



European Water Resources Association

9th WORLD CONGRESS

Water Resources Management in a Changing World:
Challenges and Opportunities

June 24-27, 2015
Istanbul Turkey



www.ewra2015istanbul.org
www.ewra.net

EWRA 2015

INVITATION BY THE PRESIDENT

The General Assembly (GA) of the European Water Resources Association during the Conference in Porto (June 2013), decided unanimously to organise its next World Congress on water resources in Istanbul in 2015.

There are few items which deserve attention in this decision:

- a) The selection of the city which is the bridge between Europe and Asia reflects the willingness for expansion of EWRA towards Asia and other continents. As known according to the decisions taken in the GA in Catania 2011, EWRA has become a truly International Association with members from all countries of the world. From Istanbul EWRA can also address other non-european audiences establishing its international character.
- b) This selection also shows the firm determination of the European scientists to spread the European principles and approaches in Water Resources Management to other countries of the world. Recently EU has introduced, and its member states implement, a new innovative paradigm of water resources management through the Water Framework Directive and other directives. New criteria, new objectives and cutting edge methodologies are currently used in Europe. It is for the benefit of scientists from other countries to share their experiences and exchange ideas with European scientists for mutual benefit.
- c) Instead of another conference, the scientific event in Istanbul is upgraded to a World Congress, incorporating a number of conferences covering a variety of subjects related to Global issues in water resources and the environment. This will facilitate more scientists to participate in EWRA activities, and lead to a more fruitful interaction between scientists from various disciplines from many countries of the world.

In short, we plan a global scientific multidisciplinary event in a magnificent city. We are sure that it will be a benchmark scientific Congress which will address new challenges, produce new knowledge and will pave new roads for more effective governance of water resources and the environment for the years to come.

We cordially invite you to this great Congress!

Prof. George Tsakiris
President of EWRA

INTRODUCTION

Up to now, the European Water Resources Association (EWRA) has organized 8 international conferences and a large number of regional symposia, focusing particularly on water resources management in a globally changing context of emerging risks, challenges and opportunities. The major theme of the 9th EWRA event will similarly be “Water Resources Management in a Changing World: Challenges and Opportunities” but with some distinct perspectives that will differentiate the event/Congress from past conferences.

First, the Congress will be held in June 2015, the year which marks an important deadline in terms of EU Water Framework Directive (WFD) implementation. The planning cycle within WFD foresaw development of River Basin Management Plans by EU Member States between 2009 and 2015 so that 2015 is the year when a European overview and Member State specific assessments will be available. Thus, the 9th EWRA Congress will provide a timely platform to assess the adoption of basin management plans at European level and to share these experiences between scientists and professionals both from the Member States and from other regions around the world facing similar challenges related to water resources management.

Second, the Congress will be held in the transcontinental global city of Istanbul which constitutes a bridge between Europe and Asia through the famous Bosphorus, one of the world's busiest waterways. Istanbul is the largest city in Turkey, constituting the country's economic, cultural, and historical heart. With a population of 14.1 million, the city forms one of the largest urban agglomerations in Europe, second largest in the Middle East and the third-largest city in the world by population within city limits. Istanbul, the former capital of the Roman, Byzantine and Ottoman empires, is a fascinating mixture of the past and present, old and new, modern and traditional. The museums, churches, palaces, mosques and bazaars, and the sights of natural beauty seem inexhaustible. In 2010, the city was named European Capital of Culture, making it the world's fifth-most-popular tourist destination. The city's biggest draw remains its historic center, partially listed as a UNESCO World Heritage Site. Istanbul is a superb site for meetings, conferences and conventions and has hosted big “water” events like the 5th World Water Forum in 2009 and International Istanbul Water Forums in 2009, 2011 and 2014. Thus, the nature of the selected location has facilitated EWRA to expand the structure of its biannual events from an “International Conference” to a “World Congress”. We expect that the Istanbul Congress will attract high participation from the Asian countries and other continents in addition to European countries so that water problems and solutions will be discussed at a global scale.

Third, the 9th World Congress will encompass 6 different conferences, instead of a single conference, to cover a wide range of topics relevant to water resources and the environment. This will significantly contribute to the multidisciplinary and global context of the Congress, and thereby the multidisciplinary and global nature of water problems, so that scientists from various disciplines and countries will interact for more fruitful solutions. The conferences are as follows:

- I. Hydrological Processes and Evolving Hazards
- II. Geo-information and Water Resources
- III. Technological Advances in Water Distribution, Purification and Desalination
- IV. Water Pollution and Eco-systems Conservancy
- V. Multicriteria Sustainability of Water Systems
- VI. Social, Political, Institutional and Legislative Aspects

Each conference will be run in two parallel sessions, and the participants may choose to attend that conference which directly relates to their area of expertise and experiences. This will ensure the realization of more focused sessions, ending up in more effective discussions and solutions.

Apart from the conferences, we will certainly create opportunities for participants to enjoy the magnificent city of Istanbul through alternative social, cultural and technical tours and a dinner along the famous Bosphorus. Thus, it is my pleasure to invite you all to take part in this prominent activity by bringing your experience, sharing your know-how and contributing to the international water community while enjoying the wonderful setting of Istanbul.

Prof.Dr. Nilgun B. Harmancioglu,
President, 9th World Congress, Istanbul

CO-ORGANISERS

Dokuz Eylul University (DEU)

National Technical University of Athens (NTUA)

Istanbul Technical University (ITU)

ORGANISING COMMITTEE

Nilgun B. HARMANCIOGLU DEU SUMER, Turkey (President)

Hafzullah AKSOY ITU, Turkey

George TSAKIRIS NTUA, CANAH, Greece

Beyhan YEGEN ITU, Turkey

Bihrat ONOZ ITU, Turkey

Ali GUL DEU SUMER, Turkey

Cem P. CETINKAYA DEU SUMER, Turkey

VENUE AND ACCOMMODATION

Istanbul, Turkey

Details regarding the exact venue and accommodation proposals will be included in the next announcement.

SCIENTIFIC COMMITTEE

Ali GUL (Turkey)

Andreas SCHUMANN (Germany)

Antonino CANCELLIERE (Italy)

Athanasios LOUKAS (Greece)

Atil BULU (Turkey)

Aysegul KIBAROGLU (Turkey)

Babel MUKAND (Thailand)

Beyhan YEGEN (Turkey)

Bihrat ONOZ (Turkey)

Bilgehan NAS (Turkey)

Cem Polat CETINKAYA (Turkey)

Daniel P. LOUCKS (USA)

Davar KHALILI (Iran)

George KARATZAS (Greece)

Hafzullah AKSOY (Turkey)

İbrahim GURER (Turkey)

İlhan AVCI (Turkey)

İsmail DURANYILDIZ (Turkey)

Janusz KINDLER (Poland)

Jens Christian REFSGAARD (Denmark & Greenland)

Jerry KNOX (UK)

Luis GARROTE (Spain)

Mahmut CETIN (Turkey)

Mario MAZZOLA (Palermo, Italy)

Melih YANMAZ (Turkey)

Mohammad KARAMOUZ (Iran)

Muhammad SHATANAWI (Jordan)

Okan FISTIKOGLU (Turkey)
Orhan BAYKAN (Turkey)
Orhan GUNDUZ (Turkey)
Pierre-Olivier MALATERRE (France)
Rodrigo MAIA (Portugal)
Selçuk TOPRAK (Turkey)
Sharad K JAIN (India)
Siegfried DEMUTH (UNESCO)
Slobodan P. SIMONOVIĆ (Canada)
Tefaruk HAKTANIR (Turkey)
Vasillios TSIHRINTZIS (Greece)
Yalcin ARISOY (Turkey)
Zhang QI (China)

CONFERENCES

I. Hydrological Processes and Evolving Hazards

Conveners: Antonino CANCELIERE ((Univ. of Catania, Italy)
Bihrat ONOZ (ITU, Turkey)

II. Geo-information and Water Resources

Conveners: Athanasios LOUKAS (Univ. of Thessaly, Greece)
Beyhan YEGEN (ITU, Turkey)

III. Technological Advances in Water Distribution, Purification and Desalination

Conveners: Tiku TANYMBOH (Univ. of Strathclyde, UK)
Alper ELCI (DEU, Turkey)

IV. Water Pollution and Eco-systems Conservancy

Conveners: Vassilios TSIHRINTZIS (NTUA, Greece)
Isik KABDAŞLI (ITU, Turkey)

V. Multicriteria Sustainability of Water Systems

Conveners: Luis GARROTE (Tech. Univ. of Madrid, Spain)
Gokmen TAYFUR (IYTE, Turkey)

VI. Social, Political, Institutional and Legislative Aspects

Conveners: Rodrigo MAIA (Univ. of Porto, Portugal)
Hafzullah AKSOY (ITU, Turkey)

TOPICS OF THE CONFERENCES

CONFERENCE I: Hydrological Processes and Evolving Hazards

- Hydrological impacts of environmental change
- Hydromorphological pressure and impact issues in river basin management
- Hydrologic risk and uncertainty
- Ecological effects of land use changes
- Flood control, management and risk assessment
- Urban flood modelling, forecasting and warning
- Impact of climate change and adaptation
- Vulnerability and resilience of water resources systems in the face of climatic variabilities
- Climate proofing
- Climate mainstreaming
- Drought management
- Hydroinformatics - modelling and simulation of integrated water systems
- Soft computing optimization methods
- Numerical simulation of water systems
- Rainfall-runoff processes
- Upland erosion and sediment transport
- Rural water supply network
- Urban water systems
- Hydrologic monitoring and data management
- Advances in hydrologic modelling

CONFERENCE II: Geo-information and Water Resources

- The use of earth observation techniques in water resources assessment and management
- Geo-information for disaster and risk management
- Application of Satellite Based Geo-information Technology Integrated with GIS for Monitoring and Understanding Water Problems
- Handling large volumes of geo-data and fusion of data from multiple geo-data sources
- Drought mapping via geo-information technology
- Irrigation and crop management using earth observation tools
- Use of spatial information for water research: migrating from basin-scale assessments toward effective water management of EU WFD
- Remotely-sensed spatial information for trend acquisition in hydrology
- Geo-information for making probable fully-distributed hydrologic modelling
- Deriving spatially-distributed hydrometeorologic input from radar imaging
- Advanced applications of multi-dimensional digital terrain modelling

CONFERENCE III: Technological Advances in Water Distribution, Purification and Desalination

- Occurrence and mitigation of emerging contaminants in drinking water
- Seawater desalination and disposal of desalination brine
- State-of-the-art in optimization and modelling of water distribution systems

- New directions in efficiency of water distribution systems
- Nano-technology applications in water treatment
- Water recycling opportunities and challenges
- Water re-use quality standards for public health and environmental protection
- In-situ removal of contaminants from groundwater resources
- Response of water utilities to an increased frequency of extreme events
- Identification of challenges in the use alternative water sources
- Rainwater harvesting
- Data management, model building and calibration for water distribution
- Leakage and demand management
- Demand forecasting
- Asset management and rehabilitation
- Sensors, control and decision support including GIS
- Risk, uncertainty and infrastructure resilience
- Process modelling, control and optimization in water purification and desalination
- Experience of different financing schemes- public, private, public-private projects, etc.- in Desalination

CONFERENCE IV: Water Pollution and Eco-systems Conservancy

- Point and Non-point Source Pollution - Urbanization, Agriculture, Best Management Practices
- Protection of ecosystems
- Water Quality and Health of Aquatic Systems - Fate and Transport of Pollutants, Modelling, Geographic Information Systems
- Management and Treatment of Solid, Liquid and Gaseous Wastes - Municipal, Industrial, Hazardous
- Eco-efficient water use and reuse
- Ecotoxicity and environmental risk assessment
- Ecological Engineering - Natural Wastewater and Sludge Treatment Systems, Constructed Wetlands, Stabilization Ponds
- Ecosystem Services, Life Cycle Assessment. Water Footprint, Environmental/Ecological Economics
- Assessment of water quality conditions by fuzzy logic and genetic algorithms
- Global changes and water quality
- Regulations, management, emerging issues

CONFERENCE V: Multicriteria Sustainability of Water Systems

- Sustainability criteria for water resource systems
- Sustainability issues, challenges, risks and uncertainties
- Sustainability and modelling technology (Decision Support Systems)
- Institutional and social aspects of sustainability
- Securing sustainable water for all (water security)
- Multicriteria decision making methods in water systems analysis
- Irrigation systems and food security
- Sustainable water allocation
- Water supply and demand management

- Conflict management
- Management alternatives and sustainability assessment
- Sustainability of water services
- Implementation of Integrated River Basin Management
- Implementation of international and European level regulations and guidelines for sustainable management (WFD and related directives, Agenda 21, Millenium Goals, Sustainable Development Goals, post-2015 Development Agenda)

CONFERENCE VI: Social, Political, Institutional and Legislative Aspects

- Water Governance
- Water Framework Directive implementation
- Transboundary river basin water policy and agreements
- Public involvement and participation
- Socio-economic water relevance and policy
- Participatory decision making in water resources management
- Public involvement in water management
- Water resources projects and society
- Societal response to changing hydrologic conditions

KEYNOTE SPEAKERS

Slobodan Simonovic, Professor, University of Western Ontario, Department of Civil and Environmental Engineering, London, ON, Canada.

Presentation: “Managing water resources under global change: Methods and tools for a systems approach”

Kindler Janusz, Emeritus Professor, Politechnika Warszawska, Institute of Environmental Engineering Systems, Warsaw, Poland.

Presentation: “Quantifying system sustainability in water resources management vs. qualitative definition of that term”

Mehmetcik Bayazit, Emeritus Professor, Istanbul Technical University, Turkey.

Presentation: “Recent trends in trend analysis”

OPENING ADDRESS

Unal Ozis, Emeritus Professor, Dokuz Eylul University, Turkey.

Presentation: “Waterworks through Four Millenia in Turkey”

CALL FOR PAPERS

The acceptance of the papers will follow a two round process; one for the abstract and one for the full paper. Two types of papers will be accepted: oral and poster. All papers will pass through a peer-review for being accepted.

A detailed call for papers will be publicised in June 2014.

All accepted papers (oral or poster) will be included in the volume of Proceedings.

Selected papers will be included in special issues of the journals of EWRA:

- Water Resources Management
- European Water
- Water Utility Journal
- Environmental Processes

IMPORTANT DEADLINES

Abstract submission : 31 October 2014

Abstract acceptance : 30 November 2014

Paper submission : 31 January 2015

Paper acceptance : 31 March 2015

CONFERENCE FEES

| | Early registration fees (until 15 April 2015) | Registration fees |
|------------------|--|--------------------------|
| EWRA members | 250 € | 300 € |
| Non EWRA members | 300 € | 350 € |
| Students | 150 € | 180 € |

Registration fees include coffee breaks, a CD of proceedings and a book of abstracts.

A Gala Dinner and a lunch every day (total 3 lunches) are also included

ADDITIONAL EVENTS

- An Exhibition of products, equipment and materials will take place in the premises of the Congress venue
- Technical and touristic excursions will be organised during and after the Congress

INFORMATION- SECRETARIAT

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UPDATED INFORMATION WILL BE AVAILABLE AT:

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