

EDISI 2023

Buletin FKA

Pengajian Kejuruteraan Awam

Universiti Teknologi MARA Cawangan Pulau Pinang



UNIVERSITI
TEKNOLOGI
MARA

eISSN 2716-6325

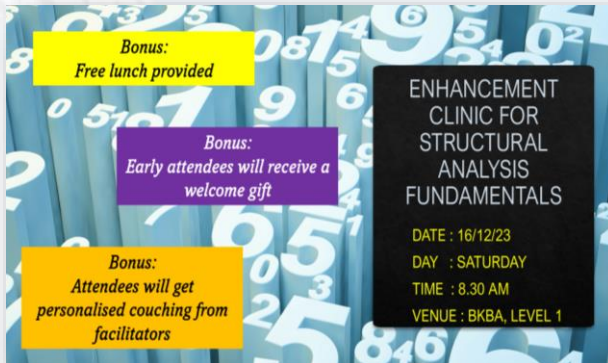


9 772716 632004

Diterbitkan pada 15 Oktober 2024

ENHANCEMENT CLINIC FOR STRUCTURAL ANALYSIS FUNDAMENTALS

Ir. Dr. Goh Lyn Dee



The Enhancement Clinic for Structural Analysis Fundamentals was held on 16th December 2023 (Saturday) at Blok Akademik BKBA, gathering 47 students from the Statics and Dynamics, Indeterminate Structures, and Reinforced Concrete Design classes. Ten early attendees were greeted with welcome gifts, a gesture meant to motivate and encourage active participation throughout the day.

The clinic commenced at 8:30 AM with a briefing and motivational talk designed to set a positive tone for the day. The key objective of the clinic was to enhance students' understanding of fundamental structural analysis concepts, starting with the basics of equilibrium for determining structural reactions, followed by more advanced analysis topics such as shear forces and bending moments.



Programme Overview:

- **8:30 AM** – Briefing and Motivational Talk: Students were welcomed with an inspiring message, underscoring the importance of mastering fundamental analysis concepts for a successful engineering career.
- **9:15 AM** – *Clinic 1: Fundamentals of Statics and Dynamics*: This session focused on core topics like free body diagrams, forces, and reactions derived from equilibrium equations.
- **9:45 AM** – *Hands-On Practice for Clinic 1*: Students actively engaged in solving problems based on the content of the first session, applying what they had learned.
- **10:15 AM** – Break and Breakfast: A short intermission allowed participants to recharge with a provided breakfast.
- **10:45 AM** – *Clinic 2: Analysis for Shear and Bending*: The second session tackled the principles of shear forces and bending moments, teaching students to perform accurate structural analysis through theoretical and practical examples.
- **11:30 AM** – *Hands-On Practice for Clinic 2*: Students were given problems to apply the shear and bending analysis concepts they had learned in the previous session.
- **12:00 PM** – *Enhancement Class*: A focused class covering topics in structural analysis, reinforced concrete design, and statics and dynamics. This session was aimed at deepening students' understanding of these critical subjects.
- **1:00 PM** – *Hands-On Practice for Clinic 3*: The final hands-on session provided an opportunity for students to apply concepts from the enhancement class.
- **1:40 PM** – Lunch: Participants enjoyed a lunch break, with meals provided for all.



The clinic was initiated by Ir. Dr. Goh Lyn Dee, with sessions facilitated by Ts. Dr. Suhailah Mohamed Noor and Dr. Wan Safizah Wan Salim. The day was structured to blend theoretical instruction with hands-on practice, ensuring that students not only understood the fundamentals but also gained practical experience in solving structural analysis problems.

This initiative aimed to prepare students for more complex analysis tasks, such as calculating shear forces and bending moments, while solidifying their grasp of core concepts like equilibrium and reaction determination. Through active participation in sessions and hands-on practice, students were able to build confidence in their problem-solving skills, essential for success in their future engineering endeavors.

