destructive component assessments, these techniques become invaluable tools in resolving material and structural integrity challenges.

Embark on a two-day journey with professionals deeply entrenched in material and structural integrity monitoring.

OBJECTIVES

1. Uncover advanced practices and modern techniques ensuring material integrity for industrial applications.
2. Enhance knowledge in evaluating the structural integrity of equipment, plants, and installations in Malaysia, gauging their remnant life.
3. Facilitate knowledge exchange among professionals in the industry
4. Provide updates on existing regulations, standards, and codes, fostering material quality and integrity.



Supported by:



QUALITY THROUGH NDT

PAPER PRESENTATION

A total of **13 dynamic papers** are scheduled to be presented at the seminar. There will be 4 engaging keynote addresses and 9 papers based on respective sectional thrusts delivered by distinguished speakers covering the following thrusts:

Thrust I - Oil and Gas/Petrochemical,

Thrust II - Aerospace,

Thrust III - Construction

Thrust IV - Power Generation/ Nuclear

WHO SHOULD ATTEND?

Join us if you are involved or interested in inspection, maintenance research, and education within the Malaysian context.

Engineers, Scientists, Researchers, Academicians, Regulators, and Practitioners from diverse industrial spectrum

This seminar is your gateway to staying at the forefront of material and structural integrity advancements in the country.

SEMINAR PACKAGES

PACKAGE	CATEGORIES	FEES (RM)
A	Single Registration	870.00
B	Team Registration	830.00
C	Single Registration (with accommodation)	1,800.00
D	Team Registration (with accommodation)	1,760.00
E	Poster Presentation (student)	350.00
F	Poster Presentation (others)	450.00
G	Exhibition Booth	2,500.00

The fees include Seminar Kit and meals. Payment can be made by cheque/bankdraft/local order/online transfer payable to Persatuan Saintis Penyelidik Malaysia (MARS)

Account No.:

8603949288

Persatuan Saintis Penyelidik
Malaysia (MARS)

 **CIMB BANK**

Kindly send the bank slip/
statement as an evidence for
payment.



HIGHLIGHT

- Operations & Maintenance
- Standards, Regulations & Code of Practice
- Forensic Engineering
- Specification and Engineering Designs
- Integrity Management
- Inspection Techniques
- Plants Assessment
- New Technologies, Emerging Issues, and R&D
- Education and Training
- Safety
- Pattern Recognition (Artificial Intelligence)

EXHIBITION

We would like to extend an invitation for your all industry player to exhibit at the seminar. This is an excellent opportunity to showcase your products, services, and innovations to a targeted audience of professionals and enthusiasts in the industry.

CALLING FOR POSTER PRESENTATION

The poster presentation should be relevant to the seminar theme and highlight.

Abstract submission deadline:

30 September 2024



Accommodation package:

Check-in:

27 October 2024

Check-out:

30 October 2024

(Accommodation for 3 nights)

ANY INQUIRIES

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DAY 1

**28 October 2024
(Monday)**

- 08:00 – 08:30 Registration
08:30 – 08:40 Arrival of VVIP
08:40 – 08:45 Safety Briefing by Hotel
08:45 – 08:50 "Negaraku" and Recitation Doa
08:50 – 09:00 Welcoming Remarks
09:00 – 09:15 Official Opening Ceremony
09:15 – 09:45 **Special Keynote**
Towards the Future of Civil Infrastructure Structural Integrity:
Global Trends, Malaysia's Strategic Developments, and Life Cycle Assessment Analysis
Noor Azreen Masenwat
MALAYSIAN NUCLEAR AGENCY
09:45 – 10:00 **PHOTO SESSION & COFFEE BREAK**

SESSION I :

OIL & GAS/ PETROCHEMICAL INDUSTRY

- 10:00 – 11:00 **KEYNOTE 1**
Operation & Maintenance in Structural Integrity:
A Comprehensive Approach
Dr Muzdalifah Zakaria
Custodian (Materials Engineering), PETROLIAM NASIONAL BERHAD
- 11:00 – 12:00 **Paper 1**
Flow accelerated corrosion – A Short Studies on Failure bypass Spool
Nurul Hidayah Mustafa
Laboratory Manager, MTA LABORATORY SDN. BHD.
- 12:00 – 13:00 **Paper 2**
Integrity Management in Oil and Gas Industry: Case Studies and Best Practices
Md. Fakarudin Ab. Rahman
RPO Consultant, MALAYSIAN NUCLEAR AGENCY (NUKLEAR MALAYSIA)
- 13:00 – 14:00 **LUNCH BREAK**

SESSION II :

AEROSPACE INDUSTRY

- 14:00 – 15:00 **KEYNOTE 2**
Unlocking Extended Service Life: Integrating NDT Technologies and Engineering
Analysis for Military Aircraft Structural Integrity Enhancement
Maj. Ir. Ts. Dr. Arvinthan Venugolap
Head of NDT & Aircraft Structure Integrity Department, ROYAL MALAYSIAN AIR FORCE
- 15:00 -16:00 **Paper 3**
Applications NDT for Aerospace: Ensuring Quality in Critical Components
Kannayah Rao Sambamoorthy
Snr. QA Executive/RPO NDT, AIRFOIL SERVICES SDN.BHD
- 16:00 – 17:00 **Paper 4**
Material Characterization Technique on Impact Behaviour
Dr. Siti Madiha Muhammad Amir
Senior Research Officer, MALAYSIAN NUCLEAR AGENCY (NUKLEAR MALAYSIA)
- 17:00 – 17:15 **REFRESHMENT**
17:15 **End of Day 1**

DAY 2

**29 October 2024
(Tuesday)**

SESSION III :

CONSTRUCTION INDUSTRY

08:45 – 09:45 KEYNOTE 3

Forensic Engineering in Material and Structural Integrity Assessment

Ir. Bernard Toides

Civil Engineer Inspector

Forensic Service Division, MALAYSIAN PUBLIC WORKS DEPARTMENT

09:45 – 10:30 Paper 5

CIDB Certificate of Standard Compliance: Ensuring Quality and Compliance in Construction

Sr Nazir Muhamad Nor

CONSTRUCTION INDUSTRY DEVELOPMENT BOARD (CIDB)

10:30– 10:45 COFFEE BREAK

10:45 – 11:30 Paper 6

Optimizing Structural Integrity: Specifications and Design in Construction

Dr. Sharifah Maszura Syed Mohsin

Senior Lecturer

Faculty of Civil Engineering Technology, UNIVERSITY MALAYSIA PAHANG AL-SULTAN ABDULLAH

11:30 – 12:15 Paper 7

Acoustic Emission Testing: A Valuable Tool for Crane Inspection and Structural Health Monitoring

Mohamad Ridzuan Ahmad

Senior Research Officer

Industrial Technology Division

12:15– 13:00 Paper 8

Enhancing Quality and Safety in Construction: The Crucial Role of the *Makmal Kerja Raya Malaysia*, Construction Research Institute of Malaysia

Ts. Yuzairy Rozaidi Rohaizan

Test Engineer

Construction Research Institute of Malaysia, CONSTRUCTION INDUSTRY DEVELOPMENT BOARD

13.00 - 14.00 LUNCH BREAK

SESSION IV:

POWER GENERATION/ NUCLEAR PLANT

14:00 – 15:00 KEYNOTE 4

Material Challenges in Power Generation: Conventional Vs Nuclear Plants

Dr. Syukri Yahya

Director

Institute of Nuclear Energy, UNIVERSITI TENAGA NASIONAL

15:00 – 16:00 Paper 9

The importance of Inspection and Monitoring System Towards Resilient Infrastructure

Dr. Muhd Norhasri Muhd Sidek

Senior Lecturer

Faculty of Civil Engineering, UNIVERSITI TEKNOLOGI MARA MALAYSIA

16:00 – 16:15 REFRESHMENT

16:15 – 17:15 Paper 10

K-Means Clustering for Image Discrimination in Low Energy X-Ray Radiographic Image

Dr. Izyan Hazwani Hashim

Senior Lecturer

Department of Physics, UNIVERSITI TEKNOLOGI MALAYSIA

17:15 – 17:30 CLOSING REMARKS

17:30 End of Seminar

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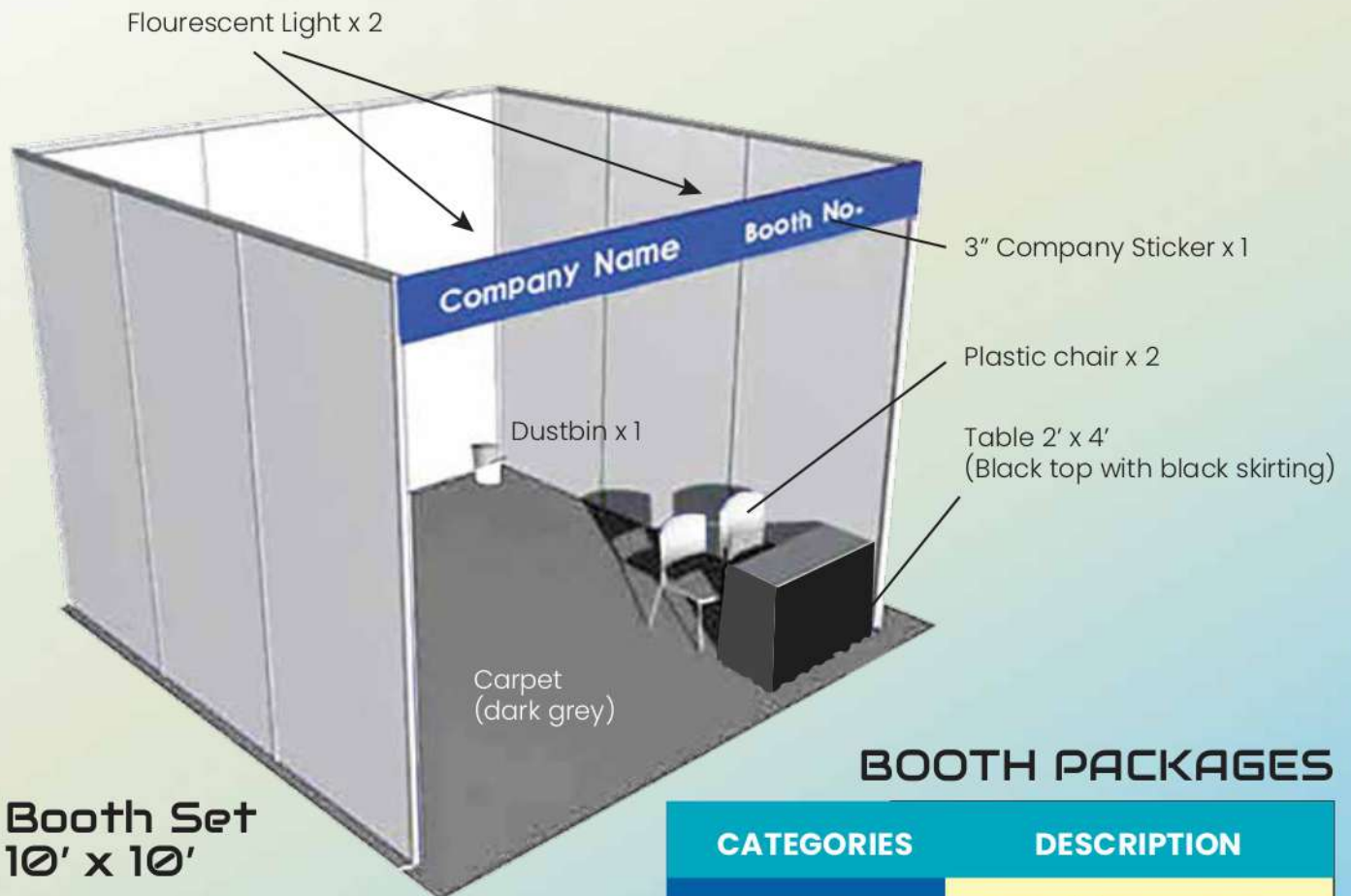


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BOOTH PACKAGES

CATEGORIES	DESCRIPTION
PACKAGE A RM2500.00	<ul style="list-style-type: none"> ● TWO (2) EXHIBITOR ● ONE (1) EXHIBITION BOOTH
PACKAGE B RM4000.00	<ul style="list-style-type: none"> ● TWO (2) EXHIBITOR ● ONE (1) EXHIBITION BOOTH ● TWO (2) SEMINAR REGISTRATIONS