
RESEARCH EXHIBITION IN MATHEMATICS & COMPUTER SCIENCES

REMACS 5.0



CS240 - BACHELOR OF INFORMATION TECHNOLOGY [HONS.]
CS248 - BACHELOR OF SCIENCES [HONS.]
MANAGEMENT IN MATHEMATICS
CS251 - BACHELOR OF COMPUTER SCIENCE [HONS]
NETCENTRIC COMPUTING
CS255 - BACHELOR OF COMPUTER SCIENCE [HONS]
DATA COMMUNICATION & NETWORKING

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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.



RESEARCH EXHIBITION IN MATHEMATICS & COMPUTER SCIENCES
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

SOCIAL MARKETPLACE WEB APPLICATION FOR UITM PERLIS STUDENTS

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Abstract

An online marketplace is a digital platform that connects buyers and sellers, allowing them to buy and sell products and services online. It serves as a virtual marketplace where businesses and individuals can list and sell their products or services, and consumers can browse and purchase them. Online marketplaces like Amazon and eBay are some examples of it. They provide a convenient, easy-to-use, and efficient way for people to buy and sell goods and services from the comfort of their own homes. Many developers have created online marketplaces in recent years to make it easier for people to buy and sell items over the internet. As a result, this study introduced a web application that connects students within the university community to buy and sell goods. The web application will benefit students because the application provides a convenient platform for students to buy and sell goods within the university community, which can save time and effort compared to other traditional ways of buying and selling and provides an opportunity for small businesses, which can increase their revenue. This project was developed by using research framework methodology. There are three phases involved which are System Requirement Identification, System Design and Development and Testing. Functionality Testing and User Acceptance Testing were conducted to evaluate the web application.

Keywords: marketplace, online shopping, ecommerce

1. Introduction

These days, online business is becoming increasingly well-known all over the world. People have a tendency to buy or sell products online because it is incredibly convenient. to use and answers are typically much quicker. The issue arises due to the fact that the students, who are also the sellers, need to invest a significant amount of time and energy in order to sell and promote their previously owned items to the business market. As a result, a social marketplace web application that overcomes these challenges and offers a convenient and user-friendly platform for buying and selling goods within students in UiTM Perlis. This research project aimed to design and develop a web-based marketplace for UiTM students that allows them to buy and sell goods and services within the university community and the project also aimed to test the functionality and user acceptance of the developed system.

2. Methodology

Data were collected and tested by 30 randomly selected students from all parts and faculties of UiTM Perlis who volunteered to take part. During application testing, the developer does not provide assistance or facilitate its use. They have unrestricted access to the application and can make acceptable use of it. After all tasks have been completed, an application questionnaire will be administered. They will respond to the survey based on their experience with the application. The questionnaire comprises 14 questions regarding application, the respondents' information, the user interface design, as well as the application's navigation and usability.

3. Results and Discussion

The results of functional and user acceptance testing have been produced by the developer. It is possible to conclude that the Social Marketplace application works well and achieves its goals. A lot of satisfied consumers who tested the application want to use it on a regular basis. Students can save time and money by using the Social Marketplace app. Students can find their desired items at a lower cost by avoiding in-store purchasing. The goal of this project was to create a social marketplace web application that allows UiTM Perlis students to buy and sell goods within the university community with convenience and efficiency.

4. Novelty of Research / Product

There has been a number of research that has been investigated regarding online marketplace. Particularly, young people are the most dynamic social group that has long mastered the internet market. There is some research on Online marketplace: student consumer strategies. The research purpose is to study young people's consumer strategies in the Internet market and understand the prevalence of online shopping practices. There is also some research regarding An insight into online shopping behaviour among young adults in Malaysia (Mokhtar et al., 2020). The research is to examine online shopping behaviour among young adults in Malaysia (Novgorodtseva et al., 2020). This paper investigates four variables that influence young adults online shopping behaviour namely convenience, customers satisfaction, perceived and price level. However, there has not been any research on web applications that focus on the online marketplace for university students. Therefore, the main focus is to develop the Social Marketplace web application for UiTM Perlis students. The research goal was to create a Social Marketplace web application that allows students to buy and sell goods within the university community with convenience and efficiency.

5. Conclusion

In conclusion, this project is named Social Marketplace web application for UiTM Perlis students. This research purpose is to allow and encourage students to buy and sell new or used items within the university community. At once, it can prevent them from going to waste and allows them to be reused by someone else and selling used items can also be a cost-effective solution for students who are looking for a way to make money or save money on items they need.

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