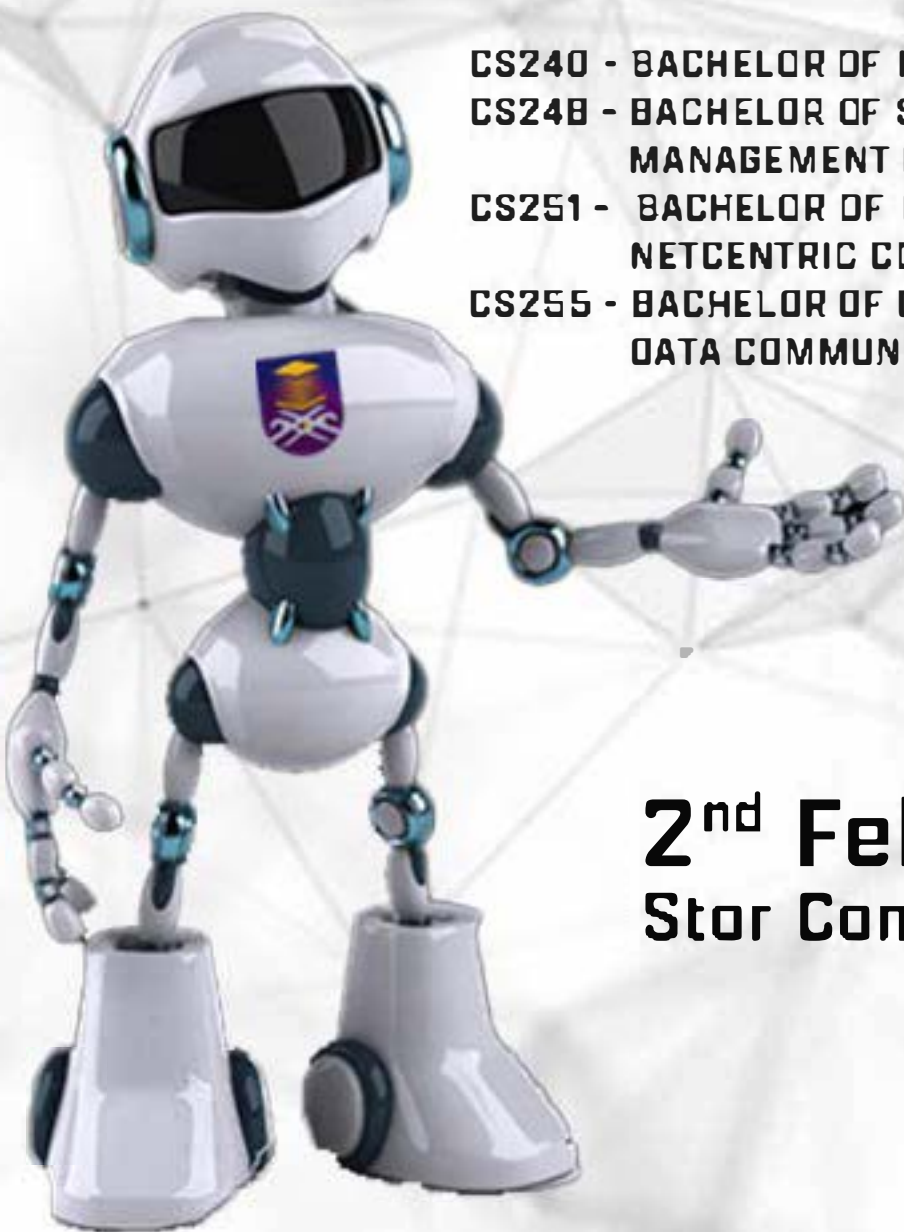


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RESEARCH EXHIBITION IN MATHEMATICS & COMPUTER SCIENCES

# 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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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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#### *Editors*

Rafiza Ruslan, Mohamad Najib Mohamad Fadzil, Noorfaizalfaird Mohd Nor, Mohammad Hafiz bin Ismail

e ISBN: 978-629-97934-0-3



Perpustakaan Negara Malaysia

#### *Published by*

MOHAMMAD HAFIZ BIN ISMAIL

Universiti Teknologi MARA

02600 Arau, Perlis

Tel: +604 988 2028

<https://fskmpерlis.uitm.edu.my/remacs50/>

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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  
**REMACS 5.0**

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# HOUSE RENTAL MANAGEMENT SYSTEM FOR STUDENT IN UITM PERLIS

**Nur Nadiah Husna Samsudin, Muhammad Nabil Fikri Jamaluddin,**

College of Computing, Informatics and Media, Universiti Teknologi MARA Perlis Branch, Malaysia

## **Abstract**

This House Rental Management system is a system created to display rental houses near UiTM Perlis that are available. This house rental management system will also display detailed information about each house and allow you to contact the agent via WhatsApp. The purpose of the House Rental Management System is to help students find available rental houses near campus. While, in this system also can give landlords to upload their house to display in this system. So it can give ease to student to contact them for rent their house.

The methodology used for the development process is the waterfall model. The entire project development process is divided into separate phases. It will go through three phases, such as system requirement identification, system design and development, and testing. Besides functional testing, also user acceptance test (UAT) with 30 participants, consisting of students from UiTM Perlis, was conducted to verify the performance of this system prototype.

*Keywords: House Rental, students, UiTM Perlis, User Acceptance Testing (UAT)*

## **1. Introduction**

The objective of this project is to develop an automated house rental management system for student at UiTM Perlis. Next, to test the functionality of the developed system using user acceptance testing. The scope of the project is limited to UiTM Perlis students who want to live outside UiTM or who have problems not being able to live in college. The users included in this project include students, advertisers, and admin. This project will be taken about 1 year to be completed and used by this targeted user. The application is limited to users create an account to log in the system. Only students who really want to rent a house need to use this system. This system will show the available house that can rent by students.

## **2. Methodology**

Data were collected from a survey, which is using the User Acceptance Testing (UAT). The User Acceptance Questionnaire (UAQ) is made up of 19 questions, each of which is represented by a pair of terms with opposing meanings. The respondents will be recruited among students UiTM Perlis to gain more information regarding the research. The distribution of the questionnaire and the data collection and the data will be collected among students that interested in rental a house. For the evaluation procedures, the House Rental Management system can be accessed by using provided laptop by the researcher that will be given to participants. To explore the application, the participants were given 10 minutes to using the system. After the participants finished using the application, a Google Form questionnaire based on User Acceptance Testing (UAT) will be distributed for evaluation.

## **3. Results and Discussion**

The questionnaire covers user information, perceived ease of use, perceived usefulness, attitude, and intention to use. After utilising the system, respondents receive the questionnaire to obtain their data. The poll found that respondents liked this system. The outcome showed that the app is easy to use and can help students rent a house. 30 respondents completed a questionnaire-based user acceptance test. The study found that most respondents are satisfied with the web-based app system requirements. Thus, students could benefit from utilising this web-based app due to its features and functionality, which make it easy to use. In conclusion, a house rental management system can help many students plan to rent a house. They will also find their desired attractions, speeding up the process. This app also helps travellers learn more about house rentals. In conclusion, the project was successful in achieving its final goal, which was to verify the functionality of the constructed system using user acceptance testing.

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

This project will result in the production of a web-based system that will be utilised by students at UiTM Perlis and will be given the name House Rental Management System for Students in UiTM Perlis. Students can use this web-based system to get assistance in finding a place to rent that meets their preferences and in finding landlords who meet those requirements. In addition to this, registered landlords will be able to market their house-related information, which will make it simpler for them to locate tenants to rent their properties. Aside from that, this approach will assist consumers in finding rental houses in a shorter amount of time, which will be a huge benefit.

#### **5. Conclusion**

This system is for rental housing services, but users can also access it to gain as much knowledge about homes as they desire. The system's primary purpose is to facilitate rentals. Users have the opportunity to acquire additional knowledge regarding the house, the cost of the property, as well as the benefits and amenities that are offered by the house. Because of this, the usage of online applications is a relatively new form of technology that has the potential to be useful in assisting students in renting a home that is suitable and satisfying to them.

#### **REFERENCES**

- Otieno, G. (2017). Murang' a University of Technology Programming and Database Practicum House Rental Management Portal.
- Roadtax, P., & Rumah, K. (2022). Most important clauses for any rental agreement. 1–16. <https://housing.com/news/important-clauses-rental-agreement/>

**Research Exhibition in Mathematics and Computer Sciences: REMACS 5.0**  
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e ISBN 978-629-97934-0-3

