

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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E-ESSENCE: ELECTRONIC EMOTIONAL AND SOCIAL SUPPORT FOR SPECIAL EDUCATIONAL NEEDS (SEN) LEARNERS' COMMUNITY IN HIGHER EDUCATION

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E-ESSENCE or Electronic Emotional and Social Support for Special Educational Needs (SEN) Learners' Community in Higher Education exemplify a component of the Model of Technology Supported Learning for SEN Learners at institutions of higher learning (IHL). The Model of Technology Supported Learning for SEN Learners was developed based on the needs and challenges faced by SEN in Malaysian IHL. Although these SEN learners receive support from their respective IHL, the support is not enough for them to sustain their life as IHL learners. Various barriers faced by SEN learners were identified in the research done by Roslinda Alias, Nor Aziah Alias and Abu Bakar Ibrahim (2014). One main barrier was lack of awareness and knowledge among the non-SEN learners and IHL staff on addressing the needs and challenges faced by SEN learners in their learning process and in their entire realm as IHL learners. Roslinda Alias et. al (2014) also found that SEN learners in Malaysian IHL felt inferior due to their conditions. This inadvertently impacted their academic performance. Thus, the Model of Technology Supported Learning for SEN Learners has been developed to address the needs and challenges faced by the SEN learners in Malaysian IHL. The model is based on two needs assessments conducted among the public and 66 SEN learners from eight Malaysian public IHL. During the needs assessments, challenges and needs of SEN learners were observed. Then, content analysis of the eight selected IHL websites was conducted as the foundation of the model prototype. The Model of Technology Supported Learning for SEN Learners was then validated by a heterogeneous group of 11 subject matter experts (SMEs) from overseas and local via the Delphi technique. Delphi technique as described by Dalkey (1967), is a "a set of procedures for eliciting and refining the opinions of a group of people" (p.1). The consensus among the SMEs was achieved at the Round Two of Delphi. This indicates that the Model of Technology Supported Learning for SEN Learners is feasible and accepted to be implemented in the Malaysian IHL. For this project, an e-group i.e. e-ESSENCE has been chosen to exemplify the Model of Technology Supported Learning for SEN Learners. The focus of this project was to provide emotional and social support for SEN learners' community in IHL. Thus, two e-groups (e-ESSENCE) were created. A social media was selected as the platform to exemplify e-ESSENCE due to its renowned function in connecting people virtually in an effective and efficient way. Bugeja (2006) and Selwyn (200) also highlighted the vital functions of the selected social media in personal as well as social life of IHL learners. E-ESSENCE was found to have a great potential in supporting the emotional and social needs of the SEN learners in IHL. With the support from the Academia of Special Community Network, AIC, ICAN; Universiti Teknologi MARA (UiTM) was chosen to exemplify the e-ESSENCE due to its features of being the largest IHL with the largest SEN learners in Malaysia.