

INAUGURAL LECTURE:

DANCING PARTICLES AND TWIRLING BUBBLES ENHANCE REACTOR PERFORMANCE



Professor Dr. Shaliza Ibrahim inaugural lecture was held at the Auditorium, Research Management and Innovation Complex on April 4th, 2018, entitled "Dancing Particles and Twirling Bubbles Enhance Reactor Performance". Reactors provide favorable environment for reactions to take place. With straightforward design and versatility in application, stirred tanks are the most preferred reactor configuration in the process industries.

In the lecture, Prof Shaliza shared her valuable experience in the research of impeller-to-tank geometry, mixture properties, and power input. Under the optimum conditions, an interesting phenomena was observed on the movement and flow behavior, in which solid particles and gas bubbles dancing and twirling in the reactor. Mixing and hydrodynamics are vital in reactor operation as they promote momentum, mass and heat transfers, thus influencing reaction conditions. Challenges on deciding on optimum design for multi-phase systems was also highlighted in the lecture.

Professor Dr. Shaliza is an expert in mixing and hydrodynamics for multi-phase reactors. She has embarked studies on multi-phase mixing in stirred tank reactors for the past 30 years, particularly in solid-liquid suspensions. The multi-phase mixing has important applications in food, pharmaceutical and oil & gas industries. In addition to her professional journey, Prof Shaliza also shared some of her experience as an academican in the university.

**Professor Dr. Shaliza
Ibrahim,
Associate Vice
Chancellor
(Research and
Innovation),
Institute of Research
Management
and Services,
University of Malaya**



LEARNING IMPROVEMENT AND TEACHING ENHANCEMENT RESEARCH (LITER) CONFERENCE 2018

The Academic Enhancement and Leadership Development Centre (ADeC) has successfully organized the Learning Improvement and Teaching Enhancement (LiTeR) Conference 2018 on 4th and 5th of April 2018 to conclude the UM-LiTeR Grant 2017 project. This conference is held annually to provide platform for all UM-LiTeR Grant awardees and academics across Malaysia to share and disseminate their Scholarship of Teaching and Learning (SoTL) and Action Research findings in various themes, including teaching and learning, assessment, technology and student supports.



The conference witnessed participation from Universiti Malaysia Sarawak (UNIMAS) and MARA Corporation besides those from University of Malaya. There was a total of 27 presentations this year, with a good mix of several disciplines including Academy of Islamic Studies, Medicine, Education, Engineering, Built Environment, Languages and Linguistics, Computer Science and Information Technology, Centre for Research in Biotechnology for Agriculture (CEBAR), Arts and Social Sciences, Science and Law.

88% of the participants were from public universities, while the remaining came from private universities.



Participants of Learning Improvement and Teaching Enhancement (LiTeR) Conference 2018

The highlights of this conference included:

i) Keynote speech on “Designing Educational Research: Putting Learners at Heart” by Prof. Dr. Nor Aziah Alias (UiTM);

ii) Forum on “Teaching and Learning Strategies: The Secret Ingredients?” moderated by Dr. Adelina Asmawi (UM) with the panellists – Prof. Dr. Debra Sim Si Mui (UM), Prof. Dato’ Dr. Norazah Mohd Nordin (UKM), and Prof. Dr. Fauza Ab Ghaffar (UM)

iii) Publication talk on “Publishing with the University of Malaya Press” by Mr. Adam Wong Abdullah (UM);

vi) Special workshop on “Draw for Empathy Learning Innovation Growth Health Teaching (DELIGHT)”

v) Oral presentations from 22 UM-LiTeR Grant 2017 awardees & 5 selected abstracts



Vice-Chancellor, Datuk Ir. (Dr.) Abdul Rahim Hj. Hashim and participants of LiTeR Conference 2018

Five golds, seven silvers, ten bronzes and four special awards have been awarded to the winners for oral presentations. The awards were given based on their innovations, the impact in society and to other disciplines, dedications, and initiatives in their research project.

It is hoped that academicians will be inspired to do research on their own teaching methods, improve and enhance students’ learning eventually, and to share their best practices with other colleagues as well.

The third cycle of UM-LiTeR Grant was opened in May 2018. Please visit the website <https://adec.um.edu.my> for more information.

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INTERNATIONAL INVENTION, INNOVATION & TECHNOLOGY EXHIBITION (ITEX) 2018

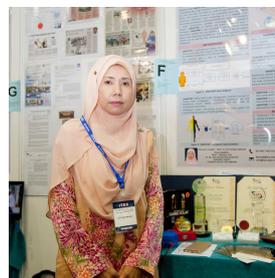


The annual International Invention, Innovation and Technology Exhibition (ITEX'2018) was held recently at Kuala Lumpur Convention Centre (KLCC) from 10 to 12 May 2018. There were a total of 1,000 inventions and exhibitors from 19 countries, consist of participants from lower to higher learning institutions, private universities, government agencies as well as corporate bodies and research institutes.

University Malaya sent four participation for the Universities & Research Institutions category and two participation under the Individual category. All six participation won Gold medals, and 1 Special Award by Assoc. Prof. Dr. Tan Chou Yong.

1) Prof. Ir. Dr. Fatimah Ibrahim

Title: "SMARTMF: A Non-invasive Portable Multi-Frequency Bioimpedance Analyzer (SmartMF) For Health Management Modules For Human Body Composition, Cholesterol Level Assessment and Biophysical Activity"



2) Ir. Dr. Lai Khin Wee

Title: "Scoltech-New Technology for Scoliosis Diagnosis and Monitoring"



3) Assoc. Prof. Dr. Ubagaram Johnson

Title: "Structural Grade Bricks, Lightweight Zero-Cement Pavement Blocks and Blast Resistant Lightweight Concrete Using Industrial Waste"



4) Dr. Amirrudin Kamsin

Title: "Digital Quran Authentication System"



5) Assoc. Prof. Dr. Tan Chou Yong

Title: "Graphene-Doped Zirconia Engineered for Industrial and Machine Applications"



6) Dr. Adeb Hayyan

Title: "Green Solvents for Advanced Up-Stream Treatment Technology of Fuel and Biofuel"



CENTRE FOR RESEARCH IN INDUSTRY 4.0 (CRI4.0)

In line with the global changes and national agenda, Prof. Dr. Mohd Hamdi from the Faculty of Engineering proposed the setting up of Centre for Research in Industry 4.0 (CRI4.0). Initiated in 2017, CRI4.0 took over a year of planning before establishment in January 2018 with collaborations from different faculties.

CRI4.0 aims to :

- Champion the research and development of I4.0
- To be the authority in the field of I4.0
- Provide leadership to industries in adopting the implementation of I4.0 technologies
- Develop talent and expertise to support in the I4.0 initiatives
- Be the government agencies' advisor
- Establish collaborative network with other advanced institutions to facilitate technology adoption in the country.



CRI4.0 involves experts from Faculty of Computer Science and Information Technology and Faculty of Engineering, and partners with technology providers such as Dassault Systems Co. and Bosch Co. The centre will form partnership with selected companies to deploy the I4.0 elements as 'learning factories' that will be a showcase of a real I4.0 implementation. Two companies that have shown interest in the corporation are Glass Solution Sdn Bhd and EP Manufacturing Bhd (EPMB) .

This centre will finalize portfolios, obtain funds and media coverage, organize series of national level workshop on I4.0, build a success story of I4.0, conduct research activities, generate 'national training protocols' , and prepare a comprehensive 'white paper' - road map. In order to make CRI4.0 a success, it is essential that the centre receives full support from the top management, has a committed team, sufficient funding and clear strategies to achieve the goals.

Among the expected tangible (& intangible) benefits of CRI4.0 to UM are:

- Improve visibility whereby UM will emerge as the champion in I4.0 and be seen
- Get government funding
- Enlarge consultation with industries through the implementation of I4.0 in the SMEs
- Help the nation progress
- Align academics with different expertise

SEMINAR ON SUSTAINABLE CONSUMPTION, OUR RESPONSIBILITY 2018 (SCORE2018)

University of Malaya Sustainability Science Research Cluster (SuSci RC) and its strategic NGO's partner Malaysia Consumers Movement (MCM) have organized a Seminar on Sustainable Consumption, Our Responsibility 2018 (SCORE2018). The ceremony was held in conjunction with an annual landmark celebration of World Earth Day (in the month of April) on 26 April 2018 (Thursday) at the Auditorium, Research Management & Innovation Complex (RMIC) University of Malaya. The seminar was well-attended with total number of participants for the seminar reached close to 250 guests from University of Malaya, public-and-private higher education institutions in Klang Valley, government institutions, NGOs, and public.

The seminar was officiated by Yang Berhormat Dato' Seri Hamzah Zainudin, Minister of Domestic Trade, Co-operatives and Consumerism (KPDNKK), and also present were esteemed guests Yang Berbahagia Tan Sri Dato' Professor Dzulkifli Abdul Razak (distinguished keynote speaker, President of UNESCO-affiliated International Association of Universities), Yang Berbahagia Datuk Muez Abd Aziz (Deputy Secretary General, KPDNKK), and Yang Berbahagia Datuk Ir. (Dr.) Abdul Rahim Hashim (Vice-Chancellor, University of Malaya).

The event featured a keynote address by YBhg. Tan Sri Dato' Professor Dzulkifli Abdul Razak on 'Sustainable Development Goals (SDGs) and Consumption'. He shared: "...Sustainable Consumption is (all) about behavior change; a critical element to achieve sustainable lifestyle. On which 75% of our direct resource consumption is linked with everyday practices in three key areas namely food, energy-and-water, and transportation". Other highlights include the official launch of Sustainability Science Research Cluster's UM Living Labs Books (UM Living Lab Volume 1 & 2 and UM Living Labs Training Modules) by YB Dato' Seri Hamzah Zainudin to grace the occasion; the launch is to showcase the important contribution of translational and action research via University of Malaya Living Labs for the benefits of UM campus community. This seminar was held as part of University of Malaya's effort towards mainstreaming SDGs initiatives in Malaysia; in particular to SDG12 Responsible Consumption and Production.

SCORE2018 aimed to:

- Promote awareness and education to the community on the importance of sustainable consumption and development
- Share best practices on several topics relevant to sustainable consumption and sustainable development derived from University of Malaya Living Labs' aspiration: good policies, waste management, and green procurement
- Provide platform and opportunities for networking and potential partnership among seminar's participants
- Support local and international commitment to Sustainable Development Goals (SDGs); especially on SDG12 – Responsible Consumption and Production and SDG17 – Partnerships for the Goals.

The pinnacle highlights of the event was the SCORE2018's Expert Forum with a line-up of esteemed speakers -- Madam Ummy Nasrah Othman (Director, KPNKK Kuala Lumpur) on '8 Consumer Rights', Madam Azliza Baizura (Corporate Service Director, TESCO Malaysia Berhad) on 'Reducing Food Waste: TESCO Malaysia's Perspective', Professor Dr. Fatimah Kari (Faculty of Economics and Administration UM) on 'Moving Towards Circular Economy and Sustainable Development Goals in Enhancing Growth Prospects', and Associate Professor Dr. Sumiani Yusoff (Dean, Sustainability Science Research Cluster UM) on 'Promoting Sustainable Consumption: Taking a Holistic Approach to Minimize Pollution and Implication of Waste'. The forum was well-received by audiences and the session was chaired by Mr. Darshan Singh Dillon (President, Malaysia Consumers Movement). University of Malaya Living Labs group have jointly supported the seminar with mini-exhibition to showcase their research outputs and activities to the public. The seminar ends at 2pm with lunch and networking session.



SCORE2018 Expert Forum (from left): Associate Professor Dr. Sumiani Yusoff (SuSci), Madam Azliza Baizura (TESCO Malaysia Berhad), Mr. Darshan Singh Dhillon (MCM), Professor Dr. Fatimah Kari (Faculty of Economics and Administration, UM) & Madam Ummy Nasrah Othman (KPNKK KL)



YB Dato' Seri Hamzah Zainudin, Minister of Domestic Trade, Co-operatives & Consumerism (KPDNKK) delivered his opening address



Official Group Photo of SCORE2018 with YB Dato' Seri Hamzah Zainudin, Minister of Domestic Trade, Cooperatives & Consumerism (KPDNKK)

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RESEARCH PARTNERSHIP FOR SOCIETAL IMPACT

University of Malaya (UM) has fostered a strong tradition of research and development since its establishment, producing numerous world-class breakthroughs in various fields of science and technology. As Malaysia's premier Research University, UM is gearing up to be a major global player in research and innovation. UM is actively engaging in research collaborations and partnerships to share and capitalize on leading-edge research. With this objective in mind, UM will be organizing the University of Malaya Research Carnival 2018 (UMRC 2018).

umresearch.um.edu.my

UMRC 2018 objectives:

Spearhead research - Showcasing outstanding UM researches and highlight its impact on society and nation

Build bridges - Key UM event for building meaningful networks and linkages between researchers and communities

Engaging science - Foster multidisciplinary discussion among researchers

We promise a myriad of fun and excitement for researchers and public.

Welcome to the **UMRC 2018**.



UMRC 2018

UNIVERSITY MALAYA RESEARCH CARNIVAL

15 - 17 NOVEMBER 2018
UNIVERSITY OF MALAYA
KUALA LUMPUR

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