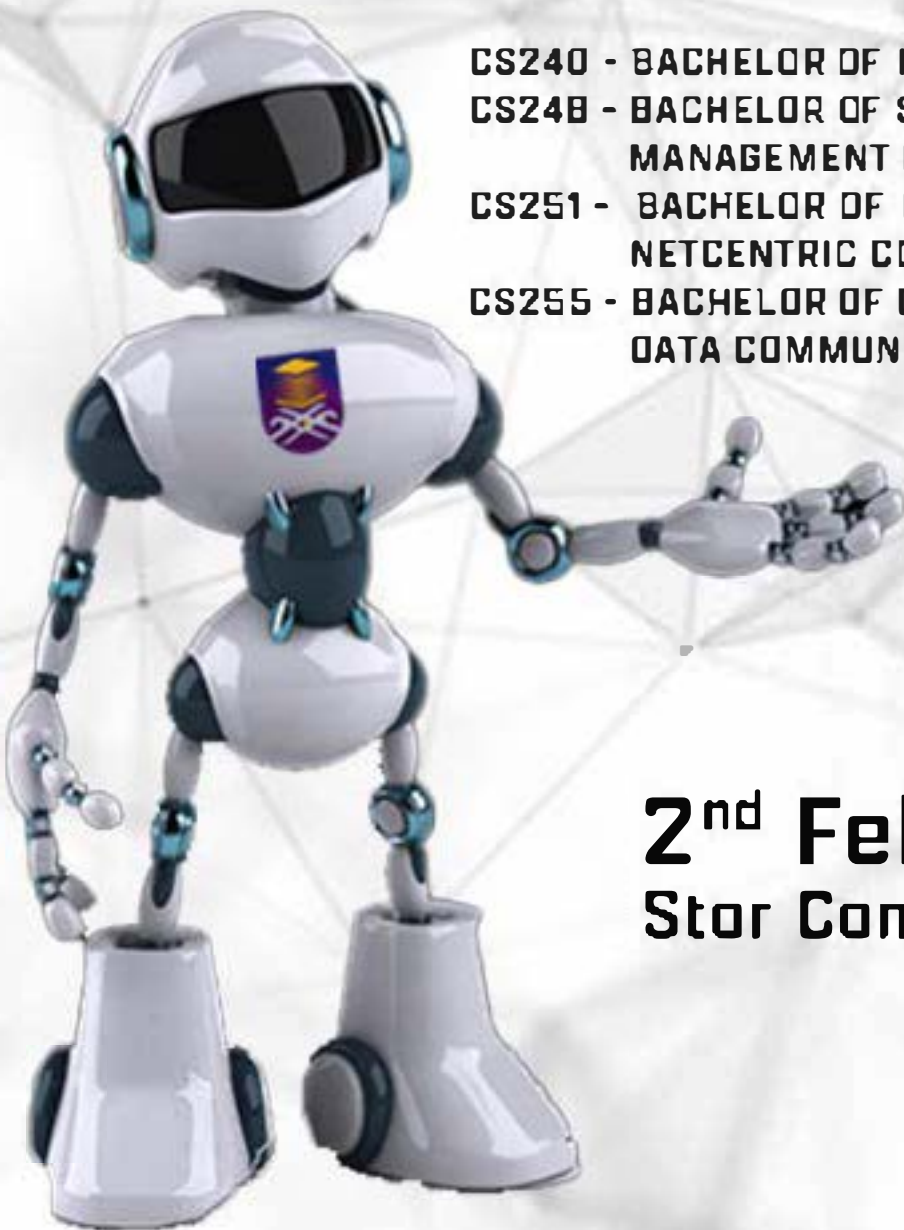

RESEARCH EXHIBITION IN MATHEMATICS & COMPUTER SCIENCES

REMACS 5.0



CS240 - BACHELOR OF INFORMATION TECHNOLOGY [HONS.]
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2nd February 2023
Stor Complex, UiTM Perlis

Organized by:
College of Computing, Informatics and Media
Universiti Teknologi MARA Perlis Branch

**Research Exhibition in Mathematics and Computer Sciences
(REMACS 5.0)**

Research Exhibition in Mathematics and Computer Sciences (REMACS 5.0)

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Preface

It is with great pleasure that we present this extended abstract book, titled "The 5th Research Exhibition in Mathematics and Computer Sciences (REMACS 5.0)". This book is a collection of research work in the fields of Computer Science and Mathematics, contributed by the final year students from Universiti Teknologi MARA, Perlis Branch. The aim of this book is to showcase the diversity and depth of research in these two interrelated fields.

Mathematics and Computer Science are two fields that have seen tremendous growth and advancement in recent years. With the rise of new technologies and the increasing demand for data-driven solutions, researchers in these fields have been working hard to develop new theories, algorithms, and models that can help solve some of the most pressing problems of our time. This book is a testament to their hard work and dedication.

The abstracts in this book cover a wide range of topics, including algebra, analysis, logic, computer architecture, algorithms, artificial intelligence, machine learning, computer network, netcentric computing and many more. The work presented here is both theoretical and practical, and has the potential to impact many areas of society, from finance and healthcare to education and security.

We hope that this book will serve as a valuable resource for future students in the fields of Mathematics and Computer Science. We also hope that it will inspire more students to pursue innovative and groundbreaking research in these two fields. Finally, we would like to express our gratitude to all the contributors for their hard work and dedication, without which this book would not have been possible.



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REMACS 5.0

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EVENT SCHEDULE

8:00 – 8:30 am

- Registration

8:00 am – 12:00 pm

- FYP Project Presentation

12:00 - 2:00pm

- Lunch Break

2:15 – 2:35 pm

- National & Wawasan Setia Anthems
- Doa Recitation

2:35 – 2:45 pm

- Welcoming Address by Director of REMACS 5.0

2:45 – 2:55 pm

- Officiating & Closing Remarks from Rector of UiTM Perlis

2:55 – 3:00 pm

- REMACS 5.0 Montage

3:00 – 4:00 pm

- Awarding of Winners:
 - Best Poster
 - Best Project Award
- Photo Session
- End of Ceremony

Dress Code: Formal / Corporate

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EXTENDED ABSTRACTS

RESEARCH EXHIBITION IN MATHEMATICS & COMPUTER SCIENCES
REMACS 5.0

DASHBOARD VISUALIZATION OF MOBILITY COVID-19

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Abstract

COVID-19 is now declared as global pandemic by World Health Organization. These coronaviruses spread among animals and even in humans such as camels, pigs, cats, and bats. COVID-19 stands for Coronavirus disease 2019, it was first identified on 17 November 2019 in Wuhan, China. The symptoms of COVID-19 are some other flu diseases such as fever, sore throat, tiredness, nasal congestion, and headache. It is hard to find out the difference between common flu and COVID-19. Now, this virus is spread out throughout the world. The Dashboard Visualization of Mobility COVID-19 is a graphical data visualization to assist and help people to concerned about COVID-19, gain knowledge about COVID-19 and to make big look at the effect of this diseases since it exists.

Keywords: COVID-19, Dashboard, Mobility.

1. Introduction

The current COVID-19 pandemic has caused undeniable damages in varying sectors throughout the world, from healthcare, to economy, to education and politics. One of the pressing issues that the spread of this disease has also caused is the corresponding propagation of misinformation and “fake news” on the coronavirus. It is often difficult for people to find streamlined sources of information that are accurate and of high quality as well (MacRohon & Jeng, 2021). The Dashboard Visualization of Mobility COVID-19 will help people to get better understanding for mobility of COVID-19 through graphical visualization dashboard. The dashboard shows cases reported in 2020 and 2021 for cases and death cases, diseases recorded and after vaccination how much cases and death has been reported.

2. Methodology

Data collection for this project is from open sources which are Our World in Data website. From the dataset, graphical visualization will be developed will into an interactive and immersive dashboard using Microsoft Power BI. After dataset has been collected, the raw data need to be cleansed. This is because the data collected has null values and repetitive also some data is not useful for the project. The cleaning process was done by using Microsoft Excel. Additionally, after dashboard have completed, a survey for usability testing has been done using Technology Acceptance Model (TAM) in google form to seeing design problems, spotting areas for improvement, and learning about the behaviour and preferences of the audience.

3. Results and Discussion

According to the testing results, 80% of respondents can learn how to use the dashboard quickly, while 20% are neutral for able to learn how to use the dashboard. 54.2% strongly agree that information in the dashboard is clear, meanwhile 41.7% agree and another 4.2% is neutral to say that the information in the dashboard was clear. As a result of this testing, using the dashboard, people can find out more information related to COVID-19 such as COVID-19 effect in and out of country and what affected the most from COVID-19. The goal of this dashboard is to assist and help people to concerned about COVID-19, gain knowledge about COVID-19 and to make big look at the effect of this diseases since it exists.

4. Novelty of Research

The findings of this projects are revealing that COVID-19 have affect many factors for example age is not a significant factor that affect a person to be captured by this disease, from total case, to find out total deaths and total survive with COVID-19. Next, know how effectiveness of vaccines (from date vaccine, is total cases rise or lower). Moreover, help people to know about COVID-19 thru graphical visualization. Therefore, from this project help people to know more about mobility of COVID-19. when it come into new diseases that COVID-19 is a new thing it is causing people want to know more deeply about it. Thru this project, using dashboard with visualization make it easier for people to read the data with an interesting graphical visualization. It is because if it in essay is less attractive to people to know more about COVID-19. Moreover, using the dashboard, people can find out more information related to COVID-19 such as COVID19 effect in and out of country and what affected the most from COVID-19.

5. Conclusion

To conclude, this dashboard visualization makes it easier for people to read the data with an interesting graphical visualization. It is because if it in essay is less attractive to people to know more about COVID-19. Moreover, using the dashboard, people can find out more information related to COVID-19 such as COVID19 effect in and out of country and what affected the most from COVID-19.

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