

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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UNIVERSITI TEKNOLOGI MARA
MALAYSIA

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

RESEARCH BOOK

iiindex2014

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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A PROPOSAL FOR A NEW MODEL OF SHARIAH COMPLIANT HOTELS

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Halal hub is a concerted effort among Islamic countries such as halal food, halal manufactures, halal pharmaceutical, halal cosmetics, halal packaging, halal logistic products as well as halal services from all over the world. In response to the emergence of halal hub in various sectors including those in the hotel and tourism industry, it is widely acknowledged fact that the halal hotels had been recognised in many countries particularly those in the Middle East. This tremendous development in the hotel industry caused by the drastic dropped of tourists from Middle East to UK after Sept 11, 2000 tragedy thus Muslim tourists shifted to another Muslim countries including Malaysia. Given the fact the demand of Shariah Compliant Hotels is increasing, a new viable and sustainable model of Shariah Compliant Hotel must be formally designed and established. This model of Shariah Compliant Hotels is developed to fulfil the gap between an International perspective on examining the features of Shariah Compliant Hotel particularly those of the Middle East countries and the components associated with the Shariah Compliant Hotel in Malaysia. The model is designed via analysis of the literatures concerning the key components of Shariah Compliant Hotel and through a comparative analysis between the features of the existing Shariah Compliant Hotel in selected Middle East countries and Malaysia. This model is very unique in itself as it is designed as a result of harmonisation between the review of the literatures on the Shariah Compliant Hotel's characteristics with the characteristics of Shariah Compliant Hotel as practised in the Middle East countries and Malaysia through a comparative analysis. On top of that, it is further adapted to accommodate with local culture, norms and values. Given the facts that interest and demand for Shariah Compliant Hotel has already taken place in Malaysia and abroad, this new model of Shariah Compliant Hotel would serve as a basis for the hotel industry players in their quest to setting up Shariah Compliant Hotel.

A NOVEL 3D QUANTIFICATION TECHNIQUE FOR MUCOSA THICKNESS

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The mucosa varies in thickness between regions of the mouth and a two-dimensional method of measurement by selecting a few points which was commonly done in the past may seriously misrepresent the actual thickness of the mucosa. The objective of this project is to quantify the thickness of mucosa in a three-dimensional manner and to allow clear visualization of the overall thickness as well as. Cone Beam Computerized Tomography (CBCT) images were taken of the edentulous patient with denture incorporated with barium sulphate in-situ. The denture allows clear delineation of the bone and soft tissue mucosa. A 3D model of the mucosa was calculated using a medical imaging program (Mimics) and subsequently exported to 3-matics for wall thickness analysis. The outcome of this project is a novel technique to quantify mucosa thickness in three dimensions which subsequently could be used to evaluate the effect of other parameters on bone such as masticatory pressure on resorption.