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V-MIEX

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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
Tel: +606-5582094 / +0606-5582190 / +606-5582113
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.

Multipurpose Stick

Nurjannahtul Bahirah Binti Bidin¹, Nur Faqihah Binti Abdullah², Muhammad Shahrul Nizam Bin Mohamad Zuki³, Nur Aishaniny Binti Afandy⁴, Nurul Anisa Nursyahadah Binti Hamiszul⁵ Norshiba Binti Norhisham⁶

Faculty of Hotel and Tourism Management, UiTM Cawangan Melaka, Kampus Bandaraya Melaka

Akiraleea0309@gmail.com

Abstract

Multipurpose stick by 4nction.co is a stick designed to help elderly people. This stick was designed to help old people by having a few functions on the stick. We offer a new concept for an old people walking stick that can be used for safety and navigation in this study. The GPS tracker, compass, torch light, and self-defence alarm are all included in this product set. The old people frequently use walking sticks to relieve discomfort and improve stability and balance. Every feature on this multipurpose stick is quite useful when you have a difficulty, such as tracking the direction. It can also be used at night and is highly portable. Next, this multipurpose stick has a GPS tracker that can also solve some problem that usually faced by the senior citizen such as missing people can be happening as certain senior citizen experience disease like Alzheimer also Dementia so this stick will be a great help for the family. Besides, this multipurpose stick is also equipped with a torchlight that can contribute a lot whenever the old people want to take a walk at night. Furthermore, this multipurpose stick by 4nction.co is equipped with self-defence alarm that can help notify people nearby if the senior citizen is in a dangerous situation. Lastly, this multipurpose stick is designed with a compass that can help with a direction. Because the components utilised by 4nction.co are of high quality, this multipurpose stick is affordable and worth the price. In addition, this multipurpose stick should be a compulsory product for every senior citizen living in Malaysia as it can solve many problems faced by them.

Keyword: Multipurpose stick, elderly, safety, affordable

1. INTRODUCTION

4nction.co is the name of our company. On March 12, 2017, 4nction.co was launched. Our company is based in Melaka's Bandar Baru Merlimau. Our primary activity is the manufacture and distribution of multipurpose sticks. The multipurpose stick is our signature product because it is the first thing that people think of when they think of our brand. We regard our company's business to be a retail one, in which we sell multipurpose sticks directly to customers. We employed methods like social media, direct selling, and the website as a platform to publicise our goods, whether in our local area or throughout the world, to boost our company's marketing operations.

2. OBJECTIVE

The development of 'Multipurpose stick' aims to assist especially for senior citizens. Other

than that, it also suitable for elderly people. This stick provides a few safety tools such as torch light, compass, GPS tracker and self-defence alarm. Eventually, this product will help our lives became easier. Furthermore, this multipurpose stick could guide people to help them in their daily lives such as A mini-torch light system is integrated in the new walking-stick's front face of handgrip with switch arrangement for on and off. In addition, A magnetic compass is included on the top of the rubberized handgrip to let the users know the direction especially while doing exercises. Besides, it also can be used as a "Qibla" finder. Meanwhile, our stick also provides GPS tracker for enable the family to being update about the elderly whereabouts. Also, two short supportive legs were proposed for the designed stick at the bottom to make it stand, because keeping in a slant position will balance the weight of the stick. Finally, self-defence alarm. It is very useful when the elderly is alone and feel threatened as the alarm will attract people nearby. This product believed to make people feel comfortable to through their daily lives.

3. NOVELTY AND INOVATIVENESS

The novelty of the multipurpose stick focuses on elderly people because it is made easier to them when using it. For example, the multi-purpose stick is quite suitable for being carried for use when an elderly person goes out for a walk. this stick provides a few things such as a compass, torchlight, GPS tracker, and self-defense alarm. this tool is very important for the elderly people as it will ensure their safety especially while walking and so on. the example, the torchlight can use at night and the self-defense alarm can use when a bad thing happens to the elderly people, the multipurpose stick can attract many people to buy it because it is very function especially to elderly people to make it simplify daily affairs in fact it also easy to carry it.

4. PRACTICALITY & USEFULNESS

This Multi-Purpose Stick is designed to assist and simplifies the elderly whenever they go for a walk or go to any place. Every feature in this Multi-Purpose Stick has its own special functionality. Firstly, we provide a GPS Tracker on this stick. The GPS Tracker is able to track where the person is and also this feature gives information to the family about the location where the elderly at. Next, it has an alarm buzzer called a self-defence alarm which is functioning as an emergency alarm, it can be used when the user needs help, but nobody is around, the user can press the light button two times. The emergency alarm button begins to attract people's attention. Moreover, we also provide the torchlight which makes it easier if the elderly to walk around dark areas. Last but not least, it also has a compass. The compass will help the elderly to find the qibla when they want to pray.

5. CONCLUSION

In a conclusion, the existence of this invention named 'Multi-Purpose Stick' will help many people out there in reducing the loss of disabled people. Family members will be able to look for their missing family members (if happen). One of the functions of this invention tends to help a family member in need to find the others if they are missing - GPS Tracker. Thus, if anything happens such as robbery or theft, this stick has a safety alarm on it that is able to attract the nearest person around. Lastly, this invention will combine important functions in daily life of disabled family members.