

CELEBRATING  
COMMERCIALISATION  
YEAR 2014

# iiindex 2014

AN INTERNATIONAL EXPOSITION ON RESEARCH AND INNOVATION

invention  
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& design  
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

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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  
Pro-Chancellor, Universiti Teknologi MARA

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## AN INNOVATION OF INTELLIGENT FOOD COVER HEATER

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Food needs to be covered as it is important to ensure the hygiene of the food. It also acts as prevention from insects such as ants and flies. The existing food covers do not really protect food from these insects. We have come up with an innovative idea for food cover which is convenient for consumers besides being able to minimize the problems. Basically, the intelligent food cover heater is an innovative product that provides heat to maintain the warmth of food. We focus on one feature that is the heating function of food cover. Intelligent food cover heater has many benefits or positive sides to the users. First, we offer the user the food cover at an affordable price that is of high quality. Next, intelligent food cover heater also comes in a variety of sizes and colours. In addition, the intelligent food cover heater can reduce storage space as it can be hung on the wall when not in use. We trying to meet the expectations of consumer by creating one intelligent food cover for one house with heater, an approach inspired by Tun Dr Mahathir Mohammad. Our target market for intelligent food cover heater is for people of different background. Everyone can own the product and it can be kept for a longer period of time. The use of the technology plays a key part in improving quality of life. It is important to draw on experience of others and to apply those experiences intelligently in one's own life. It also opens our eyes and indeed makes us think out of the box in order to achieve the objective of the project. Last but not least, we hope to be complete this project successfully.

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## HYDRO ELECTRICIA

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Hydro Electricia Malaysia needs alternative energy sources of power supplies beyond 2020. Reliable energy plays an important role in achieving economics stability. Global industrialisation, technological, economic, and population growth result in the increase in demand for energy every day and every country is struggling to meet with this ever-growing demand for energy. Malaysia's electricity demand is expected to increase in the future. Hydro Electricia is inspired by the concept of hydro-power plant which uses an electricity generator to extract energy from moving water. In the past people used rivers, lakes or damp to produce hydro-power plant but Hydro Electricia is an innovation where we used the concept of hydro-power in a box as an alternative to power supply. Hydro Electricia uses the gravity concept. We put the small water tank on the top of the box to release the water and make sure the water falls on the propellers. When the water falls, it will turn the propellers to generate power. The faster the propellers spin, the more power / electric will be generated. The water inside the box will be recycled. Water pump is used to push the water up into the small tank at the top and complete the circulation. Since the cost of living nowadays is increasing and the electricity tariff is high, Hydro Electricia offers an alternative. Hydro Electricia can be used as a measure to preserve the existing power supply for the future. The advantage of using the concept of hydro-power plant which is generated from water is that once generation facilities are built, it is easy to maintain and operate them. Electricity generated from water is clean and as it does not require any fossil fuels burning. The materials used in making the Hydro Electricia are not expensive and are affordable. Other than that, it is easy to make and safe. In conclusion, the Hydro Electricia can be very helpful in the future to meet the need for increased energy supply.