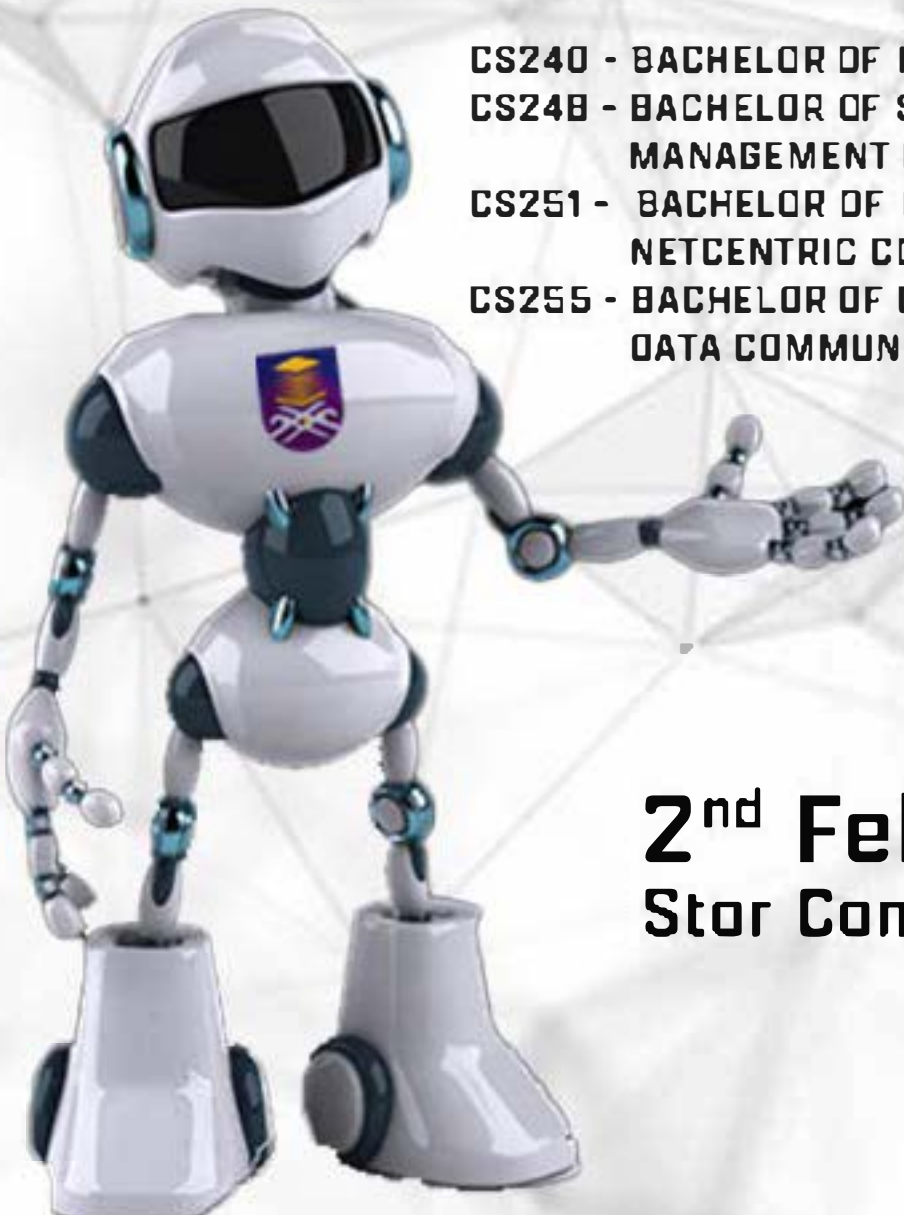


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RESEARCH EXHIBITION IN MATHEMATICS & COMPUTER SCIENCES

# REMACS 5.0

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- CS240 - BACHELOR OF INFORMATION TECHNOLOGY [HONS.]
  - CS248 - BACHELOR OF SCIENCES [HONS.]  
MANAGEMENT IN MATHEMATICS
  - CS251 - BACHELOR OF COMPUTER SCIENCE [HONS]  
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DATA COMMUNICATION & NETWORKING

**2<sup>nd</sup> February 2023**  
**Stor Complex, UiTM Perlis**

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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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*Editors*

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# Preface

It is with great pleasure that we present this extended abstract book, titled "The 5<sup>th</sup> 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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# 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

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RESEARCH EXHIBITION IN MATHEMATICS & COMPUTER SCIENCES  
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# **EASYRENT: A WEB BASED RECOMMENDATION SYSTEM FOR SHOP RENTAL – A CASE STUDY IN JITRA, KEDAH**

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## **Abstract**

EASYRENT: A Web Based Recommendation System For Shop Rental - A Case Study in Jitra Kedah is a system developed for the users who are involved in the property industry such as renters, landlords and admin. This system that are able to filter, prioritize and efficiently deliver relevant information about the shop in order to reduce the problem of information overload will be beneficial. The EasyRent system solves this problem by searching through a large volume of dynamically generated information to provide users with personalized content and services. This system will display all available shops to be rented where renters can filter the shops according to their preferences such as monthly rent, property type, location and many more. It will be able to assist them in making their decision. In this project, a waterfall methodology were implemented. The Waterfall methodology also known as the Waterfall model is a sequential development process that flows like a waterfall through all phases of a project. The effectiveness of the EasyRent system was evaluated through usability testing. The usability of the EasyRent system as a whole was evaluated and found to be efficient to use and satisfied most of the participants.

*Keywords: waterfall methodology, usability testing, recommendation*

## **1. Introduction**

EasyRent system is a system developed for the users who are involved in the property industry such as renters, landlords and admin. This system can be of great assistance to businesses owners that are looking for a shop to rent. EasyRent systems are able to improve search results and reduce the hassles that prospective renters experience while looking for a shop to rent in a preferred location. This system allows renters to book a desired shop and view the information of the booked shop. Besides, the landlord is able to add, edit, view and delete the shop information. The objectives of this system are to develop A Web Based Recommendation System For Shop Rental, A Case Study in Jitra, Kedah and the second objective is to evaluate the usability of the developed system using user usability test.

## **2. Methodology**

The Waterfall methodology is implemented in this project. This waterfall model has five phases which start with requirement analysis, system design, system implementation, system testing and documentation (Sharma, 2023). Each phase will completely be wrapping up before the next phase begins (Brown, 2023). The first stage is the requirement analysis phase. The aim of this phase is to understand the exact requirements of this project. Next is the system design phase, it is the most crucial phase, it transforms logical design to physical design. The third phase is the system implementation phase. This phase transforms detailed design documentation from the design phase to real-time applications. Programming begins here. System testing is the fourth phase. User usability testing will determine if the system meets defined requirements. All the data and results that have been collected from previous phases will be documented during this phase.

### **3. Results and Discussion**

The effectiveness of the EasyRent system was evaluated through usability testing. This testing was conducted through a questionnaire that is created in Google Form. The usability testing was carried out on thirty participants towards the potential users of this system. The result and analysis are determined based on three different categories which are usefulness and ease of use, user interface satisfaction and usability. The vast majority of participants were pleased with the performance of the system. Despite all of this, there were still multiple functions that needed to be improved. The limitation of this system is it requires a strong internet connection and it is only accessible through a website only. Following the completion of the system, various recommendations and suggestions were received from respondents to improve the system. Firstly, the respondent suggests integrated SMS or email Application Programming Interface (API) once the renter has made a booking. Second recommendations that were received are to change the dropdown in the login and registration into interfaces that are more visible to users. It is because there are some users who do not notice the dropdown features. Last but not least is to provide 360-degree features for the shop image so that users will have a clearer view of the shop.

### **4. Novelty of Research / Product**

With the presence of this EasyRent system, it can save time for the business owner as they do not have to go search for the shop multiple times. They can just browse the website and choose their preferred shop. This method will save a lot of time and be more convenient as they can rent a shop anywhere. The use of a recommendation system can greatly benefit business owners who are searching for shops to be rent. It has the ability to improve search results and reduce the hassles that prospective renters have while looking for a shop to rent. Besides, it also greatly benefits the renters as they can just advertise their shop with just one click away.

### **5. Conclusion**

In conclusion, it has been proved based on the feedback that the EasyRent system is easy to use, has all required information and that it fulfills the participants requirement. In addition, the first and second objective of this project, which was to develop a Web Based Recommendation System for Shop Rental in Jitra and to evaluate the usability of the developed system using user usability test was successfully completed and achieved.

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