

WIEF-UiTM INTERNATIONAL CENTRE presents

THE 4TH WIEF-UiTM

GLOBAL DISCOURSE on NANOTECHNOLOGY

Organised by:



14 OCTOBER 2011

KUALA LUMPUR CONVENTION CENTRE

PROGRAMME

SYNOPSIS

Nanotechnology involves the design, characterisation, production and application of structures, devices and systems by controlled manipulation of size and shape at the nanometer scale (atomic, molecular and macromolecular scale) that produces structures, devices and systems with at least one novel/superior characteristic or property.

Innovations at the intersection of medicine, engineering, biotechnology, and the physical and information technology are spurring new directions in research, education, and technology transfer. Basic research in nanosciences is rapidly producing commercially viable products. Governments and industries across the globe are staking their claims by investing billions of dollars, euros and yen for research. International rivalries are growing. Political alliances and battle lines are beginning to gel.

The 4th WIEF-UiTM Global Discourse would focus on nanotechnology's interdisciplinary nature, highlighting cutting-edge R&D in nanomedicine, nanoelectronics, and nanomaterials. The discussions will explore the current factors fueling nanotechnology's growth, start-up opportunities and potential bottlenecks to viable commercialisation. It will also examine predictions for future societal, environmental, ethical, and privacy issues as well as the impact of nanotechnology on the future warfare.

9.00 am

Arrival of Guests & Registration

9.30 am

Welcoming Remarks by YABhg TUN MUSA HITAM

Chairman, WIEF Foundation

9.40 am

Special Address on “Current Stance of Science and Technology in the OIC Member Countries” by DR SAVAS ALPAY

Director General, Statistical, Economic & Social Research and Training Centre for Islamic Countries (SESRIC), Turkey

10.00 am

Keynote Address on

“Nanotechnology: Engineering a Better Future” by DR MEHMET BAYINDIR

Deputy Director, UNAM - National Nanotechnology Research Center, Turkey

Commentators:

PROF ILLE C GEBESHUBER

Head of the Laboratory of Biomimetics, Institute of Microengineering and Nanoelectronics, Universiti Kebangsaan Malaysia & Vienna University of Technology, Austria

PROF JACKIE Y YING

Executive Director, Institute of Bioengineering and Nanotechnology, Singapore

PROF SIRIRURG SONGSIVILAI

Executive Director, National Nanotechnology Center, Thailand

ASSOC PROF DR MOHAMAD RUSOP

Head, NANO-SciTech Centre (NST), Institute of Science, Universiti Teknologi MARA (UiTM), Malaysia

Moderator:

DR GUNAWAN WITJAKSONO

Director, Photonics, Micro Energy & Green Technology, MIMOS Berhad, Malaysia

11.30 am

Question and Answer Session

12.00 noon

Lunch



CHAIRMAN

YABhg TUN MUSA HITAM

*Chairman,
World Islamic Economic Forum Foundation, Malaysia*

Tun Musa Hitam received his Bachelor of Arts Degree at the University of Malaya; Masters degree at the University of Sussex and was a fellow at the CFIA Harvard University. He is a Fellow of the Malaysian Institute of Management, and Member of the Advisory Board of the Malaysian Journal of Diplomacy and Foreign Relations.

Tun Musa Hitam has held posts at the international level at various times. These included Chairman of the Commonwealth Parliamentary Association, Member of the Board of UNESCO and Leader of various Commonwealth Missions. Between 1990 and 1991, he was Malaysia's Special Envoy to the United Nations and from 1995 to 2002 the Prime Minister's Special Envoy to the Commonwealth Ministerial Action Group (CMAG).

Before becoming Malaysia's fifth Deputy Prime Minister and Minister of Home Affairs in 1981 – 1986, Tun Musa Hitam held a number of key government posts, including Chairman of Federal Land Development Authority (FELDA), Deputy Minister of Trade & Industry, Minister of Primary Industries and Minister of Education.

Along with being Chairman of the WIEF Foundation, Tun Musa Hitam is currently Chairman of three public listed companies i.e. Lion Industries Corporation Berhad, UMLand Bhd and Sime Darby Berhad.

For his services to the nation, he was honoured by Malaysia's Yang Di Pertuan Agong (King) with the country's highest award that makes him a "Tun". He also received the Prix de la Fondation Award from Crans Montana Forum of Switzerland.



SPEAKER

DR SAVAS ALPAY

Director General, Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC), Turkey

Dr Savas Alpay is the Director General of the Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC). He received his PhD in Economics from Johns Hopkins University in 1997, and has taught at different universities in Turkey. Formerly, he has worked as a consultant for an international consultancy firm in the USA, and served on the Board of a Public Regulation Authority in Turkey

His research areas include interactions among economic growth, international trade and the environment with an emphasis on the design and implementation of policies towards sustainable growth in general. Recently, his research focuses on policies towards improving the socio-economic development of communities, as well as the knowledge economics, science and technology policies and the vocational education and training programmes in the Member Countries of the Organization of Islamic Cooperation (OIC).

His book titled *Trade and the Environment* has been published by Kluwer, and he has many articles published in different journals and conference proceedings. He is the Editor of the *Economic Cooperation and Development Review* and the *Journal of Economic Cooperation and Development*, which publishes scholarly articles on socio-economic development in the OIC Member Countries as well as in other developing countries.



SPEAKER

DR MEHMET BAYINDIR

*Deputy Director,**UNAM - National Nanotechnology Research Center, Turkey*

Dr Mehmet Bayindir received his PhD in physics from Bilkent University, Ankara, Turkey in 2002. During his PhD thesis work, Dr Bayindir concentrated on the physics and applications of photonic band gap materials. His pioneering work on coupled-cavity structures in photonic crystals has drawn a considerable amount of interest.

As a post-doctoral researcher and later research scientist, at the Research Laboratory for Electronics / Massachusetts Institute of Technology (USA), Dr Bayindir developed a new fabrication technique for making multimaterial, active in-fiber devices from metal, insulator and semiconducting parts for the first time. This breakthrough earned critical acclaim and recognition, resulting in 5 publications in *Nature*, *Nature Materials*, and *Advanced Materials*, and 3 issued directly related patents.

After returning to his home country, he undertook (together with Prof Salim Çıracı) the building of UNAM-National Nanotechnology Research Centre and is now serving as Deputy Director of the Centre.

Currently he is heading the Bayindir Research Group at UNAM. The group is working on functional nanostructured surfaces, nano-scale photonics, fiber-based devices. He is the author of a book, over 50 citation-index journal papers, and more than 35 refereed conference papers and serves as a reviewer for several scientific journals.

Dr Bayindir won the young scientist prize of the Turkish Scientific and Technical Research Council (TUBITAK) in 2006 and The Young Scientists Award of Turkish Academy of Sciences (TUBA) in 2007. He was the winner of the Optical Society of America's 2001 New Focus Award and 2005 MIT best poster award.



COMMENTATOR

PROF ILLE C. GEBESHUBER

*Head of the Laboratory of Biomimetics,
Institute of Microengineering and Nanoelectronics,
Universiti Kebangsaan Malaysia & Vienna University of Technology, Austria*

Prof Ille C. Gebeshuber is a Professor of Physics from Austria, Europe. She is an expert in Nanotechnology, Biomimetics and Tribology. Since 2009, she has been at the Institute of Microengineering and Nanoelectronics at Universiti Kebangsaan Malaysia. However, her permanent position is at the Institute of Applied Physics at the Vienna University of Technology. Prof Ille is the associate editor of the IMechE Journal of Mechanical Engineering Science (SAGE Publishing, London, UK), editorial board member of various scientific journals and editor of a book on biomimetics by Springer Scientific Publishing

Since 2011, she has been a scientific advisory board member regarding nanotechnology for the Lifeboat Foundation, an American think tank safeguarding humanity. Her research interests comprise the use of nanotechnology and biomimetics to address global challenges for humankind.

Prof Ille C Gebeshuber serves on various international strategy boards. She has been acting as reviewer and advisor for agencies, universities, research institutions and public bodies. She is doing extensive public science outreach work and her professional activities are widely covered by the media.



COMMENTATOR

PROF JACKIE Y. YING

*Executive Director, Institute of Bioengineering and Nanotechnology,
Singapore*

Prof Jackie Y. Ying received her B.E. and PhD from The Cooper Union and Princeton University, respectively. She joined the faculty at Massachusetts Institute of Technology in 1992, where she was Professor of Chemical Engineering until 2005. She has been the Executive Director of the Institute of Bioengineering and Nanotechnology in Singapore since 2003.

For her research on nanostructured materials, Prof Ying has been awarded with the American Ceramic Society Ross C. Purdy Award, David and Lucile Packard Fellowship, Office of Naval Research and National Science Foundation Young Investigator Awards, Camille Dreyfus Teacher-Scholar Award, American Chemical Society Faculty Fellowship Award in Solid-State Chemistry, Technology Review TR100 Young Innovator Award, American Institute of Chemical Engineers (AIChE) Allan P. Colburn Award, and Singapore National Institute of Chemistry-BASF Award in Materials Chemistry. Prof Ying was elected a World Economic Forum Young Global Leader, and a member of the German National Academy of Sciences, Leopoldina. She was named one of the "One Hundred Engineers of the Modern Era" by AIChE in its Centennial Celebration. She is the Editor-in-Chief of Nano Today.



COMMENTATOR

PROF SIRIRURG SONGSIVILAI

*Executive Director, National Nanotechnology Center,
Thailand*

Prof Sirirurg Songsivilai is the Executive Director of the National Nanotechnology Center (NANOTEC), National Science and Technology Development Agency (NSTDA). Prof Songsivilai heads NANOTEC's efforts as Thailand's main driving force to establish and support the development and application of national nanotechnology strategic programs through R&D, technology transfer, human resource and infrastructure development. He is the Founding President of the Thailand Nanotechnology Association.

Prof Songsivilai is an Anandhamahidol Foundation Scholar and was awarded by H.M. the King of Thailand. He received his M.D. from Mahidol University and a PhD from the University of Cambridge, U.K. In 2000, he became a Professor of Immunology at the Faculty of Medicine Siriraj Hospital, Mahidol University. Dr Songsivilai has published extensively in international journals and has received a number of distinguished honours including ASEAN Young Scientist and Technologist Award and the National Outstanding Technologist Award.

He is also known for his techno-entrepreneurial experience, having found a spin-off company specialising in the development and manufacturing of advanced diagnostics for tropical infectious diseases. Prior to his current position, he oversaw the development of technoindustry under the National Biotechnology Policy Committee and was in charge of Thailand BioPark Program. In 2005, he served as Vice President of NSTDA, overseeing the management of strategic R&D initiatives and international collaborations.



COMMENTATOR

ASSOC PROF DR MOHAMAD RUSOP

Head, NANO-SciTech Centre (NST), Institute of Science, Universiti Teknologi MARA (UiTM), Malaysia

Assoc Prof Dr Mohamad Rusop is majoring in “Opto-Electronic Devices Engineering and Nano-Technology for Renewable Energy (Green Energy)”.

He has been studying and working in Japan and has over 22 years of experience in education and industrial research. In 2005, he became Head of NANO-SciTech Centre (NST) at the Institute of Science, Universiti Teknologi MARA (UiTM), along with working as a Head of NANO-ElecTronic Centre (NET) at the Faculty of Electrical Engineering, UiTM.

His research area is on Nano-Science and Nano-Technology of Economically and Environmentally Benign Carbon-Based Nano-Materials and Oxide-Based Nano-Materials for their possible application towards Opto-Electronic and Electronic Nano-Devices such as Solar Cell, Light Emitting Diode, Field Effect Transistor, Field Electron Emission, Capacitor, and Sensor.

His work has been published in several books, 300 journals and proceeding papers, and he has presented over 200 papers in both national and international conferences. He has obtained international research patents. In addition, he has achieved more than 30 research awards from national and international organisations and institutions.

So far, he has been awarded national, international, and industrial Research Grants amounting to more than RM 9 million. This year, he hopes to obtain another 7 international research grants from the Japanese Government under JSPS Research Project amounting to RM 1 million.



MODERATOR

DR GUNAWAN WITJAKSONO

*Director, Photonics, Micro Energy & Green Technology,
MIMOS Berhad, Malaysia*

Dr Gunawan Witjaksono holds a PhD in Electrical and Computer Engineering from the University of Wisconsin with a specialisation in optics and nano-photonics, optoelectronics, microelectronics, and chip fabrication for the applications of telecommunication, information security, and nanotech-based renewable energy. He has strong drives as a global player with a green-belt in six-sigma (6 σ) as well as being a certified information system auditor (CISA).

He is currently a Director and Principal Researcher for MIMOS in Malaysia. Dr Gunawan Witjaksono has spoken at numerous events, published over 40 scientific papers and owns more than 30 patents on renewable energy, information security system, and III-V based laser.



A B

WIEF-UiTM INTERNATIONAL CENTRE

WIEF-UiTM International Centre, the product of collaboration between the WIEF Foundation and the Universiti Teknologi MARA (UiTM), was officially opened on 28 May 2007 by the then Prime Minister of Malaysia, Tun Abdullah Ahmad Badawi, during the 3rd World Islamic Economic Forum held in Kuala Lumpur from 27-29 May 2007.

The idea of the Centre came as a response to the urgent need of consolidating and strengthening collaboration in education in the Muslim World. Under the auspices of the WIEF, the Centre seeks to bring together distinguished scholars, business leaders, industry practitioners and the academics to strategically plan for initiatives that will promote knowledge advancement, competencies, upgrading and capacity-building among Muslim nations and communities.



OUT

WIEF-UiTM GLOBAL DISCOURSE SERIES

The WIEF-UiTM Global Discourse is a collaborative programme between the WIEF Foundation and the Universiti Teknologi MARA (UiTM). It is aimed at bringing to UiTM and its community, discussions and lectures on current global economic and business issues of concern to the Muslim World. The purpose is to enhance understanding and to build bridges between various factions of our global community by promoting business and trade.

The Global Discourse is now a biannual event in the WIEF calendar. The WIEF Foundation is exploring the possibility of replicating the programme to benefit the academic world in other countries.



ABO

WORLD ISLAMIC ECONOMIC FORUM FOUNDATION

The WIEF Foundation was established on 6 March 2006 as the proprietary owner of the WIEF. The Foundation administers and organises the annual WIEF, as well as ensuring the smooth-running of the initiatives and programmes under its purview. The WIEF Foundation has an organisational structure which includes the Board of Trustees led by the Chairman of the Foundation, an advisory body called the International Advisory Panel and a Permanent Secretariat based in Kuala Lumpur.

UNIVERSITI TEKNOLOGI MARA

Universiti Teknologi MARA (UiTM) was established in 1956 to initially provide low level skills training to the indigenous community, who are predominantly rural Muslim, to partake in the commercial activities of post independence Malaya. UiTM is now Malaysia's largest university that provides a multitude of academic and professional programmes in different disciplines that encompasses the broad spectrum of science and technology, the social sciences as well as business and management.



OUT

STATISTICAL, ECONOMIC AND SOCIAL RESEARCH AND TRAINING CENTRE FOR ISLAMIC COUNTRIES (SESRIC)

The Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC), a subsidiary organ of the Organisation of Islamic Conference (OIC), started its activities in Ankara, Turkey on 1 June 1978.

SESRIC's basic mandate is to collate, process and disseminate socio-economic statistics and information on and for the utilisation of the member countries. In addition, SESRIC studies and evaluates economic and social developments of member countries to help generate proposals that will initiate and enhance cooperation among them, and they also organise training programmes in selected fields.

1st GLOBAL DISCOURSE

25 NOVEMBER 2009

“GLOBAL ECONOMIC & BUSINESS SCENARIO: MUSLIM COUNTRIES AS THE NEW EMERGING ECONOMIES”

The Inaugural WIEF-UiTM Global Discourse entitled, “Global Economic & Business Scenario: Muslim Countries as the New Emerging Economies” was held on 25 November 2009 at the WIEF-UiTM International Centre, Shah Alam, Malaysia. It was attended by approximately 120 participants comprising faculty members as well as local and foreign students. The Discourse, officiated by H.E. Dato’ Seri Khalid Nordin, Malaysian Minister of Higher Education, was addressed by Datuk Seri Andrew Sheng of Sime Darby Bhd, Prof Mahendhiran Nair of Monash University, Mr Mumtaz Khan of Middle East & Asia Capital Partners Pte Ltd with Dato’ Norraesah Mohamad of MyEG Bhd acting as Moderator.

The Discourse focused on the shift in the global economy’s center of gravity, moving eastwards from the Western Northern Hemisphere where it used to be for many decades. The panellists also discussed on the significant rise in the global Islamic Finance and Halal Business, and the rise of many Muslim nations and communities to form part of the new emerging market and some 900 million new middle class consumers in the world.



2nd GLOBAL DISCOURSE

8 OCTOBER 2010

“CHURNING OUT INNOVATION AND ENTREPRENEURSHIP IN MALAYSIA”

The 2nd WIEF-UiTM Global Discourse entitled, “Churning Out Innovation and Entrepreneurship in Malaysia” was held on 8 October 2010 at the Intekma Resort and Convention Centre, Shah Alam. It was attended by approximately 100 participants comprising faculty members, students and representatives of the corporate sector. A Keynote Address was delivered by Prof William Miller of Stanford University whilst the Commentators comprised of both local and foreign experts.

Mr Ian Buchanan, Senior Executive Advisor, Booz & Company, Australia moderated the impressive line-up of commentators comprising Tengku Farith Rithauddeen, Group CEO and Co-Founder, Skali Sdn Bhd.; Dr V. Sivapalan, Advisor, Technopreneurs Association of Malaysia (TeAM) and Managing Principal of Ventura Partners Sdn. Bhd.; Mr Ashran Dato' Ghazi, President, Malaysian Association of Bumiputra ICT Industry and Entrepreneurs (NEF); and Assoc Prof Rohazar Wati Zuallcoblely, Former Deputy Director General, Intellectual Property Corporation of Malaysia and Associate Professor, Faculty of Law, Universiti Teknologi Mara (UiTM).

The 2nd WIEF-UiTM Global Discourse marked another successful achievement in discussing the important input and insights on the climate of innovation and entrepreneurship in Malaysia, the availability of venture capital and other relevant issues for the successful commercialisation of research project.



3rd GLOBAL DISCOURSE

23 MARCH 2011

“SOCIAL ENTREPRENEURS: AGENTS OF CHANGE”

The 3rd WIEF-UiTM Global Discourse entitled, “Social Entrepreneurs: Agents of Change” was held on 23 March 2011 at the Sime Darby Convention Centre, Kuala Lumpur. It was officiated by Tan Sri Dato’ Dr Wan Mohd Zahid bin Mohd Noordin, the Chairman of both UiTM and the WIEF-UiTM International Centre.

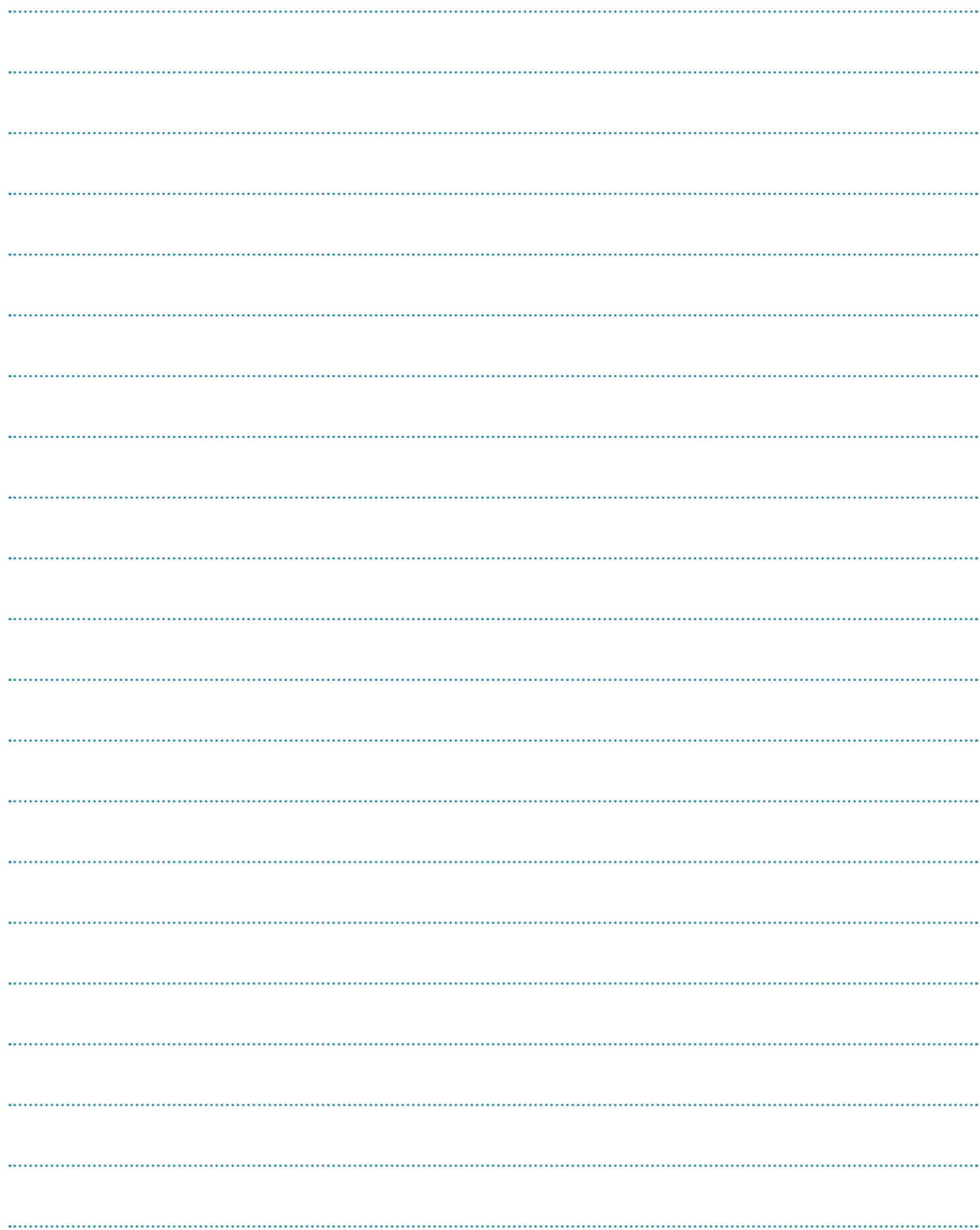
The event saw the participation of several local and international award winners in social entrepreneurship - Dato’ Zaliha bt Omar, Advisor on Welfare & Community Development, Ministry of Women, Family and Community Development, Malaysia; Ms Julia Chong, Chief Executive Officer, The Truly Loving Company Sdn Bhd; Mr Raj Ridvan Singh, International Director & Co-Founder, SOLS24/7; Ms Gemma Bulos, Director, Global Women’s Water Initiative, Africa and Founder, A Single Drop for Safe Water, Philippines; and Mr Shahrul Azlan bin Mohd Zulkifli, General Manager (Investment), Perbadanan Nasional Berhad.

The Global Discourse, attended by more than 200 participants consisting of academics, entrepreneurs, NGOs, professionals, students and media, brought forth an interesting discussion on the current landscape of the social entrepreneurship ecosystem. Speakers shared their unique experiences and inspiring stories on how they strive to create a workable business model for their social aspirations. The discussion, followed by an interactive Q&A, also highlighted the ways in which we can encourage the culture of social responsibility in people, irrespective of their work nature, and how these sentiments can be galvanised and brought together in a workable ecosystem that supports social entrepreneurship.



NOTES

A series of horizontal dotted lines for writing notes.





WORLD ISLAMIC ECONOMIC
FORUM FOUNDATION

2nd Floor, Kompleks Antarabangsa
Jalan Sultan Ismail, 50250
Kuala Lumpur, Malaysia

T: 603 2145 5500

F: 603 2145 5504



www.wief.org