

Day 1

- **Design and Synthesis of Novel Amphiphilic Macromolecules for Cardiovascular Applications**
Dalia Abdelhamid, Minia University, Egypt
- **Clean Energy Solutions for the Arab World**
Ahmed Abdel-Rahman, Clenergy, Kuwait
- **A Simple and Biocompatible Silver Nanoparticle/Eggshell Membrane Composite for Water Treatment**
Aisha Al Washahi, CAS-Sohar Ministry of Higher Education, Oman
- **Combined Malonic and Methylmalonic Aciduria: Exome Sequencing Reveals Mutations in the ACSF3 Gene in Patients with a Non-Classic Phenotype.**
Ahmed Alfares, Harvard Medical School, United States
- **Reversible Polymeric Nano-Beads as a Dynamic Gene Delivery Vehicle in Cancer Therapy**
Samer Al-Gharabli, German Jordanian University, Jordan
- **Implementation of Microfluidic Systems in Biomedical and Life Science Applications**
Ala'aldeen Al-Halhouri, German-Jordanian University, Jordan
- **Nano-Coated Heat Transfer Surfaces to Mitigate Fouling in Thermal Desalination Plants**
Abdullah Al-Janabi, Dhofar University, Oman
M.R. Malayeri, Shiraz University, Iran and Institute of Thermodynamics and Thermal Engineering (ITW), Germany
- **Phase Change Materials for Autonomous Energy Storage in Buildings**
Saleh Nasser Al-Saadi, Sultan Qaboos University, Oman
- **Applications of Applied Electromagnetics in Telecommunications, Healthcare, and Homeland Security**
Nader Behdad, University of Wisconsin Madison, United States
- **An Arabian Coral Reef Research & Monitoring Network**
John Burt, New York University Abu Dhabi, United Arab Emirates
- **Global-Local Nonlinear Model Reduction for Flows in Heterogeneous Porous Media**
Victor Calo, King Abdullah University of Science and Technology (KAUST), Saudi Arabia

- **Could Hydraulically Fractured Shales Represent a Viable Repository for Geologic Carbon Sequestration**
Andres Clarens, University of Virginia, United States
- **Nanoscale (Thermal) Energy Engineering from Discovery to Applications**
Baratunde Cola, Georgia Institute of Technology, United States
- **Balancing Rheology and Filtration for Enhanced Flow Control in Porous Media and Fractures**
Chadi El Mohtar, The University of Texas at Austin, United States
- **Capillary Electrophoresis Method with Fluorescence Detection for Simultaneous Determination of Polya**
Abdalla Elbashir, University of Khartoum, Sudan
- **Tunable Release and Detection of Multiplex Biochemicals by Plasmonic Nanomotor Sensors**
Donglei (Emma) Fan, University of Texas at Austin, United States
- **Iraq's First Research Experiences for Undergraduates Program: Interdisciplinary Learning & Innovation**
Christy Geraci, The American University of Iraq, Sulaimani, Iraq
- **Toward a Sustainable Removal of Water Contaminants using Persulfate Technology**
Antoine Ghauch, American University of Beirut, Lebanon
- **Effect of Application Load on Sewage Sludge Vermicomposting**
Maha Halalsheh, The University of Jordan, Jordan
- **Creating a Sustainable Approach to World Agriculture in a Changing World**
James Harwood, University of Kentucky, United States
- **Application of Renewable Energy Technologies in the Agricultural Sector**
El Mostafa Jamea, MENA Renewables and Sustainability - MENARES, Morocco
- **On-Farm Demonstration of Integrated Aqua - Agriculture Systems in Arid and Semi-Arid Areas**
Dionyssia Lyra, Ismail, S., Rahman Butt K. and Al'raj B., International Center for Biosaline Agriculture, United Arab Emirates
- **Mitigating Health and Environmental Impacts in Wastewater Reuse for Agricultural Irrigation in Tunis**
Olfa Mahjoub, INRGREF, Tunisia
- **Microfluidic Cell Separation for Clinical Diagnostics and Regenerative Medicine**
Shashi Murthy, Northeastern University, United States

- **Enhancement of Phytochemicals Bioactivity via Nanotechnology**
Fadwa Odeh, The University of Jordan, Jordan
- **Computational Mathematics for Global Problem Solving**
Padmanabhan Seshaiyer, George Mason University, United States
- **Crystallisation of Human and Mouse Prion Proteins**
Sameh Soror, Faculty of Pharmacy, Helwan University, Egypt
- **Comparison of Two Soil Water Evaporation Models**
Ayman Suleiman, The University of Jordan, Jordan
- **Cancer in Jordan: Causes, Research and Future Projections**
Lubna Tahtamouni, The Hashemite University, Jordan
- **Smart Materials for Oil/Water Separation**
Peng Wang, King Abdullah University of Science and Technology (KAUST), Saudi Arabia

Day 2

- **Mesenchymal Stem Cells; a Past Dream, Current Hype, and Future Myth**
Heba Abdelrazik, Cairo University, Egypt
- **The Use of Green Nanoparticles as a Biofouling- Resistant Agent in Reverse Osmosis desalination**
Muna AbuDalo, Jordan University of Science & Technology, Jordan
- **Crop Wild Relatives in Jordan: A Potential Protective Measure Against Climate Change**
Khaled Abulaila, National Center for Agricultural Research and Extension, Jordan
- **Assessment of Tsunami Inundation Extent in Wilayat Sur, Sultanate of Oman, Using Geospatial Technology**
Hanan Al Hinai, Muscat Municipality, Oman
- **Selecting Adaptable Jordanian Semi-Dwarf Wheat to Survive Drought Environments and Climate Change**
Zakaria Al-Ajlouni, Jordan University of Science and Technology, Jordan
- **Development of Diabetes Gene Therapy by Inferring the Gene Regulatory Networks from Gene Expression**
Fadhl Alakwaa, University of Science and Technology, Yemen
- **Conjunctive Use of Treated Wastewater and Groundwater in Agriculture**
Ahmed Al-Busaidi, Sultan Qaboos University, Oman
- **A Nanotechnology Platform "Scano-miR" Detects Clinically Significant Prostate Cancer**
Ali Alhasan, University of California, San Diego, United States
- **Electrical Properties of Doped UNCD/a-C:H Composite Film Prepared by PVD.**
Sausan Al-Riyami, German University of Technology in Oman, Oman
- **Creating a Mood and Anxiety Center of Excellence to Serve Unmet Mental Health Needs in Kuwait**
Mohammad Alsuwaidan, Kuwait Mood and Anxiety Unit, Kuwait
- **Agroecology of Traditional Date Palm Farms in Oman**
Rashid Al-Yahyai, Sultan Qaboos University, Oman
- **Design, Synthesis and Optimization of Antagonists Targeting A2A Adenosine Receptors and A2A/CB1/D2 Heteromeric GPCRs**
Younis Baqi, Sultan Qaboos University, Oman

- **Metabolomics Profiling of Biological Samples with Applications for Nutritional and Disease Studies**
Thaer Barri, King Fahd University of Petroleum & Minerals, Saudi Arabia
- **Edible Electronics: Next Generation Medical Devices for Oral Delivery**
Christopher Bettinger, Carnegie Mellon University, United States
- **Environmental As_2O_3 and $NaAsO_2$ Induce EBV Induced Lymphoma Demise by Disrupting LMP1 and PML Dynamics and Different Cell Death Mechanisms**
Mehdi Bourouba, University Houari Boumediene for Sciences and Technology, Algeria
- **Pan-Sharpening Techniques Based on the NSCT and the IHS Transforms Applied to High Resolution Images**
Miloud Chikr Elmezouar, Laboratory of Communication Networks Architectures and Multimedia, Algeria
- **Frontiers of High Performance Buildings**
Bryan Eisenhower, UCSB, United States
- **Research on the Morphodynamics of Barchan Dunes: Towards New Techniques Against Sand Encroachment**
Hicham Elbelrhiti, Institut Agronomique et Vétérinaire Hassan II, Morocco
- **Enhancing Sustainability through Simulation: Drought Tolerant Crops, Green Buildings, and Clean Energy**
Baskar Ganapathysubramanian, Iowa State University, United States
- **Concurrent Recovery of Water & Energy from Food Waste and Wastewater through Anaerobic Co-Digestion**
Sophia Ghanimeh, Notre Dame University - Louaize, Lebanon
- **Venomics: Harvesting Nature's Deadliest Cocktail**
Mandë Holford, Hunter College/American Museum of Natural History, United States
- **Earth Observations and Climate Science for Sustainable Development: A Capacity Building Approach**
Alaa Ibrahim, American University in Cairo, Egypt
- **Ultrasensitive Antimicrobial Peptide-Based Impedimetric Sensor for the Detection of Bacteria**
Mouna Marrakchi Sellami, ISSBAT, Tunis El Manar University, Tunisia
- **Sustainable Polymers from Agricultural Waste**
Stephen Miller, University of Florida, United States

- **Plant-Microbe Diversity and Interaction Mechanisms Enhancing Abiotic Stress Resistance in the Saudi Arabian Desert Landscape**
Maged Saad, KAUST, Saudi Arabia
- **Role of Different Food Types in the Prevention of Type 2 Diabetes**
Ahmmed Saadi, Dhofar University, Oman
- **Manufacturing of New Nanostructured Polymers/Nanocomposites for New Industrial Applications**
Amal Shendi, National Research Center, Egypt
- **Cardiac Segmentation using Motion Estimation with Physically Motivated Inter-Region Constraints**
Ganesh Sundaramoorthi, KAUST, Saudi Arabia
- **Toward Theranostic Nanoparticles: An Innovative Approach with Potential Application in Cancer**
Ali Trabolsi, New York University Abu Dhabi, United Arab Emirates
- **Approaches to Enhance Disinfection Efficiency for Small Drinking Water Systems**
Subhas Karan Venayagamoorthy, Colorado State University, United States

Day 3

- **Bridging the Generation Gap to Protect Nature in Yemen: Conservation of Nature through Culture**
Mohammed Al-Duais, UNESCO Doha Office, Yemen
- **Characterization of Stormwater Runoff Generated from Residential and Commercial Areas in Amman-Jordan**
Othman Almashaqbeh, Royal Scientific Society, Jordan
- **Sensors Based Irrigation Scheduling: An Innovative Approach To Irrigation Water Conservation And Productivity**
Yaseen Al-Mulla, Sultan Qaboos University, Oman
- **Emerging Pollutants: A Human and Environment Risk and a Challenge to Chemical Analysts**
Najat Al-Odaini, Sana'a University, Yemen
- **Design and Implementing of Solar System Cafeteria at the University of Jordan**
Ahmed Al-Salaymeh, The University of Jordan, Jordan
- **Drawer Compacted Sand Filter: Innovative Method for On-site Greywater Treatment**
Almoayied Assayed, Royal Scientific Society, Jordan
- **Accumulation of Antimicrobials in Soil and Subsequent Uptake in Lettuce after Wastewater Irrigation**
Shannon Bartelt-Hunt, University of Nebraska-Lincoln, United States
- **Electrical and Optical Properties of Oxide Films Grown by MOCVD**
Saud Bin Anooz, Hadhramout University, Yemen
J. Schwarzkopf, R. Dirsyte, M. Schmidbauer, R. Fornari Leibniz Institute for Crystal Growth, Germany
P. Petrik, Institute for Technical Physics and Materials Science, Hungary
- **Monitoring of Land Degradation and Environmental Changes from Space**
Moncef Bouaziz, Technical University of Dresden, Tunisia
- **Crowdsourcing Water Quality: Using Mobile Technology and Rapid Microbiological Tests to Assess Drinking Water Risks**
Joe Brown, Georgia Institute of Technology, United States
- **Assessment of Surface Water – Groundwater Connectivity for Sustainable Water Resources Management in Arid and Semi-arid Environments of Tunisia**
Anis Chekirbane, Water Researches and Technologies, Tunisia

- **Confined Transport of Complex Particulate Fluids**
Jacinta Conrad, University of Houston, United States
- **Are Unconventionals Too Dirty to Develop?**
Rosa Dominguez-Fauz, University of California Davis, United States
- **Transplantation of Autologous Bone Marrow Induces Improvement in Canine Model of Spinal Cord Injury**
Zeinab El Maadawi, Cairo University, Kasr Alainy Faculty of Medicine, Egypt
- **Bentonite in Sudan**
Abusabah Elemam, Sudan University of Science and Technology, Sudan
- **Changes in the Coastal Salt Marsh Distribution as an Indicator of Climate Change**
Marwa Halmy, Alexandria University, Egypt
- **Multi-Functional, Stimuli-Responsive Virus/Polymer Hybrid Nanomaterials for Synergistic Therapy**
Young Jik Wwon, University of California, Irvine, United States
- **How Crowdsourcing and Human Computation are Revolutionizing our World**
Matthew Lease, University of Texas at Austin, United States
- **Ionic Polymer Metal Composite (IPMC) Actuator based on a Non-perfluorinated Polymer**
Mohammad Luqman, A'Sharqiyah University, Oman
- **New Drugs for Bad Bugs: Design and Synthesis of *Mycobacterium Tuberculosis* Acetyltransferase Eis Inhibitors**
Abdelrahman Mayhoub, Al Azhar University, Egypt
- **Rift Valley Fever Associated with Abortion in Red Sea State in Sudan**
Nahla Mohamed, Princess Nora bint Abdul Rahman University, Saudi Arabia
- **Role of oprD Gene in Biofilm Formation and Imipenem Resistance in *Pseudomoanas Aeruginosa***
Hadeel Musafer, Al-Mustansiriya, Iraq
- **Nanotechnology for Future Energy Systems**
Ammar Nayfeh, Masdar Institute, United Arab Emirates
- **Electromagnetics for the Environment**
Amr Safwat, Ain Shams University, Egypt

- **Low Cost Integrated Optical and Electrochemical Sensors for Health and Environment**
Sameer Sonkusale, Tufts University, United States
- **3D Bioprinting in Regenerative Medicine and Pharmaceutical Drug Screening**
Binil Starly, North Carolina State University, United States
- **Association of Some Dietary Factors and Physical Activity with Breast Cancer among Jordanian Females**
Reema Tayyem, Hashemite University, Jordan
- **Computational Modelling of Photonics for ICT Low-Carbon Applications**
Mourad Zghal, SupCom - Univ. of Carthage, Tunisia