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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 D

HeLP via CAMaL

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ABSTRACT - In the context of heart disease risk prediction, data mining plays a crucial role in extracting insights from complex datasets. This dataset encapsulates a collection of information about various factors impacting heart health. The HELP via CAMaL: Heart Evaluation and Lifestyle Prediction via Classifier Algorithm of Machine Learning aims to unveil patterns that might be hidden and systematically uncover complex relationships by employing data mining, especially through classification algorithms. The source of data was obtained from Behavioral Risk Factor Surveillance System for the year 2021. The original dataset contains a total of 308,855 instances, but only 20,000 instances were selected to apply in the model. The recognition of significant features performed through data cleaning, data preparation including data transformation and data reduction processes. Prediction models were then developed using different classifier algorithms: Decision Tree, Naive Bayes, Random Forest, Support Vector Machine, and Vote. The results reveal the prediction model developed using the Vote (i.e. hybrid of Random Forest and Logistic Regression) algorithms with highest accuracy of 90% effectively predict the risk factors of heart diseases. The summary of results displayed using dashboard for data visualization, providing a clearer understanding of the dataset's insights.

Keywords: data mining, heart disease, prediction model, classifier algorithms



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