



# Desalination for the Environment Clean Water and Energy

22–26 May 2023, Parklane Hotel  
Limassol, Cyprus



Supported by



Cyprus Water Association  
Κυπριακός Υδατικός Σύνδεσμος



Water Development Department



International Desalination Association



ASOCIACIÓN ESPAÑOLA DE  
DESALACIÓN Y REUTILIZACIÓN



ASOCIACIÓN LATINOAMERICANA DE  
DESALACIÓN Y RECICLO DE AGUA

Titanium sponsor



Gold sponsors



You can depend on us™

CARAMONDANI  
desalination plants



Platinum sponsor



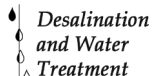
Silver sponsors



Electricity  
Authority of Cyprus



Media partners



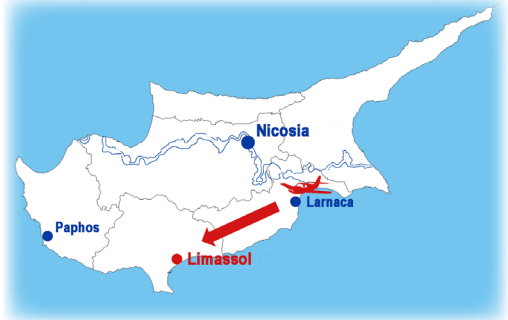
## OBJECTIVES

Water and energy are the issues of this millennium. This conference on desalination for the environment will be devoted to advances towards providing fresh water for all, at affordable cost and at economical energy requirements. With limited and depleting natural sources, desalination can supplement some of the critically lacking amounts of water needed for sustainable development. Its place in the water cycle will be discussed.

The conference will overview the most recent developments in desalination technology, its cost and extent of application, including socio-economic and environmental issues. It will bring together research scientists, decision makers, managers, design engineers and operators from water companies, industries, government departments, consulting firms, research institutes and universities.

The place of industry, research and government decision making in this booming market will be addressed.

Why and how desalination should be integrated into the national or regional water management plans, ensuring socio-economic and environmental benefits, will be the focal point of the conference.



## TECHNICAL PROGRAM TOPICS

- New desalination technology developments
- Seawater desalination case studies
- Desalination and water in industries: Oil and gas/mining/food and beverage/agriculture and drip irrigation
- Brackish water desalination
- Nanofiltration, ultrafiltration, and microfiltration in water treatment processes
- Membrane performance, maintenance, disposal and reuse
- Membrane fouling and scaling
- Pre-treatment and post-treatment of desalinated water, innovation and improvement
- Concentrate handling: discharge, recovery and mining
- Desalination and sustainability: Renewable energy for desalination, water scarcity, environmental impact considerations,
- membrane disposal and reuse, water resource management
- Membrane fabrication and membrane technology
- Energy recovery
- Material selection and corrosion mitigation
- Forward osmosis
- Pressure retarded osmosis
- Removal of specific compounds by membrane processes
- Low-cost water purification for remote and disaster areas
- Financing schemes for desalination projects
- Water security
- Desalination for water reuse and agriculture
- Digitalization in desalination: Automation – Machine learning – IOT – Dual twins
- Health and safety in desalination plants and utilities – future requirements

## SCIENTIFIC AND ORGANIZING COMMITTEE

Ursula A. Annunziata  
Miriam Balaban  
Felix Broens  
Pedro Cabrera Santana  
Bambos Charalambos  
Andrea Cipollina  
Philip A. Davies  
Jauad El Kharraz  
Ramon Garrote  
Jochen Kallenberg

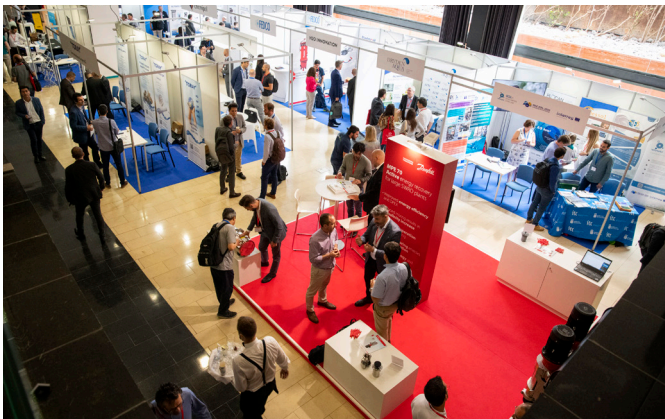
Maria Kennedy  
Alvaro Lagartos  
Jorge Juan Malfeito Sanchez  
Nicos Neocleous  
Tracey Nolan-Shaw  
Baltasar Peñate Suárez  
Olga L. Sallangos  
Iris Sutzkover-Gutman  
Dimitris Xevgenos  
Guillermo Zaragoza

## EXHIBITION

The exhibition accompanying the conference provides an outstanding opportunity for equipment and services providers in the desalination and wastewater reuse sector, to showcase their products and services to a large and dynamic network group of local and international delegates.

Don't miss out on this fantastic opportunity to promote your company or organisation by sponsoring and exhibiting at this exciting event.

If you are interested, please contact [Tracey Nolan-Shaw](#).



Networking at the Las Palmas Exhibition



Miriam Balaban, Desalination World Icon, being presented with the Award in Acknowledgment her Life-long Contribution to Desalination by His Excellency Abdullah Ibrahim Al-Abdul-Kari, Governor of SWCC.



## FRIDAY 26 MAY 2023 – EDUCATIONAL WORKSHOP

### Solar-powered high-recovery groundwater desalination with salt-tolerant crop cultivation for integrated brine management

This one-day workshop is organised by the INDIA H<sub>2</sub>O\* team in partnership with the European Desalination Society. It is intended for PhD students, Early Career Researchers, established researchers, or desalination professionals with interest in learning more about the design, installation and troubleshooting of decentralised inland desalination plants that avoid the problems of high energy costs and unmanaged brine discharge. Participants will learn about how to design a solar-powered desalination plant using batch reverse osmosis principles. They will also learn about how to couple the design with cultivation of salt-tolerant edible crops (halophytes) such as *Salicornia* that are ideal for growing in desert climates. Examples will be provided from desalination systems developed in the INDIA H<sub>2</sub>O project. The workshop will include presentations by experts and hands-on design activities in groups. Key resources will be provided for the participants to take away.

Attendance is free.

#### Provisional programme

- Solar powered desalination system design
  - General consideration and choice of technology
  - Energy storage
  - System sizing, optimization and control
- Batch reverse osmosis system design
  - Principles of batch RO desalination
  - Alternative system configurations
  - Design challenge (group activity)
- Salt-tolerant crop cultivation
  - Comparison and selection of species
  - Economic and nutritional benefits
  - How to look after and use salt-tolerant crops

#### Instructors

Guillermo Zaragoza, Plataforma Solar Almería, CIEMAT, Spain

Philip Davies, University of Birmingham, UK

Moshe Sagi, Ben Gurion University, Israel



\* INDIA H<sub>2</sub>O stands for 'bIo-mimetic and phyto-techNologies De-sIghed for low-cost purfIcAtion and recycling of water'. It is bilateral project funded by the European Union Horizon 2020 programme and by the Department of Biotechnology, India. More information may be found at: <https://www.india-h2o.eu/>



## LOCATION

Limassol is the second-largest city in Cyprus. The city is located on the island's southern coast just under an hour from the airport in Larnaca. As a result, Limassol is one of the busiest ports Mediterranean transit trade.

It is also renowned for its long cultural tradition, and is home to the Cyprus University of Technology. A wide spectrum of activities and a number of museums and archaeological sites are available.

Situated between two key archaeological sites, the ancient kingdoms of Amathous to the east and Kourion to the west, it is also the centre of the wine industry.

Today Limassol is an excellent sea resort, with a ten-mile coastline; a busy shopping center, countless taverns and restaurants nightlife to suit tastes ranging from modest to sophisticate and it's an important seaport, industrial, tourist, offshore and port of registry center.





# CYPRUS 2023

Desalination for the Environment: Clean Water and Energy  
Parklane Hotel, Limassol, Cyprus, 22–26 May 2023

## REGISTRATION FEE

Before March 29

After March 29

- EDS members
- Non-members
- Students\* and retirees

- € 750
- € 850
- € 550

- € 850
- € 950
- € 600

\*Letter from University

**Please register online at:**

<https://www.edsoc.com/>

