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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'

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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.

# Landrive

Rasyiqatul Athirah binti Azmizan<sup>1</sup>, Nurul Syaerah Ayuni binti Zolkepli<sup>2</sup>, Nurul Batrisyia binti Tamirin<sup>3</sup>, Nurul Aliah Syafiqah binti Daud<sup>4</sup>, Koe Wei Loon<sup>5</sup>

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## Abstract

In this advanced technology era, the innovation of everyday things is highly participated in. Although the existing On-The-Go (OTG) pen drives out there are able to connect with other devices such as tablets and smartphones, they only offer one type of universal serial bus (USB). *Landrive*, our product's brand name is being introduced by our company, *Gadgetegy*. *Landrive* is an On-The-Go (OTG) pen drive made with features that have four types of universal serial bus (USB); USB Type A, Micro USB, USB Type C and Lightning USB which are compatible with various gadgets such as laptop/computer, Macbook and smartphone. It is designated to be a convenient tool specifically for students and corporate workers who use lanyards in their daily lives. The lanyard can be customized with different designs and colors based on customers' requests. In addition, polyester, which is a high quality of material is being used to produce the lanyard which the user will feel comfortable wearing it around their neck. Furthermore, it can prevent misplacing and make it easy to bring it everywhere. Thus, *Landrive* is able to help users save time, space, and also the environment. Therefore it could be marketable as it is able to solve customer problems especially for busy people like students and corporate workers.

Keywords: Lanyard, Pen drive, On-The-Go, USB

## 1. INTRODUCTION

Today, USB pen drives are widely used as an intermediate tool to transfer and save the data from one device to another. USB pen drives are small and portable removable storage devices that mainly use a USB interface to connect and disconnect from any device, especially desktop computer and laptop. All of the pen drives feature are very convenient but due it comes very small in size, there is fear of misplacing the pen drive. Due to the problem, 'Landrive' is being produced to help users which always misplaced of their pen drives. The existence of a pen drive lanyard is more practical for everyone especially for students and corporate because the lanyard is detachable, which it can easily being remove it when we need to use our USB or ID card. The strap is made from polyester that will make the users neck feel more convenience even after wearing it all day. This handy lanyard includes a USB type A, Micro USB, USB type C, and Lightning USB for quick and easy document saving into different devices. It comes with a lanyard and hook to keep it from getting lost or misplaced and this is great for organizing our documents while on the go. The fact that people always keep on lanyards all the time, the misplacement issue of pen drives will decrease and it automatically turns into such a convenient product for everyone.

## 2. OBJECTIVE

*Landrive* aims to help students and workers store and manage their documents and other important files easily, which they can carry along with a lanyard. It will prevent people from

misplacing their belongings. This pen drive provides four types of USB, which are compact in one place, together with a lanyard and in a ready-to-use form that is called an on-the-go pen drive. It consists of USB Type A, Micro USB, USB type C, and Lightning USB, which are able to connect with many electronic devices.

### **3. NOVELTY & INVENTIVENESS**

The existence of the available pendrive on the go in the market helps people to keep their important data, documents, file at a safest place. However, we strive to establish new ideas, following 21st century innovation. *Landrive* is a combination between a lanyard and the pendrive. The purpose behind the innovation of this *Landrive* is to provide a convenient way for the users to store all their important data, files, documents and others in a flexible method. It is an excellent innovation in order to organize your documents while on the go. The USB of the pendrive emerges with a lanyard and hook to sustain it from getting lost or misplaced. The innovation of this *Landrive* is flexible and adjustable, where the users can pull off the pendrive from the lanyard, and simply insert the USB of the pendrive into the USB port of the laptop, computer or any other devices that are compatible with USB Type A, Micro USB, USB Type C and Lightning USB and they are ready to go. People also can easily switching the USB by sliding up or down the slider according to their preference to connect with their devices. On the other hand, the innovation of this *Landrive* is detachable, which makes it easier for the user to easily remove it when they need to use the USB or their ID card at a particular time.

### **4. PRACTICALITY & USEFULNESS**

*Landrive* is specifically made for students and corporate workers to provide ease in doing their daily tasks in school, university, college, and office. Since lanyard and pen drive is known by everyone in terms of directions to use, therefore, it is suitable for user at all range of age except kids. By using *Landrive*, people can bring it everywhere they go while at the same time wearing their student or worker identification card. It is practically useful for people who often tend to forget their belongings, especially when they are small in size. Being inseparable with something that we use and bring every day would likely prevent misplacing and losing it. *Landrive* users can easily switch their USB pen drive according to their needs as *Landrive* offers flexibility where it is compatible with various types of electronic devices such as smartphones, laptops, and computers that come from a variety of brands.

### **5. CONCLUSION**

The innovation towards existing pen drives will give useful impacts among pen drives and lanyards users specifically, students and corporate workers. It is important for them to keep their files and documents organizedly which also has easy access to any devices as *Landrive* has compatible with all devices features. *Landrive* really benefits students and workers who use lanyards in their daily lives, reducing the need to carry a pen drive and a lanyard separately as they are attached together. *Landrive* provides a customizable lanyard strap with a variety of designs and colors to suit each individual's preferences, to prove that lanyard and

pen drive will never go out of style and be considered old-fashioned products. We believe in our dedication and hard work aligning with our goal to provide ease in using electronic devices will help *Landrive* to be an ideal alternative product of pen drive in the long run, attracting people to use it and not having doubt on this small but full of potential and usefulness product known as *Landrive*.



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