

Speaker Sessions

Water Management Strategies to Combat Emerging Threats

Peiyong Hong, King Abdullah University of Science and Technology, Saudi Arabia
Ali Mirchi, Oklahoma State University, United States

Historic Data for an Uncertain Future: Sustainable Management of Water, Energy, and Food
Ashlynn S. Stillwell, University of Illinois at Urbana-Champaign, United States

*Implications of Contaminants of Emerging Concern (CECs) on Water Reuse in the Arab Region:
Exploring sustainable decentralized treatment solutions*
Moustapha Harb, Lebanese American University, Lebanon

A Remote Sensing-Based Assessment of Water Resources in the Arabian Peninsula
Marouane Temimi, Khalifa University, United Arab Emirates

Could Windshield Wipers Help Prevent Floods?
Branko Kerkez, University of Michigan, United States

Artificial Intelligence

Ibrahim Alabdulmohsin, Saudi Aramco, Saudi Arabia
Yun Raymond Fu, Northeastern University, United States

The Pitfalls and Promise of AI in Healthcare
Leonard D'Avolio, Cyft and Harvard Medical School, United States

Artificial Intelligence Applications and Explainability
Sarah Adel Bargal, Boston University, United States

Distributed Robotics
Jeff Shamma, King Abdullah University of Science and Technology, Saudi Arabia

Artificial Intelligence for Contemporary Wireless and Healthcare Applications
Raed Shubair, New York University Abu Dhabi, United Arab Emirates

Infectious Disease

Ramy Aziz, Cairo University, Egypt

Leonard Pease, Pacific Northwest National Laboratory, United States

Applying Big Data to Global Infectious Disease: From Building Global Health Care Capacity and Pandemic Response to Personalized Health

Ellie Graeden, Talus Analytics, United States

Infectious Diseases During Wartime: Re-emergence of Cutaneous Leishmaniasis among Refugees in North Lebanon

Dima El Safadi, Lebanese University, Lebanon

Employing Cutting-edge Technologies to Fight the Erosion of our Antimicrobial Arsenal

Ahmed Sherif Attia, Cairo University, Egypt

Phage Therapy for Multidrug-Resistant Bacterial Infections: Past History and Future Prospects

Jason J. Gill, Texas A&M University, United States

Keynote

Can We Avoid Disaster? Science, Technology and Economics in Confronting Climate Change

Ismail Serageldin, Bibliotheca Alexandrina, Egypt

Sensing Technologies

Adel Belouchrani, Ecole National Polytechnique, Algeria

Christopher Bettinger, Carnegie Mellon University, United States

Sensing Methods for Mobile Computing

Sherief Reda, Brown University, United States

Blind Source Separation and Application to Processing Remote Sensing Images

Moussa Sofiane Karoui, Centre des Techniques Spatiales (CTS) / Algerian Space Agency (ASAL), Algeria

Augmented Interfacing Using Physically Compliant Integrated Electronic System (PCIES) and Multi-Dimensional Integrated Circuits (MD-ICs)

Muhammad Hussain, King Abdullah University of Science and Technology, Saudi Arabia

Wireless Electronic Tattoos for Mobile Sensing and Treatment

Nanshu Lu, University of Texas at Austin, United States

Community Resilience

Nawaf K. Alotaibi, Kuwait University, Kuwait

Simi Hoque, Drexel University, United States

The Role of Infrastructure Systems in Community Resilience

Iris Tien, Georgia Institute of Technology, United States

Impact of Sea Level Rise due to Climate Change on the Coastal Zones (Case Study: Nile Delta, Egypt)

Kareem M. Tonbol, Arab Academy for Science, Technology & Maritime Transport, College of
Maritime Transport & Technology, Egypt

Resilience to Natural Disasters: Advances in Earth Observation; Knowing More to Lose Less

George Mitri, University of Balamand, Lebanon

*Community Sustainable Resilience: Using Data Analytics to Evaluate Uncertain and Dynamic Linkages
with Infrastructure and Environmental Systems*

Hiba Baroud, Vanderbilt University, United States

Funding Opportunities

Priorities, Programs, and Modes of International Collaborations at the National Science Foundation

Usha Varshney, National Science Foundation, United States

Arab-American Fellowships

Daniel Placht, National Academy of Sciences, Engineering, and Medicine, United States