



UNIVERSITI
TEKNOLOGI
MARA

CELEBRATING
COMMERCIALISATION
YEAR 2014

iiindex 2014

AN INTERNATIONAL EXPOSITION ON RESEARCH AND INNOVATION

invention
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exposition 2014

INNOVATEUR
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2014

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DEWAN AGUNG TUANKU CANSELOR (DATC)
UNIVERSITI TEKNOLOGI MARA
MALAYSIA

*Bridging
the valley of death :
advancing the
commercialisation
of research*

RESEARCH BOOK

iiindex 2014

AN INTERNATIONAL EXPOSITION ON RESEARCH AND INNOVATION

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FOREWORD

The Honourable Minister of Science, Technology and Innovation (MOSTI) has launched 2014 as Malaysia Commercialisation Year 2014 (MCY2014) with the theme Science Technology and Innovation (STI) for Wealth Creation. In line with this theme, Invention, Innovation, Design & Exposition 2014 (iidex2014) is an annual exposition organized by UiTM and is the ultimate platform to highlight and commercialise new inventions and innovations. Researchers and inventors will exhibit their products which cater to the needs and wants of the community and the country.

The iidex2014 creates a new dimension by fusing two competitive concepts, a competition among innovative products and a competition to invite Innovateur Wannabes to perform live pitching of their products to the audience. The iidex2014 focuses on comprehensive commercialization and creating opportunities for entrepreneurs to carry out R&D as well as to provide avenue to commercialise their products. Through expositions such as iidex2014, MOSTI hopes to inculcate the culture of commercialisation of new technology designed and created by Malaysians.

I wish to congratulate all the participants of the iidex2014 and this is the opportunity for all researchers to show their ideas and exhibits their products and creativity. Apart from showcasing their products, innovators will have the opportunity to provide a window to the industry for business matching during the exposition.

Tan Sri Dato' Sri Sallehuddin Mohamed
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BONGKA (JAWI BOARD GAME)

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Nowadays, some of the student at the university cannot recognize the Jawi alphabet. Not all schools use Jawi as a core subject. The learning of Jawi should be nurtured from childhood to encourage them to take care of this art in the future. 'BONGKA' is a new instructional lesson in the form of board games that has its own identity and values. In order to uphold and preserve the teaching of Jawi, game board games can also improve the understanding and how to spell using the letters of jawi. 'BONGKA' is a combination of games available in market. It was built according to the criteria syllabus Jawi and treated as appropriate for children. This games 'Bongka understandable and appropriate played by children. Bongka game produced specifically for children aged 7 to 12 years old. In addition, Bongka Jawi is more enjoyable and convenient, friendly and entertaining for children. This entertaining learning process (fun learning) is the latest learning concept tested and evaluated as an effective method of learning and is able to help students who are weak in Jawi. 'Bongka was built by using paper material and wooden block with elements of beautiful colours to stimulate brain membranes. Material used is not harmful to children. Aside from learning about the organization, they can emphasize the word and the reading can also be improved. The uniqueness of the game 'Bongka' is it can be played by all races in Malaysia can play and make up as a third language learning. This game can be as a field to test the creativity of children in learning Jawi. Foster children's interest to recognize letters and words interested in Islamic Calligraphy Art. Helping children to spell and read Jawi correctly. It was also a new method of teaching and learning Jawi effective and fun, especially for children. The potential commercial this games 'Bongka' is one of the methods that can help teachers teach Jawi in a simple and entertaining (fun learning) way. The game is likely to provide a new attraction and impact on teaching and learning through play board games.

NEW SUITE FOR FARMERS IN THE AGRICULTURAL SECTOR

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Agricultural activity is widespread in Malaysia and increases our country's productivity. This study attempts to create a new suit specifically for those responsible to take charge of the cleanliness of the garden. The creation of this new costume is intended to enhance their work quality especially when they are undertaking their work. The main objective of the new suit is to provide comfort when they clean the garden. Furthermore, this new suit is user friendly and is suitable in our hot climate throughout the year. This new suit provides good air ventilation and is designed with a unique shape which would give a convenience to the wearer. Some of the functions of the new invention are to give flexibility in movement, lessen some burden on the shoulders and provide protection to the wearer. The new suit is created for farmers who focus on taking care of the cleanliness of the garden. It has the potential to be commercialised locally and in foreign markets like in Thailand, Philippines, Indonesia, Vietnam and all the countries in southeast Asia in experiencing hot and wet climate. Apart from that, this new creation has specific characteristics to the wearer whereby it has multi- functions in one design. In addition, this new invention has specific characteristics whereby it focuses on the safety of the wearer as it protects wearer from dangerous chemical substances and acids. It also protects skin from chemical spills. In the same time this new invention has face protector and hood. For the production of the new suit, a special cloth which is a waterproof fabric and interlay was used which gives the wearer flexibility in their movement. The Interlay consists of small holes which provide the air ventilation. So, it would give space for air to move in and out of the suit. In a nut shell, this new design for the farmer has innovative characteristics. I believe that my new design would contribute to improve productivity in the agricultural sector.