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2024



International Industrial Revolution 4.0 Exposition

"INNOVATING IDEAS, TRANSPIRING DREAMS"

ABSTRACT BOOK

Strategic Partners:



Perpustakaan
Sultan Badlishah

Organized By:

**COLLEGE OF COMPUTING, INFORMATICS AND MATHEMATICS,
UNIVERSITI TEKNOLOGI MARA, KEDAH BRANCH**

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IREx 2024

The successful inauguration of IR4.0 Exposition IREx 2019 has witnessed ground breaking initiatives, ideas, and innovations materialised into numerous practical devices today. Treading on the same triumph, the College of Computing, Informatics, and Mathematics, UiTM Kedah is thrilled to announce the continuation of said event, IREx 2024 with the theme: *Innovating Ideas, Transpiring Dreams*.

The IREx 2024 aspires to incorporate even more exciting new technologies including, but not limited to, Information & Communication Technology (ICT), Educational Technology & Innovation (ED), Operational Excellence (OE), Internet of Things (IoT), Process Improvement, Ideas & Design, Multimedia, and Electronics that will chart new milestones in human history. This will serve as an excellent platform for scientists and innovators alike to meet the like-minded individuals and showcase inspiring ideas and notable innovations.

PROGRAM SCHEDULE

International Industrial Revolution 4.0 Exposition (IREx 2024)
21ST May 2024 (Tuesday)
Dewan Perdana, UiTM Kedah Branch

TIME	EVENT
8.00 – 9.00 am	Registration & Booth Set Up
9.00 am – 12.00 pm	Exhibition & Judging Session
12.00 pm – 2.00 pm	Obedient Drone Session & Break
2.00 pm – 5.00 pm	Official Closing & Prize Giving Ceremony
5.00 pm	Program Ends

Official Closing Ceremony

International Industrial Revolution 4.0 Exposition (IREx 2024)

TIME	EVENT
2.00 pm	Arrival of Guests and Participants
2.30 pm	Arrival of VVIP
	National anthem - Negaraku And Wawasan Setia Warga
2.40 pm	UiTM
	Welcoming Speech
3.00 pm	Rector's Welcoming Speech
	Officiating Speech
3.10 pm	Gimmick & Montage presentation
3.30 pm	Prize Giving Ceremony
4.00 pm	Photography
5.00 pm	Program Ends

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IRX082	MULTIPURPOSE SOAP	5
IRX083	PUFFER FISH BOAT	6
IRX092	MY GAMES ACADEMIA	7
IRX095	'ROBOCRAB' PEMBERSIH SAMPAH	8
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CATEGORY B

INDUSTRIAL BUILDING SYSTEM (IBS) : KENAF FIBER CONCRETE PANEL

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ABSTRACT - Kenaf fiber concrete panels are an innovative construction component encompassed under the Industrial Building System (IBS). Kenaf fiber, obtained from the kenaf plant, serves as a replacement or additional from conventional materials. Utilizing the kenaf plant helps in achieving sustainable development by diminishing environmental consequences and carbon footprint. Kenaf's history spans millennia, with various cultures worldwide utilizing the Hibiscus cannabinus plant. This plant originates from tropical and subtropical parts of Africa. It is believed by some that the kenaf plant has been utilized for a multitude of purposes since ancient times. Ancient civilizations, like as Egypt, used kenaf plants for producing paper, ropes, and clothes. The innovative project aims to improve strength and durability of concrete by adding kenaf fiber to prevent cracking and breakage. Moreover, it speeds up the construction process due to the IBS and minimizes the requirement as an alternative building component. Testing the enhancement of concrete's ability to prevent and survive cracking and breaking by using Kenaf fiber are performed. Using kenaf fiber in concrete may help lessen environmental implications compared to conventional materials. The kenaf fiber concrete panel approach follows the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) process. The test on the Kenaf fiber concrete panel revealed that including kenaf fiber can improve the strength and absorption capabilities of the concrete panels. Additional research is required to comprehensively grasp its effect on panel performance.

Keywords: Concrete panel, Industrial building system, Kenaf fibre, strength, Environmental.



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