



Under the Patronage of
Sheikh Hasina
Honourable Prime Minister of Bangladesh

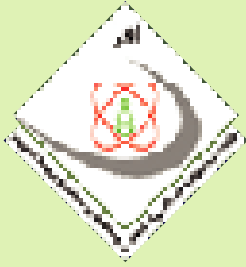


19TH CONFERENCE OF THE ISLAMIC WORLD ACADEMY OF SCIENCES

Science, Technology & Innovation:
Empowerment of the People in the Islamic World



5-9 May 2013, Dhaka, Bangladesh



19TH CONFERENCE OF THE ISLAMIC WORLD ACADEMY OF SCIENCES

**Science, Technology & Innovation:
Empowerment of the People in the Islamic World**

5-9 May 2013, Dhaka, Bangladesh

Jointly Organised by _____

- Islamic World Academy of Sciences (IAS), Amman, Jordan
- Ministry of Foreign Affairs, Government of the People's Republic of Bangladesh
- Ministry of Science & Technology, Govt of the People's Republic of Bangladesh
- University Grants Commission (UGC), Bangladesh
- Bangladesh Academy of Sciences (BAS)

Sponsors _____

- OPEC Fund for International Development (OFID), Vienna, Austria
- Islamic Development Bank (IDB), Jeddah, Saudi Arabia
- OIC Ministerial Committee on Scientific and Technological Co-operation (COMSTECH), Islamabad, Pakistan
- Arab Potash Company, Amman, Jordan
- Bangladesh University of Health Sciences (BUHS), Dhaka, Bangladesh
- Incepta Pharmaceuticals Ltd, Dhaka, Bangladesh



Introduction

Launched in 1986, the Islamic World Academy of Sciences (IAS) is an autonomous international non-governmental organisation that plays the role of 'science advisor' of the countries of the Organisation of Islamic Co-operation (OIC) on science and technology (S&T) matters. It boasts a membership of over 104 Fellows who represent the scientific elite of OIC countries and communities worldwide and has three Nobel Laureates, a number of Heads of State as well as top OIC business leaders among its select group of Honorary Fellows.

By debating scientific issues with top decision-makers and the public, the IAS has managed to raise the profile of science in the OIC and has become a propagandist for S&T in political circles within. Moreover, the IAS has become a house of expertise on matters related to higher education, natural resources development including water and energy as well as the environment at the level of the OIC, especially within academe.

The IAS partly fulfils its long-term objectives by organizing international conferences and seminars that address major contemporary topics of importance to the Islamic world and developing countries. Since 1987, the IAS has organised 18 such conferences in a number of countries as follows:

- Food Security, Amman, Jordan 1987
- Science and Technology Policy, Islamabad, Pakistan, 1988
- New Technologies, Kuwait City, Kuwait, 1989
- Technology Transfer, Antalya, Turkey, 1990
- Science and Technology Manpower Development, Amman, Jordan, 1991
- Environment and Development, Kuala Lumpur, Malaysia, 1992
- Health, Nutrition and Development, Dakar, Senegal, 1993
- Water in the Islamic World, Khartoum, Sudan, 1994
- Science and Technology Education, Tehran, Iran, 1999
- Information Technology, Tunis, Tunisia, 2000
- Biotechnology and Genetic Engineering, Rabat, Morocco, 2001
- Materials Science and Technology and Culture of Science, Islamabad, Pakistan, 2002
- Energy for Sustainable Development and Science for the Future, Kuching/Sarawak, Malaysia, 2003
- Science, Technology, and Innovation for Socioeconomic Development of OIC-Member Countries: Towards Vision 1441, Kuala Lumpur, Malaysia, 2005
- Higher Education Excellence for Development in the Islamic World, Ankara, Turkey, 2006
- Science, Technology and Innovation for Sustainable Development in the Islamic World: The Policies and Politics Rapprochement, Kazan/Tatarstan, Russian Federation, 2008
- Towards the Knowledge Society in the Islamic World: Knowledge Production, Application and Dissemination, Shah Alam, Selangor, Malaysia, 2009
- The Islamic World and the West: Rebuilding Bridges through Science and Technology, Doha, Qatar, 2011.

In 2013, the IAS is convening its conference in Dhaka (Bangladesh), for the first times, to address the multi-faceted and multi-layered theme of : Science, Technology & Innovation : Empowerment of the People in the Islamic World.



Objectives of the 19th Conference

Preamble

Bangladesh is among the most populous of OIC countries. It is a country that is regularly affected by natural disasters, yet one that has managed to develop the capacity to mitigate and manage natural disasters effectively, and achieve food security for its vast population. As a result of some obvious strengths in certain export-oriented industrial sectors, it has managed to maintain high economic growth although there are no linkages between public and private actors and no university-industry collaboration to speak of. This has not escaped the UNESCO Science Report of 2010 which claims that, overall, Pakistan, Bangladesh and Sri Lanka seem better at producing basic knowledge than commercializing it.

On the other hand, Bangladesh's ingenuity manifests itself in light engineering where it is producing import-substitution products that are creating employment and alleviating poverty. Endogenous technologies include ferries, power plants, machinery and spare parts. Bangladesh is also developing the high-tech sector of pharmaceuticals, and is almost 97% self sufficient in pharmaceuticals and even exports them to Europe.

The Ministry of Science and Technology of Government of the Bangladesh, which is the government ministry responsible for S&T, is promoting S&T at the national level as a way of bringing about positive social change and balanced socioeconomic development in the country. S&T is being harnessed to foster sustainable use of the environment, ecosystem and resources, on the one hand, and contribute to the global pool of knowledge, on the other. The overall aim is to make S&T part of the national culture. In 2009, the government rather belatedly approved the country's Information and Communication Technology Policy, which aims to contribute to raising the profile of the nation to that of a middle-income country within a decade. The policy considers that the country's annual growth rate can be pushed to above 7.5% of GNP through extensive use of ICTs.

The above factors, from the point of view of the IAS and the OIC science community, render Bangladesh as a unique case-study.

Objectives

- To discuss the key areas of public health and higher education in Bangladesh to draw possible lessons relevant to other OIC countries, while showcasing some of the country's key S&T sectors;
- To analyse how science and technology can contribute to addressing real challenges such as water and energy in a populous developing country, and analyse how linkages between the private sector and the science community in general may be strengthened;
- To analyse cases where research in the frontier areas of biotechnology and information technology was transformed into commercial ventures;

Conference Committees

International Coordinating Committee

Chief Patron:

Sheikh Hasina

Honourable Prime Minister of Bangladesh

Members

Abdel Salam Majali FIAS

President, IAS (Chair), Former Prime Minister, Jordan

Dipu Moni

Honourable Minister, Ministry of Foreign Affairs, Bangladesh

AK Azad Chowdhury

Chairman, University Grants Commission (State Minister), Bangladesh

Ahmed A Azad FIAS

IAS Coordinator in Bangladesh

Moneef R Zou'bi

Director General, IAS (Secretary)

Mesbahuddin Ahmad

President, Bangladesh Academy of Sciences

IAS Science Committee

Abdel Salam Majali FIAS

President, IAS (Chair)

Ahmed Abdullah Azad FIAS

Incepta Visiting Professor, Bangladesh University of Health Sciences (Scientific Programme Coordinator)

Moneef R Zou'bi

Director General, IAS (Rapporteur)

Ahmad Shamsul Islam FIAS

Former Professor, Dhaka University, and Coordinator, Global Network of Bangladeshi Biotechnologists

Shamsher Ali FIAS

Former Vice-Chancellor, Southeast University, Bangladesh

Jamal Nazrul Islam FIAS

Director, Research Centre for Physical and Mathematical Sciences, Chittagong University, Bangladesh.

Mohammad Salimullah FIAS

Professor, Rajshahi University, Bangladesh.

Mehmet Ergin FIAS

Former Chairman of the Turkish Atomic Energy Commission, Vice-President, IAS, Turkey

Abdel Latif Ibrahim FIAS

Director of the IAB, Malaysia

IAS Organising Committee

Moneef R Zou'bi

Director General, IAS (Head)

Taghreed Saqer (Ms)

Executive Secretary, IAS

Lina Jalal Dadan (Ms)

Programme Officer, IAS

Hamza Dagestani

Finance Officer, IAS

Habes Majali

Public Relations Officer, IAS

Saleh As'ad.

Office Manager, IAS



National Committee

Chairperson

Dr Dipu Moni

Honourable Minister, Ministry of Foreign Affairs, Bangladesh

Co-Chairperson

Architect Yeafesh Osman

Honourable State Minister, Ministry of Science & Technology, Bangladesh

Coordinator

Professor AK Azad Chowdhury

Chairman, University Grants Commission (State Minister), Bangladesh

Member

Principal Secretary to the Honourable Prime Minister

Secretary, Ministry of Foreign Affairs

Secretary, Ministry of Finance

Secretary, Ministry of Education

Secretary, Ministry of Primary & Mass Education

Secretary, Ministry of ICT

Professor Mesbahuddin Ahmad

President, BAS & Chair, Scientific Committee

Professor Mesbahuddin Ahmed

Secretary, BAS & Chair, Registration Committee

Professor M Muhibur Rahman

Member, UGC and Secretary, Steering Committee

Professor AK Azad Khan

President, Diabetic Association of Bangladesh



Steering Committee

Professor AK Azad Chowdhury	Chairman, UGC (State Minister) - Chair
Professor M Muhibur Rahman	Member, UGC - Secretary
Professor Abul Hashem	Member, UGC and Chair, Finance & Budget Sub-Committee
Professor Atful Hye Shibly	Member UGC, and Chair, Publicity Media Coverage Sub-Committee
Secretary, Ministry of Informatin & Communication Technology	
Professor Ahmed Abdullah Azad	Representative form IAS
Professor Mesbahuddin Ahmad	President BAS and Chair, Scientific Sub-Committee
Professor Mesbahuddin Ahmed	Secretary, BAS and Chair, Registration Sub Committee
Professor Liaquat Ali	Acting Vice Chancellor, Bangladesh University of Health Sciences, Dhaka
Dr Sahana Afroz	Member, Bangladesh Atomic Energy Commission, Dhaka
Deputy Secretary, Ministry of Science & Technology, Bangladesh Secretariat, Dhaka	
Deputy Cheif of Protocol (Visit), Ministry of Foreign Affairs	
Abdul Muktadir	Managing Director, Incepta Pharmaceuticals Ltd.
Tareq Barkatullah	Sr System Analyst, Bangladesh Computer Council



Conference Sessions and Probable Speakers

Keynote Lectures

HE Tun Dr Mahathir Mohamad (former PM of Malaysia)

Prof Javaid Leghari, HEC Chairman, Pakistan, and Coordinator General of COMSTECH

Mr Rashad Hussain, Special Envoy of the US President to the OIC

Special Session : Ibrahim Memorial Medal Ceremony and Lecture
(The Speaker to be announced during the Conference)

Invited Lectures

Excellence in Higher Education for S&T Proficiency

Professor Adnan Badran, (former PM of Jordan)

Professor AK Azad Chowdhury, Chairman, UGC (State Minister), Bangladesh

Professor Atta-ur-Rahman (former HEC Chairman and Minister, Pakistan)

Dato Lee Yee Chaong, Malaysia

Professor Ahmed A Azad FIAS, Bangladesh/Australia/South Africa

Rethinking Sustainable Development

Professor Abdul Hamid Zakir FIAS, Science Advisor to the PM of Malaysia

Professor Boudjema Samaraoui FIAS, Algeria

Dr Sandro Calvani, Director, ASEAN Centre of Excellence on UN Millennium Development, Thailand

Public Health: Research, Funding and Policies

Professor Abdullah Daar FIAS, Oman/Canada

Dr Ferdausi Qadri, ICDDR, Bangladesh

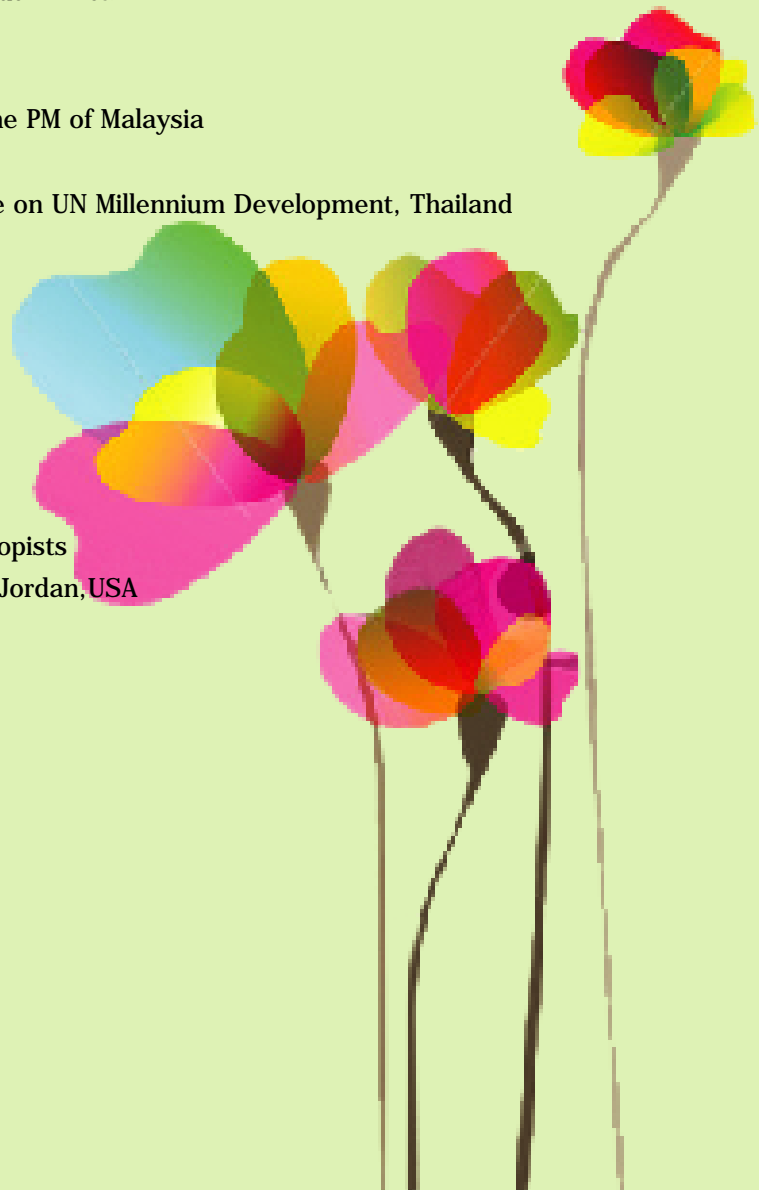
Professor Ugur Dilmen FIAS, Turkey

Science in Action for the Future

Dr Tariq H Cheema, World Congress of Muslim Philanthropists

Dr Adnan Mjalli, President and CEO, Transtech Pharma, Jordan, USA

Abdul Muktedir, MD, Incepta pharma, Bangladesh



Climate Change and Environment

Professor Robert Nigmatulin FIAS, Academy of Science, Russia

Dr Amanda Katili, National Council of Climate Change, Indonesia

Professor Saleemul Huq, Director, International Institute for Environment and Development

Independent University, Bangladesh

Professor Ishfaq Ahmad FIAS, Senior Advisor S & T, Planning Commission, Pakistan

Environment Friendly Energy for the Future

Professor Mohamed Hassan FIAS, Sudan

Professor Saifur Rahman, USA

Professor Nurul Islam, BUET, Bangladesh

Science in Action in Bangladesh

Dr Peter Sundin, Sweden

Professor Syed M Aairum FIAS, Germany

Professor Feroj Alam Khan (BUET), Bangladesh

Professor Haseena Khan, Dhaka University, Bangladesh

Professor Zeba Islam Siraj, Dhaka University, Bangladesh

Professor Anwarul Huq, USA (Clean Water)

Building Research Collaboration in the World

Short Proposals for follow-up workshop on

- Public Health
- Drug Discovery and Development
- Climate Change Adaptation
- Renewable Energy



Conference Participants

The Conference will bring together Bangladeshi, OIC and international experts who are committed to helping OIC countries to achieve socioeconomic advancement through the utilisation of science and technology.

Around 250 participants are expected to attend this international Meeting who will include around 100 IAS Fellows and invited speakers from outside Bangladesh, as well as academicians, decision-makers, scientists, researchers and presidents/representatives of academies of sciences. It is expected that around 150 scientists and academicians from Bangladesh (on direct invitation or as presenting authors of accepted abstracts) will participate in the conference.

Postgraduate students and young scientists from the various universities/research institutes are particularly encouraged to participate through presentation of their works (including organizational activities) in the Poster Sessions.

Call for Abstracts

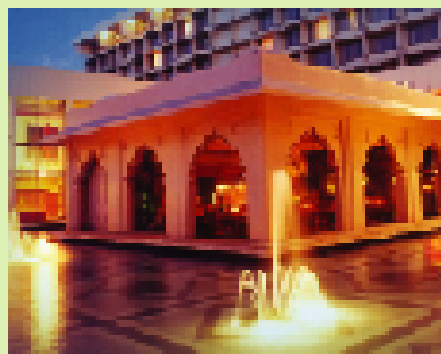
Participants interested to present their original works (in Thematic Areas) in the Poster Session of the Conference are invited to submit abstracts by 07 April 2013.

Instructions for the Abstracts

- Abstracts should be typed in a Times Roman font of 12 point and must not exceed 300 words (including spaces). The title should be typed in bold typeface and UPPER CASE.
- The Authors name (s), organization, city and country should be typed on the second line after the title in the Upper-lower case.
- The presenting author's name should be underlined and her/his full contact address (including phone no & e-mail) must be given.
- Abstract should be sent by e-mail (MS Word format) to mmrahmanugc@gmail.com or bas@smilebd.com with a Deadline for abstract submission: 07 April 2013. In case of hard copy submission a soft copy should be mailed.

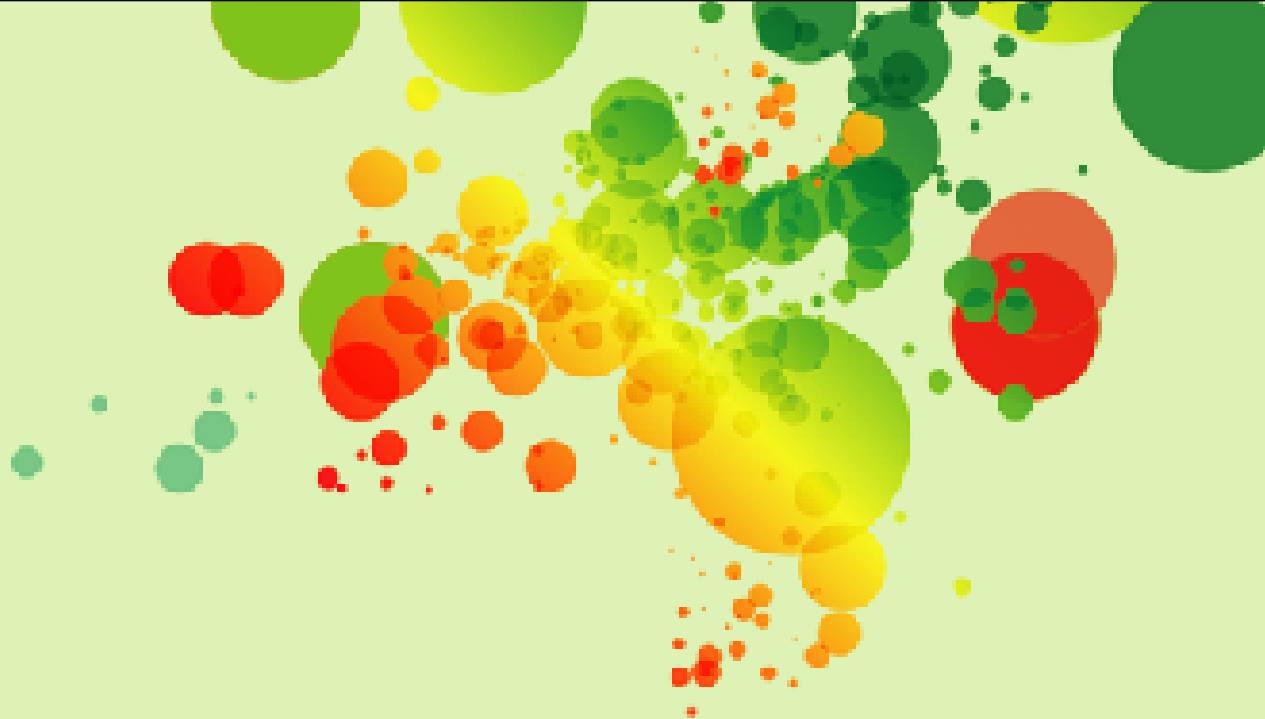
The Venue

Pan Pacific Sonargaon Dhaka
107, Kazi Nazrul Islam Avenue
Dhaka 1215, Bangladesh
Tel : +880 2 814 0401
Fax: +880 2 811 3324
www.panpacific.com/Dhaka/Overview.html



Language

The working language of the Conference will be English. Arrangements will be made for individual interpretation from English into French and vice versa.



Correspondence

All correspondence related to information and registration should be addressed to:

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e-mail : ias@go.com.jo; secretariat@ias-worldwide.org

For Local Information and for Submission of Abstracts for Poster, Correspondence should be addressed to:

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Member, UGC and Member Secretary, Steering Committee

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