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"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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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.

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Thank you.

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	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

- 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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GlitzGlam Makeup Brush

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Abstract

GlitzGlam presents an innovative cosmetics brush range designed exclusively for people with disabilities with the goal of enhancing accessibility and inclusivity in daily beauty regimens. These cosmetic tools are made to make applying makeup easier, especially for those with special needs, encouraging self- confidence and independence. Ergonomic handles, magnetic attachments, textured grips, adjustable lengths, configurable brush sets, and braille labeling are just a few of the creative features that guarantee accessibility and convenience of use. For individuals with special needs, GlitzGlam's brush set—which combined functions for blusher, foundation, and eyeshadow brushes—is a vital tool that helps them look and feel more like professionals. GlitzGlam is transforming the beauty market by emphasizing inclusivity and accessibility. This is enabling everyone to express themselves creatively and confidently via cosmetics, thereby creating a more varied and equitable industry.

Keywords: makeup, brushes, special needs, self-confidence, braille labels beauty industry.

1. INTRODUCTION

GlitzGlam is a useful tool for people with special needs who are having a makeup routine as part of their daily life activity. The objective of GlamGlitz makeup tools is to help people in having great self appearances throughout their day. Despite doing makeup may be hard for some people especially those with special needs, GlitzGlam comes up with makeup tools that are easier to use and flexible equipped with braille label to ease them to identify the products. With GlitzGlam, allow everyone able to create a perfect makeup look daily.

2. OBJECTIVE

GlitzGlam beauty brushes products developed to assist individual with special needs to apply their make-up in daily basis. GlitzGlam beauty brushes aims to make the beauty business more inclusive and accessible to people of all diversities. Makeup tools should be designed, manufactured, and promoted to suit a wide range of physical limitations, allowing everyone to engage in self- care and beauty routines.

3. NOVELTY & INVENTIVENESS

GlitzGlam beauty brushes was designed with a novel and inventive feature for people with special needs involves considering various factors such as accessibility, ease of use, and functionality. Among the unique features that are special need friendly is ergonomic handles can create makeup brush handles with ergonomic grips that are easy to hold for individuals with limited dexterity or strength in their hands. Next, the magnetic attachment develops a system where makeup brush heads can be easily attached and detached from the handle using magnets, making it effortless for users with mobility challenges. Design brushes with adjustable lengths to accommodate different needs and preferences, allowing users to customize the handle length for optimal comfort and control. Other than that, textured grips on the handles provide better traction and prevent slipping, particularly beneficial for users with motor control issues. GlitzGlam also offers customizable brush sets offer where users can choose specific brushes based on their needs and abilities, promoting inclusivity and personalization. Finally, braille labels on brush handles to provide accessibility for users with visual impairments, allowing them to identify each brush easily. By incorporating these features and considering the diverse needs of individuals with disabilities, we can create innovative and inclusive makeup brushes that enhance their beauty routines and overall experience.

4. **PRACTICALITY & USEFULNESS**

GlitzGlam came in a set of 3 brushes rather than other brushes that were sold separately. It helps users with special needs to save their time and helps them to finish makeup with the same result as other people. GlitzGlam comes with different functions of brushes for eyeshadow, foundation and blusher. Our brushes were built with ergonomic handles that are easier to grip and ideal for people with disabilities. The improvement of grip and control can help them to get more precise application of makeup. It can make them feel more confident in their ability to apply makeup and enhance overall self- esteem. By creating brushes that are easier to use, these brushes can maintain their sense of independence in their daily routine and makeup application. It might seem like a simple product, but it does have a huge impact on people with disabilities.

5. CONCLUSION

In conclusion, cosmetic brushes made especially for those with disabilities are essential for encouraging accessibility and diversity in the beauty industry. With characteristics like adjustable handles, flexible designs, and different textures, these speciality brushes enable people with different requirements to express themselves more freely and self-assuredly via makeup. Prioritising inclusivity and accessibility helps cosmetics designers and brands create a more diverse and equal beauty industry that encourages everyone to express themselves creatively and freely.

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