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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]**  
**NETCENTRIC COMPUTING**  
**CS255 - BACHELOR OF COMPUTER SCIENCE [HONS]**  
**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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# 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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**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

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RESEARCH EXHIBITION IN MATHEMATICS & COMPUTER SCIENCES  
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# INTERNSHIP MONITORING AND ASSESSMENT SYSTEM

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## **Abstract**

Internship Monitoring and Assessment System is a web-based system that assists students, the internship coordinator, and academic and organisation supervisors during and after the internship programme. Previously, the internship programme at Universiti Teknologi MARA (UiTM) Perlis was not systematic and was based on a manual system. Therefore, by developing this web-based system specifically for monitoring and assessment, students, the internship coordinator, the academic and organisation supervisor could accomplish their job accurately. This study aims to design and develop a web-based system to monitor and assess the internship student's progress and performance. A waterfall model will be used to develop a complete and successful web-based system. In addition, usability testing is being implemented in this study to evaluate the effectiveness of the Internship Monitoring and Assessment System. There were 30 respondents, including students with Industrial Training experience, the internship coordinator, and the academic and organisational supervisor. According to the test results, most respondents agreed that using this system is simple and comfortable for them. For future work, other researchers can include a Calendar feature to help all users to keep track of daily logbooks, assessment dates and appointment presentation schedules. In conclusion, this system successfully manages and reduces the workload for those involved in the UiTM internship programme.

*Keywords: internship, monitoring, logbook, assessments, usability testing.*

## **1. Introduction**

University students have grown over time, making internship programme management increasingly complex (Abdullah et al., 2017). As a result, developing a web-based system will enable users to access information more efficiently. This final-year project aims to design and develop a web-based system to monitor and assess the internship student's progress and performance. Furthermore, usability testing will be used to evaluate the system's effectiveness. The project's scope mainly focuses on Universiti Teknologi MARA (UiTM) Perlis internship students enrolled in Industrial Training (CST699) in the Information Technology programme, the internship coordinator, the academic supervisor, and the organisation supervisor. The web-based system will be used for monitoring and assessment during and after the internship programme.

## **2. Methodology**

A waterfall model will be used to create a complete and successful web-based system. In this study, usability testing is being used to assess the effectiveness of the Internship Monitoring and Assessment System. 30 people responded, including students who had successfully completed Industrial Training, the internship coordinator, and the academic and organisational supervisor. Complete instructions and explanations will be provided to ensure that respondents understand the system process. The usability testing was done on the provided laptop. Respondents were given 20 minutes to explore the system. After exploring and testing the system, respondents must complete the Google Forms questionnaire on their own devices.

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

According to the testing results, most respondents agreed that using the Internship Monitoring and Assessment System is simple and comfortable for them. 70% of respondents strongly agree that they are comfortable using the Internship Monitoring and Assessment System. In comparison, only 9 respondents (30%) are comfortable using this system. Furthermore, 21 respondents (70%) strongly agree that this system is satisfactory. However, there are some enhancements to the Internship Monitoring and Assessment System suggested by users. The Internship Monitoring and Assessment System efficiently manages logbook, assessment, and presentation appointments, reducing the workload of students, company supervisors, academic supervisors, and internship coordinators who manage the student's evaluation during and after the internship programme. As a result, all goals were achieved including designing and developing a web-based system to monitor and assess the progress and performance of internship students, as well as evaluating the system's effectiveness through usability testing. However, there are still some limitations and flaws that must be addressed in the future.

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

Internship Monitoring and Assessment System is a web-based system that assists students, the internship coordinator, and academic and organisation supervisors during and after the internship programme. It consists of three sections: Logbook, Schedules an Appointment Presentation, and Internship Performance Assessments. Students will be able to focus more on their work or projects because of the development of this web system. The internship coordinator, as well as academic and organisation supervisors, can also monitor and evaluate students' progress online. This web-based system could set up a meeting for the final presentation. This would benefit all parties in the long term because it can record and secure information about students' internship data.

### **5. Conclusion**

In conclusion, the objectives of this research have been achieved where the system has been successfully developed. The Internship Monitoring and Assessment System efficiently manages the logbook, assessments, and presentation appointments while also reducing workload during and after the internship programme.

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