

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 29th

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 Arts and Humanities, 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 Italian Hydrotechnical Association
 - *Emilio Giardina*, President of CSEI
 - *Antonino Cancelliere*, Chair 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 monitoring, forecasting and mitigation (chairman **A. Loukas**)
- 17:00-18:45 **Session 2:** Modelling of rainfall and flood extreme events (chairman **L. Garrote**)

Thursday June 30th

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 (chairman **G. Monacelli**)
- 09:30-11:00 **Session 4:** Water quality management: monitoring and control of contaminants in surface and groundwater (chairman **M. Benedini**)
- 11:00-11:30 Coffee break
- 11:30-13:30 **Session 5:** Assessment of climate change: impacts on water resources (chairman **J. Ganoulis**)
- 11:30-13:30 **Session 6:** Water resources management (chairman **G. Sechi**)
- 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
- 20:30-22:30 Social dinner

Friday July 1st

Morning

- 09:00-09:45 **Invited lecture:** Challenges in 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: use of marginal resources (chairman **G. Tsakiris**)
- 09:45-11:00 **Session 8:** Modelling of natural and dam-break floods: hydraulic modelling (chairman **N. Harmancioglu**)
- 11:00-11:30 Coffee break
- 11:30-13:15 **Session 9:** Irrigation management: hydrological, hydraulic and economic issue (chairman: **L. S. Pereira**)
- 11:30-12:30 **Session 10:** Drought characterization (chairman **R. Maia**)
- 12:30-13:30 **Session 11:** Assessment of changes in climatology (chairman **A. Iglesias**)
- 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)
- 15:45-16:45 **Session 12:** Water quality management: modelling and control of contaminants in surface and groundwater (chairman **F. Pirozzi**)
- 16:45-18:15 **Session 12:** Water quality management: control and treatment of xenobiotic compounds in wastewater (chairman **F. Pirozzi**)
- 15:45-18:15 **Session 13:** Innovations in water supply and distribution systems (chairman **S. Christodoulou**)
- 18:15-18:45 Closing ceremony

Saturday July 2nd

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

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

Accommodation

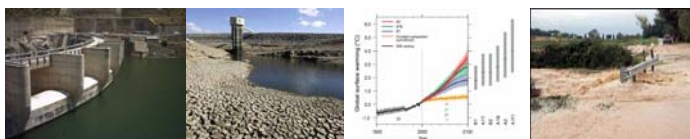
Information for booking Hotels in the nearby area of the Symposium can be found at: http://www.ewra2011.dica.unict.it/index_file/page0004.htm

Further information is available at:

www.ewra2011.dica.unict.it, www.ewra2011.ewra.net



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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

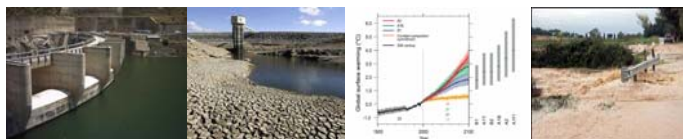
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Registration secretariat

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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



CSEI Catania
Centro Studi di Economia
applicata all'Ingegneria

VI International Symposium Water Engineering and Management in a Changing Environment



Catania, Italy
Monastero dei Benedettini
Piazza Dante

June 29th-July 2nd, 2011