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2024



International Industrial Revolution 4.0 Exposition

"INNOVATING IDEAS, TRANSPIRING DREAMS"

ABSTRACT BOOK

Strategic Partners:



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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

COMPUTATIONAL QUESTION DESIGN IMPROVEMENT IN ELECTRIC CIRCUIT THEORY

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ABSTRACT - The type of computational question in an engineering program contributes almost 60% of the overall question in final exam questions compared to other types of questions. As usual, preparing questions and solutions for this type of question takes more time, try and error method will be applied to ensure both in proper preparation. In this project, new improvements have been made to solve previous problems faced by the lecturer. Final exam question and solution preparation can be divided into three stages: question setting, answer script and uploading process to QBS (Question Bank System) as a platform that has been used since 2 years ago in UiTM. Preparing an answer script is important in Circuit Theory as it involves mathematical calculation and needs a longer time to prepare the answer. Hence, the matrix solving method is chosen as the method that should be used in the calculation. Currently uploading the answer scripts also needs more time because all the answer scripts must be converted to JPG files before the uploading process can be done. Therefore, the Microsoft Excel Template with VBA programming was designed to perform the tasks given including parameter circuit value, calculation using matrix solving method and QBS requirement files. The advantages of this project not only improve final exam question and answer script preparation, but this template also can be used as a tool for teaching and learning process in lectures, tutorials and laboratory purposes.

Keywords: Circuit Theory, Matrix Solving Method, Microsoft Excel, QBS



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