

EXTENDED ABSTRACT

MiiEX'2024

MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION 2024 "EMPOWEREMENT OF SPECIAL NEEDS THROUGH INVENTION AND INNOVATION"

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MiiEX'2024

MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION 2024 "EMPOWEREMENT OF SPECIAL NEEDS THROUGH INVENTION AND INNOVATION"

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FOREWORD BY THE PROJECT DIRECTOR

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INNOVATION, INVENTION, AND DESIGN

FOREWORD BY THE RECTOR OF UITM CAWANGAN MELAKA



Professor Ts. Dr. Mohd Rasdi bin Zaidi

Rector, Universiti Teknologi MARA (UiTM)

Cawangan Melaka

Welcome to the Melaka International Intellectual Exposition 2024 (MIIEX '24). It is an honour for me, on behalf of UiTM Cawangan Melaka, to thank all of you for joining MIIEX '24. We are proud to inform you that this is the 13th consecutive year that UiTM Cawangan Melaka is organizing this exposition. Since 2009, UiTM Cawangan Melaka has successfully hosted this innovation exposition. Not only have we succeeded in organizing the exposition, but we have also successfully embarked on commercialized products.

2024 is a special year where MIIEX 2024 emphasizes the development of special needs. As we know, special needs indicate a limitation in a person's ability to engage in and benefit from various aspects, such as daily activities and education. Hence, with the theme "Empowering Special Needs Through Invention and Innovation," it is a platform for industries, professionals, academicians, students, and communities to share their innovative ideas and products to increase accessibility for those with special needs.

The successful implementation of MIIEX '24 is our joint success. This event was supported by the Melaka state government through YB Datuk Fairul Nizam bin Roslan, the EXCO of Science, Technology, Innovation, and Digital Communication. I also want to express my

gratitude to Universitas Negeri Padang, Indonesia, Universitas Muhammadiyah, Makassar, Indonesia, the International Association of Economic and Businesses (IAEB), Universiti Sains Islam Malaysia, Ibnu Ummi Maktum Research Center (UMMI), USIM, and The Southeast Asia Minister of Education Organization Regional Centre for Special Educational Needs (SEAMEO SEN) as our co-collaborators for MIIEX 2024.

The collaboration from various parties in MIIEX '24 is a platform that will improve cooperation and interweaving among industries, professionals, academicians, students, and communities in shaping their potential in developing innovation products. This exposition also serves as a platform to cultivate and uphold the nation's innovation culture by presenting new ideas and research by young people, especially from academia and universities. Indirectly, MIIEX '24 will encourage all inventors towards empowering Science, Technology, Engineering, and Mathematics (STEM), especially in primary and secondary schools.

The new digital landscape also inspires more innovation and new ideas that contribute to various activities, such as business and industries. As a university that encourages "Research and Innovation," we aim to foster more innovative products that benefit scholars, industries, and communities, addressing issues to improve our present and future life.

This exposition would never happen without dedication, teamwork, and commitment. A round of applause should be given to the committee teams, who are the backbone of this exposition. Their hard work, effort, and time made this exposition possible.

Finally, I would like to conclude this brief remark by thanking all the participants and stakeholders for joining the exposition. We hope that this collaboration never ends here.

Thank you.

FOREWORD BY THE DEPUTY RECTOR (RESEARCH & INDUSTRIAL LINKAGES)



Associate Professor. Dr. Nur Hayati binti Abd Rahman

Deputy Rector (Research & Industrial Linkages), Universiti Teknologi MARA (UiTM) Cawangan Melaka

With much passion and privilege, let me warmly welcome all of you to the Melaka International Innovation Exhibition (MIIEX), UiTM Cawangan Melaka's flagship event. I firmly believe that events such as these demonstrate the gradual evolution of this platform in terms of its significance and its governing principles within the sphere of learning and the broader scholarly society.

The theme for this year, "Empowering Special Needs Through Invention and Innovation," strongly connects to our mission of using research and technology to make a positive impact on the world we live in. Besides enforcing the message of diversity, this theme also reaffirms our focus on creating products to improve the lives of people with disabilities (PWDs). Such innovations are vital as only through focused constructive changes can society become more sensitive to the needs of all members.

MIIEX allows researchers, students, and industry professionals to come together, share their innovative research, and develop viable research partnerships. It has been great to see the enthusiasm of the participants and the efforts they put into their projects, which can offer various social and economic benefits. This is why one can state that MIIEX is a great

opportunity for creating connections between the academic environment and industry, facilitating the implementation of innovative and promising projects.

Finally, I would like to express my sincere appreciation to all the members and supporters of the organizing committee, all the participants, sponsors, and everyone involved in preparing this event. I want to express my gratitude for your commitment and involvement, as the success of MIIEX and the development of an active culture of innovation in our university and beyond is partly owed to your support.

Thank you

FOREWORD BY THE PROJECT DIRECTOR



Dr Zulkefli bin Muhamad Hanapiyah Senior Lecturer

Assalamualaikum and Warmest Greetings,

It gives me a great pleasure, on behalf of the organizing committee, to welcome all participants and speakers to the Melaka International Intellectual Exposition 2024 (MIIEX '24) with the theme "Empowering Special Needs Through Invention and Innovation." We are honoured and pleased to welcome all participants to this biennial event.

MIIEX '24 is a platform that gathers experts from local and international industries, academia, scientists, researchers, and the community to contribute to the advancement of scientific and technological knowledge. This knowledge helps develop disruptive innovation products that improve daily activities for businesses and the community, especially those with special needs.

MIIEX '24 provides an atmosphere for inventors of all levels to gain new exposure and collaborate. Indirectly, this promotes a collaborative and innovative culture that focuses on cutting-edge technologies and new standards in technology and creativity.

MIIEX '24 is anticipated to serve as an arena for participants to acquire and disseminate revolutionary information on ideas and innovation. It is intended that the competition will expose the contestants' minds to the latest technologies and designs, aligning with the government's goal of encouraging innovation in Malaysia.

Finally, I want to compliment my fellow committee members on their amazing efforts, which were vital to the event's success. In addition, I want to thank our co-organizers, event sponsors, and participants. Optimistically, we hope that all new knowledge discovered, invented, or innovated will lead us toward future sustainability.

Thank you.

FOREWORD BY MELAKA STATE EXCO OF SCIENCE, TECHNOLOGY, INNOVATION AND DIGITAL COMMUNICATIONS



YB Datuk Fairul Nizam bin Roslan

Melaka State Exco of Science, Technology, Innovation and Digital Communications

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The new digital landscape also inspires more innovation and new ideas that contribute to various activities, such as business and industries. As a university that encourages "Research and Innovation," we aim to foster more innovative products that benefit scholars, industries, and communities, addressing issues to improve our present and future life.

This exposition would never happen without dedication, teamwork, and commitment. A round of applause should be given to the committee teams, who are the backbone of this exposition. Their hard work, effort, and time made this exposition possible.

Finally, I would like to conclude this brief remark by thanking all the participants and stakeholders for joining the exposition. We hope that this collaboration never ends here.

Thank you.

MIIEX'24 ORGANISING COMMITTEE

COMMITTEE	NAME
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i.	

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	FAIQAH HAFIDZAH BINTI HALIM
	NORSHAHIDATUL HASANA BINTI ISHAK
	HAZRATI ZAINI
	KHAIRUL NURMAZIANNA ISMAIL
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PROGRAM BOOK, ABSTRACT &	DR MAIMUNAH JOHARI
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	PN NOR HALAWAH AHMAD
	PN AZIRA RAHIM
	NORLINDA TENDOT ABU BAKAR
	AFZAN SHAHILLA AMIR HAMZAH
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	MASLIZA BINTI MOHD RAZALI
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	AFZAN SAHILLA BINTI MOHD AMIR HAMZAH
	MUHAMMAD FURQAN BIN AZHAR
	KHAIRUL AZHAR BIN LOCHMAN

ABOUT MIIEX'24

MIIEX'24 is an innovation competition annually organised by UiTM Melaka with the intention to bring together ideas and inspiration that could fit in for commercialization needs.

This event creates a platform for researchers to establish networking, partnership and opportunities to collaborate with industries.

OBJECTIVES

- Encourage and instil passion towards inventing and innovating among UiTM
 Cawangan Melaka staff, students and academicians of local and international higher education institutions;
- 2. Highlight distinguished talents of skilful inventors and exhibit intellectual products, inventions and innovations among local and private tertiary institutions, government and private agencies, including international participants;
- 3. Become an effective Business Matching platform for participating research products, matching industries and partnering government agencies;
- 4. Recognise, inspire and promote invention and innovation products to be patented and commercialized;
- 5. Increase passion towards inventing and innovating through research and boost interests of government and non-government agencies to obtain consultancy services from a line up experts of higher education institutions and UiTM Cawangan Melaka.

THEME

'EMPOWERMENT OF SPECIAL NEEDS THROUGH INVENTION AND INNOVATION'

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Phinestic Learning

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Abstract

The idea of our project is to develop a personal finance visual animation designed to be viewed on devices for slow learner's students in managing their finances as well as providing an introduction to financial management. "Phinestic Learning" attempts to provide opportunities for slow learners to advance their financial planning. "Phinestic Learning" will give them access to learning materials that suit their needs, including basic concepts of spending and saving. Students with learning disabilities can have better understanding about the importance of managing their money by helping them become more independent and responsible in financial aspects throughout their life. The students with impairments can utilize and comprehend our application more easily. This application will provide short animated educational videos from various cartoon animation to explain financial concept in an interactive way. To make learning more fun, this application also provides interactive and educational games to train their financial skills through fun and interesting activities. Other features included is an artificial intelligence that uses money scanning to assist in calculating the amount of money pocket. With a combination of short animated educational videos, mini games and money scanner, this application will provide a complete and enjoyable learning experience for student with learning disabilities in the field of financial planning.

Keywords: Phinestic Learning, slow learners, financial planning, visual animation, mini games, money scanner.

3. INTRODUCTION

In this era, financial planning can be particularly challenging for slow learner students due to their unique learning needs. They may struggle with understanding complex financial concepts, such as budgeting, saving, and making financial decisions. By addressing these challenges and providing appropriate support, we can empower these students to develop essential financial management skills and improve their overall financial well-being.

How to use the "Phinestic Learning?" application?

"Phinestic Learning" will give them access to learning materials that suit their needs, including basic concepts of spending and saving. Students with learning disabilities can have better understanding about the importance of managing their money by helping them become more independent and responsible in financial aspects throughout their life. Firstly, when you open this app you will see several features which are animation video, mini games, and money scanning. If you open animation video features, it will show you an update about short animated educational videos to explain financial concept in interactive ways that's comes with two category level which is beginner and expert video for them to watch. Secondly, if you open mini games features, it will come up with "open world" concept game view to make learning more fun, this application also provides interactive and educational games to train their financial skills through fun and interesting activities. Lastly, money scanner is an artificial intelligence that uses money scanning to assist in calculating the amount of money pocket.

2. OBJECTIVE

The objective of 'Phinestic Learning' is to help disabled persons which are specifically slow learners understand the importance of managing their finances and promote independence and responsibility in financial matters. The aim of "Phinestic Learning" was to empower disabled people, particularly slow learners, to make informed financial decisions, improve their financial literacy, and ultimately become more financially independent and self-sufficient. The project aims to teach slow learners specific financial concepts through various educational resources for example basic concepts of spending and saving. Furthermore, enhances understanding the importance of managing money.

3. NOVELTY & INVENTIVENESS

The unique feature of the "Phinestic Learning" application is that they are vibrant colors which are able to draw slow learner's attention. Furthermore, information related to financial planning is channeled through short animated videos and mini-games. Slow learners would not be bored when interesting and functioning features existed while learning about financial planning. Moreover, "Phinestic Learning" also has a money scanner for slow learners who do not know how to count large amounts of money.

4. PRACTICALITY & USEFULNESS

The "Phinestic Learning" app has several potential advantages for the community, not the least of which is that it can help students with learning difficulties become more independent and financially literate. Through the provision of easily available and customized educational resources, the application can assist these students in surmounting money management challenges and enhancing their overall financial welfare.

The application's capabilities, which include money scanning, interactive mini-games, and animated instructional films, can make learning financial concepts fun and interesting for students. Children with learning disabilities can gain from the usage of multimedia programs because they can accommodate their different learning styles and offer experiences that are visual, auditory, or kinesthetic. Overall, the "Phinestic Learning" application can benefit the community by promoting financial literacy and independence among students with learning disabilities, providing opportunities for community-based learning, and fostering intercultural understanding and values.

5. CONCLUSION

In conclusion, Phinestic is an application that provides slow learner students with animated educational videos alongside other interactive features such as mini game and money scanner for the purpose to help these students to learn and manage their financial wisely and precisely. This application might be the useful tool for the slow learner to guide them to learn how personal financial management works. We are highly confident that this project will be of help for those

in need and that disabled person also would have the opportunity to learn about money management as well as normal person.

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