

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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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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B-PLUG

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AC power plugs and sockets are devices that connect appliances, portable light fixtures and other electrically operated devices to be connected to the primary alternating current power in a building. Design features of plugs and sockets have gradually developed to reduce risk of electric shock and fire. In Malaysia, BS1363 (Type G) is the plug type that is normally used in most electrical appliances. This plug commonly called a 13 A plug has three rectangular pins forming an isosceles triangle and conventionally used with ring circuits. This type of plug has a fuse to protect the appliance flexible cable from overload. The action of plugging and unplug a plug seems really simple, but it is quite dangerous because it can contribute to electrical shock due to improperly fit plug. Recent statistics by World of Health Organisation (WHO) shows that 285 million people are visually impaired worldwide: 39 million are blind and 246 have low vision. About 90% of those who are visually impaired live in developing countries. As our collection of electrical home and office appliances plus portable gadgets grow larger, so too the number of plugs we use. People with visual impairment must rely solely on memory to decipher which plug is which in a multi-socket power board. Identifying the television, music player, table lamp, rice cooker, electric kettle and other electrical appliances in one power board can become a difficult task. Therefore, B-Plug a Braille Electric Plug is specially designed in response to a common daily frustration of those with or without sight distinguishing the plugs of home and office appliances. There are many interesting and practical design features in this product. The main focus is the application of embossed Braille indicator in for visually impaired, low vision or blind people to easily identify electrical appliances. Adding glow symbols of the electrical products for easy visibility especially in the dark. Integrated 'On' and "Off" buttons with embossed symbols makes it easier to identify and press. A soft light glows indicates the plug in "On" condition. As for ergonomics aspects, the plug is designed with curve shape for better grip and user friendly especially when unplugging from the socket. For marketing and commercialisation purposes, the plug can be standardised in production with any electrical appliance. It can also be produced separately or individually in order for DIY purposes or replacement. The design will benefit many people such as the visually impaired; have low vision, blind people as well as the normal users. This will provide them with better improvement in daily life activities and efficiency in working while using electrical goods. B-Plug is specially designed to fit and resolve this main issue. Safety is the top priority in designing this plug due to the user specification and requirement needed to meet the national standard. Generally, this design can be implemented on all electrical appliances in the world that uses this type of plug. Therefore it will be great benefit to the Malaysian economy if this design can be produce.