
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

INVENTORY MANAGEMENT SYSTEM FOR SMEs IN KULIM

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Abstract

Small to medium size companies tend to face problems with the tracking of their inventory which could lead to losses for the company. The Inventory Management System for SMEs in Kulim is developed to allow the user to improve the inventory management using a computerised system. The system has a function where users can update their inventory list in different pages such as brand, category and products. It is easy for the users to monitor their inventory anywhere with internet access since the system is built as a web-based application. Admin are the only user with the access to manage the inventory thus, it is easy for them to handle the system without the interference from the third party. Functions such as add, delete or update can be done for all the categories listed above. This project was evaluated by distributing questionnaires to 30 respondents which contained questions from user acceptance testing. Respondents are free to test the system and evaluate based on their experience.

Keywords: inventory, User-friendly interface, criteria, satisfaction level

1. Introduction

Inventory is a crucial asset of a company. In certain industries such as manufacturing, retail and food services, a shortage of inventory would lead to undesirable outcomes (Waida, 2022). A good inventory management will increase the productivity and efficiency of a job regardless of the size of the company. Thus, with the inventory management system built for Small-Medium Enterprise it is hoped to bring a new light with a new approach in managing their inventory. Various functions implemented in the system will allow the user to view and store the data neatly, for example the system provided the interface for brand, category separately as well as the specific products that exist in the inventory. Therefore, it helps the user to keep track of their inventory.

2. Methodology

Data were collected from questionnaires conducted towards a targeted audience such as people who are engaging with inventory at their workplace. This group of people included the owner, manager and staff. Research findings evaluate the user experience under four separate categories once they have completed their task which is to test the system built. The criteria are perceived ease of use, perceived usefulness, attitude and intention of use. Next, the measurement criteria are based on ranking from 1 to 5. The scale represents 1 strongly disagree and 5 strongly agree.

3. Results and Discussion

The aim of the survey is to evaluate user satisfaction after the testing phase. Besides that, it is intended to ensure the software can handle the tasks and perform along with the development specifications. To summarise the result of the questionnaire, it is safe to say that most of the respondents participating in the survey were satisfied with the system. The majority votes received are 4 and 5 which represent agree and strongly agree respectively. For example, under the second criteria, perceived usefulness where the users will evaluate how the system is considered useful to them. The mean of the result is 4.1 which indicates the satisfaction level is at its finest and the system is receiving support from the users. Finally, the results will help the developers to increase the productivity in every aspect possible such as fixing

bugs, increase effectiveness of developed modules and many other things that can be improved for future work.

4. Novelty of Research / Product

There are various methods used for inventory management and the most frequent use is the Microsoft Excel as the software to keep all the data of the inventory (Tagetik, 2021). This traditional method has various flaws such as limited collaboration, errors and many others. For example, Excel tends to become fragile as it grows and small errors could lead to loss for companies. Therefore, this inventory management system has its own database for users to store data. The data can be kept there and users can easily update inventory in the system. A user-friendly interface will help the user to understand the system better and get used to it in no time. This has been proven by the study that has been conducted as the results shows that the average rate for perceived ease of use for this system is at 4 which. This indicates that the respondents agree with the question. Thus, it shows that the system can operate to the user's expectation.

5. Conclusion

Inventory Management System for Small-Medium Enterprises (SMEs) in Kulim is a web-based application that is intended to improve the inventory management in an organisation. This system can be accessed anywhere with Internet connection which makes it easier for the user to monitor. Lastly, this system is likely to enhance the inventory management in a store of SMEs specifically.

REFERENCE LIST

Tagetik, C. (2021, May 18). *Modern Solutions vs. Excel for Inventory Management*. Ww.wolterskluwer.com. <https://www.wolterskluwer.com/en/expert-insights/modern-solutions-vs-excel-for-inventory-management#:~:text=Digital%20platforms%20offer%20significant%20benefits>

Waida, M. (2022, March 18). *What Is Inventory Management and Why Is it Important?* | Wrike. Ww.wrike.com. <https://www.wrike.com/blog/what-is-inventory-management/#Why-is-inventory-management-important>

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