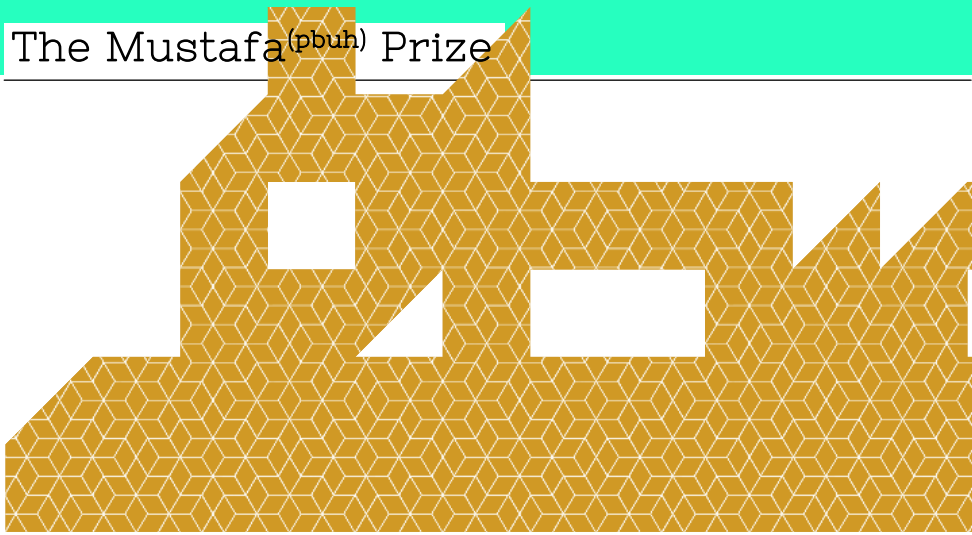
Contents

In The Name of GOD

The Mustafa(pbuh) Prize



The Mustafa(pbuh) Prize is a top science and technology award granted to the eminent scientists and scholars of the Islamic World biennially. The Prize is awarded in four categories, namely "Life and Medical Science and Technology", "Information and Communication Science and Technology", "Nanoscience and Nanotechnology", and "All areas of science and technology". The first round of the Mustafa(pbuh)Prize was held in December 2015 and the laureates in two categories were awarded 500,000 USD which was financed through the endowments made to the Prize. The laureates were also adorned with the Mustafa(pbuh) Medal and a Certificate of Appreciation.

The Mustafa(pbuh)Prize is granted to works which are deemed to have improved the human life and have made tangible and cutting-edge innovations on the boundaries of science or have presented new scientific methodology. Therefore, the Prize was established as one of the symbols of admiration and scientific excellence to appreciate prominent scientists and to provide the ground for scientific cooperation and development in the Islamic World.

The Mustafa(pbuh)Prize is a platform for top scientists in the Muslim World to present their achievements to the world. The Prize is named after one of the epithets of the Holy Prophet Muhammad(pbuh) who always emphasized on education and learning; Mustafa means 'the selected'. According to the Prize statute, the Policymaking Council of the Mustafa(pbuh)Prize is responsible for adopting strategies and governing principles over the Prize. The council's international legal members includes the heads of Islamic international organizations including Islamic Development Bank (IDB), Islamic World Academy of Sciences (IAS), COMSTECH and heads of two accredited universities in the Islamic World. At the first round, heads of University of Malaya (UM), Malaysia and University of Karachi,

Pakistan were members of the Council. The Secretariat of the Mustafa(pbuh)Prize, as the organizing body of the Prize, consists of Scientific Committee and Executive Committee.

Universiti Putra Malaysia (UPM)

UNIVERSITI PUTRA MALAYSIA

BERILMU BERBAKTI

As a leading research university in Malaysia, UPM is located in Serdang next to Malaysia's administrative capital city; Putrajaya. UPM is a world renowned centre of learning and research and has attracted students and staff from all around the world making it a well-respected global entity.

UPM is recognized by the independent government assessments as one of Malaysia's leading research Universities. Founded in 1931 as the School of Agriculture, the University today combines impressive modern facilities and a dynamic approach to teaching and research with its proud heritage of quality services and achievements.

UPM has bagged numerous national and international awards since its inception in 1931. Its latest achievements include the status of Higher Education Centre of

Excellence being accorded to the Institute of Bioscience and its success in receiving accreditation from the Royal Chartered Institute of Environmental Health (CIEH), London for the Bachelor of Environmental and Occupational Health programme. The framework within which UPM operates is based on its Constitutions, Statutes and Ordinances, and is implemented and overseen by an exceptionally strong administrative team.

Universiti Putra Malaysia achieved the biggest leap when it went up 61 places to be among the world's top research universities (RU), moving up from 331st last year to 270th in Quacquarelli Symonds (QS) World University Rankings in 2016/2017.

Allah is All-Wise

Indeed, knowledge is indubitably a light in the pure hearts over whom only God's eternal destiny rules and it is a blessing and prosperity for those who seek Allah's remembrance. People of knowledge must strive to help others enjoy the blessing light of their wisdom. Thus, surely being in the pursuit of knowledge is an obligation which has long been placed on the shoulders of the followers of Mustafa(pbuh). Not only shall they have the felicity in this world, they shall be on a bright light to discern the truth of creation and to reach the abode of prosperity. Whether this knowledge is in his hand or a seed in the heaven, the mighty thought of men must benefit from the wisdom and subjugate it to God's light of guidance so that they can walk on the straight path toward the bright horizon.

We believe that the followers of Mustafa(pbuh) shall realize the teachings of his as the best servant of Allah. They must discover the knowledge while exploring the truth of the universe and illuminating the transcendental spirit of men toward the verities of creation. This shall grant men the true peace and shall provide them with security, health, and welfare in this world as well as prosperity for the Hereafter.

Islamic civilization has beheld the tremendous influence of its scholars like, Ibn Battuta, Avicenna, Ibn al-Haytham, Al-Biruni, Badi al-Zaman al-Jazari, and its philosophers like, Al-Farabi (Alpharabius), Ibn Rushd (Averroes), Muhammad ibn Zakariyyā al-Rāzī, and al-Khwarizmi who kept the torch of science flaming and wanted the knowledge on a path which put men near stationed to God while recognizing it a healing and mercy for the conditions of human beings; these great men brought about a ground for a better life for humanity through promoting and developing such knowledge.

Mustafa(pbuh) Science and Technology Foundation (MSTF) plans to provide the fertile ground for such a grand mission to praise and appreciate the contemporary bright stars in the scientific firmament and to open a field for the synergy among the scientists of the Muslim World. The Science and Technology Exchange Program (STEP) is a platform established in this Foundation to develop such interactions in science and technology. This comprehensive plan of action includes support and development packages and incentives for scientific cooperation of scientists' networks and Islamic centers at international levels. The plan follows scientific events in collaboration with scientific communities, granting financial assistance along with

applied-research grants, establishing and deepening relations between scientists and scientific communities in the Muslim World, and hence reflecting the results of science and technology in human society.

The first round of STEP forums was held in Iran attended by over 60 scientists of the Muslim World and in cooperation with Islamic World Academy of Sciences (IAS), University of Tehran, and University of Tarbiat Modares in December, 2015. The second round of such forums is to be held dubbed as "Malaysian Chapter; Nanoscience and Nanotechnology Development Forum" in cooperation with Universiti Putra Malaysia (UPM).

I feel it incumbent upon me to express my gratitude to Prof. Omar Yaghi, the Mustafa(pbuh) Prize 2015 laureate in Nanoscience and Nanotechnology; and Prof. Jackie Ying, the Mustafa(pbuh) Prize 2015 laureate in Bio-Nanotechnology; and Prof. Aini Ideris the Vice-Chancellor of UPM who kindly accepted the invitation of MSTF and laid the groundwork for holding the second meeting of STEP.

Such forums are being held throughout the year in different countries around various fields in science and technology and are hosted by universities, scientific centers, and prominent scientists of the Islamic World who are counted as leading scientists in cooperation with MSTF in order to promote the level of interaction among scientists of the Islamic World.

Backing applied-scientific research conducted by OIC member states is among other missions of STEP. These include grants which are obtained from scientific endeavors of Muslim World's scientists and are used in order to facilitate and expedite the processes from which the Islamic Community benefits. The financial assistance of STEP are awarded to the output-oriented and applied research in which at least two countries of the Muslim World participate in the investment, implementation, and exploitation of its results and have scientific cooperation in those areas. The first round of granting the financial facilities of MSTF was pledged to come into effect for scientific and applied research in the field of health in the regional meeting of MATI which included Pasteur Institutes of Morocco, Algeria, Tunisia, and Iran.

MSTF hopes to take firm and consistent steps to promote the scientific and technological interactions in the Islamic World and to revive the role of the Muslim scientists in the development of science and technology. MSTF hopes to witness the scientific leadership of the Islamic Ummah once again in achieving the scientific facts and discoveries of the universe. This would not be attained unless the scientists of the Muslim World and the Muslim Communities and benefactors all cooperated closely. Therefore, this Foundation warmly welcomes all the enthusiasts with open arms.

Mahdi Safarinia
President of Mustafa(pbuh)
Science and Technology Foundation

Preface

Alhamdulillah, praise be to Allah SWT for His blessings that we are able to organise this event successfully. The Science and Technology Exchange Program (STEP) in Islamic Countries jointly organized by Universiti Putra Malaysia (UPM) and Mustafa Prize Secretariate from 19 to 23 December 2016, brings 30 international reknowned scientists from Islamic countries, in the field of nanoscience and nanotechnology. It gives me great pleasure to welcome all of them to Malaysia.

UPM is also very honoured to have Professor Omar Yaghi, 2015 Mustafa Prize Laureate (Nanoscience and Nanotechnology Category) as a keynote speaker of the program. The program focuses on the presence of Laureate of the Mustafa Prize, aiming to promote science and technology and fostering greater cooperation with leading scientists in the Islamic World. In addition, the program will highlight the latest achievements in the field of nanoscience and nanotechnology. The delegates will have opportunity to discuss strategies to enhance scientific cooperation, particularly among the universities in the Islamic Countries and to produce high-quality research articles in reputable international journals.

I am confident that the collaboration between UPM and Mustafa Prize

Secretariate in organizing this international program will benefit not only the scientists from the fields of nanoscience and nanotechnology but will also enhance scientific synergy in the Islamic Countries.

Congratulations and thank you to the organising committee who work very hard to ensure the smooth running of this program. Lastly, I would like to congratulate and express my gratitute to everyone involved in the program for making it a success.

PROFESSOR DATIN PADUKA DR. AINI IDERIS, FASc, FIAS
Vice Chancellor
Universiti Putra Malaysia

Program and Schedule of STEP

Malaysian Chapter: Nanoscience and Nanotechnology Development Forum

Date	Time	Program
Monday 19-12-16	8:30-09:00	Registration
	9:00-10:30	Opening Ceremony
	11:00-13:00	Global Science and its Emergence as a Common Language for Peace and Prosperity
	13:00-14:00	Prayer and Lunch
	14:00-14:30	A Glance at Nanoscience and Nanotechnology Status in Islamic Countries
	14:30-16:10	Country Reports in Nanoscience and Nanotechnology (Policy, Program and Achievements)
	16:30-18:00	Discussions about Collaborations among Islamic Countries on Nanoscience and Nanotechnologies
Tuesday 20-12-16	9:00-11:00	How to Create an Environment for Discovery and Creativity at Universities and Research Institutes
	11:30-13:00	
	13:00-14:00	Prayer and Lunch
	14:00-16:00	Issues and Solutions of Scientific Cooperation among Islamic Countries
	16:30-18:00	
Wednesday 21-12-16	9:00-10:30	Discovery and Development of Reticular Chemistry
	11:00-12:30	Advanced Nanostructured Materials for Biomedical and Green Chemistry Applications
	13:00-14:00	Prayer and Lunch
	14:30-16:00	Clean Energy Applications of Metal-Organic Frameworks
	16:30-18:00	Nanotechnology - From Research to Commercialization
Thursday 22-12-16	9:00-12:30	The Issues Related to Publishing High Impact Papers
	13:00-14:00	Prayer and Lunch
	14:00-15:30	Scientists' Achievements in Islamic Countries – Session1
	16:00-17:30	Scientists' Achievements in Islamic Countries – Session2
	19:30-21:00	Closing Ceremony-Reading the Program Statement-Gala Dinner
Friday 23-12-16	9:00-16:00	Scientific Tour

Day 1 | Monday (16-12-19)

8:30-09:00

Topic: Registration is open for Malaysian Delegates

Venue: Auditorium UPM

9:00-10:30

Topic: Opening Ceremony

Speakers:

- YBhg. Prof. Dato' Dr. MohdAzmiMohd Lila (20 Minutes)
  Deputy Vice Chancellor (Research and Innovation), UPM

- The Mustafa(pbuh)Prize Introduction (20 Minutes)
  Prof. Sarkar
  Representative of the Mustafa(pbuh) Prize

- YBhg. Prof. DatinPaduka Dr. Ainilderis (20 Minutes)
  Vice Chancellor, UPM

Venue: Auditorium UPM

Visit to Research and Innovation Booth (30 Minutes)

11:00-13:00

Topic: Global Science and its Emergence as a Common Language for Peace and Prosperity

Format of the session: Panel Discussionand Q&A

- Panelists: Prof. Omar Yaghi (Chair), Prof. Beitollahi (Co-Chair), Prof. Soylak, Prof. Lila

Venue: Auditorium UPM

14:00-14:30

Topic: A Glance at Nanoscience and Nanotechnology Status in Islamic Countries

Lecturer: Prof. Sarkar

Venue: Auditorium UPM

14:30-16:10

Topic: Country Reports in Nanoscience and Nanotechnology (Policy, Program and Achievements)

Speaker:

- Representative of Iran: Prof. Ali Beitollahi(25 Minutes)
- Representative of Malaysia: Prof. Abdul Kadir Masrom(25 Minutes)
- Representative of Egypt: Prof. Mona Bakr Mohamed Mahmoud (25 Minutes)
- Representative of Pakistan: Prof. Noor Mohammad Butt (25 Minutes)

Venue: Auditorium UPM

16:30-18:00

Topic: Discussions about Collaborations among Islamic Countries on Nanoscience and Nanotechnologies

Format of the session:Panel Discussion

Panelists: Prof. Omar Yaghi (Chair), Prof. Beitollahi (Co-Chair), Prof. Abdul Kadir Masrom, Prof. Mona Bakr Mohamed Mahmoud, and Prof. Noor Mohammad Butt

Venue: Auditorium UPM

Day 2 | Tuesday (16-12-20)

9:00-11:00

Topic: How to Create an Environment for Discovery and Creativity at Universities and Research Institutes

Format of the session:Roundtable Discussion

- **Group A:** Prof. Omar Yaghi (Chair), Prof. Soylak (Co-Chair)
  Prof. Simchi, Prof. Butt, Prof. Mizanur Rahman, Prof. Mohamed Mahmoud, Prof. Eddaoudi, Prof. Chin Wei, Prof. Zobir Hussein

Venue: Mini Auditorium 1

- **Group B:** Prof. Lila (Chair), Prof Javed Ali (Co-Chair)
  Prof. Moshfegh, Prof. Mohseni, Prof. WaelMamdouh, Prof. Mohamed El-Nahass, Prof. Guler, Prof. Ameer Azam, Prof. Hammouti, Prof. Abdul Rahman, Prof. Masrom

Venue:Mini Auditorium 2

- **Group C:** Prof. Beitollahi (Chair), Prof. NaeemAghiq (Co-Chair)
  Prof. Ahmad Khan, Prof. Mona Bakr Mohamed, Prof. Mohamed Elkhouly, Prof. ZainulAbdin, Prof. Salim Al-Harthi, Prof. Boon Hong, Prof. Lokman

Venue: Senate Hall

11:00-13:00

Topic: How to Create an Environment for Discovery and Creativity at Universities and Research Institutes

Re-assemble of the Groups: Review of the Recommendations and Discussions

Format of the session:Panel Discussion(11:30-12:30)

Panelists: Prof. Omar Yaghi (Chair), Prof. Javed Ali (Co-Chair), Prof. Beitollahi, Prof Lila

Concluding remarks by: Prof. Omar Yaghi(12:30-13:00)

Venue: Auditorium UPM

14:00-16:00

Topic:Issues and Solutions of Scientific Cooperation among Islamic Countries

Format of the session:Roundtable Discussion

- **Group A:** Prof. Omar Yaghi (Chair),
  Prof. Mizanur Rahman (Co-Chair)
  Prof. Simchi, Prof. Butt, Prof. Mizanur Rahman, Prof. Mohamed Mahmoud, Prof. Eddaoudi, Prof. Chin Wei, Prof. Zobir Hussein, Prof. Soylak

Venue: Mini Auditorium 1

- **Group B:** Prof. Guler (Chair), Prof. Hammouti (Co-Chair)
  Prof. Moshfegh, Prof. Mohseni, Prof. WaelMamdouh, Prof. Mohamed El-Nahass, Prof. Ameer Azam, Prof. Abdul Rahman, Prof. Masrom, Prof. Lila, Prof Javed Ali

Venue:Mini Auditorium 2

- **Group C:** Prof. Mohamed Elkhouly(Chair), Prof. Salim Al-Harthi(Co-Chair)
  Prof. Ahmad Khan, Prof. Mona Bakr Mohamed, Prof. ZainulAbdin, Prof. Boon Hong, Prof. Lokman, Prof. Beitollahi, Prof. NaeemAghiq

Venue: Senate Hall

16:30-18:00

Topic:Issues and Solutions of Scientific Cooperation among Islamic Countries

Re-assemble of the Groups: Review of the Recommendations and Discussions

Format of the session:Panel Discussion(16:30-17:30)

Panelists: Prof. Omar Yaghi (Chair), Prof. WaelMamdouh (Co-Chair), Prof. Guler, Prof. Mohamed Elkhouly

Concluding remark by: Prof. Omar Yaghi (17:30-18:00)

Venue: Auditorium UPM

Day 3 | Wednesday (16-12-21)

9:00-10:30

Topic: Discovery and Development of Reticular Chemistry

Lecturer: Prof. Omar Yaghi

Venue: Atelier 1&2, LeMeridien Hotel (at Level 3)

11:00-12:30

Topic: Advanced Nanostructured Materials for Biomedical and Green Chemistry Applications

Lecturer: Prof. Jackie Ying

Venue: Atelier 1&2, LeMeridien Hotel (at Level 3)

12:30-14:30

Lunch: Latest Recipe, LeMeridien Hotel (at Level G)

14:30-16:00

Topic: Clean Energy Applications of Metal-Organic Frameworks

Lecturer: Prof. Omar Yaghi

Venue: Atelier 1&2, LeMeridien Hotel (at Level 3)

16:30-18:00

Topic: Nanotechnology - From Research to Commercialization

Lecturer: Prof. Jackie Ying

Venue: Atelier 1&2, LeMeridien Hotel (at Level 3)

Day 4 | Thursday (16-12-22)

9:00-12:30

Topic: The Issues Related to Publishing High Impact Papers

Workshop: Prof. Yaghi

Venue: Atelier 1&2, LeMeridien Hotel (at Level 3)

12:30-14:00

Lunch: Latest Recipe, LeMeridien Hotel (at Level G)

14:00-15:30

Topic: Scientists' Achievements in Islamic Countries – Session1

Chair of the session: Prof. Yaghi

Presentations:

Prof. ZainulAbdin (15 Minutes)

Prof. Ameer Azam (15 Minutes)

Prof. Guler (15 Minutes)

Prof. Moshfegh (15 Minutes)

Q&A: 30 Minutes

Venue: Atelier 1&2, LeMeridien Hotel (at Level 3)

Day 4

16:00-17:30

Topic: Scientists' Achievements in Islamic Countries – Session2

Chair of the session: Prof. Simchi

Presentations:

Prof. Ahmad Khan (15 Minutes)
Prof. Salim Al-Harthi (15 Minutes)
Prof. Soylak (15 Minutes)
Prof.WaelMamdouh (15 Minutes)
Q&A: 30 Minutes

Venue: Atelier 1&2, LeMeridien Hotel (at Level 3)

19:30-21:00

Topic: Closing Ceremony -Reading the Program Statement - Gala Dinner

Hosted by: UPM

Venue: Atelier Hall, LeMeredien Hotel (at Level 3)

Day 5 | Friday (16-12-23)

Topic: Scientific Tour

9:00-10:00	Visit to Halal Laboratory, Institute of Halal Products Research
10:00-12:00	Visit to Malaysian Agriculture Research and Development Institute (MARDI)
12:00-13:00	Lunch at L'Apprenti UPM
13:00-14:30	Friday Prayer at UPM Mosque
14:30-16:00	Visit to Edutourism Park UPM (EDUPARK UPM)

The 2015 Mustafa(pbuh) Prize in Nanoscience and Nanotechnology was Awarded to

Omar M. Yaghi

For his outstanding contributions in designing and production of classes of compounds known as Metal-organic Frameworks (MOFs), Zeolite Imidazolate Frameworks (ZIFs)and Covalent Organic Frameworks (COFs)

The most useful materials made by humankind such as zeolites, polymers, pharmaceuticals, steel and concrete are composed either from organic or inorganic components. Prof. Yaghi has pioneered the field of making materials by linking both organic and inorganic units together by strong bonds into robust porous crystalline materials called nanoporous metal-organic frameworks (MOFs).These hybrid materials are useful in gas storage (hydrogen, methane, and carbon dioxide), hydrocarbon separations, catalysis, and more recently electronics. Prof. Yaghi developed this chemistry from the fundamental science all the way to applications. BASF is currently marketing his inventions as Basolites.

It has been a long-standing objective in chemistry to make materials by design. The challenge is that linking building units together into extended structures invariably lead to amorphous materials, which defied design. Yaghi's invention of MOFs turned this 'dream' into reality and made available a chemistry, which has led to the production of the most extensive class of materials ever made. The ability to fine-tune these materials nearly at will has made them important and to be widely practiced in over 1,000 academic and industrial laboratories worldwide. This has inspired legions of young scholars around the world to enter into chemistry and the research into new materials.

Prof. Omar Mwannes Yaghi is a Jordanian-American scientist who was born in Amman, Jordan in 1965. He received his B.S. degree from State University of New York-Albany (1985), and Ph.D. from the University of Illinois-Urbana (1990) with Professor Walter G. Klemperer. He was an NSF Postdoctoral Fellow at Harvard University (1990-92) with Professor Richard H. Holm. He has been on the faculties of Arizona State University (1992-98), University of Michigan (1999-2006), and UCLA (2007-2011). He is currently the James and Neeltje Tretter Chair Professor of Chemistry at UC Berkeley, and a Senior Faculty Scientist at Lawrence

Berkeley National Laboratory. He is the Founding Director of the Berkeley Global Science Institute. He is also the Co-Director of the Kavli Energy NanoScience Institute, and the California Research Alliance by BASF. His early accomplishments in the design and synthesis of new materials have been honored by the Solid-State Chemistry Award of the American Chemical Society and Exxon Co. (1998) and the Sacconi Medal of the Italian Chemical Society (2004).

His work on hydrogen storage was recognized by Popular Science Magazine which listed him among the 'Brilliant 10' scientists and engineers in USA (2006), and the US Department of Energy Hydrogen Program Award for outstanding contributions to hydrogen storage (2007). He was the sole recipient of the Materials Research Society Medal for pioneering work in the theory, design, synthesis and applications of metal-organic frameworks and the AAAS Newcomb Cleveland Prize for the best paper published in Science (2007). He is also the recipient of the American Chemical Society Chemistry of Materials Award (2009), Izatt-Christensen International Award (2009), United Kingdom's Royal Society of Chemistry Centenary Prize (2010), China Nano Award (2013), King Faisal International Prize in Science (2015).

He holds over 10 distinguished professorships from universities in China, South Korea, Vietnam, Saudi Arabia and United Arab Emirates. Prof. Yaghi published over 200 articles, which have received an average of over 300 citations per paper. He is among the top five most highly cited chemists worldwide.

The 2015 Mustafa(pbuh) Prize in Bio Nanotechnology was Awarded to

Jackie Y. Ying

For her outstanding contributions to the synthesis of well-designed advanced nanostructured materials and systems, nanostructured biomaterials and miniaturized bio-systems of various interesting applications including the development of "stimuli-responsive polymeric nanoparticles" for diabetic patients.

Nanostructured materials hold tremendous potential due to their unique size-dependent properties. For applications in numerous fields, these materials need to be designed and synthesized not only with the desired feature size, but also with the specific functionalities. Prof. Jackie Yi-Ru Ying's research has made a major impact in the field of nanostructured materials through major breakthrough in the synthesis of nanoparticles, nanocomposites and nanoporous materials. She has created a nano tool box that is successfully applied towards drug delivery, cell and tissue engineering, biosensors and diagnostics, pharmaceuticals synthesis, green chemistry and energy. Remarkably, besides her 340 publications in leading journals, she has over 150 primary patents issued or pending, many of which have been successfully licensed for commercialization.

Using the nano tool box, Prof. Ying has created new materials and systems that tackle the major challenges in different areas. For example, her laboratory has developed polymer nanoparticles that are capable of auto-regulating the release of insulin depending on the blood glucose levels. This invention bypasses the need for blood glucose monitoring by finger pricks, and allows insulin to be delivered orally or by nasal passage, instead of through injection. This technology would greatly benefit the diabetic patients by helping to prevent hyperglycemic and hypoglycemic episodes and the associated organ damages. Prof. Ying co-founded SmartCells, Inc. to commercialize this novel nanomedicine. This spin-off company was acquired by Merck in 2010, with potential aggregate payments in excess of $500 million to further develop the technology for clinical trials.

Prof. Ying was born in Taipei in 1966, and raised in Singapore and New York. She received her B.E. and Ph.D. from The

Cooper Union and Princeton University, respectively. She joined the faculty at Massachusetts Institute of Technology(MIT) in 1992, where she was Professor of Chemical Engineering until 2005. She has been the Founding Executive Director of the Institute of Bioengineering and Nanotechnology (IBN; as a member of the A*STAR) in Singapore since 2003. For her research on nanostructured materials, Prof. Ying has been recognized with the American Ceramic Society Ross C. Purdy Award, David and Lucile Packard Fellowship, Office of Naval Research Young Investigator Award, National Science Foundation Young Investigator Award, Camille Dreyfus Teacher-Scholar Award, American Chemical Society Faculty Fellowship Award in Solid-State Chemistry, Technology Review's Inaugural TR100 Young Innovator Award, American Institute of Chemical Engineers (AIChE) Allan P. Colburn Award, Singapore National Institute of Chemistry-BASF Award in Materials Chemistry, Wall Street Journal Asia's Asian Innovation Silver Award, International Union of Biochemistry and Molecular Biology Jubilee Medal, Materials Research Society Fellowship, Royal Society of Chemistry Fellowship, American Institute for Medical and Biological Engineering Fellowship, American Association for the Advancement of Science Fellowship, and Crown Prince Grand Prize in the Brunei Creative, Innovative Product and Technological Advancement (CIPTA) Award. 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 was selected by The Muslim 500 in 2012, 2013, 2014 and 2015 to be one of the world's 500 most influential Muslims. She was selected as an Inaugural Inductee for the Singapore Women's Hall of Fame in 2014. She is the Editor-in-Chief of Nano Today, which has an impact factor of 15.

STEP as a platform to develop Science and Technology is aimed to get the eminent scientists in Islamic World together under specialized forums such as Malaysian Chapter: Nanoscience and Nanotechnology Forum with collaboration of S&T centers. Hence, top scientists nominated by members of MSTF Network such as COMSTECH, IAS, ISESCO, ECOSF, UNESCO, AAS, high ranked universities of Islamic countries, etc., to participate in this Forum.
Following pages are short introduction of the prominent delegates of the Forum.

Professor Malik Zainul Abdin

Professor Malik Zainul Abdin was born in the village, Quadirabad, Dist. Sidhartha Nagar, Uttar Pradesh in 1963. After his primary education in Quadirabad, he moved to Utroula and Basti for college education. He graduated from Aligarh Muslim University, Aligarh, U.P. in 1985 in Botany and did his Ph.D. in Plant Physiology from Indian Agricultural Research Institute (I.A.R.I.), New Delhi in 1991. In the last year of his Ph.D. program, Prof. Abdin was selected for lectureship in the Department of Botany in Jamia Hamdard, New Delhi and joined this position in 1990. In 1997, he was appointed as Reader and in 2005 as Professor in the Department of Biotechnology in Jamia Hamdard, New Delhi. He also took over Vice-Chancellor of Singhania University, Rajasthan in 2008. However, due to his strong interest in research, Prof. Abdin returned back to his parent Department, Department of Biotechnology. In addition to having many administrative positions in Jamia Hamdard including the dean of the Faculty of Science, a member of Executive Council and a member of Jamia Hamdard Society, he is currently the head of Biotechnology Department and a member of Executive Council, Integral University, Lucknow, U.P. So far he has guided 37 Ph.D. students as supervisors and 19 as co-supervisors in Biotechnology. Prof. Abdin has published more than 138 original research papers and edited two books. He has also visited several countries including USA, France, Germany, Japan, Australia, China, Saudi Arabia, and Iran to deliver lectures at International conferences.

Professor Ameer Azam

Professor Ameer Azam was born in Aligarh, India, in 1958. He is a Professor in the Department of Applied Physics, Aligarh Muslim University, Aligarh, India. He has also worked in the Centre of Nanotechnology, King Abdulaziz University, Jeddah, Saudi Arabia in 2010-2014. Currently he is the Chairperson of the Department of Applied Physics. Prof. Azam is also the Principal Coordinator of FIST Program of the Department of Science and Technology, Government of India and DRS II Program of University Grants Commission, Government of India. Prof. Azam received his Bachelor and Master degrees from the Meerut University in 1981 and 1983 respectively and started his career as a Post Graduate Teacher in Aligarh Muslim University in 1986. He received his Ph.D. degree in Applied Physics from the Aligarh Muslim University in 2002. Prof. Azam has more than 30 years of teaching and research experience. Initially, he worked in the area of Solid State Nuclear Track Detection (SSNTD) Technique and later on shifted to the multidisciplinary area of Nanotechnology in 2007. Efforts by Prof. Azam have resulted in developing significant programs in Nanotechnology in the Department of Applied Physics.

Dr. Muhammad Naeem Ashiq

Dr. Muhammad Naeem Ashiq was born in M.Garh, Pakistan, in 1979. He got his early education from a village school, Basti Downa, Dist. Muzaffar Garh. He got his M.Sc. from the Department of Chemistry, BZU, Multan and then obtained his MPhil from Quaid-i-azam University, Islamabad. He has completed his Ph.D. through Indigenous 5000 Fellowship Scheme from Quaid-i-Azam University, Islamabad in 2009. He has also been awarded a six-month Fellowship under International Research Initiative Program to Spain in the University of Valladolid, Valladolid, Spain. He joined Bahauddin Zakariya University, Multan, as lecturer in 2008 and then promoted to an assistant professor in 2009 and to an associate professor in 2016. He has also completed his Postdoctoral research in National Center for Nanoscience and technology in Beijing (2012). He has won the Best Researcher Award for three successive years (2006-2008) in QAU, Islamabad. His area of interest includes Photocatalysis, Reduction of CO2 into C1 compounds, Fuel Cells and Supercapacitors. He has also presented papers and posters in many national and international conferences. He has published 107 papers in prestigious journals among which one received the Best Paper Award from the HEC of Pakistan in 2014. Dr. Ashiq is a regular recipient of Research Productivity Award (RPA) bestowed by Ministry of Science, Pakistan, in different categories including in A and B categories. He has also guided 28 MPhil students on various projects and supervised five Ph.D. students.

Professor Belkheir Hammouti

Professor Belkheir Hammouti was born in Oujda, Morocco, in 1959. He was awarded a Ph.D. degree in Corrosion Science in 1994. He is currently a Professor in the Faculty of Science, University of Mohammed Premier, Oujda, Morocco. His research interest covers acidity sensors and corrosion inhibition of iron, steel, lead, aluminium, and copper in mineral acids by tetrazole, pyrazole, polymer, thiophene, pyridine, peptide, aminoacid and ester compounds. Additionally his research interest is directed towards the field of pesticides and selective electrodes water treatments. He has published more than 600 papers in corrosion and sensors fields and 9 Moroccan patents. In 2006, he received the Elsevier Award as the most published author in Morocco since 2000. He won the Arabic Award on Chemistry in 2013 by the Union of Arabic Chemists. Prof. Hammouti is the editor-in-chief of Moroccan Journal of Chemistry which is the sole one on ISI Thomson Reuters in Maghreb Countries as well as the editor-in-chief of Journal of Materials and Environmental Science which is the first on Scopus since 2010. He has edited 7 books. In 2010, he was invited by ACS to attend Pittcon 2010 among the MENA delegation. He is also the chairman of some international and national meetings on materials and environmental science. Prof. Hammouti is the most prolific author in "inhibition corrosion" in the world. He reached an h index of 51 on Scopus and a 55 on Google Scholar. Prof. Hammouti received the Royal Decoration (Wissam) by His Majesty the King Mohammed VI of Morocco on July 30, 2015, Throne Day.

Professor Ali Beitollahi

Professor Ali Beitollahi was born in Tehran, Iran, in 1959. He received his M.Sc. degree in solid state physics from Salford University and did his Ph.D. and carried out his Postdoctoral research in material science in Leeds University, UK. He is a member of Iran nanotechnology initiative council (INIC) since 2003. He has acted as the director of international collaboration committee as well as nano-standardization committee of INIC. He is a full professor at the metallurgy and materials engineering of Iran University of Science and Technology (IUST) for more than 20 years.

His publications include more than 160 papers in various well known international ISI journals as well as national and international conferences. He has also engaged in more than 20 successfully finished industrial research projects supported by various Iranian local industries mainly in the field of advanced materials and nanomaterials. He has supervised many Ph.D. and M.Sc. dissertations and theses. Prof. Beitollahi's main research areas include advanced materials, nanomagnetic materials, and nanoceramics.

Professor Noor Mohammad Butt

Professor Noor Mohammad Butt was born in Sialkot, Pakistan, in 1936. He obtained his Ph.D. in Nuclear/ Solid State Physics in 1965 and his D.Sc. in Physics in 1993 from University of Birmingham, UK. His classical research (1963) on "diffraction of Mossbauer gamma-rays from LiF single crystals" has been being cited for about 50 years. His recent study of nanomaterials of ferrites and antibacterial activities of nanoparticles of Ag and ZnO for drinking water (2011-2016) has been very significant. He is the author of 180 publications in ISI-journals, conference presentations, and research reports. He earned Senior Humboldt Award (Germany), Khwarizmi International Prize (Iran), Pakistan Academy of Sciences Gold Medal, Fellowships of Pakistan Academy of Sciences and of the Islamic Academy of Sciences, Senior Associate ICTP(Italy), and the Civil Award of Sitar-i-Imtiaz (Pakistan). Prof. Butt is a member of the editorial boards of several prestigious national and international journals. The Pakistan Atomic Energy Commission conferred on Prof. Butt the life title of Scientist Emeritus. He retired as the Director General of PINSTECH in Islamabad and as the Chairman of the Pakistan Science Foundation. Initiating Nanotechnology in Pakistan, being invited as a keynote speaker in many world conferences, and chairing well known scientific commissions, panels, committees, etc are all among the notable achievements of Prof. Butt.

Professor Mohamed Elsayed El-Khouly

Professor Mohamed Elsayed El-Khouly was born in Tanta, Egypt, in 1969. He earned his Ph.D. degree in photochemistry from Graduate School of Science, Tohoku University, Japan in 2002. Shortly thereafter, he continued his research in Japan funded from Venture Business Laboratory (2003-2004), Center of Excellence (2004-2006), and Japan Society for the Promotion Science (2006-2008). In 2008-2012, he joined the research group of Prof. Shunichi Fukuzumi at Osaka University as a specially appointed Associate Professor. Since 2013, he has been acting as a full professor at Department of Chemistry, Kafrelsheikh University, Egypt. His research interest is mainly focused on ultrafast laser photolysis of the molecular and supramolecular complexes, carbon nanostructures, artificial photosynthesis complexes, photodynamic therapy, and material science. Prof. El-Khouly has strived to examine the photochemical properties of the novel materials e.g. luminescence, light harvesting, photoinduced energy, and electron-transfer reactions using ultrafast laser photolysis techniques. His research is of interest both in fundamental science and in technological applications such as solar energy conversion. To date, Prof. El-Khouly has published around 130 papers and reviewed many articles in international peer-reviewed journals with a total citation of 4000 and an h-index of 33. He serves as a member of the editorial boards in globally-reputable scientific journals as well as national funding agencies. These impressive achievements made Prof. El-Khouly be selected as a member of the Basic Sciences Council and the Academy of Scientific Research and Technology (ASRT) in Egypt.

Professor Mohammed Ashraf Gondal

Professor Mohammed Ashraf Gondal was born in Mandi-Bahauddin, Pakistan, in 1950. He is a distinguished professor at Department of Physics, King Fahd University of Petroleum and Minerals and is a visiting professor at MIT, USA, since 2012. Prof. Gondal earned his Ph.D. from University of Bonn. He was appointed regular associate member of the International Center for Theoretical Physics in Trieste, Italy, in 1988-1995. He has worked at MIT on joint project on development of super-hydrophilic and super-ollieophobic surfaces for oil water separation and has undertook a joint project with National University of Singapore. Prof. Gondal's research areas of interest include lasers, photonics, nanotechnology, materials science, sensors, solar cells, chemical physics, environment, laser remote sensing, pollution monitoring, development of laser based analytical techniques (LIDAR, PAS, LIBS,LEI), methane cracking using photolysis, laser-photo-catalysis for production of high value hydrocarbons and hydrogen for fuel cells, waste water treatment and disinfection of bacteria. Prof. Gondal has published over 450 research papers in ISI journals and world conferences of high repute and have over 4100 citations with an h index of 36. He has 15 patents so far published by US Patent Office. Prof. Gondal has won prestigious awards as a brilliant leading scientist including Marai Innovation Prize, Distinguished (Best) Researcher Award by KFUPM, Best Paper Oral Presentation Award (ICOIP) in Chicago, etc. He has been a keynote speaker in many international conferences and workshops and is a member of seven editorial boards of scholarly journals.

Dr. Javed Ali

Dr. Javed Ali was born in New Delhi, India, in 1972. Having 20-year experience in teaching and research, he is working now as an Associate Professor at Jamia Hamdard. Dr. Ali passed his B-Pharm and M-Pharm. with distinction from the Faculty of Pharmacy, Jamia Hamdard in 1994 and 1996 respectively. He earned his Ph.D. in 2000 and won a Postdoctoral Fellow at University of Frankfurt, Germany, in 2005. His area of expertise is nanocarriers for drug delivery.

Dr. Ali has been bestowed with several honors and awards including Development Grant by International Pharmaceutical Federation, the Netherlands (2002), the SERC-Fast Track Research Project Award for Young Scientists by Department of Science and Technology, Govt. of India (2003, 2006), the Motan Devi Dandiya Award in Pharmacy (2004), the Career Award for Young Teachers by All India Council for Technical Education, New Delhi (2003), American Association of Indian Pharmaceutical Scientists (AAIPS)–IPA Distinguished Educator and Researcher Award (2007) at the Association meeting at San Diego, USA, etc. As a widely traveled person, he has presented his research studies in about 50 conferences held in India and abroad and has a list of more than 260 manuscripts in journals of repute and several Indian Patents granted/applied. He has an h index of 35 and more than 4400 citations to his credit as per Scopus. He is the reviewer to a large number of international and national Journals and was the Editor-in-Chief of International Journal of Pharmaceutical Investigation (included in ESCI).

Professor Md. Mizanur Rahman

Professor Md. Mizanur Rahman was born in Mymensingh, Bangladesh, in 1967. He is a professor at Department of Soil Science, Bangabandhu Sheikh Mujibur Rahman Agricultural University (BSMRAU), Gazipur-1706, Bangladesh. He had already earned his B.Sc. degree from Bangladesh Agricultural University in 1993 when he completed his M.Sc. and Ph.D. studies in Soil Fertility in 2000 and 2006 respectively in the Asian Institute of Technology (AIT), Bangkok, Thailand. Prof. Rahman started his professional career in September 1993 as a Scientific Officer in Bangladesh Agricultural Research Institute and joined Soil Resource Development Institute in 1993, and the Department of Soil Science in BSMRAU in 2006. He has been conducting B.Sc., M.Sc., and Ph.D. level courses and he has already supervised and offered degrees to two Ph.D. and 18 M.Sc. students as a Major Professor. Prof. Rahman is involved with different professional and social societies like Bangladesh Association for the Advancement of Science (Life Member), Plant Breeding Society of Bangladesh (Life Member), AIT Alumni Association, Thailand (Ordinary Member), and Soil Science Society of Bangladesh (Ordinary Member). He has completed several research programs as a principal and a co-principal investigator utilizing the fund of World Bank, IFAD, Bangladesh University Grants Commission, and other national organizations. Prof. Rahman is keen to conduct research on carbon sequestration, reactive nitrogen, global warming and climate change, modeling climate change impact on agriculture, waste management, nutrient recycling, soil fertility management, arsenic mitigation, soil and environmental pollution, etc. He has published 42 research articles in different renowned journals.

Professor Mohamed El-Sayed Mahmoud

Professor Mohamed El-Sayed Mahmoud was born in Alexandria, Egypt, in 1955. He has received his B.Sc. and M.Sc. degrees from Alexandria University, Alexandria, Egypt and his Ph.D. degree from Northeastern University, Chemistry Department, Boston, USA. He has worked as an assistant, associate, and full professor in Alexandria University. He joined the Faculty of Medicine, King Abdulaziz University, KSA for nine years as a Professor of Analytical Chemistry (1999-2008). He worked also as a visiting professor in Sultan Qabos University, Muscat, Oman (Spring 2010), University of Malaya, Kuala Lumpur, Malaysia (2008-2009), CNU and Applied Research Center, Newport News, Virginia, USA (Summer 2007).

The research interest of Prof. Mohamed E. Mahmoud is focused on nanochemistry, green chemistry, solid phase extraction and separation techniques. As an eminent and highly prolific scientist, Prof. Mahmoud has had many publications throughout the current year (2016) on the abovementioned topics in scholarly journals.

Professor Mona Bakr Mohamed

Professor Mona Bakr Mohamed was born in Assiut, Egypt, in 1968. She is currently the Executive Director of Egypt Nanotechnology Center (EGNC), Cairo University and CEO of NanoTech Egypt for Photoelectronics. She gained her Ph.D. in 2002 from Georgia Tech, Atlanta, USA under the supervision of Prof. Mostafa El-Sayed.

Her research interest is focused on synthesis and characterization of different nanomaterails such as plasmonic nanomaterails, semiconductor nanocrystals and their hybrid nanostructure with graphene. Understanding the electronic structure and ultrafast optical response of these hybrid nanostructures is one of her research group aims. Her research group (22 graduate students) is working on constructing novel hybrid nanocomposites for solar cell applications, photoelectronic devices, biomedical imaging, cancer therapy, nanocatalysis, and water treatment. She has had over 87 publications in highly ranked journals and delivered more than 30 public lectures to raise public awareness of nanotechnology in Egypt and in the Arab region. Also, her research group is trying to link between industry and academia through implementing nanomaterails in paint industry, construction industry, plastic, textile, feed additives, etc. Moreover, the team is trying to manufacture nanomaterails in large scale using Egyptian expertise.

Professor Alireza Zaker Moshfegh

Professor Alireza Zaker Moshfegh was born in Dezful, Iran, in 1956. He received his Ph.D. in Physics (Experimental Surface Physics) from the University of Houston, Texas, in 1990. After two years of conducting Postdoctoral research at Texas Center for Superconductivity at the University of Houston (TCSUH), he joined Physics Department at Sharif University of Technology (SUT) in Tehran, Iran. He became a full professor in Physics in 2005 and then was elected as the chairman of Physics Department at SUT (2006-2009). He is a key founder of several national societies namely Surface Science and Technology, Vacuum Science and Technology, Nanoscience and Nanotechnology as well as Condensed Matter Physics. Prof. Moshfegh became the top outstanding physics researcher of Iran in 2011. He has established a multidisciplinary group called NEST (Nano, Energy, Surface and Thin films) in SUT in 2011. He was elected as the first chair of Surface and Interface Physics in Iran in 2015. He is currently the president of Iran Vacuum Society.

His current research interests focus on the synthesis and characterization of nanostructures and low-dimensional materials, in particular novel 2D materials such as graphene, transition metal dichalcogenides (TMDs) and g-C3N4 for clean energy production and environmental remediation. He is also actively involved in applications of nanostructured materials in production of hydrogen. He has published more than 130 research articles and several review papers with about 2700 citations with an h index of 30 along with a co-edited book on physics and technology of thin films.

Dr. Mubarak Ahmad Khan

Dr. Mubarak Ahmad Khan was born in Manikganj, Bangladesh, in 1958. He is the Chief Scientific Officer and Director General of Atomic Energy Research Establishment, Bangladesh Atomic Energy Commission. He has completed his B.Sc., M.Sc., and Ph.D. in Chemistry. His research interest focuses on modifying natural polymers using radiation processing technology for biomedical purposes, renewable energy, nanotechnology, biodegradable composite, packaging materials, and modification of natural fibers. He has worked in Germany as a DAAD and an AvH Fellow, in Japan as a MIF and JSPS Fellow, in USA as a Visiting Scientist, and in Australia as an IAEA Fellow. Also, he has been selected as an IUPAC Fellow. Dr. M. A. Khan is the author/co-author of about 600 publications including 17 book chapters and a patent. He has supervised more than 200 M.Sc., 8 MPhil, and 20 Ph.D. students. He has invented advanced wound dressing material from bone (Gelatin), natural plant growth promoter from seaweeds, and natural food preservatives from prawn shell (Chitosan) along with developing new techniques critical to advancing science. He is also the inventor of Jutin® (jute plastic composite) the outstanding housing and materials as well as various applications such as parts and body of auto car, panelized constriction materials, and bodies of electric appliances. He has received several national and international awards including Bangladesh Academy of Science Gold Medal for his contribution to scientific community. At present he is the number one scientist in Jute sector all over the World with respect to international publications cited by Scopus.

Professor Salim Hamood Al-Harthi

Professor Salim Hamood Al-Harthi was born in Bojumbora, Burundi, in 1966. He is a professor in surface physics and nanotechnology with extensive educational credits and experience. Having completed his B.Sc. from SQU, he pursued and completed his M.Sc. from Manchester and went on to obtain his Ph.D. from Warwick University where he was exposed to a wide range of research in science and technology of liquid crystals, low temperature physics, semiconductor physics, surface characterization, corrosion science and nanotechnology. His experience is further supplemented with many workshops and conferences he has organized and attended in various countries and the unique management skills he gained from the private sector. Since 1993 he has been involved in more than 100 committees at the departmental, college, university, and country level and played a role in the implementation of the 2009-2013 SQU strategy and the development of the long term innovation strategy at SQU. Prof. Al-Harthi has taught both undergraduate and postgraduate courses in physics and advised more than 60 undergraduate students.

He has also successfully guided and supervised 12 M.Sc. and 6 Ph.D. candidates and contributed in the training of many technical staff at the college. He has been a principal investigator for many internal and His Majesty the Sultan projects and a co-investigator in certain TRC, industrial and collaborative research projects.

He has published over 100 papers in international journals, 200 technical reports/ proposals as well as 15 papers in conference proceedings.

Professor Saeed Sarkar

Professor Saeed Sarkar was born in Kashan, Iran, in 1958. He earned his Ph.D. in Medical Physics from Surrey University, UK, in 1994 and is currently an academic member of Tehran University of Medical Sciences (TUMS) where he was the head of Medical Physics Department for seven years (1997-2004). He has been the secretary general of Iran Nanotechnology Initiative Council (INIC) since 2008. This council is responsible for policy making, development, and promotion of Nanotechnology in Iran. He has also been the director of Institute for Advanced Medical Technologies (IAMT) since 2002 where over 150 researchers are active in R&D. He is also the founder and a board member at Iranian Association of Nanotechnology established in 2005 and a board member of Nanotechnology Committee in Ministry of Health and Medical Education since 2007. He has been a member of Board of Trustees at Kashan University of Medical Sciences and two other research Institutes since 2008. More than 30 M.Sc. and 16 Ph.D. students have been supervised by Professor Sarkar. He has published more than 90 peer review journal publications and 3 books. He is the winner of more than 10 awards and has 8 USA and European patents. He is also a member of editorial board of four scientific Journals. He has established 5 knowledge-based companies, two of which are engaged in designing and construction of Nanotechnology lab instruments and the other three companies are producing medical equipment.

Professor Abdolreza (Arash) Simchi

Professor Abdolreza (Arash) Simchi was born in Tehran, Iran, in 1969. He is a distinguished professor in the Department of Materials Science and Engineering in Sharif University of Technology (SUT), Tehran, Iran. He was also jointly appointed in the Institute for Nanoscience and Nanotechnology at SUT. He received his graduate degrees in Materials Science and Engineering from SUT and carried out his Postdoctoral research in Fraunhofer Institute for Manufacturing Technology and Advanced Materials (IFAM) in Germany.

Prof. Simchi has acquired more than five years of international work experience in a capacity of a Visiting Professor and Academic Visitor in accredited universities and institutes including University of Toronto (Toronto, Canada), Imperial College London (London, UK), Vienna University of Technology (Vienna, Austria), Max-Planck Institute (Potsdam, Germany), and Fraunhofer Institute IFAM (Bremen, Germany). He is a Fellow of the Alexander von Humboldt Foundation (Bonn, Germany) and holds the 2002 Khwarizmi International Award (the highest national award) and World Intellectual Property Award (as the best young inventor, United Nation Organization) along with many other international and national awards and fellowships. He is ranked by Iran Nanotechnology Initiative Council as one of the Top Ten in Nanoscience and Technology among 2650 active professors and researchers in Basic Science, Engineering, and Medicine for four consecutive years (2009-2012). Currently, he has focused broadly on the synthesis, characterization and application of different nanostructures, particularly nanoparticles, two dimensional nanomaterials, quantum dots and monolayers in (bio)sensors, smart tissue engineering scaffolds, and renewable energy.

Professor Mustafa Soylak

Professor Mustafa Soylak was born in Kayseri, Turkey, in 1967. He is a specialist in Analytical Environmental Chemistry, Spectrophotometric Analysis in Atomic Spectroscopy. He received his B.Sc. and M.Sc. degrees in Chemistry and his Ph.D. in Analytical Chemistry from Erciyes University. He has published over 530 papers, his h index is 78, and several books and has won many awards. Dr. Mustafa Soylak was recognized as a highly cited researcher in 2014 and 2015 by Thomson Reuters in recognition of his efforts in science and his ranking among the top one percent influential researchers for being widely cited. He has been selected as a Fellow of Chemical Society of Pakistan. He is currently working on separation/preconcentration techniques including solid phase extraction, coprecipitation, cloud point extraction, membrane filtration, speciation and microextraction of trace organic and inorganic species which are playing important roles in the lives of human beings. He is a visiting professor at King Saud University, Saudi Arabia. He is now a professor at Erciyes University, Faculty of Sciences, Department of Chemistry, Kayseri, Turkey.

Dr. Wael Mamdouh Ahmed

Dr. Wael Mamdouh Ahmed was born in Alexandria, Egypt, in 1975. He is an assistant professor of Nanotechnology and the leader of the largest dynamic research group at the American University in Cairo (AUC). Dr. Mamdouh Ahmed received his B.Sc. in Science (Chemistry) from Ain Shams University, Egypt, in 1997. He earned his M.Sc. and Ph.D. in Chemistry from the Katholieke Universiteit Leuven (KUL), Belgium, in 2002 and 2005 respectively. Dr. Mamdouh Ahmed's research is focused on designing novel polymer nanocomposites, electrospun nanofibers, nanoparticles, drug delivery nanocarriers, antibacterial nanocoatings and nanoscaffolds for wound dressings and tissue engineering, nanocosmetics, nanoporous membranes for biomedical and packaging applications. He has published many papers, his h index is 19, in international peer-reviewed journals such as Nature, Nature Nanotechnology, Scientific Reports, ACS NANO, JACS, and many others where his publications received more than 2500 citations worldwide. Dr. Mamdouh Ahmed has a couple of published US patents related to Nanoparticle-based Combinatorial Therapy for Breast Cancer Therapy, and Inulin Nanofibers for Antibacterial and Prebiotic applications. He is the founder of a recent Spinoff Company (NANO-Fib-TECH) for producing innovative nanotechnology-based antibacterial and disinfectant nanofiber liquids for health care industry. This was funded by the Academy of Scientific Research & Technology (ASRT) in Egypt and incubated in collaboration with Bedaya Center for Entrepreneurship & SMEs Development (GAFI), Ministry of Investments in Egypt. Recently, Dr. Mamdouh Ahmed won the first-place prize among 200 participants for the best start-up in the 3rd Cairo International Exhibition of Innovation (Cairo Innovates, 2016) organized by ASRT.

Dr. Seyed Majid Mohseni Armaki

Dr. Seyed Majid Mohseni Armaki was born in Tehran, Iran, in 1978. He is currently an assistant professor of applied physics at Faculty of Physics at Shahid Beheshti University (SBU), Tehran, Iran. He achieved his Ph.D. on nano-magnetism and Spintronics devices at KTH, Sweden (2012). He was an industrial R&D engineer and had his Postdoctoral experience in a spin-off company in Sweden. He was among the first distinguished authors who published in Science and was a co-author in many prestigious journals on Spintronics devices. He started his academic activity at SBU in 2013. Dr. Mohseni received second fundamental research prize of the 27th Khwarizmi International Award on "Spintronics oscillators" as well as many other academic awards including Iran Science Elites Federation (ISEF) and Iran National Elite Foundation (INEF). Dr. Mohseni established Nano-Physics and Spintronics Group (NPSG) at the Faculty of Physics at SBU to start simulations, experiments, and theoretical works on devices with a main focus on Spintronics, 2-dimensional materials (Graphene and transition metal Chalcogenides), and micro/nano-robotics in his new founded group. His research area covers applied physics at the nano-scale with a primary focus on designingstate-of-the-art elements and devices being useful for engineering, industry, and health-care applications.

Dr. Chin Wei Lai

Dr. Chin Wei Lai was born in Kuantan, Malaysia, in 1985. He is a senior lecturer in the Nanotechnology and Catalysis Research Centre, University of Malaya. Dr. Lai's main research interests are in the areas of chemically modified metal oxide photocatalysts and graphene materials, especially applied in environmental pollution management and solar energy technology. Dr. Lai has spent more than 5 years to develop, optimize, and simplify the technology in the synthesis of nanoparticles, metal oxide nano-architecture and carbon/graphene materials. This technology is of high significance for green energy and environment applications.

Dr. Lai's works have been published in more than 70 refereed international top-tier journals in materials science, physics, chemistry, and renewable energy research. Since 2013, his research has been funded by the Ministry of Higher Education of Malaysia, MOHE (FRGS, HIR-MOHE), Ministry of Science, Technology and Innovation of Malaysia, MOSTI (E-Science fund, National Nanotechnology Development), internal University funding (University of Malaya Research Grant) as well as international funding (Nippon Sheet Glass Foundation for Materials Science and Engineering, COMSTECH-TWAS Joint Research Grants Program, SATU Joint Research Scheme Program). Being a reputable researcher for his enthusiasm and dedication towards research work, Dr. Lai has won several prestigious university, national, and international awards. Through his research works in nanomaterials and catalysis field, he was awarded the University of Malaya Excellence Awards in the category of outstanding researcher-UM Young Researcher (Sciences Discipline) and was selected to be a member of the Young Scientist Network – Academy of Sciences Malaysia (YSN-ASM) in 2015.

Professor Mohd Zobir Bin Hussein

Professor Mohd Zobir Bin Hussein was born in Muar, Johor, in 1955. He is currently the programme manager for nanomaterials at the Materials Synthesis and Characterization Laboratory, Institute of Advanced Technology, UPM.

He obtained his B.Sc. (Hons) degree from UKM and Ph.D. degree from University of Reading, U.K. He completed his Postdoctoral research at various laboratories; University of Southampton, U.K., Pennsylvania State University, USA, Victoria University of Wellington, New Zealand, and University of Western Australia, Australia. He and his research group work on nanomaterials for various applications. His research interest covers the design, synthesis and studies to improve drug bioavailability by nanotechnology platforms for drug and theranostics delivery systems. Nanomaterials, such as layered hydroxides, magnetic and polymer nanoparticles, carbon nanostructures and graphene are among nanoplatforms used for drug and theranostics delivery systems with controlled release properties. Together with other researchers from various laboratories, his group also works on strategies to increase therapeutic effect for anti-cancer and anti-tuberculosis drugs as well as other diseases via in vitro and in vivo studies. With Malaysian Palm Oil Board (MPOB), he also works on the synthesis of various agronanochemicals for better management of pesticides and fungicides, especially for Ganoderma diseases in palm oil plantation. Works on core-shell nanoencapsulated phase change materials (PCM) and activated carbon for the formation of shape-stabilised PCM for green/smart building, paint and other applications are also on progress with partners from Forest Research Institute of Malaysia (FRIM). Prof. Mohd Zobir Bin Hussein is the author and co-author of more than 300 papers and 5 patents.

Professor Ali Murat Güler

Professor Ali Murat Güler was born in Sivas, Turkey, in 1972. He received the B.Sc. and M.Sc. degrees in physics from Middle East Technical University (METU), Ankara, Turkey, in 1994 and 1997, respectively. To gain his Ph.D., he worked in the CHORUS experiment at CERN and carried out research at Nagoya University, Japan, from 1999 to 2000 supported by Scientific and Technological Research Council of Turkey (TÜBİTAK). He recieved his PhD in 2000. He further worked as a Postdoctoral researcher in Department of Physics at Nagoya University from 2000 to 2002. His studies at Nagoya were supported by JSPS Fellowship. In 2003, he joined METU Department of Physics as a faculty member. He was promoted to the position of a full professor in 2010. His research activity is mainly focused on experiments on neutrino oscillation physics, neutrino charm production and dark matter.

He has built up a group active in neutrino physics and emulsion based high-energy physics experiments. He is the founder of a nuclear emulsion laboratory at METU where nuclear emulsion films are scanned and analysed by fully automatic optical microscope.

Prof. Güler has worked on several CERN experiments (CHORUS, OPERA and SHiP experiments)and has been involved in software development and data analysis. He is the principal investigator of several national and international projects supported by various funding agencies. In 2011and 2013, he received the Young Scientist Award from TÜBİTAK and the METU Performance Award, respectively.

Professor Mahmoud Mohamed Elnahas

Professor Mahmoud Mohamed Elnahas was born in Damietta, Egypt, in 1948. He is a Professor of Physics in the Faculty of Education, Ain Shams University, Cairo, Egypt and was the head of the Physics Department in 2008-2009. He was awarded his Ph.D. in Solid State Physics in 1981 following his M.Sc. in the same major in 1977. He is the holder of two bachelor degrees in science and in science and education. He is a member of many academic societies in Egypt and worldwide. His publications reached more than 250 articles in different topics of research. He is also an editor in the International Journal of Photoenergy. Prof. Elnahas has supervised up to 28 M.Sc. and 28 Ph.D. theses. His research areas include, but is not limited to, optical properties of thin films, physical properties of semiconductors (thin films and crystals), physical properties of organic materials thin films, photovoltaic of solar cells (organic and inorganic materials), molecular modeling, IV, CV, deep level transient spectroscopy (DLTS) and high resolution Laplace DLTS, etc. His current research is in the field of thin film solar cells using nanostructure material. He has worked on so many projects that help improve life and society. He is currently working on a project titled "Preparation and Characterization of Low Cost Solar Cells Using Environmental Waste" funded by Science and Technology Development Fund (STDF). Prof. Elnahas has been honored and awarded different prizes including The Egyptian National Prize for Excellence in Basic Science "Physics" (2011) and The Ain Shams University Appreciation Award (2014).

Professor Mohd Basyaruddin Abdul Rahman

Professor Mohd Basyaruddin Abdul Rahman was born in Penang, Malaysia, in 1972. He is currently a professor of Chemistry and Deputy Dean (Research and Graduate Studies) at Universiti Putra Malaysia. He received his Ph.D. in Catalysis Chemistry in 1999 at the University of Southampton, England. His promotion to Professorship at the age of 36 made him among the youngest in Malaysia. He developed skills in catalysis at synchrotron radiation in Daresbury and Grenoble, protein engineering at Osaka University, and structural biology at the University of Edinburgh. His research areas include biocatalysis, chemical biology and computational chemistry. Dr. Mohd Basyaruddin is among the pioneer chemists in this country to synergize experimental results with theoretical insights. Overall, he has secured a total of more than RM 10 million to conduct research. He has published more than 200 cited papers and 300 proceedings in the wide field of biocatalysis. To date, more than 20 patent applications have been filed in Malaysia and 10 internationally.

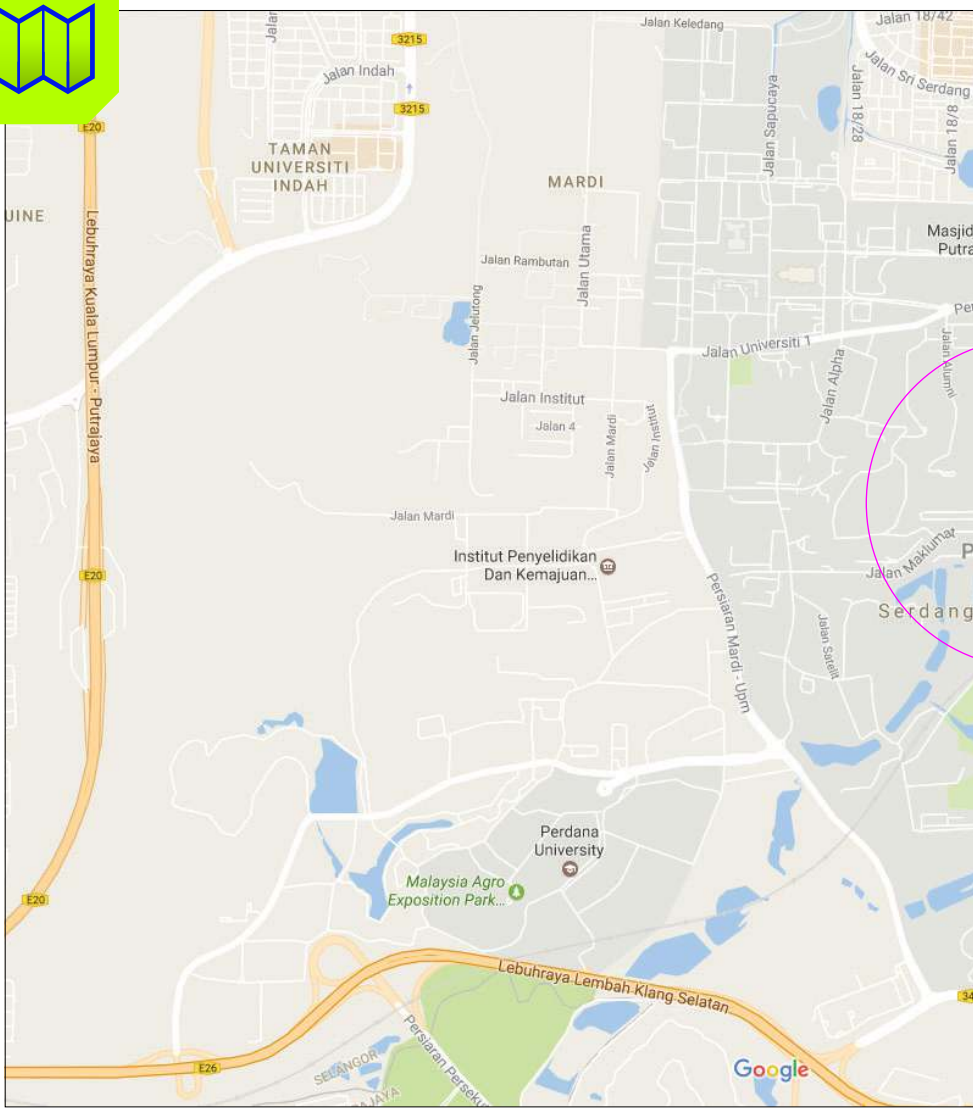
He has supervised and co-supervised more than 40 PhD and 50 M.Sc. postgraduate students. He won Young Scientist Recognition from various bodies including ACS, IUPAC, and IAP. His passion and vision for the youths has led him to be active in outreach activities such as MyBiotech@ School, National Science Challege, Back to Schools, Science Show Competition, and Science Ambassador Programs.

He was the founding chairman of the Young Scientists Network-Academy of Sciences in Malaysia and was recently elected as a Fellow of Academy of Sciences in Malaysia as well as a Fellow of Royal Society of Chemistry.

Professor Mohamed Eddaoudi

Professor Mohamed Eddaoudi was born in Agadir, Morocco, in 1969. He is regarded as one of the world leaders in the field of Metal-Organic Frameworks (MOFs), a fast emerging field of solid state materials. He implemented the single-metal-ion-based molecular building block (MBB), the supermolecular building blocks (SBB) and the supermolecular building layers (SBL) approaches as means for the design and synthesis of functional MOFs. He has developed novel strategies, based on the molecular building block approach, for the construction of functional porous solids namely Zeolite-like Metal-Organic Frameworks (ZMOFs) with tunable extra-large cavities and periodic array of organic and inorganic moieties. He has introduced various MOFs (e.g. ZMOFs, soc-MOFs, rht-MOFs, gea-MOFs and tbo-MOFs) as potential tunable platforms for applications pertaining to energy and environmental sustainability: Hydrogen storage, Carbon dioxide capture, Gas separations, Toxic Industrials Chemicals filters, Sensing applications, Catalysts immobilization. He is a member of the American Chemical Society. He received the Outstanding Faculty Research Achievement Award (2004 and 2007) and the Chemistry Outstanding Teaching Award (2005 and 2008) from the University of South Florida. Professor Mohamed Eddaoudi was awarded the prestigious National Science Foundation Career Award in 2006. He was selected as one of the 30 rising stars and young chemists in the U.S. and been invited to present their research at the Second Transatlantic Frontiers of Chemistry Symposium in 2006. He was selected in 2014, 2015 and 2016 as Thomson Reuters Highly Cited Researchers and world's most influenced scientific minds (2014). He has given more than 150 invited talks at conferences and universities since 2002. His contribution to the field of metal-organic frameworks has been highly visible in peer-reviewed journals, as evidenced through his recognition by ISI in 2007 as one of the top 100 most cited chemists of the past 10 years (ranked #68), http://in-cites.com/nobel/2007-che-top100.html.

UPM address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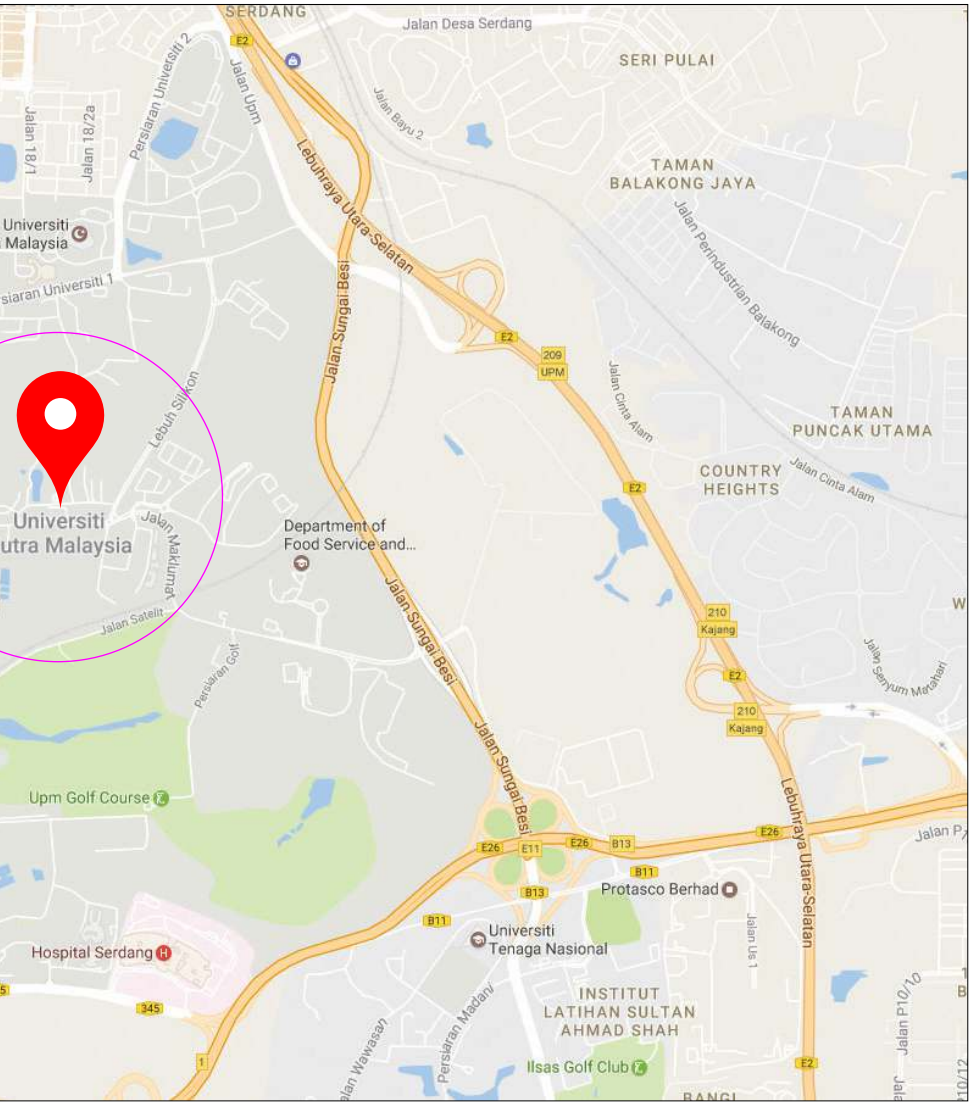
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Department of Food Service and...
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Jalan Senyum Mentari
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Protasco Berhad
Universiti Tenaga Nasional
Hospital Serdang
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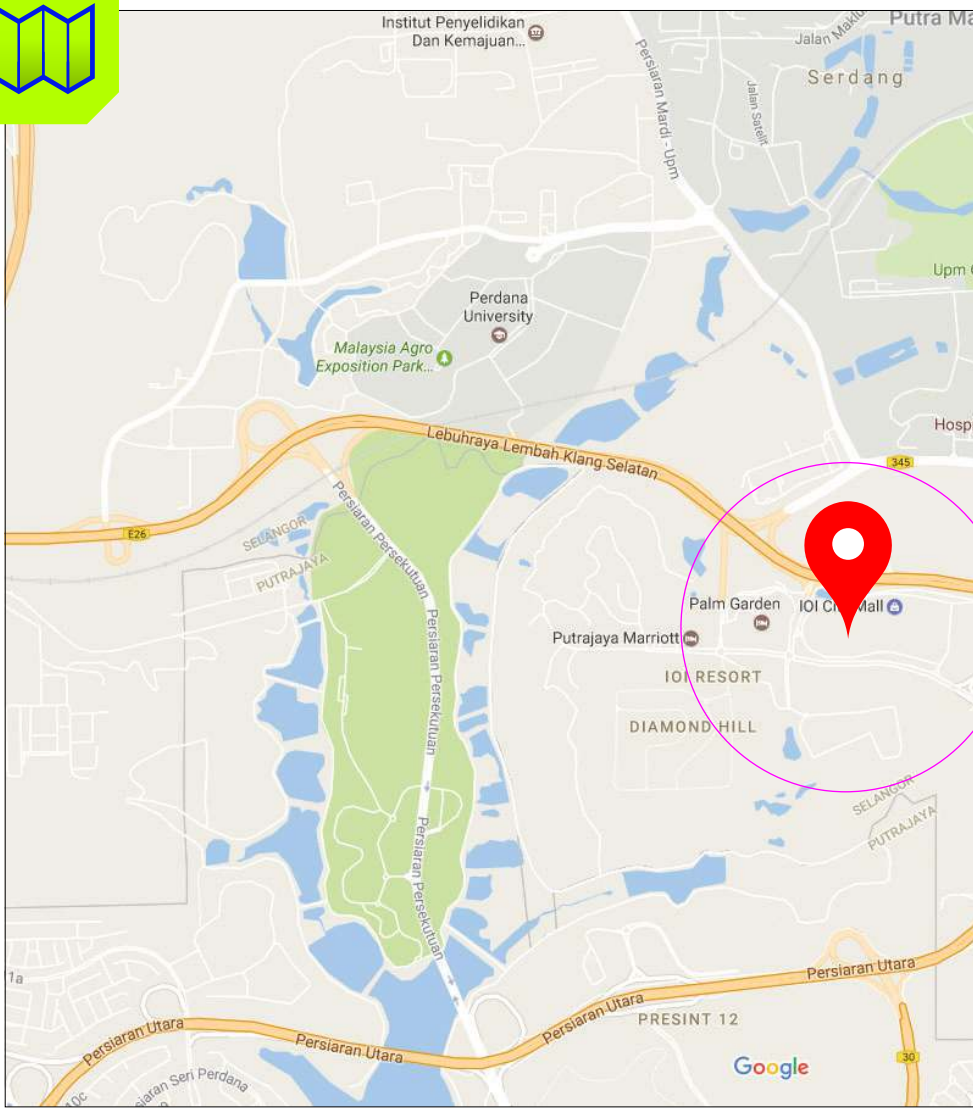
Le Méridien Putrajaya Hotel address

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