









27th - 30th APRIL 2014 **UNIVERSITI TEKNOLOGI MARA MALAYSIA** Bridging the valley of death: advancing the commercialisation of research

RESEARCH BOOK



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RESEARCH INNOVATION BUSINESS UNIT

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FOREWORD

he 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 commercial is at ion of new technology designedand 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

Pro-Chancellor, Universiti Teknologi MARA

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A CONSERVATION OF HERITAGE TIMBER BUILDING IN MALAYSIA "MASJID LAMA KAMPUNG KUALA DAL", KUALA KANGSAR, PERAK.

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The conservation of Masjid Lama Kampung Kuala Dal was done by the efforts of villagers and members of Al-Wahidiah mosque who wants to see the preservation of the mosque so that it could be passed on to future generations. Located in Mukim Padang Rengas, Kuala Kangsar, the mosque has its own uniqueness in terms of its design, architecture and natural building materials. One of the interesting elements in this mosque is the 'kelarai' woven panels made from bamboo which is used as a wall panel. The conservation of this mosque is an effort by the National Heritage Department in order to protect and preserve the heritage for next generations. Therefore, this paper aims to identify the methods and techniques that have been used for heritage building conservation. The data collection was based on conservation works that had been done at Masjid Lama Kampung Kuala Dal, Kuala Kangsar, Perak. The findings were used to provide information and guidance for heritage building conservation efforts in Malaysia. One of the uniqueness of the mosque is the materials used which are from natural wood and bamboo, thus making the mosque superior and special. Through preservation and conservation, this heritage structure can be conserved and passed down to future generations. Masjid Kampung Kuala Dal or also known as Masjid Insaniah Iskandariah is located in Kampung Kuala Dal, Padang Rengas which is about 4.8 miles from Bandar DiRaja Kuala Kangsar. The conservation project of this mosque is very interesting in terms of historical, physical and emotional value. The duration of the conservation work takes about 8 months. The building has been abandoned for many years without proper conservation work undertaken. Every action taken was done through basic procedures which are: recording the condition of every element and identify the original materials used including techniques and construction method.