

12TH EDITION



Prime
Minister

Under the Patronage of H.E. the Prime Minister
Dr. Mostafa Madbouly



Water Desalination Conference in the Arab Countries

UNDER THE THEME: **UNIFYING RESEARCH EFFORTS TO DEVELOP DESALINATION TECHNOLOGIES**



WITH PARTICIPATION



CONFERENCE PROGRAM

23-24 APRIL 2019 • InterContinental CityStars, Cairo • Arab Republic of Egypt

ORGANIZED BY



ACADEMIC ADVISOR



PARTICIPATING PARTNERS

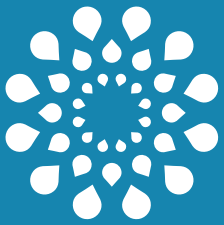


GLOBAL TECHNICAL PARTNER



COLLABORATORS





ARWADEX PROGRAM

07:00 - 09:00

REGISTRATION

09:00 - 12:00

FOUR WORKSHOPS - HOSTED BY ARWADEX ACADEMY

WORKSHOP 01 • 09:00 - 11:00

**TRANSITION FOR THERMAL TO SWRO:
STRATEGIES FOR OPTIMAL EXISTING
THERMAL PLANT OPERATION BEFORE
RETIREMENT**

Dr. Corrado Sommariva

CEO & Founder, SWPC Sustainable Water and Power Consultant
United Arab Emirates

WORKSHOP 02 • 09:00 - 11:00

**USES OF ALTERNATIVE AND RENEWABLE
ENERGY IN DESALINATION STATIONS**

Eng. Leon Awerbuch

IDA Director, Dean of the Academy
International Desalination Association (IDA)
United States of America

WORKSHOP 03 • 09:00 - 11:00

**ENABLING THE IMPLEMENTATION OF
INVENTIONS AND INNOVATIONS IN
DESALINATION: THE EGYPTIAN EXPERIENCE**

Prof. Dr. Hossam Shawky

Director, Egyptian Desalination Center of Excellency
Desert Research Institute
Egypt

WORKSHOP 04 • 11:00 - 12:00

**NOVEL FEED SPACER DESIGN FOR FOULING
CONTROL IN MEMBRANE FILTRATION**

Prof. Noreddine Ghaffour

Professor, Environmental Science and Engineering
Member of Water Desalination and Reuse Center, KAUST
Saudi Arabia

12:00 - 13:00

COFFEE BREAK

13:00 - 13:30

OPENING CEREMONY

13:30 - 13:45

COFFEE BREAK



13:45 - 15:15

PANEL DISCUSSION 01: UNIFYING RESEARCH EFFORTS IN ARAB COUNTRIES TO IMPROVE DESALINATION TECHNOLOGIES & ECONOMICS

The panel discussion will be attended by a number of speakers from research institutions and universities from various Arab countries, in which they discuss the importance of unifying and guiding research efforts in order to avoid duplication and repetition in research and funding, in addition to not wasting time and effort to achieve integrated work and stimulate scientific research.

CHAIRMAN: Prof. Rifaat Abdel Wahaab

Head Sector, Research & Development (R&D)
Holding Co. for Water & Wastewater, Egypt

PANELIST 01: H.E. Dr. Abdulmajeed Alawadhi

Former CEO of Electricity and Water Authority
Board Member of Bapco, Bahrain

PANELIST 02: Dr. Mahmoud Sakr

President
Academy of Scientific Research & Technology (ASRT), Egypt

PANELIST 03: Dr. Mohammad Al-Beirutty

Former Director
Center of Excellence in Desalination Technology, King Abdulaziz University, Saudi Arabia

PANELIST 04: Dr. Nader Frikha

Associate Professor
Higher Institute of biotechnology, Sfax University, Tunisia

15:15 - 16:00

LUNCH BREAK

16:00 - 17:30

**SESSION ONE
IMPLEMENTATION OF RENEWABLE ENERGY IN DESALINATION**

This session will discuss the latest developments in the applications of renewable energy and the uses of solar, onducted so far and projects under implementation. The nuclear and wind desalination by identifying the research cmeeting will be attended by a group of scientists and experts in alternative energy to review the latest developments in this area.

CHAIRMAN: Dr. Amgad Elmahdi

Head of MENA Region, International Water Management Institute, Egypt

SPEAKER 01: Criteria Associated with Successful Desalination Projects**Dr. Yahya Elsaie**

Vice Chairman and Executive Member
Board Consulting Engineering Co., Egypt

SPEAKER 02: Renewable Desalination Technology Localization Program**Eng. Mudhyan Almudhyan**

The Deputy Director of The Technology Localization Department
King Abdullah City for Atomic and Renewable Energy, Saudi Arabia

SPEAKER 03: Reverse Osmosis (RO) Desalination using Renewable Energy Sources**Prof. Abd Elnaby Kabeel**

Vice Dean
Faculty of Engineering Tanta University, Egypt

SPEAKER 04: Effect of Intermittent Operation on Performance of a Solar Powered Membrane Distillation Pilot Unit**Dr. Omar A. Bamaga**

Associate Professor
Center for Research Excellence in Water Desalination Technology, King Abdulaziz University, Saudi Arabia

END OF DAY 01

07:00 - 09:00

REGISTRATION

09:00 - 10:45

SESSION TWO

INVENTIONS AND INNOVATIONS IN DESALINATION

This session will review a number of inventions and innovations in the fields of desalination and their applications. It will also discuss how to deal with the outputs of scientific research from patents, trade secrets, etc., by saving them and investing them in commercial projects.

Install a Large Desalination Unit MED - Case Study**CHAIRMAN: Eng. Mohammed Althubaiti**

President

Sasakura Middle East Company, Saudi Arabia

SPEAKER 01: Current Status & Future Water Desalination in Egypt**Prof. Ahmed Moawad**

Vice-Chairman

Holding Company for Water and Wastewater, Egypt

SPEAKER 02: Innovation in Desalination Industry: Case Studies and Lessons Learned**Dr. Alaa El-Sadek**

Professor and Director

Arab Regional Water Center, Arabian Gulf University, Bahrain

SPEAKER 03: Novel Vacuum Membrane Distillation Configuration for Water Vapor Flux Enhancement**Prof. Noreddine Ghaffour**

Professor, Environmental Science and Engineering

Member of Water Desalination and Reuse Center, KAUST, Saudi Arabia

Presentation on Supercavitation in Desalination**Kujtim Hyseni**

Chief Executive Officer United Science & Capital, Sweden

Craig Beeson

COO, United Science & Capital, United Kingdom

10:45 - 11:00

COFFEE BREAK

11:00 - 12:30

PANEL DISCUSSION 02: INSTITUTIONAL BUILDING FOR DESALINATION
SYSTEM IN THE ARAB COUNTRIES

This panel discussion discusses the best ways to develop legislation and regulations in the Arab countries to achieve the sustainability of desalination institutions and to establish the basis of dealing between the relevant parties in the desalination industry and a review of the experiences of some Gulf countries in this field.

CHAIRMAN: Eng. Ahmed AlModaiheem

Consultant in Desalination, Former Deputy Governor, SWCC, Saudi Arabia

PANELIST 01: H.E. Dr. Abdulmajeed Alawadhi

Former CEO of Electricity and Water Authority

Board Member of Bapco, Bahrain

PANELIST 02: Dr. Hossam Shawky

Director

Egyptian Desalination Research Center, Desert Research Institute, Egypt

PANELIST 03: Dr. Abdel Kawi Khalifa

Former Minister of Water and Wastewater Utilities

Egypt

PANELIST 04: Prof. Raouf Darwish

Treasurer and Board Member of Governors

Arab Water Council

12:30 - 13:00

COFFEE BREAK

13:00 - 14:30

SESSION THREE**DESALINATION ECONOMICS & SUSTAINABLE WATER DESALINATION**

This session will shed light on how water sustainability can be achieved through improving the desalination economics of different technologies, methods of construction, financing, operation and maintenance, increasing dependence on capacity building and localization of technologies, discussing the building of desalination leaders in the Arab world and improving energy efficiency in desalination.

CHAIRMAN: Eng. Khaled Alqureshi

CEO

Saudi Water Partnership Company, Saudi Arabia

SPEAKER 01: Privatization of the Desalination Sector and Overcoming Technical, Financial and Legal Challenges**Eng. Ghassan Ejeh**

Senior Vice President at BESIX

Honorary Council of IDA

SPEAKER 02: The Economics of Sustainability: the only way forward also for the desalination and water industry**Dr. Corrado Sommariva**

CEO and Founder

Sustainable Water and Power Consultants, United Arab Emirates

SPEAKER 03: Leadership Development for Water Managers in The Domain of Water Utilities Supplied by Desalination Plants**Eng. Jean Antoine Faby**

Director, Agroparistech, France

SPEAKER 04: Sustainability of Desalination using Renewables and Nuclear Energy Sources**Eng. Leon Awerbuch**

IDA Director

Dean of the Academy, International Desalination Association (IDA), United States of America

14:30 - 15:15

LUNCH

15:15 - 16:45

SESSION FOUR: PROMISING & MODERN TECHNOLOGIES IN DESALINATION

This session will present the latest innovation in the developing of promising technologies in water desalination and their application, such as membranes and thermal technologies. As well as innovative ideas in applied water desalination systems.

CHAIRMAN: Prof. Abdulaziz Al-bassam

General Director of The National Center for Water Research and Studies

Ministry of Environment, Water & Agriculture, Saudi Arabia

SPEAKER 01: A Novel Desalination System using High Frequency Ultrasound Waves Humidifier**Prof. Mohammed Abdulaziz**

Professor, Bad Sooden Allendorf University

SPEAKER 02: Effect of Increasing Top Brine Temperature on MED-FF Systems**Prof. Mohamed Antar**

Professor

King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia

SPEAKER 03: Potential of Solar Desalination by Vacuum Membrane Distillation**Dr. Nader Frikha**

Associate Professor

Higher Institute of biotechnology, Sfax University, Tunisia

SPEAKER 04: Beach Wells as Pre-treatment for Sea Water Desalination**Prof. Thomas Grischek**

Head of Division of Water Sciences

University of Applied Sciences Dresden, Germany

16:45 - 17:15

CLOSING SESSION & RECOMMENDATIONS

Dr. Zohair Mohammad Al Sarraj

Organizing Committee Chairman of ARWADEX Group of Desalination
Saudi Arabia

Dr. Mohammad Bin Abdulaziz Al Fouzan

Scientific Committee Chairman of the Arab Desalination Association
Saudi Arabia

Dr. Rifaat Abdel Wahaab

Scientific Committee Rapporteur, Head Sector
Research & Development (R &D) Holding Co. for Water & Wastewater
Egypt

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