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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

INNOVATIVE QUALITY ASSESSMENT SYSTEM IN CONSTRUCTION (QLASSIC) EQUIPMENT: SSTL PRO

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ABSTRACT - The innovative equipment improvement was designed to solve challenges encountered during brickwork inspections, such as limited area for movement. This notion is an enhancement of existing equipment that has certain limitations. The SSTL Pro has been enhanced to optimize tool utilization by combining all three hand tools, reducing the time and effort needed to check brickwork. This tool is capable of conducting many types of brickwork inspections including 90-degree angle examination using an L-square, alignment inspection with a spirit level, straightness inspection with a laser, and height assessment of each concrete layer on the brick using a brick gauge. Improve SSTL Pro by rebuilding it with lighter materials, incorporating laser technology instead of thread, integrating angle guides, and replacing the L-shaped key with a lock nock. Efficiency can be increased by utilizing SSTL Pro, which does brickwork inspections with a single tool. Moreover, resolving challenges effectively and efficiently. This QLASSIC equipment called SSTL Pro is structured using the ADDIE technique. The technique consists of five phases which are Analysis, Design, Development, Implementation, and Evaluation. The results show that all goals were met as SSTL Pro successfully aided in quality assessment in construction (QLASSIC) in brickwork. SSTL Pro is constructed with a lightweight and user-friendly design specifically for performing masonry chores. The precision tests undertaken have achieved the anticipated results. Improvement for this equipment is fixing the digital meter to facilitate obtaining the accurate angle by incorporating a measuring tape into the SSTL Pro.

Keywords: Brickwork, Equipment, Lightweight, Quality assessment.



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