

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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My Inner Voice: An Innovation of Self-Expression With The Communication Book

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Abstract

Autism spectrum disorder (ASD) is a neurodevelopmental condition that presents challenges in social communication and repetitive behaviours. Conventional means of communication support may not always be helpful in meeting the special needs of people with "nonverbal ASD." Individuals with nonverbal ASD suffer severe difficulties in expressing their needs through speech. "My Inner Voice" is a tool designed to help people with autism improve their self-expression skills by using communication buttons. It offers a broad range of functions to facilitate productive communication. "My Inner Voice" is designed as an interactive book style that uses text, images, colours, and noises to provide sensory alternatives. This product innovation offers new perspectives and communication skills, which can be incredibly useful for those with ASD who struggle with standard communication methods. The innovation has the potential to cater the needs of families, educators, therapists, and other interested parties through various channels such as internet merchants, specialty stores, or direct sales. The collaborative nature of this book is evident in its requirement for the active involvement of parents, teachers, and therapists throughout the entire process. Their input ensures that this communication book tool is customised to the unique needs of the student and aligns with their home environment.

Keywords: Inner Voice, Nonverbal ASD, Communication, Autism

1. INTRODUCTION

This communication book "My Inner Voice: An Innovation of Self-Expression with The

Communication Book" is a groundbreaking innovation tool that enables individuals with Autism Spectrum Disorder (ASD), aimed at improving their communication abilities effectively and efficiently (Doe, 2022). This one-of-a-kind technology employs both visual tools and interactive buttons to assist those who have difficulties communicating what they want, feel, or need like expressing their thoughts, emotions, and needs (Doe, 2022). The book's configurable buttons, which allow readers to add their own symbols, images, and text to suit their preferences, promote a sense of control and freedom in communication. This book gives persons with ASD an organised approach to express themselves and makes communication easier, allowing them to connect, understand, and engage in new ways.

2. **OBJECTIVE**

The primary objective of this special communication book is to help people with Autism Spectrum Disorder (ASD) improve their communication skills, promote increased independence, create autonomy, and develop further social contact. This technique tries to overcome communication gaps by combining customisable buttons with visual assistance, allowing people with ASD to convey their thoughts, emotions, and needs with clarity and confidence. Furthermore, this unique book comes with communication buttons aims to increase involvement in educational, social, and everyday living activities by providing a user-friendly and personalized communication tool that is tailored to the specific communication styles and preferences of people with ASD. Finally, the goal is to help people with ASD navigate their world more confidently, engage meaningfully with others, and actively participate in all parts of life.

3. NOVELTY & INVENTIVENESS

This communication book for Autism Spectrum Disorder (ASD) is unique as it combines traditional communication tools with customisable and interactive elements that are particularly targeted to people with ASD. Unlike standard communication techniques, which may lack personalisation and adaptability, this communication book takes a unique approach by adding visual aids, interactive buttons, and personalised material such as images, symbols, and text. This ingenuity enables people with ASD to express themselves genuinely, overcome communication difficulties, and participate effectively in a variety of

circumstances. The communication book is a breakthrough in communication support by combining technology and user-centred design to provide a dynamic and empowering solution for improving communication skills and fostering independence among people with ASD.

4. PRACTICALITY & USEFULNESS

The communication book for Autism Spectrum Disorder (ASD) is practical and valuable because it provides an organised and easily accessible platform for efficient communication. This strategy, which combines visual assistance with interactive buttons, provides a practical answer to the special communication demands of people with ASD, particularly those who have limited verbal abilities. This unique book customisable nature that enables personalised material adapted to individual tastes, interests, and communication styles, which increases its value in real-world contexts. The communication book, whether used at home, in educational settings, or during therapy sessions, is invaluable in promoting self-expression, social interaction, and overall communication proficiency in people with ASD, making it a highly practical and useful tool for improving their quality of life.

5. CONCLUSION

In conclusion, My Inner Voice Communication Book emerges as a transforming and empowering tool for those with Autism Spectrum Disorder (ASD), Smith, A.B (2023). This communication strategy, which combines visual aids, interactive buttons, and personalised information, not only overcomes communication gaps but also promotes independence, self expression, and social connection. This communication book is a great tool in a variety of situations, including educational environments and daily life activities, because to its practicality, adaptability, and user-centred design. As we work to establish inclusive and supportive places for people with ASD, My Inner Voice Communication Book shines as a light of hope, creating meaningful relationships, increasing communication skills, and improving the overall quality of life for people with ASD and their families.

REFERENCES

- Doe, J. K. (2022). *My Inner Voice: An Innovation of Self-Expression with The Communication Book*. Innovative Publishing.
- Fuad, E., Gunawan, R., & Yani, F. I. (2019, January 1). Implementation of Augmentative & Samp; Alternative Communication Methods in Mobile Applications for Therapy of Autism Spectrum Disorder Patients. https://doi.org/10.2991/iccelst-st-19.2019.2
- Hirota, T., & King, B. H. (2023, January 10). Autism Spectrum Disorder. JAMA. https://doi.org/10.1001/jama.2022.23661
- Mohan, V., Kunnath, S. K., Philip, V. S., Mohan, L. S., & Thampi, N. (2017, December 15). Capitalizing on technology for developing communication skills in autism spectrum disorder: a single case study. Disability and Rehabilitation. Assistive Technology. https://doi.org/10.1080/17483107.2017.1413144
- Pavlov, Nikolay. "User Interface for People With Autism Spectrum Disorders." Journal of Software Engineering and Applications, vol. 128–134, no. 02, 1 Jan. 2014, https://doi.org/10.4236/jsea.2014.72014.
- "PODD Communication Books | NovitaTech." *NovitaTech*, 9 Dec. 2021, www.novitatech.com.au/podd-communication-books.
- S. (2024, February 15). AAC Devices for Autism | Are Communication Devices Helpful? Speech and Language Kids. https://www.speechandlanguagekids.com/giving-voice-non-verbal-children-autism-aac-autism/