

**12 JUNE '24** Dewan Taming Sari, Universiti Teknologi MARA Caw. Melaka, Kampus Alor Gajah, Melaka

"Empowerment of Special Meeds through Invention & Innovation"

# 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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#### **PUBLISHED BY:**

UiTM Cawangan Melaka KM26 Jalan Lendu, 78000 Alor Gajah Melaka Bandaraya Bersejarah Tel: +606-5582094 / 2190 / 2113 eISBN: 978-967-2846-81-9

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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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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**

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PROGRAM BOOK, ABSTRACT &	DR MAIMUNAH JOHARI
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	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**

- 1. 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;
- 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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#### Job Finding Application for The Autism People

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#### Abstract

This is a mobile application project designed to assist autistic spectrum focusing on finding job in online platform which suitable with their condition. It might be difficult for any of candidate to hunting job but those with autism may have particular struggles even more due to their condition. We also saw prejudice and stigma from environment workplace as a barrier. Regrettably, there are still prejudices and stigmas associated with autism in some settings, which may make it difficult for affected individuals to find employment. The core function of the application is to help autism candidate to success in job search attempts. This function is more commonly known as job searching and friendly user for disabled people. Developing this mobile application job also may involves a collaboration with another company like Indeed where as we added shortcut in that application for disabled people such as autism. With a unique 'TalkBack-To-Apply' interface, our app brings a fresh approach to job hunting, streamlining the process and increasing disabled candidate engagement. Besides the Talkback mode software built-in in every types of phone will be involved in the making of this mobile application job which include voice recognition will helping people with hearing impairement without a need to use keyboard, The idea of this application may using Canva as our idea method projecting. An android device will be used for testing the application constantly. While initially targeting the mobile application development field, the concept can be expanded to other industries and professions. The underlying principles of accessibility and inclusivity can be applied to various job sectors, increasing the application's versatility and market potential.

#### Keywords: Autistic, Job searching Voice recognition, Online Job

#### 1. INTRODUCTION

Introduced here is "WithoutLimits" which are a cutting-edge tool created to assist people on the autistic spectrum in finding fulfilling online job opportunities. It can be difficult for anyone to navigate the complexity of job searching, but those with autism may have particular difficulties too. By offering specialised assistance and tools to enable users to successfully market their abilities and land jobs in a welcoming and encouraging atmosphere, "WithoutLimits" aims to close that gap.

"WithoutLimits" gives people on the autism spectrum a necessary lifeline in a fast-changing labour market where online platforms are crucial to recruiting, enabling them to realise their full potential and succeed in the profession.

#### 2. OBJECTIVE

The WithoutLimits app aims to make sure that this job-seeking application is beneficial in some ways for people with autisms, as they too, deserve the opportunities to get hired for jobs despite their disabilities. This application provides a better designs than many other applications such as it will be in a sensory-friendly design, to avoid from overstimulating the autistic people. This application also aims to prioritize the comfort and needs of these people, over anything else. By creating this application, we can show that we support this community and equality for them all, despite the limitations that they have compared to normal people.

#### 3. NOVELTY & INVENTIVENESS

The WithoutLimits system was created to support the individuality of Malaysians with autism who aspire to lead normal lives, including working and attending regular jobs.

By teaming up with the Indeed app, this system hopes to take part in events that highlight the importance of disability rights and accessibility in order to bring attention to the problem and encourage constructive change.

This smartphone app features a user-friendly interface for autism candidates, which is an innovative approach to creating a user interface that is friendly and accessible for people with

autism. This goes above and beyond simple accessibility features to make sure that the interactions and design of the app suit the requirements and preferences of its intended user base.

#### 4. PRACTICALITY & USEFULNESS

It is anticipated that this WithoutLimits system will be of help to those with autism. This is due to the fact that the software that is now available online is frequently geared toward typically developing individuals, without providing opportunities for individuals with autism to improve themselves.

The Job Search Filters feature of this mobile app simplifies and improves practicality by implementing advanced search filters that are specifically designed to meet the needs of candidates with autism. These filters include options for remote employment, flexible scheduling, and sensory-friendly environments.

It also offers resume assistance, which helps users build and submit resumes that are customised to their experiences and skills. This helps users get past technical obstacles and enhances the chance that their applications will be accepted.

#### 5. CONCLUSION

By applying interface of 'TalkBack-To-Apply' it is definitely giving a ray journey towards austism people in order to live like a normal person despite their barrier. WithoutLimits give a benefits not just towards the company but moreover to the community as it serves as a an mobile application job opportunites to designed to assist autistic spectrum focusing on finding job in online platform. WithoutLimits also provides a job mobile application that is simple, easy-to-use, practical and autistic-friendly.

#### REFERENCES

*Tips for autistic job seekers to find the right job* | *Autism Speaks*. (n.d.). Autism Speaks. <u>https://www.autismspeaks.org/blog/tips-autistic-job-seekers-find-right-job</u>