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UNIVERSITI
TEKNOLOGI
MARA

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MAY
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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UITM Cawangan Kedah Channel

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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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CATEGORY B

EFFECTIVE MICROORGANISM: SUSTAINABLE DISINFECTANT

Afif Naufal bin Mohd Sobri¹, Alfia Erina binti Yusman²,
Nuraisyah Dayana binti Norizan³

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ABSTRAK - Dalam usaha untuk mencapai pembangunan lestari, komuniti lestari perlu dibentuk berdasarkan prinsip-prinsip kelestarian, iaitu keseimbangan antara ekonomi, sosial, dan alam sekitar. Dalam kehidupan sehari-hari, masyarakat tidak dapat lari daripada budaya kepenggunaan dan konsumerisme. "*Effective Microorganism: Sustainable Disinfectant*" merupakan projek inovasi berpandukan Bidang Projek: Sains Kehidupan bertemakan SDG 12: *Responsible Consumption and Production* telah dicadangkan bagi memenuhi aspek kepenggunaan produk seterusnya menambahkan pengetahuan dalam bidang kelestarian bagi pengguna. Projek inovasi ini dihasilkan bagi membantu para pengguna mengaplikasikan bahan pembasmi kuman seperti produk mencuci kotoran bagi lantai, dinding dan lain-lain yang bersifat lestari, ringkas, tidak memerlukan kos tinggi seterusnya boleh diaplikasikan proses pembuatannya secara sendiri di rumah. Bahan yang digunakan kebanyakan adalah bahan sisa pepejal isi rumah atau sisa pepejal komersil seperti sisa makanan iaitu sayur, buah-buahan yang buruk atau busuk dan lain-lain bahan tambahan yang diperlukan. Kemenjadian projek ini juga akan dapat membantu pengguna dalam aspek kelestarian alam sekitar, penjimatan kos, masa dan juga tenaga kerana tahap keberkesanan produk yang baik dapat dihasilkan dengan hanya menggunakan bahan-bahan semulajadi yang boleh didapati disekeliling kita. Pembangunan pembudayaan STEM dapat melahirkan generasi yang berkemahiran tinggi dalam menyelesaikan masalah kompleks seterusnya membuka peluang untuk menghasilkan produk berkualiti bagi memenuhi Revolusi Industri 4.0.

Kata Kunci: *Effective Microorganism, Disinfectant, kepenggunaan, kelestarian*



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