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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 C

KAWALAN DIGITAL LAMPU BILIK ASRAMA MELALUI INTEGRASI SMART WI-TAG *INTERNET OF THINGS*

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ABSTRAK - Pada era pendigitalan globalisasi kini, penggunaan sistem kawalan lampu di Kolej Vokasional Klang masih mengekalkan penggunaan tradisional iaitu dengan menggunakan suis secara manual. Sistem kawalan lampu sedia ada memerlukan warden memantau setiap bilik asrama dalam memastikan keadaan lampu sentiasa tertutup setiap kali tidak digunakan. Ini kerana sebahagian pelajar yang tidak bertanggungjawab untuk memastikan keadaan lampu dorm tertutup sewaktu lewat malam dan sewaktu bergerak ke kelas pada waktu pagi. Oleh itu, inisiatif daripada permasalahan itu, projek ini dibina dengan menggunakan sistem *Radio Frequency Identification* (RFID) dan *Espressif Systems* (ESP 8266) yang mengintegrasikan sistem *Internet of Thing* (IoT). Tujuannya adalah untuk membantu warden mengawal keadaan lampu bilik di asrama. Objektif projek ini ialah bagi membangunkan satu sistem kawalan lampu yang menggunakan sistem keselamatan RFID dan aplikasi *Espressif Systems* (ESP 8266). Selain itu juga, membangunkan sistem kawalan dan pemantauan berintegrasi IoT. Model kawalan lampu Smart WI-TAG telah dibangunkan dan diuji bagi mencapai objektif projek bagi memastikan keadaan lampu di bilik asrama digunakan dengan cermat. Kajian ini telah dilakukan di Kolej Vokasional Klang (KVK) dengan responden kajian adalah dikalangan warden KVK. Hasil analisis data menunjukkan responden positif dan bersetuju terhadap kesesuaian penggunaan sistem kawalan lampu *Smart WI-TAG* diaplikasikan didalam asrama Kolej Vokasional Klang.

Kata Kunci: Internet of Things, Lampu automatik, Kawalan, Bilik Asrama, Warden



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