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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.

e-Performance Appraisal Form (e-PAF)

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Abstract

In the industrial sector, performance appraisal is vital to evaluate an employee's performance based on how they have performed in the recent past and for superiors to provide feedback on the employee's performance in a company. According to Mayank (2020), performance evaluation aims to rate employees based on their performance over the past year. It plays a significant part in determining employee compensation, whether they are eligible for a promotion, and whether they should continue working for the firm. Yet, the more we live in a globalized world, the more proficiently we must use technology. Consequently, an increasing number of firms, both large and small, have replaced the manual evaluation form with an e appraisal form, which greatly simplifies the work of everyone, particularly the person responsible for conducting the evaluation and the employees themselves. As such our focus here is to develop a e-appraisal form to be used in a work organization. Accordingly, this study aims to present an e-appraisal innovation idea, its aims, and methods for conducting performance evaluations. This product is designed for large companies as well as for small and medium sized companies which still using manual performance appraisal forms. This e appraisal form is expected to help HR professionals, managers and supervisors to understand the idea and the most effective way to implement it.

Keywords: Employee performance, e-appraisal, performance appraisal form, performance evaluation

1. INTRODUCTION

Employee performance appraisal is a well-known organizational development method for evaluating each staff member's work performance and responsibilities and has been utilized by several businesses for centuries. The outcome of the accurate evaluation will lead the organization's initiatives to build and achieve the executive policy's objectives. This study suggests a straightforward and efficient approach for evaluating personnel and an innovation to facilitate the process for all parties. Therefore, an online employee evaluation system was designed for companies to regulate the quality of work and attract the interest of employees in evaluating their job tasks from the perspective of personal growth. This innovative e-appraisal form is meant to be versatile for evaluating all staff duties. Research shows that a systematic database makes it easier to evaluate employee performance and that managers can set goals for the organization by combining the overall evaluation results with the standard criteria for the organization.

2. OBJECTIVE

To create an effective e-appraisal form that can be used in measuring the performance of a salesperson position in a company .It is also to evaluate the performance of the salespersons with their right competencies and task specification as well as providing suggestions to improve any areas that the salespersons are lacking.

3. NOVELTY & INVENTIVENESS

This e-Performance Appraisal Form (e-PAF) comes with various unique features. It is an automatic calculation e-appraisal form. Every component is provided with a formula, and the supervisors who evaluate the performance of their subordinates do not have to calculate all the values manually. This will save time for the managers when evaluating the employees. ePerformance Appraisal Form (e-PAF) also has provided an employee database to the organization to ease managers. In this database, managers can view all employees' overall performance and compare it. This database will assist managers in decision making as the database will summarize the performance status of each employee. Employees who are detected to have low scores in the e-appraisal form will be suggested suitable training to improve their skills. This feature is also the specialities of this e-appraisal form.

4. PRACTICALITY & USEFULNESS

To the employers:

This innovation can raise awareness about the capabilities of the human capital in the organization. This is crucial because the accomplishment of tasks is driven by the effectiveness of the employers' management in every aspect. People might focus more on financial, but the employees' performance plays a vital role in an organization's success as well. Furthermore, it saves a lot of time for the employers. The managers do not have to spend lots of time writing all the details on papers for each employee in every department and level to convey the important information to their employees at work. Instead, they need to key in the data to fill all the appraisal forms. This would take lesser time to finish the process of performance appraisal. In addition, it saves paper. The e-appraisal form is created using Microsoft Excel platform and may be used by any organization. It does not have to be printed as it is accessible online by both parties, the employers and the employees.

To the employees:

All the components in the e-appraisal form has important and useful information for employees such as their strengths and weaknesses. This e-appraisal form consists of various sections. Some of them provides information about expected job standards, expected competencies, achievements and contributions and the required development activities . Thus, employees can use this valuable information to improve themselves and act according to the manager's comments. Moreover, it saves a lot of time for the employees. The practicality is no doubt because employees can easily analyze their performance by observing the diagram and rank to improve their performance in the near future. As employees always busy with their tasks and responsibilities at work to help the top-level management to achieve the organization's goals, this innovation will be very helpful to them because it does not take time for the employees to understand what they need to do to progress to the next step.