

## Introduction

Water is essential for human, animal and plant life and is also a key driver of economic and social development. Protection of water resources and promotion of a sustainable water use are therefore main cornerstones of environmental policies worldwide. Although important progresses on water management, infrastructure, technologies and legislation have been made over the past decades in many developed and emerging countries, further efforts are still required to properly face major concerns such as floods and droughts, water scarcity, water pollution, as well as access to safe sanitation, which can be further increased by climate change, population growth and urbanization.

The objective of the 6th International Symposium of the European Water Resources Association is to provide an open forum for analyzing the main challenges for an effective water resources management, also able to adapt to climate change impacts. Particular emphasis will be devoted to the developments in the application of EU policies on water resources management (i.e. Water Framework Directive 2000/60, Floods Directive 2007/60 and Water Scarcity and Droughts Strategy), as well as to the latest advances in water engineering all over the world.

The following topics will be discussed:

- Drought characterization, monitoring, forecasting
- Modelling of natural and dam-break floods and extreme events
- Water Framework Directives implementation
- Water quality management
- Assessment of climate change
- Water resources management
- Irrigation
- Innovations in water supply and distribution systems

## Organizing Committee

- Antonino Cancelliere and Giuseppe Rossi  
University of Catania (*Italy*)
- George Tsakiris  
National Technical University of Athens (*Greece*)
- Brunella Bonaccorso, Leila Castiglione, David Johnny Peres and Antonio Castano  
University of Catania (*Italy*)

## Programme

### Wednesday June 29<sup>th</sup>

#### Afternoon

15:00-15:30 Registration and welcome coffee

15:30-16:15 Welcome ceremony

- *Antonino Recca*, Rector of University of Catania
- *Enrico Iachello*, Dean of Faculty of Literature, University of Catania
- *Luigi Fortuna*, Dean of Faculty of Engineering, University of Catania
- *Enrico Foti*, Head of Department of Civil and Environmental Engineering, University of Catania
- *George Tsakiris*, President of EWRA
- *Marcello Benedini*, Board member of AI
- *Emilio Giardina*, President of CSEI
- *Antonino Cancelliere*, President of organizing committee

16:15-17:00 **Invited lecture:** Breaking the hydro-illogical cycle: progress or status quo for drought preparedness (*Donald Wilhite*, University of Nebraska-Lincoln, USA)

17:00-18:45 Session 1: Drought characterization, monitoring, forecasting

17:00-18:45 Session 2: Modelling of natural and dam-break floods and extreme events

### Thursday June 30<sup>th</sup>

#### Morning

08:45-09:30 **Invited lecture:** WFD river basin management planning in the context of climate change adaptation – policy and research trends (*Philippe Quevauviller*, University of Brussels, Belgium)

09:30-11:00 Session 3: Water Framework Directives implementation

09:30-11:00 Session 4: Water quality management

11:00-11:30 Coffee break

11:30-13:30 Session 5: Assessment of climate change

11:30-13:30 Session 6: Water resources management

13:30-15:00 Lunch

#### Afternoon

15:00-15:45 **Invited lecture:** Water quality models for river and stream. State of the art and future perspectives (*Marcello Benedini*, Italian Hydrotechnical Association)

15:45-18:00 Poster session and coffee break

18:00-19:00 EWRA general assembly

20:30 Social dinner

### Friday July 1<sup>st</sup>

#### Morning

09:00-09:45 **Invited lecture:** Facing challenges on water resources management when searching for a sustainable adaptation to climate change focusing agriculture (*Luis S. Pereira*, Technical University of Lisbon, Portugal)

09:45-11:00 Session 7: Irrigation

09:45-11:00 Session 8: Modelling of natural and dam-break floods and extreme events

11:00-11:30 Coffee break

11:30-13:15 Session 9: Irrigation

11:30-12:30 Session 10: Drought characterization, monitoring, forecasting

12:30-13:30 Session 11: Assessment of climate change

13:30-15:00 Lunch

#### Afternoon

15:00-15:45 **Invited lecture** Integrating hydrological and global circulation models for studying climate change impacts at the river catchment scale (*Jacques Ganoulis*, Aristotle University of Thessaloniki, Greece)

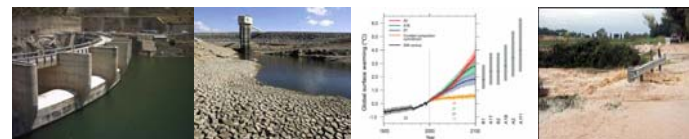
15:45-18:15 Session 12: Water quality management

15:45-18:15 Session 13: Innovations in water supply and distribution systems

18:15-18:45 Closing ceremony

### Saturday July 2<sup>nd</sup>

Field trip



## Language

Official language of the workshop is English

## Venue

*Monastero dei Benedettini*

Piazza Dante, Catania

## How to reach the venue

By AMT Bus: Take at the airport the AMT line 457 (cost 1-€) and get off at bus stop in *Via Sangiuliano*. Then walk to the venue in *Piazza Dante* by *Via Sangiuliano* (about 600 m). For further information see website [www.amt.ct.it/PercorsieOrari.php](http://www.amt.ct.it/PercorsieOrari.php)

By Taxi: At the airport to the venue or hotels (about 20', estimated cost 20-35€). For further information see website <http://www.radiotaxicatania.org>

By Shuttle service: A shuttle service has been arranged for participants between the Catania-Fontanarossa airport to the selected hotel or to the venue of the symposium and vice versa (20€ one-way per person). In order to reserve the shuttle service, please send an e-mail, referring to the symposium, with the following information (Date and time of arrival, Arrival flight no., Date and time of departure, Departure flight no., Number of people) to: [info@sicilyexcursions.eu](mailto:info@sicilyexcursions.eu)

## Accommodation

Information for booking Hotels in the nearby area of the Symposium can be founded at:

[http://www.ewra2011.dica.unict.it/index\\_file/page0004.htm](http://www.ewra2011.dica.unict.it/index_file/page0004.htm)

Further information available at:

[www.ewra2011.dica.unict.it](http://www.ewra2011.dica.unict.it), [www.ewra2011.ewra.net](http://www.ewra2011.ewra.net)



Con il contributo della Regione Siciliana  
Assessorato dei Beni Culturali e dell'Identità Siciliana  
Dipartimento dei Beni Culturali e dell'Identità Siciliana

## Proceedings and Special issues

A book of abstracts and a CD with the full papers will be distributed at the Symposium.

Selected papers will be included in a special issue of the journal *Water Resources Management* published by Springer. Selected papers will be also included in the journals *European Water* and *Water Utilities Journal* published by E.W. Publications.

## Registration fees

EWRA members	340 €
Non EWRA members	360 €
Students	150 €

Registration fees include coffee breaks, two lunches, a Book of abstracts and a CD of Proceedings

## Scientific secretariat

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## Registration secretariat

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## Organisation assistance

Lab. of Reclamation Works and Water Resources Management/Centre for the Assessment of Natural Hazards and Proactive Planning, Nat. Tech. University of Athens



European Water  
Resources  
Association



University of Catania  
Department of Civil and  
Environmental Engineering



Italian  
Hydrotechnical  
Association

## VI International Symposium Water Engineering and Management in a Changing Environment



**Catania, Italy**  
**Monastero dei Benedettini**

**June 29<sup>th</sup>-July 2<sup>nd</sup>, 2011**

In collaboration with:

 **CSEI Catania**

Centro Studi di Economia applicata all'Ingegneria

