
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]
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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

E-EXAMINATION SYSTEM FOR ANSWERING OBJECTIVE AND SUBJECTIVE QUESTIONS

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1. Introduction

The education system in Malaysia has gone through the Covid-19 pandemic phase in 2020-2022 which caused all educational institutions in the country to be implemented online. However, this raises questions about the methods that can be used to evaluate the efforts that have been made in teaching and learning. Most of the online exam-based assessment applications that exist today are still in their infancy. In fact, the existing applications are now more focused on the construction of questions and answers in the form of objective questions such as multiple choice. While questions that require students to answer in short essays as subjective questions are less. There are two research objectives that have been prepared for this study, namely; to develop an online exam system to evaluate both objective (multiple choice) and subjective question forms, and to evaluate the system using user functionality tests and usability tests.

2. Methodology

The Waterfall model is the methodology used for this project. It includes the requirements analysis phase, the planning phase, the design phase, the development phase and the testing phase. A website related to the e-examination system has also been developed. This web. site has been used to check the capabilities of the proposed e-examination system. Testing of both functionality and usability using appropriate tools to obtain reliable results has also been carried out.

3. Results and Discussion

This system will make it easy for students to take examination online whenever their available to take. Students do not need to attend to campus to take traditional way examination in the pandemic season. To take the examination, they simply need to access the website. Lecturer to can access the website and manage the examination wheatear their in the campus or at home, so this make easier to them conduct the exam in the pandemic season. Thus, this improves the functionality and usability of exam management at UiTM Perlis, particularly for students and lecturer.

4. Novelty of Research

Novelty in research on e-examination refers to the use of new or unique methods or techniques in the study of electronic testing. This can include the use of new technologies such as artificial intelligence, the development of new types of e-exams, or the use of novel data analysis techniques to study e-examination data. The goal of incorporating novelty in research on e-examination is to better understand the potential benefits and drawbacks of electronic testing and to improve the design and administration of e-exams. It can also include exploring new ways to measure student's performance through online examination.

5. Conclusion

In conclusion, e-examination, also known as electronic testing, has the potential to provide many benefits over traditional paper-based testing. These benefits include increased efficiency, cost savings, and the ability to administer tests remotely. Additionally, the use of technology in e-examination can allow for more engaging and interactive test-taking experiences, as well as the ability to use new types of questions and tasks. However, it is important to note that there are also potential drawbacks to e-examination, such as the risk of cheating and the need for reliable internet access. Overall, e-examination is a rapidly growing field and research is ongoing to understand its potential benefits and drawbacks and improve the design and administration of e-exams.

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