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TEKNOLOGI
MARA

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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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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

SMART STICK

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ABSTRAK - *Smart stick* ialah produk yang dibangunkan dengan mengubahsuai tongkat yang sedia ada. Tujuan produk ini dibangunkan adalah bagi membantu dan memudahkan golongan yang kurang berkeupayaan dalam penglihatan dan kabur penglihatan dengan lebih efektif. Projek ini merupakan satu alternatif yang berkesan bagi pengguna dengan mengambil kira faktor keselamatan. *Smart stick* ini boleh diubahsuai dari tongkat sedia ada, dan pengguna tidak perlu membeli tongkat yang baharu. *Smart stick* ini dapat menyelesaikan masalah yang dihadapi pengguna kurang berkeupayaan dalam penglihatan, seperti masalah ketika berjalan berseorangan di khalayak ramai atau di mana sahaja bagi menganggar jarak di hadapan dengan tepat. *Smart stick* ini dihasilkan menggunakan arduino, sensor, buzzer, led dan bateri dan sensor yang akan mengesan objek di hadapan, seterusnya menghasilkan signal dalam bentuk bunyi dan lampu yang bernyala membuatkan orang sekeliling lebih peka dengan kehadiran pengguna *smart stick*. *Smart stick* ini memberi impak yang besar kepada pengguna. Antaranya termasuklah dapat memudahkan orang kurang upaya dan kabur penglihatan menganggar jarak halangan di hadapan dengan lebih tepat. Selain itu juga ia meningkatkan tahap keselamatan orang kurang upaya dan meningkatkan kepekaan orang awam tentang kehadiran orang kurang upaya di sekeliling mereka.

Kata Kunci: Tongkat, arduino, keselamatan



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