

TWAS-ARO 7th Annual Meeting

Water, Nuclear and Renewable Energies: Challenges Versus Opportunities

Wednesday, 28 December 2011	
08:00-10:00	Registration
10:00-11:30	<p>Opening Session (Small Theater):</p> <ul style="list-style-type: none"> • Ismail Serageldin, Director, Bibliotheca Alexandrina (BA), Alexandria, Egypt • Romain Murenzi, Executive Director, The Academy of Sciences for the Developing World (TWAS), Italy • Mohamed Hassan, Cochair, IAP, The Global Network of Science Academie, Italy and BOT member Bibliotheca Alexandrina, Egypt
11:30-12:30	Networking Coffee Break and Poster Session (Multipurpose Hall)
12:30-14:30	Water Track (Small Theater)
	<p>Water Seminar Overview (15 min) Abdel Salam Majali, President of the Islamic World Academy of Sciences</p> <p>Session 1: Water Resources and Climate Change Chair: Abdallah Daar, Director of Ethics and Commercialization, McLaughlin-Rotman Centre for Global Health, Canada</p> <ul style="list-style-type: none"> • (TBA) • Jasem Abdulsalam, Professor, Department of Biological Sciences, Faculty of Science, Kuwait University (Kuwait) • (TBA) • Hammou Laamrani, Senior Program Officer, Agriculture and Food Security, IDRC
12:30-14:30	Energy Track (Lecture's Hall)
	<p>Energy Seminar Overview (15 min) Laila El-Guebaly, Research Professor, Fusion Technology Institute, University of Wisconsin, Madison, Wisconsin, USA</p> <p>Session 1: Nuclear Systems and Egypt's Demand/Supply Chair: Laila El-Guebaly, Research Professor, Fusion Technology Institute, University of Wisconsin, Madison, Wisconsin, USA</p> <ul style="list-style-type: none"> • Nuclear Power: Essential Element of Environmentally Clean Energy Mix (35 min) Mohamed Sawan, Distinguished Research Professor, Fusion Technology Institute, University of Wisconsin, Madison, Wisconsin, USA • Egypt's Energy Demand and Supply (35 min) Ibrahim El-Osery, Nuclear Power Plants Authority, Cairo, Egypt • Nuclear Power Plant Technologies and Challenges (35 min) Aly Mortada Aly, Executive Director, Nuclear Safety, Quality and Regulatory Affairs, Emirus Consulting Inc., Ontario, Canada
14:30-15:30	Lunch
15:30-17:30	<p>Session 2: Agricultural Water Management Chair: Elias Baydoun, Professor, Biology Department, American University of Beirut, Beirut, Lebanon</p> <ul style="list-style-type: none"> • (TBA) • Adel El Beltagy, President of the Governing Board of the International Center for Advanced Mediterranean Agronomic Studies (CIHEAM), Chair of the International Dry land Development Commission (IDDC)
	<p>Session 2: Renewable Energies (Resources, Efficiency, Limitations, and Economics) Chair: Mohamed Sawan, Professor, Fusion Technology Institute, University of Wisconsin, Madison, Wisconsin, USA</p> <ul style="list-style-type: none"> • High Efficiency Solar Cell Under One Sun and High Solar Concentrations (30 min) Salah Bedair, Professor, North Carolina State University, Raleigh, North Carolina, USA • Coupling Wind Power as a Renewable Source to Nuclear Energy as a Conventional Energy Option (30 min) Magdi Ragheb, Professor, University of Illinois, Urbana, Illinois, USA • The Emerald Forest? – An Integrated Approach for Bio-Derived Energy and Sustainable Community Living in Arid Environments (30 min) Fouad Teymour, JP Professor, Illinois Institute of Technology, Chicago, Illinois, USA • Economics of Nuclear and Renewable Energy Sources (30 min) Massimo Zucchetti, Professor, Politecnico di Torino, Italy
15:30-17:30	<p>Session 3: Water Education and Awareness, How can it Help? Chair: Elias Baydoun, Professor, Biology Department, American University of Beirut, Beirut, Lebanon</p> <ul style="list-style-type: none"> • The role of Science Education in increasing Awareness of Issues Related to Water in the Arab Region. Saouma BouJaoude, Center for Teaching and Learning & Science and Math Education Center, American University of Beirut, Lebanon

<p>09:00 – 10:30</p>	<p style="text-align: center;">TWAS-ARO 7th Annual Closed Meeting. (Fellows and Young Affiliates only)</p>	<p>Session 3: Nuclear Developments, Fuel Supply, and Radwaste Management Chair: Mohamed Y. Khalil, Professor, International SESAME Project, Amman, Jordan</p> <ul style="list-style-type: none"> • Latest Nuclear Power Technologies and Advanced Designs (30 min) Aly Mortada Aly, Executive Director, Nuclear Safety, Quality and Regulatory Affairs, Emirus Consulting Inc., Ontario, Canada • Strategy for Assuring International Nuclear Fuel Supply (30 min) Walid Zidan, Professor, Director of Egyptian System of Nuclear Material Accounting and Control, Egypt • Dealing with Radioactive Waste: Recycling and Clearance, Avoiding Geological Disposal (30 min) Laila El-Guebal, Research Professor, Fusion Technology Institute, University of Wisconsin, Madison, Wisconsin, USA
<p>10:30 – 11:00</p>	<p><i>Networking Coffee Break</i></p>	
<p>11:00 – 12:30</p>	<p>Session 4: Desalination and Water Reuse Chair: TBA</p> <ul style="list-style-type: none"> • (TBA) M. Thameur Chaibi, Head Department Rural Engineering, Pan African University, Project Management Unit, African Union Commission, Representative for Northern Africa, African Academy of Sciences (AAS) Council • The use of Nanotechnology for the treatment of polluted waters Mamoun Muhammad, Research Leader at Functional Materials, Microelectronics and Applied Physics, School of Information and Communication Technology, KTH – Royal Institute of Technology • (TBA) Mona Bakr, Associate Prof. National Institute of Laser Enhanced Science (NILES), Cairo University Director, NanoTech Egypt, Bahgat Group, Egypt 	<p>Session 4: Safety and Regulations Chair: Aly Mortada Aly, Executive Director, Nuclear Safety, Quality and Regulatory Affairs, Emirus Consulting Inc., Ontario, Canada</p> <ul style="list-style-type: none"> • Safety and Lessons Learned from Nuclear Accidents (30 min) Said Abdel-Khalik, SNC Distinguished Professor, Georgia Institute of Technology, Atlanta, Georgia, USA • Use of PRA to Evaluate Reactor Safety (30 min) Adel Elbassioni, Nuclear Regulatory Commission, Washington, DC, USA • Role of Regulations in Shaping Today’s Nuclear Power Plant Design, Construction, and O&M (30 min) Mohamed Elmaghribi, Senior Nuclear Licensing Engineer, Dominion Nuclear Connecticut, Inc., Connecticut, USA
<p>12:30-13:30</p>	<p>Lunch Break</p>	
<p>13:30-15:00</p>	<p>Session 5: Water Economics Chair: Adnan Badran, President, Petra University, Jordan</p> <ul style="list-style-type: none"> • (TBA) Mohamed Abdramo, Professor, Environmental Economics, Institute of Graduate Studies and Research, Alexandria University (Egypt) • (TBA) Rashid Hassan, Professor and Director, Center for Environmental Economics and Policy in Africa, University of Pretoria (Sudan) • (TBA) Magdy Madkour, Professor, Arid Lands Agricultural Research Institute (ALARI), Faculty of Agriculture, Ain Shams University (Egypt) 	<p>Session 5: Workforce, Proliferation, and Infrastructure Issues Chair: Said Abdel-Khalik, Professor, Georgia Institute of Technology, Atlanta, Georgia, USA</p> <ul style="list-style-type: none"> • Workforce Issues: Education and Training in Egypt (30 min) Mohamed Y. Khalil, Professor, International SESAME Project, Amman, Jordan • Proliferation Concerns, IAEA Policies, and International Treaties (30 min) Ibrahim El-Osery, Nuclear Power Plants Authority, Cairo, Egypt • IAEA Milestone Approach for Establishing Safe Infrastructure for Nuclear Power Program (30 min) Amgad Shokr, Senior Safety Officer, Division of Nuclear Installation Safety, International Atomic Energy Agency, Vienna, Austria
<p>15:00-17:00</p>	<p>Closing Session, Panel Discussion (Small Theater) Moderator: Yousry El-Gamal, Board Member, BoD, Center for Special Studies & Programs (CSSP); Chairman of BoT, Egypt-Japan University of Science and Technology (E-JUST) and former Minister of Education</p> <ul style="list-style-type: none"> • Ibrahim El-Osery, Nuclear Power Plants Authority, Cairo, Egypt • Aly Mortada Aly, Executive Director, Nuclear Safety, Quality and Regulatory Affairs, Emirus Consulting Inc., Ontario, Canada • M. Thameur Chaibi, Head Department Rural Engineering, Pan African University, Project Management Unit, African Union Commission, Representative for Northern Africa, • Mahmoud Abu-Zeid, President of the Arab Water Council, Former Minister of water Resources and irrigation, Egypt • Mohamed Abdo, Director, Energy and fusion Centers, University of California Los Angeles (UCLA), Egypt • Mostafa El-Sayed, Julius Brown Chair and Regents Professor Director, Laser Dynamics Lab Georgia Institute of Technology School of Chemistry and Biochemistry, USA • Magdi Ragheb, Professor, University of Illinois, Urbana, Illinois, USA 	