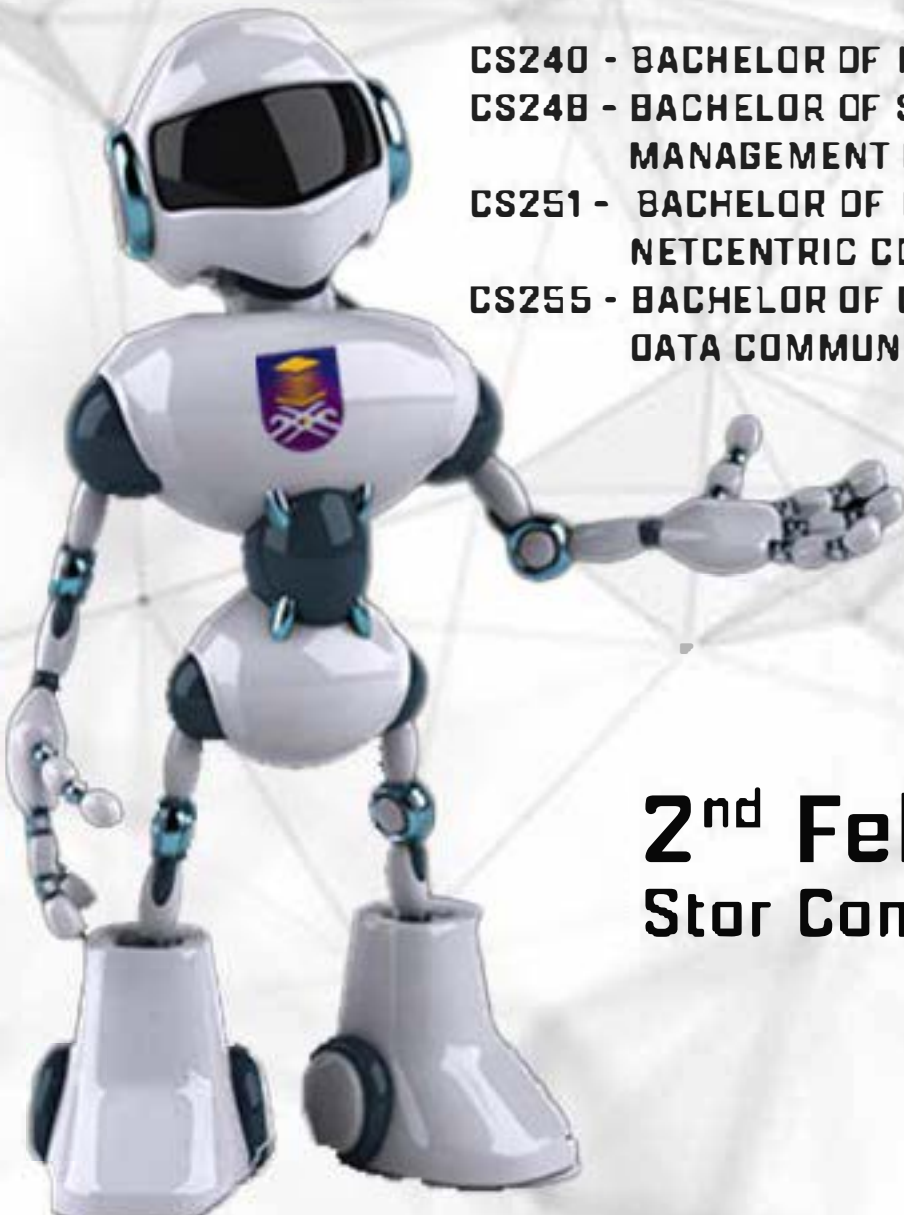

RESEARCH EXHIBITION IN MATHEMATICS & COMPUTER SCIENCES

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

ZAKAT MANAGEMENT SYSTEM WITH ELECTRONIC MAIL

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Abstract

The present financial industry is significantly impacted by technological advancements and inventions. Digital transformation is introducing new business models and transitioning from conventional to digital markets via the use of technology. The zakat system has become a significant component of the Islamic economy and financial system, and it must be digitised to be consistent with the modern digital era. This study intends to examine the administration of zakat applications at UiTM and to identify the management areas that require rapid feedback between the applicant and ZAWAF. This study collects data from many sources, including books, journals, conference papers, and other relevant websites, using a qualitative research methodology. The majority of difficulties encountered by zakat applicants appear to be the result of obsolete system facilities. Applicants for zakat in the modern day frequently confront the issue of not knowing the status of their application. The majority of individuals today possess a mobile phone with internet access and an email account. Developing a Zakat management system with notepad plus, Visual Studio Code, and xampp. A system created for administrators, interviewers, and applicants that allows applicants to apply and check application status and also notifies applicants through email of the application status. While the administrator can oversee the applicant's application, the interviewer will conduct the interview. Planning, information collecting, design, development, testing, and documentation are included in the development process. The evaluation of a project involves the distribution of a questionnaire including usability test questions to thirty respondents. The test script is utilised for functional test execution. According to the test findings, the system is usable but requires further development.

Keywords: zakat system, electronic mail, zakat management, applicants

1. Introduction

Student and ZAWAF management had to deal with too many unfiltered and disorganized concerns. ZAWAF information dissemination is tough for students. This issue occurs too often and has generated another issue that will result in poor ZAWAF management system outcomes for students. The purpose of this project is to analyze the management of zakat applications in UiTM and to identify the sections of the management that require an immediate reaction between the applicant and ZAWAF and the goal is to build an integrated zakat application based on the web that uses web and electronic mail. E-mail that used for notice purpose. Zakat application for this endeavor has been designed to be intentionally connected to ZAWAF zakat.

2. Methodology

Planning, data collection, design, development, testing, and documentation are the methods and techniques employed. The data collection process involves observing the students and units that are engaged. Conducting interviews and surveys by referencing to and analyzing pre-existing ideas, such as the ease of use and efficiency of the system for users. The outcomes of this research investigate the extent to which customers are pleased with the system. This system may be constructed utilizing the applications xampp, notepad++, and visual studio code, as well as a computer for hardware requirement. Functionality testing was done by experts. Test findings show that the system is workable but needs development.

3. Results and Discussion

The Zakat Management System with Electronic Mail needs to function correctly. It was determined by means of a functional test whether or not the system in question satisfies the functional requirements and technical standards. The test is completed by all three participants, which include the interviewers, the users, and the administrators. When the end result demonstrates that all of the application's features are functioning as intended, we can consider that a successful outcome. Thirty students from the UiTM Arau Campus will evaluate the usability testing. According to the results of usability testing, the majority of respondents believed that this system is a good platform that is efficient and will help users, particularly students, as well as administrators in managing the e-Zawaf system. In conclusion, the usability test objective 3 was successfully completed.

4. Novelty of Research / Product

Fortunately, the availability of an email alert system improves the efficiency of email-based communication. This system is an application that informs users when new email arrives (Vdovin, 2022). Since it can be accessible through the user's own mobile phone or laptop, the project was developed as a website system, which is far more practical than the manual way. The manual method requires the user to keep track of everything. The application process for zakat may be completed online, and it is quite straightforward. Students will have an easier time swiftly and readily finding out the results of zakat thanks to a feature that notifies them not only on the website but also via electronic mail. In order for students to verify the results, they do not need to visit the website of the zakat unit anymore. When utilizing this system, administrators also have easy access to application management capabilities.

5. Conclusion

In conclusion, the zakat management system that includes electronic mail is able to assist students with a variety of problems relating to the application of zakat as a result of the many functions that are accessible. It was revealed after the project had been finished in its entirety that all of the goals that had been established prior to the project development stage had been effectively implemented throughout the entirety of the project.

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