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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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IRX068	PRO CROSS-MATH CHALLENGE	4
IRX082	MULTIPURPOSE SOAP	5
IRX083	PUFFER FISH BOAT	6
IRX092	MY GAMES ACADEMIA	7
IRX095	'ROBOCRAB' PEMBERSIH SAMPAH	8
IRX096	TG-ELMH V2 (TITI GAJAH-ENTER LAMP MERAH HIJAU VERSION 2)	9
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CATEGORY B

HEART BEAT SENSOR

Siti Nuraini binti Mukhtar¹, Muhammad Shahaqif bin Mohd Shahizul²,
Muhammad Haziq Putra bin Zarol Isyam³, Mohamad Imran Hadi bin Mohd
Faizul⁴, Ali Hakimi bin Mohd Al-Azahary⁵
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ABSTRACT- Up and down bench is a requirement for student who are required to take the SEGAK test in physical education subjects (Pendidikan Jasmani & Pendidikan Kesihatan). However, after that doing up and down bench activity we need to count our heart rate. It will take a few minutes to count the heart rate by ourself and we need to write down our count in a form, but sometimes student will forget their count and do it all again. So it will burden the students. To solve this problem, we have developed a Heart Beat sensor device that connect to an app. Which is a new technology of a digital Heart Beat sensor that is equipped with a heart beat sensor and an LCD. The LCD is a small device that works to make it easier for users to read the count more easily and accurately, similar to a self-service machine. After the user want to count their heart rate, they just need to put their finger to a heart beat sensor which is look like a small button. After that the LCD will show the heart rate and will automatically connect to an app. By implementing this technology, we do not have to trouble our self with a significant rate and users can get access immediately to get their own heart rate count. This is very useful during busy times, such as when SEGAK tests are conducted, where many students are crowded to do this process. As a conclusion, Heart Beat sensor tool can reduce the burden on other students and save time and resources.

KEYWORD: Heartbeat sensor, Arduino UNO, SEGAK.



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