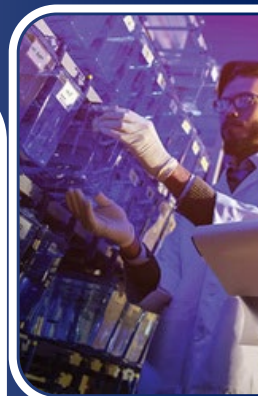


1st EDITION UiTM GLOBAL PENANG Newsletter

GLOBAL INSIGHTS: NAVIGATING UNIVERSALITY WITH UiTM PULAU PINANG



UNIVERSITI
TEKNOLOGI
MARA

UiTM Global @ Office of International Affairs,
Academic Affairs Division,
Universiti Teknologi MARA, Pulau Pinang Branch,
Pulau Pinang,
Malaysia.

INTERNATIONAL WEBINAR ON "APPLIED MECHANICS FOR ENGINEERS"

***Nor Aziyah Bakhari and Mohd
Rozaiman Aziz**

The webinar took place from 1:30 pm to 2:30 pm (MYT) or 11:00 am to 12:00 pm (IST).

A total of 80 participants, including faculty members and students specialising in mechanical engineering, attended the event. Among them, 51 were from **Mangayarkarasi College of Engineering (MCE)**, and 29 were external participants representing institutions such as **SIT Engineering College, Vaigai Engineering College, AAA College of Engineering, SRM College of Engineering, SACS MAVMM Engineering College**, and **Universiti Teknologi MARA (UiTM) Pulau Pinang Branch, Malaysia**.

During the webinar, the speaker covered a wide range of topics in applied mechanics. These included the energy absorption of highway barriers due to collisions, the energy absorption of metal tubes compressed at quasi-static velocities, simulations of energy absorbed by thin-walled tube inversion using different die radii, simulations of wave impacts on various coastal structures, experiments and simulations of the mechanical properties of banana and glass fibres, and experiments on the stab resistance of body armour panels.

On March 20, 2024, the Mechanical Department of **Mangayarkarasi College of Engineering (MCE)** in Madurai, Tamil Nadu, India, successfully organised an international webinar titled "**Applied Mechanics for Engineers.**" This webinar was a part of the collaborative efforts resulting from the Memorandum of Understanding (MoU) signed between **UiTM** and **MCE** on February 16, 2024, at the Aquamarine meeting room, **Universiti Teknologi MARA (UiTM) Pulau Pinang Branch, Malaysia**. The webinar featured **Ts. Dr. Mohd Rozaiman Aziz**, Senior Lecturer from the Mechanical Engineering Studies at the College of Engineering, **Universiti Teknologi MARA (UiTM) Pulau Pinang Branch** as the keynote speaker.

Promotional Poster Highlighting the Webinar
Event

MANGAYARKARASI COLLEGE OF ENGINEERING
Madurai, Tamilnadu, India

UNIVERSITI TEKNOLOGI MARA
Pulau Pinang Branch,
Malaysia

**DEPARTMENT OF MECHANICAL ENGINEERING
ORGANIZES**

**INTERNATIONAL WEBINAR ON
APPLIED MECHANICS FOR ENGINEERS**

KEY NOTE SPEAKER
Ts. Dr. Mohd Rozaiman Bin Aziz,
Senior Lecturer,
Mechanical Engineering Studies, College of
Engineering, Universiti Teknologi MARA Pulau
Pinang Branch, Malaysia

**20TH
MARCH,
2024**

**IST-11.00AM-12.00PM
MYT-1.30PM-2.30PM**

GOOGLE MEET LINK :
<https://meet.google.com/kuz-jcey-jeq>

COORDINATOR
Mr.S.SAMUEL M.E.
(AP/MECH)

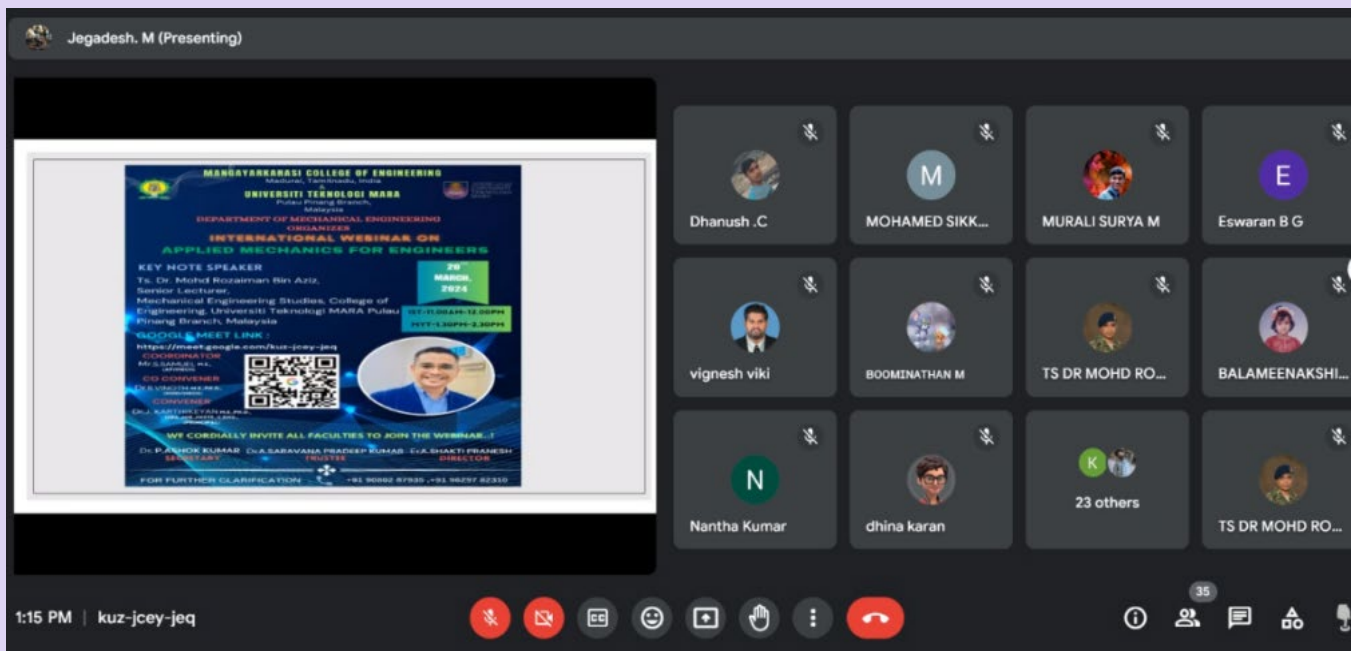
CO CONVENER
Dr.B.VINOTH M.E.,PH.D.
(HOD/MECH)

CONVENER
Dr.J. KARTHIKEYAN M.E.,PH.D.,
MBA, MIE,MISTE,CENG.,
(PRINCIPAL)

WE CORDIALLY INVITE ALL FACULTIES TO JOIN THE WEBINAR..!

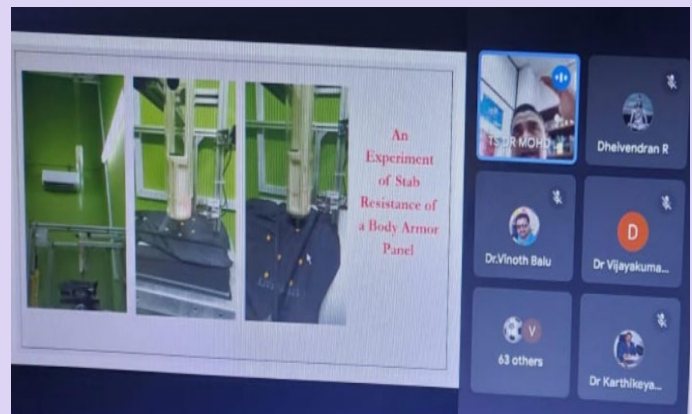
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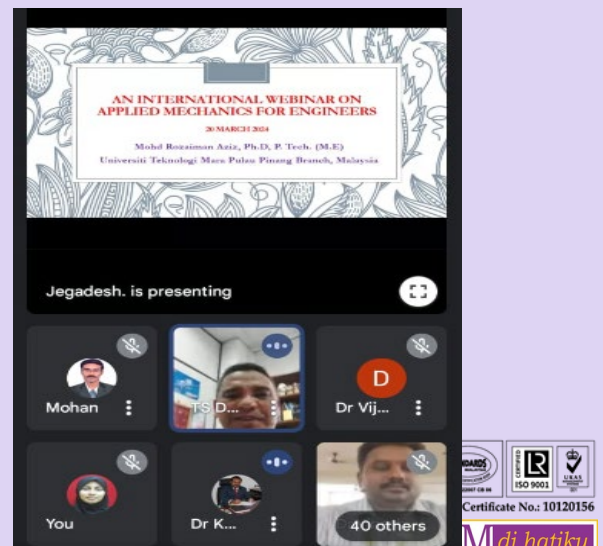
Event in progress, featuring a wide range of participants

In the discussion on the energy absorption of highway barriers, three types of barriers were analysed: open box beam, corrugated beam, and roller barrier. Results showed that the roller barrier had the highest energy absorption capacity. Similarly, in the study of metal tube compression, the fully wrapped steel tube demonstrated superior energy absorption compared to brass and aluminium tubes. Additionally, in simulations involving thin-walled tube inversion, thicker walls were found to absorb more energy.



Presenting one of the projects during the webinar

In the examination of wave impacts on coastal structures, the recurved sea wall emerged as the most effective in preventing coastal damage compared to large seawalls and revetment seawalls. Regarding the mechanical properties of banana and glass fibres, promising results were found, suggesting the potential use of banana fibres as replacement materials in certain applications. Lastly, advancements in body armour development were discussed, focusing on practical field applications.



The webinar featured insightful discussions and knowledge sharing.

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eISSN: 3083-8355



Printed by: UiTM Printing Centre

Publication Date of the First Newsletter: 15 November 2024

Published by:

UiTM Global @ Office of International Affairs,
Academic Affairs Division,
Universiti Teknologi MARA, Pulau Pinang Branch,
Malaysia

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