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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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CATEGORY D

METAVEVERSE GAME DESIGN ON DUAL COGNITIVE TASK FOR STROKE REHABILITATION

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ABSTRACT - Stroke patients usually have balancing problems and walk slower than healthy people. The dual cognitive tasks are a combination of a motor task and a cognitive task. As stroke patients, doing dual cognitive tasks is a challenging task for them. Nowadays, it was found that using a virtual reality game for rehabilitation gives better improvement recovery than conventional rehabilitation. Based on the literature search, there is no specific game designed for rehabilitation of dual cognitive tasks for stroke patients. Therefore, there is a need to design a new game for dual cognitive task rehabilitation for stroke patients. The benefits of using a virtual reality game are that it can inspire stroke patients to concentrate on their rehabilitation. The methodological approach follows a four-phase process, namely Theoretical investigation phase, Implementation phase, Rehabilitation phase, and Evaluation phase. The usability test on the design of the virtual reality game for stroke patients was responded by therapists, game experts, and stroke patients. The number of respondents involved in the usability test was six stroke patients, five therapists, and five game experts. The findings showed 90 percent of positive outcomes based on a usability test of the virtual reality game application..

Keywords: iVrtual reality, Game rehabilitation, Stroke patient



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