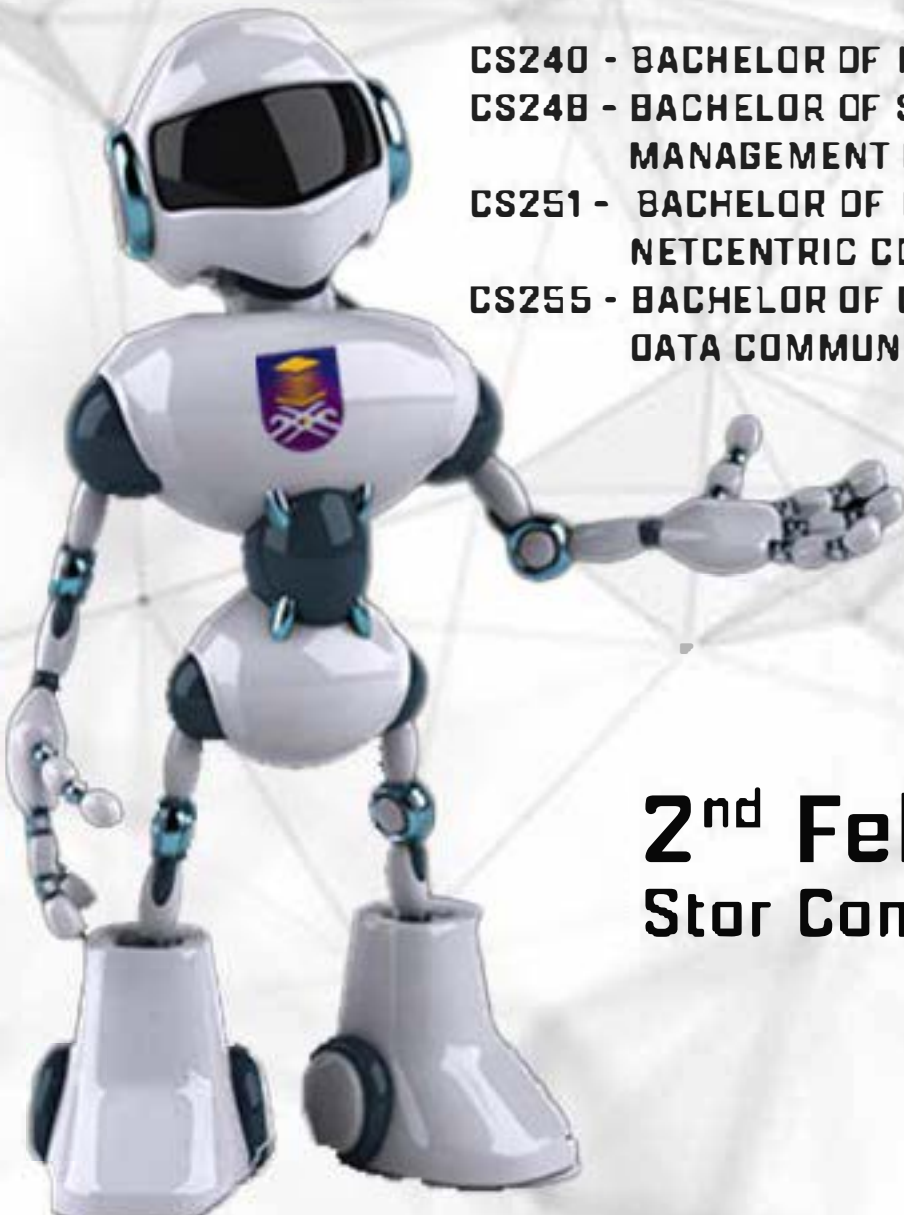

RESEARCH EXHIBITION IN MATHEMATICS & COMPUTER SCIENCES

REMACS 5.0

- 
- CS240 - BACHELOR OF INFORMATION TECHNOLOGY [HONS.]**
 - CS248 - BACHELOR OF SCIENCES [HONS.]
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 - CS255 - BACHELOR OF COMPUTER SCIENCE [HONS]
DATA COMMUNICATION & NETWORKING**

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

FOOD COURT MANAGEMENT SYSTEM

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Abstract

Food court is an essential section in a huge building because people can chill while fill their stomach with various type of cuisine. Moreover, it become important because everybody need to eat in order to gain energy from the food consumption. Due to the fact that food court is a place that will be visit by many people that intended for dining, it will be filled with people and further cause a crowd. Thus, Food Court Management System was developed in order to reduce the crowd in the food court. There are two objective of this research which to develop a Food Court Management System that suits any personal device by using a web-based system that will manage the ordering process in the food court followed by to test the functionality and the usability of the system whether it ease the user for ordering process purpose. For the methodology, this research utilized the agile model that consist of five phases including planning, analysing, design and implementation, testing and end with maintenance. In order to realise this research, two different software has been used to develop the system which are Visual Studio Code and XAMPP control panel. Apart from that, for the testing phase will be carried out the functionality and usability testing then the result will be analysed based on the graph. The user mostly agreed on this system is learnable and satisfied with the system. Finally, the users concurred that this web-based system is organised properly.

Keywords: food court, web-based system, agile model, reduce crowd

1. Introduction

Since food court is like a one stop centre for food vendor, it will attract many people to come there buy some desired dishes that satisfy their needs, and it will cause crowd. Therefore, there is needed to develop a Food Court Management System that suits any personal device by using a web-based system that will manage the ordering process in the food court to reduce the crowd. The second objective is to test the functionality and the usability of the system whether it ease the user for ordering process.

2. Methodology

Methodology that being used for this research was agile model that associate with the Software Development Life Cycle (SDLC). This method was utilized in order to maintain the quality of the system. The system based was sketch first and it is including the flow process diagram, sitemap diagram and entity relation diagram (ERD). The development was constructed based on the design diagram before until the development of the system finish. The complete system was tested by doing the functionality and usability testing. The analysing process will refer on the result from the usability testing.

3. Results and Discussion

There were two results from this research which are the functionality of the system and the user experience after testing the system. Data were collected from the usability testing that been held via google form. 30 respondents were randomly chosen with the range of age above 18 years old. The survey is required roughly around 5-10 minutes. The questionnaire consists of four different type of question category which are learnability, memorability, system performance and user satisfaction. Overall, based on the testing result, majority of the user is satisfied with the system. the highest mean for question set category is user satisfaction while the lowest mean is memorability. Based on this result,

this research can conclude that the memorability concept needs to be improved to give more ease for the user.

4. Novelty of Research / Product

Since the web-based use a URL to reach the site, this system will link the URL into a QR code that will be used by the user to surf the web page site. The usage of QR code is coincides of the technology which are the QR code content is accessible through mobile devices, can store more content, allows for more multi-media content, resilient and reliable (Claeys, 2023). Moreover, web-based design also has the benefits in term of implementation the maintenance is quiet easier if compared to mobile application (Ratibor Sekirov, 2021). Web-based system also consume less storage device and the data security is more secure since the store data is centralized (Ratibor Sekirov, 2021). For the system benefits, the ordering process and management become more systematic since all of the process will be digitalised and also it will become more convenient due to the reduce of crowd. This system also can reduce the mistake while taking the order by notes.

5. Conclusion

To conclude, this research is conducted to improve the current system that used in the food court. The system basically uses the concept scan, order and eat. The probability for an order mistake is lower than the traditional system where make a queue and use a physical note to make an order.

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