



UNIVERSITI
TEKNOLOGI
MARA

Universiti Melaka

V-MIEX

28 JUNE
06 JULY
2022

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

PUBLISHED BY:

Division of Research and Industrial Linkages
UiTM Cawangan Melaka
KM26 Jalan Lendu,
78000 Alor Gajah, Melaka
Tel: +606-5582094 / +0606-5582190 / +606-5582113
Email: miixuitm@gmail.com
Website: <https://www.miiex.my/>
ISBN: 978-967-2846-04-8

All right reserved. No parts of this publication may be produces, stored in retrieval system or transmitted in any form by any means, electronic, mechanical, photocopying, recording, or otherwise without permission of the copyright holder.

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.

BRAINY WALLET

Sakinah Amran¹, Siti Nur Amirah Schaharum², Nurathasha Mislan³, Hazimah Azmi⁴,
Fadzlinda Fasya Ahmad Faizul⁵, Zainah Jalil⁶

University Technology Mara (UiTM) Campus Bandaraya Melaka, Malaysia

sakinahamran00@gmail.com

Abstract

A wallet is one of the important basic things that are still needed and useful by people in the world even though nowadays, the digital wallet (e-wallet) is being introduced and getting popular. Wallets are also an expression of who we are and because of that, people have to choose the best wallet to be use in their daily life and can reduce the problem that always experienced by the users such as (1) misplacement of important things that commonly happen especially among elderly people. Normally, this kind of situation always happen to the senior citizen that hardly remember where they put their important belonging such as wallet and spectacles. (2) Other than that, robbery of wallet cases also keeps increasing through the years. (3)Next, preferable of people nowadays which is minimalist look. Hence, RockSolid.Co has introduced and has made an innovation on the existing wallet in the market that will give more than one benefits to all the user of wallet and named as 'Brainy Wallet'. Innovation of wallet that we have design is by (i) adding the smartphone compartment in the wallet to make it easier for users to bring their smartphones without need to bring along their handbags so that we can decrease the rate of robbery of handbag and can lead users to have minimalist style. Moreover, in order to solve the misplaced wallet problem and the important document in the wallet, RockSolid.Co have redesigned a wallet by (ii) adding it with a Bluetooth tracker that can track the current location of the wallet when it is missing. Overall, Brainy Wallet is suitable for all people and gender since it has a minimalist looks and convenient to carry because of spacious compartment to put their personal important items and come with built-in charger that can easier for people since they did not have to bring along a power bank when they going out . RockSolid.Co believes that this innovation of product will be recognize by our potential customers, and stand out than other competitors and we hope we can be successful in domestic also in the foreign market.

Keywords: Brainy wallet, innovation, tracker, minimalist, spacious

1. INTRODUCTION

Wallets are essential for everyone, even though nowadays digital wallet (e-wallet) had been introduced and become popular, physical wallets are still in use today, and we can see that. Jack Canfield, a popular American motivational speaker once said that "carry your most important goal in your wallet", this quote shows how much important a wallet is to someone's life. Hence, it is important for us to have and choose the best wallet because in the wallet we usually put money, identification card, bank card and others. Wallet also shows someone image. As the technology changes, wallet should be developed and improved in terms of its designs, functionality and materials that fits with nowadays trends and at the same time also to overcome the problems the most people facing with in using wallets such as, (1)

Misplacement of important things that commonly happens especially among elderly people, (2) Robbery of wallet that keeps increasing through the years and (3) Preferable of people nowadays which is minimalist looks. Thus, due to such problems, Rocksolid Co. is introduced 'Brainy Wallet' which has many advantages that follow today's technology. This new product has come out with many compartments yet it still sized like a normal wallet and built-in with a charger and Bluetooth tracker for safety.

2. OBJECTIVE

Brainy Wallet with charging port, a tracker and smartphone compartment aims to help people to protect their important belongings to ensure they can go out safely without need to worry about their belongings. It could help people to feel safe, looks classy and convenient to carry their belongings.

3. NOVELTY & INVENTIVENESS

Brainy Wallet is different from the existing wallet in the market. Features that are being added up to the existence wallet are Bluetooth connection as a tracker, *smartphone compartment and a charging port*. Brainy wallet measure 6 inches in height and 3 in width. The capacious size of this wallet can accommodate every personal item that is usually bound to be misplaced. This wallet's general classiness and elegance will bring a sense of luxury to the owners, regardless of genders. Additionally, it is designed with much durable materials that will not be as affected by wear and tear as any other wallets and purses out there. Brainy wallets have a dedicated compartment for smartphones with transparent window display that still allows use of touchscreen function. This way, customers do not need to take out their phones every time they need to use them even for a short moment. To ensure a longer lasting use of these wallets, we have built them as rechargeable products, which is also better for the environment. Naturally, every purchase of Brainy wallet will come with one (1) USB charging cable in the package.

4. PRACTICALITY & USEFULNESS

Brainy wallet is the best smart wallets because it has many benefits in reasonable cost. By using this smart wallet, we will make sure people will not tend to forget where they put their wallets. Brainy wallets give a solution with a Bluetooth as the tracker to make sure the users easy to locate their belongings. Our company has created a product that is able to detect the current location of the product in case robbery occurred. As a result, the users can detect where their wallet as a safety tool. Besides, our brainy wallet also has the availability of smartphone compartment. As we know, people nowadays prefer more design in a product and minimalist look. It is convenient to carry around their smartphone by putting it in their wallet. Brainy wallet is the great high-quality wallet that people can get with the cheapest price. The user-friendly, Bluetooth function and provided charger make it suitable for all ages and any gender.

5. CONCLUSION

Given the various practicalities and benefits of Brainy wallet, the production of this innovative product will not only bring solutions to an everyday problem, but it simultaneously delivers a great end-user experience. Although this wallet innovation may face a slight difficulty in market entry due to its novelty concept and price accessibility, RockSolid.co is highly

optimistic that it will gain its much deserved acclamation and recognition from consumers. In addition, we are positive that our product will serve its utmost purpose as intended in the objectives.

REFERENCES

Jack Canfield. (n.d.). AZQuotes.com. Retrieved June 01, 2022, from AZQuotes.com Web site: <https://www.azquotes.com/quote/503821>