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VIRTUAL-MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION

ROAD TO COMMERCIALISATION

**V-MIEX BOOK**



# V - MIIEX BOOK

## 'ROAD TO COMMERCIALISATION'

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# FOREWORD

ASSOC. PROF TS. DR MOHD RASDI ZAINI  
Rector  
Universiti Teknologi MARA (UiTM) Cawangan Melaka



Welcome to Virtual-Melaka International Intellectual Exposition 2022 (V-MIIEEX 2022). It is an honour for me on behalf of UiTM Melaka Branch to thank all of you for joining the programme and we are proud to inform you that this is the 12th year consecutively, UiTM Melaka Branch is organizing this exposition.

V-MIIEEX 2022 is a platform to improve the commercialization collaboration among industries and communities and at the same time, we also give the opportunity to academicians and students to share ideas and increase their potential innovation products with the industries and communities through their projects. This exposition also serves as a platform to cultivate and upload the nation's innovation culture by presenting new ideas and research by young people, especially from academia, universities, college, high schools, and primary school students.

The economy and development of the country faced a challenging phase in 2021 due to the Covid-19 pandemic. We faced changes in business, education, society, and lifestyle. However, the pandemic proved to be a blessing in disguise as it somehow gave people ideas which would be beneficial to improve their lifestyle and solve problems that might occur in the future. Besides, 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 the "Research, Innovation and Commercialization", this exhibition is organized to encourage more commercialization of products that are beneficial to scholars, industries, and communities to tackle such issues to improve our present and future life.

Since 2009, UiTM Melaka Branch has successfully become the organizer for this innovation exposition. We are not only successful in organizing the exposition, but I would proudly say that we have also successfully embarked on commercialized products. With the number of participants for this year's exhibition, we believe that more commercialized products will be produced in line with the theme for this year, "Road to Commercialisation".

This exposition would never happen without dedication, teamwork, and commitment. A round of applause should be given to the committee teams as 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.



**DR. NUR HAYATI BINTI ABD RAHMAN**  
Deputy Rector Research & Industrial Linkages  
Universiti Teknologi MARA (UiTM) Cawangan Melaka

It is a great pleasure to welcome all the participants and presenters to the Virtual Melaka International Intellectual Exposition (VMIIEX 22). I am delighted that through this periodic event, we managed to bring together scholars and professionals from various fields to engage through this virtual platform where ideas and breakthrough are discovered and leveraged for commercialization potential.

Since 2009 UiTM Cawangan Melaka has held twelve Invention and Innovation Design competitions and this year we are very honoured to have the second year of VMIIEX organized in digital platform. This has proven that despite the global challenges due to the recent pandemic, it is never an issue for UiTM Melaka to continuously organize this yearly prestigious event and to support the ministry's aspiration in leveraging creativity and innovation in the new norm.

VMIIEX 22 is organized with no sole objectives of accomplishing the University's KPI but instead we are determined to make this programme as the place to help heighten commercialization collaboration in research and innovation with the industry and community through joint exhibitions from various external organizations.

Our aspiration is to also provide exposure and opportunities to academic staff as well as students from public and private universities to engage in direct excellent scholarly activities with the industry and community through activities that can be measured and assessed. As for the Research and Industrial Linkages Office of UiTM Melaka, this exhibition is seen as the platform that can encourage active collaboration and knowledge transfer with industries; objectively to support various activities that will benefit all stakeholders from the various government agencies, local and international universities, industries and communities.

Through the theme of "Road to Commercialization" this year, V-MIIEX 22 is committed to have this event as a boulevard to inspire and cultivate creativity and innovation to the numerous levels of inventors through exposure on latest technologies, astonishing ideas and creative designs with great potential to be commercialized. For this year, we proudly introduce a special category which is the "Endemic Challenge" as the provision to the government of Malaysia's goal of moving towards the endemic.

To ensure that the competing products in this exhibition is not exclusively for the purpose of competition, V-MIIEX 22 is dedicated for the commercialization of highly potential innovation products, which is attained through its active collaboration with tailored needs industries. The commercialization effort was not for income generation purpose only but it aimed to spearhead the development of quality products in line with industrial needs and community benefit.

Therefore, it is a great honour for me on behalf of the Research and Industrial Linkages Office as well as the organizing committee to have all participants in this competition and I would like to express my highest gratitude especially to the Rector of UiTM Melaka and all strategic partners and sponsors for supporting the event.

To finish, I sincerely wish VMIIEX 22 a remarkable success. I believe that this will not be the only collaboration between UiTM Melaka and the respective partners and linkages, but a beginning of a long and fruitful cooperation in future.

Thank you very much.

*road to commercialisation...*

**WAN HASMAT WAN HASAN**  
Project Director V-MIIEEX 2022  
Universiti Teknologi MARA (UiTM) Cawangan Melaka



Assalamualaikum and Warmest Greetings.

It gives me an enormous pleasure, on behalf of the organizing committee to welcome all participants and presenters to the Virtual -Melaka International Intellectual Exposition 2022 (VMIIEX '22) with the theme "Road to Commercialisation". We are honoured and glad to welcome all participants to this biennial event.

This is the second time that we have organized this biennial event virtually. V-MIIEEX 22 is an innovation competition, in which, innovation products, ideas and systems related to various science and technological fields are exhibited as a solution for the presented problems.

V-MIIEEX22 expectantly will be a platform that gathers experts from academies, scientists, and researchers, locally and internationally, to contribute towards the growth of scientific and technological knowledge in each participant's specialisation and expertise.

The competition also serves as a platform to give fresh exposure to the various level of inventors, as well as to encourage the culture of innovation design focused on latest technologies and related to new norms technologies and inventions due to COVID-19.

V-MIIEEX 22 is also hoped to be an avenue for gathering and disseminating the latest knowledge on ideas and acquisition of innovation among the participants. It is hoped that the competition will be able to open the mind of the participants towards latest technologies and design. It is also in line with the government's aspiration to encourage innovation activities in Malaysia.

As a final note, I would like to congratulate my fellow committee members for their tremendous effort, which have been critical to the event's success. In addition, I would like to thank our co-organizer, event sponsors and supporters. Optimistically, we wish that all new knowledge that is discovered, invented, or innovated will drive towards our future sustainability.

Thank you.

# ABOUT V-MIIEEX

The world after COVID-19 is unlikely to return to the world that was. Despite the challenging pace during the pandemic, the strong rebound is expecting in this exciting year 2022. Malaysia is welcoming the great prospects ahead with positive impact on the country's economy and development. Hence, the hope for greater opportunities motivates for more creative thinkers to come up with innovative ideas that can be put forward to be harnessed to overcome similar problems in the future. V-MIIEEx 2022 is one of these platforms which contribute relevant ideas that could help communities of all walks of life cope with this pandemic.

UiTM has identified research, innovation, and commercialization to be among the core components and strategic effort towards becoming a well-known and prominent university. Aside from realizing this goal, with these components and efforts, fostering the development of knowledge, generating financial stability of the university, and producing knowledgeable academicians are also potentially achievable.

By having invention and innovation competition yearly, UiTM Cawangan Melaka is confident that it could further enhance creative and innovative abilities among staff and students. In support of the government notion which upholds the importance of innovation, UiTM Cawangan Melaka has taken the initiative of organising the Virtual Melaka International Intellectual Exposition (V-MIIEEx).

In instigating and nurturing the continuous culture of inventing and innovating, this event is an ideal platform for lecturers, administrative staff, students, and the public to showcase and commercialize their products or prototypes as well as novel ideas. The first IID which was held nationally in UiTM Cawangan Melaka in 2009, has successfully gathered and displayed more than 37 inventions and innovations. Accordingly, to continue this strong passion towards inventing and innovating, the IID competition should be continued and celebrated.

With that, the Division of Research and Industrial Linkages will be organising its 12th IID competition, the Virtual - Melaka International Intellectual Exposition (V-MIIEEx 2022) with the theme, 'Road To Commercialisation'. V-MIIEEx 2022 hopes to welcome 200 competing products to be showcased and commercialized, at the same time, attract attention of related and matching industry.

## Objectives

1. Encourage and instill 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 skillful 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.

# **DRYER LAUNDRY BAG: KANSO BAG**

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## **Abstract**

The term kanso originated from a Japanese word which simply means dryness. Portability and hygiene are solely focused in the work of designing the Kanso Bag. Travellers, specifically beach goers and other water activity enthusiasts, are the targeted market for this invention. This group would be the most likely to have problem of clothes with a damp smell and this invention could assist to avoid it as well as enhance the vacation experience. Heat is a necessary element in order to dry and eliminate the damp smell from damp clothes. Thus, the heater placed in the bag will play its role by spreading heat evenly with the damp clothes sealed in the bag to trap the heat to make the drying process more effective. The interior of the bag is made from heat reflector material to enhance the efficiency. Unfortunately, this laundry bag cannot accommodate the amount of clothes as the dryer does. Since portability is the main focus of this invention, the size of the bag is designed to be 32cm x 25cm with the purpose to make the heat travel faster. The time consumption for the process of drying the damp clothes would take up to 15 minutes to make approximately 10-12 damp clothes completely dry. The compact design suits potential customers' demand and people from the income group above the B40 are willing to spend money because of the stereotype toward the exclusive items and more particular in hygiene standards. However, this innovative product has many advantages to the travellers in managing clothing as well as improving the vacation experience.

Keywords: Portability, dryer laundry bag, damp smells, water activities, hygiene.

## **1. INTRODUCTION**

The World Health Organization (WHO) defines hygiene by referring it to conditions and practices that help to maintain health and prevent the spread of diseases. Personal hygiene refers to maintaining the body's cleanliness. According to the United Nation (2020), tourism has been dramatically affected by COVID-19. Everyone knows how serious COVID-19 can affect one's health. The movement of people, including tourists, has contributed to the spread of the virus, at great cost to host communities (Qiu, Park, Li, & Song, 2020). For the tourism sector to recover, it must focus on health and hygiene practices to decrease potential COVID 19 infections in order to rebuild visitor trust (WTTC, 2020; Zheng, Luo, & Ritchie, 2021). That does not exclude the tourists who loved to choose beaches and islands as their destination. Therefore, tourists are actually struggling to visit the beaches and islands while maintaining the comfortability and hygiene. Laboratory tests were made and found out the survival of severe acute respiratory syndrome coronavirus (SARS-CoV) on cotton was up to 24 hours (Mary Y. Y. Lai, Peter K. C. Cheng, Wilina W. L. Lim, 2005).

## **2. OBJECTIVE**

Kanso Bag aims to provide travellers with a comfortable and resting environment that suits travellers' desires during the vacation. It helps to dry the wet clothes of the traveller after the water activities, and it would avoid the clothes turning to a damp smell and fungus growth. This drying laundry bag also provides a hygiene guarantee of the clothes. This Kanso Bag is reusable which can be reused many times compared to single-use laundry bags or plastic shopping bags that would harm the environment through pollution and it takes many years to decompose whereby using the Kanso Bag it create awareness of eco-friendly and it would encourage travellers to build a green tourism environment.

## **3. NOVELTY & INVENTIVENESS**

Kanso Bag was designed especially for beach goers and travellers who like to do water activities during their trips. The laundry bag is odourless and designed with a fan heater for drying wet clothes. After having fun in playing water activities, of course the clothes that they wear become wet and at the same time, they do not have enough time for drying it. In Malaysia, people who visit beaches and who do water activities usually bring some plastic bags to keep their wet clothes. But this action will make the dump clothes dirtier and have a bad smell. Besides that, dumping the clothes will make the fungus grow which can be visible on the clothes and it will make the beautiful clothes become bad. Having the odourless laundry bag with a drying function will make the trips devoid from any worries and the hygiene is guaranteed.

## **4. ORIGINALITY**

Kanso Bag was inspired by the existing laundry bag that is already in the marketplace which stores dirty clothes. The existing laundry bag has less function which only stores clothes and sometimes makes the clothes smell. In response to this issue, Kanso Bag was created with high quality functions where it is odourless and can dry wet clothes. Compared to the existing laundry bag the design of Kanso Bag is more exclusive due to the traditional motif of Batik pattern that highlights the Malaysian identity, and it is more fashionable rather than plastic shopping bags that are usually used by people to store their wet clothes during vacation.

## **5. PRACTICALITY & USEFULNESS**

Kanso Bag was created for travellers, specifically beach goers and other water activity enthusiasts who are facing the problem of wet clothes that turn to damp smell after arriving at home. Kanso Bag is basically a drying laundry bag that contains a portable dryer that would help to dry the wet clothes of the traveller after water activities, and it would avoid the clothes turning to a damp smell and the growth of fungus.

## **6. CONCLUSION**

To conclude, Kanso Bag is a drying laundry bag that would help the travellers to improve the hygiene practices during travelling period. An increasing knowledge of the climate around the world has opened new market opportunities. Besides, with a similar feature with other laundry in the markets, Kanso Bag is an ideal alternative in the sense of environmental



sustainability rather than using plastic shopping bags for storing wet clothes.

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