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VIRTUAL-MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION

ROAD TO COMMERCIALISATION

V-MIEX BOOK



V - MIIEX BOOK

'ROAD TO COMMERCIALISATION'

EDITORS AND COMPILERS:

Dr. Nur Hayati Abd Rahman
Dr Syukri Abdullah
Wan Hasmat Wan Hasan
Aini Qamariah Mohd Yusof
Norazlan Anual
Dr. Khairunnisa Abd Samad
Nordianah Jusoh @ Hussain
Rozana Othman
Norlela Abas
Azira Rahim

COVER DESIGN:

Adi Hakim Talib

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Division of Research and Industrial Linkages
UiTM Cawangan Melaka
KM26 Jalan Lendu,
78000 Alor Gajah, Melaka
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Email: miixuitm@gmail.com
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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.

FOREWORD



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.

DUO' FLUX

Anis Maisarah Jafri¹, Nornazuwah Amat², Nuranis Syamira Zulhisham³, Nurul Izzah Mohd Amin⁴, Noorain Mohd Nordin⁵

^{1, 2, 3, 4, 5} Faculty of Business and Management, UiTM Cawangan Melaka, Kampus Bandaraya Melaka

2020856066@student.uitm.edu.my

Abstract

The Duo' Flux is a kind of double pipe, and it is very uncommon in Malaysia since we are not used to seeing water soap that can flow through the water tap. Usually, it will always water tank separately with the soap on any occasion. However, it can be difficult when the soap is not provided. So, people don't have any other option instead of washing their hands using water only. With the Duo' Flux, this product will help people wash their hands on any occasion more easily. Duo' Flux is an innovation that we designed to educate consumers to put a value on hygiene practices themselves. Besides that, one of our objectives is the consumers can wash their hands without traces of oil and odor, especially on special occasions. The Duo' Flux is an innovation that combines two pipes where one pipe will flow the clean water whereas another pipe will flow the soap water, and it will have the labeling of "water" and "soap" to make them different. This double pipe with soap is convenient for consumers because it can be attached to the existing water tank and easily removed. Then, one of Duo' Flux's unique features is a soap container that can be filled and refilled with liquid soap when it has been used up. With the Duo' Flux innovation, there is no problem with soap forgotten to be provided. Our company also intends to patent Duo' Flux under the Intellectual Property Corporation of Malaysia.

Keywords: Double pipe, Washing hand, Soap, Water

1. INTRODUCTION

Hand washing is an essential method for eliminating or decreasing germs from the hands. As a result, the risk of these bacteria being transmitted directly to others or to surfaces where they can be taken up by others is reduced. Washing hands helps reduce the chance of transmitting infectious pathogens to one's self. Infection control relies heavily on hand cleanliness. It is regarded as the most significant method of infection prevention. Many illnesses are spread through personal touch. Infectious diarrhea, the flu, the common cold, and several intestinal illnesses are among the most frequent diseases transferred by hand-to-hand contact. This can affect people who are more vulnerable to infectious diseases such as those with reduced defences including the elderly or even very young children. Other consequences of not washing the hands or improper washing of hands include food-related illnesses for example E.coli infection or salmonella. These conditions can also lead to intestinal problems which can cause vomiting and diarrhea. To prevent contamination, good hand washing techniques must be practised. Hands should be washed under running water, using a single dose of liquid soap, vigorously rubbed together for 10-15 seconds, rinsed thoroughly under running water and dried with a disposable paper towel. However, we usually encounter a problem when we want to wash our hands at a public event. The organizers always overlooked providing soap in the handwashing place because they underestimated the importance of handwashing. Therefore, people only wash their hands using water which in fact the germs from their hands are not

removed even though their hands look clean.

2. OBJECTIVE

Duo Flux's major objective is to guarantee that anyone attending a special event can wash their hands without leaving an oil stain or odor from meals. Not only that, but this product also encourages users to prioritize personal cleanliness. This is because, Duo Flux is an innovative double pipe that comes with soap, which is a combination of two pipes, one of which drains clean water and the other of which drains soap water.

3. NOVELTY & INVENTIVENESS

The novelty of The Duo' Flux is its water tap innovation. The product is not like the usual water tap because it has two water taps with different functions, one to flow the clean water while the other one to flow soap water. The Duo' Flux will provide convenience to people who organize any program because they only need to provide this product for people to wash their hands easily. Also, everyone who uses The Duo' Flux can save space because both water and soap taps were attached to the water tank.

4. PRACTICALITY & USEFULNESS

Duo' Flux is the combination of two water taps where one water tap above will flow the clean water whereas another water tap below will flow soap water. The idea to create this product came off when, on every occasion, it will always have a water tank and soap in its own container, they did not come together. As a result, consumers may find it difficult because soap is not provided, and they choose to simply wash their hands with water, leaving the odor of food on their hands. With the Duo' Flux, it can help people wash their hands on any occasion, especially in the rural area where there is no soap provided with a water tank to wash their hands. This double pipe with soap is designed where it can be installed to the existing water tank and it can also be removed easily. It also has a soap container where it can be filled with liquid soap and it also can be refilled when it has been used up.

5. CONCLUSION

The Duo' Flux was innovated to help solve people's problems when washing their hands, especially when attending any occasions. In addition, it is convenient to use since this double pipe with soap can easily be attached and removed from the water tank. The innovation of a double pipe that combines water and soap will make it easier for consumers to wash their hands and solve their problems without traces of oil and odor. As an innovative product, the Duo' Flux has market potential in local markets. The Duo' Flux will be sold at an affordable price to the customers, and it will be commercialised in the future.