

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"

EDITORSAND COMPILERS:

Dr Maimunah Johari

Puan Norlinda Tendot Abu Bakar

Puan Maymunah Ismail

Puan Nor Halawah Ahmad

Cik Afzan Shahilla Amir Hamzah

Puan Azira Rahim

COVER DESIGN:

Rashidy Samsudin

Wan Nur Khalisah Shamsudin

Ridzuan Adli bin Azidin

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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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	SAHIB@SAHIBUDDIN
	VICE CHANSELLOR,
	UNIVERSITI TEKNOLOGI MARA
CHAIRMAN I	YB DATUK FAIRUL NIZAM BIN ROSLAN
	MELAKA STATE EXCO OF SCIENCE,
	TECHNOLOGY, INNOVATION AND DIGITAL
	COMMUNICATIONS
CHAIDMANH	DDOCTO DD DAGDI DDI ZA DII
CHAIRMAN II	PROF TS. DR RASDI BIN ZAINI
ADVISORS	ASSOCIATE PROFESSOR DR. NUR HAYATI BINTI
	ABD RAHMAN
	DEPUTY RECTOR (RESEARCH & INDUSTRIAL
	LINKAGES)
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	DEPUTY RECTOR OF STUDENTS AFFAIRS
	DR MOHAMMAD NOR AFANDI BIN IBRAHIM
	DEPUTY RECTOR OF ACADENIC AFFAIRS
DD O HEST DIDLEGTOR	
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	MOHD AZAHAR
	RASEEDA BINTI HAMZAH
	TS. DR. NOR AFIRDAUS BINTI ZAINAL ABIDIN
DESIGN & MULTIMEDIA	EN RASHIDY SAMSUDIN
	RIDZUAN ADLI BIN AZIDIN
	WAN NUR KHALISAH SHAMSUDIN
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MANAGEMENT	PN AFZAN NOR BINTI TALIB
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i.	

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	FAIQAH HAFIDZAH BINTI HALIM
	NORSHAHIDATUL HASANA BINTI ISHAK
	HAZRATI ZAINI
	KHAIRUL NURMAZIANNA ISMAIL
SPONSORSHIP	DR MOHD SYUKRI BIN ABDULLAH
PROGRAM BOOK, ABSTRACT &	DR MAIMUNAH JOHARI
PUBLICATION	PN MAYMUNAH ISMAIL
	PN NOR HALAWAH AHMAD
	PN AZIRA RAHIM
	NORLINDA TENDOT ABU BAKAR
	AFZAN SHAHILLA AMIR HAMZAH
MEDIA & PUBLCITY	DR NOOR AFZALIZA NAZIRA BINTI IBRAHIM
	DR MOHD SUFIEAN BIN HASSAN
	ENCIK KHAIRI BIN KHAIRUDDIN
	DR NUR SHAZANA BINTI ABDUL RANI
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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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Melaka International Intellectual Exposition (MIIEX'2024)

Mental Health Services for Disabled Persons

Amirah Hazimah Binti Borhanordin, Sarah Amirah Binti Sadali, Nurain Binti Mohd Talib, Nur

Syafiqah Binti Safuan, and Julita Rasyidah Binti Khairol Amri

Faculty of Business and Management, Universiti Teknologi MARA, Cawangan Melaka

(amirahhazimah@uitm.edu.my)

Abstract

Individuals with disabilities often face mental health challenges, yet they receive inadequate

treatment compared to the general population. This study explores the development of Mental

Health Services tailored for disabled individuals, focusing on innovative approaches to address

their unique needs. The Assistive Technology System (AT) integrates software solutions and

expert-led community support to enhance accessibility and affordability of mental health care.

The utilization of virtual reality therapy represents a novel intervention to improve mental well-

being among disabled individuals. By addressing the heightened risk of mental health

difficulties faced by this population, these services aim to enhance quality of life, promote

independence, and reduce health disparities. The potential commercial success of these services

lies in their innovative design and inclusive approach, offering a promising avenue to ensure

effective and accessible mental health support for all individuals with disabilities.

Keywords: Mental Health Services, Disability, Assistive Technology, Virtual Reality

Therapy, Accessibility, Inclusivity.

INTRODUCTION

Currently, many people face mental health issues. We can see that disabled people also face

the same things as normal people. People with disabilities who have mental health problems

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face significant challenges because they often have more mental health problems and receive less treatment than people without disabilities. Mental Health Services have great potential for commercial success due to many service innovations and attractiveness. This service is something different from existing mental health services, this service can provide great affordability and accessibility to ensure that mental health services remain available and affordable for all individuals with disabilities.

OBJECTIVE

This aims to identify the main cause of mental health in disabled people, evaluate services that can serve them to overcome the problem, compare although there are many services provided, services that use software and receive direct guidance from expert doctors are very few, understand this service can provide great affordability and accessibility to ensure that mental health services remain available and affordable for all individuals with disabilities., discover Despite the high prevalence of mental health issues among disabled people, only an estimated 10% of people who need attention or treatment for mental health problems receive it globally, and map out actionable solutions to address them.

3. NOVELTY & INVENTIVENESS

The newness is virtual reality therapy. as we can explore how virtual reality technology is being leveraged to provide immersive therapy experiences for disabled people and can help them address mental health challenges in innovative ways. Next, in this reform, we can explore the peer support network that is to examine the role of peer support networks in mental health services for people with disabilities to emphasize the power of shared experiences and mutual understanding in fostering their emotional resilience. Last but not least, the digital mental health platform is a great innovation and innovation because it is designed specifically for individuals with disabilities, offering accessible resources, online support groups and personalized tools to manage mental health challenges for them and their families.

4. PRACTICALITY & USEFULNESS

People with disabilities do not have sufficient access to mental health care. We are developing new mental health services for them that will be easier and more affordable because of new technologies and virtual reality therapy. People with disabilities will be happier, more independent, and healthier if they receive mental health therapy. Although these services may generate revenue by being useful, it is essential that they serve everyone, whatever their disabilities. Disabled persons require easy and new access to mental health services. As a result, their lives will improve, and they will remain healthy.

5. CONCLUSION

Conclusions can be made if these services are designed for people with disabilities who have mental health problems, they can significantly improve their quality of life by addressing their unique needs and challenges. moreover, it can increase independence, better health outcomes, and reduced health disparities. Overall, services for disabled people with mental health issues can have a positive impact on their lives, but they need a comprehensive and inclusive approach to ensure they are effective and accessible.

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