

9<sup>TH</sup> ICOLD EUROPEAN CLUB SYMPOSIUM

# SHARING EXPERIENCE FOR SAFE AND SUSTAINABLE WATER STORAGE

10-12 APRIL 2013 VENICE, ITALY  
ORGANIZED BY ITCOLD

WITH THE SUPPORT OF THE ICOLD EUROPEAN CLUB



Intermediate Bulletin

[www.2013eurdamsymposium.it](http://www.2013eurdamsymposium.it)

Hosted by



ENERGY IN TUNE WITH YOU.



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The Symposium Organizing Committee is very pleased to invite the community of dam and water professionals and all the other interested experts to participate in the 9<sup>th</sup> Symposium of the ICOLD European Club, which will be held in Venice-Mestre, Italy, on 10<sup>th</sup> - 12<sup>th</sup> April 2013.

The Organization of the Symposium results from the continuing effort developed by ICOLD and its European Club to promote useful discussions about the main topics concerning the dams, the reservoirs and the management and development of sustainable water resources.

We are looking forward to welcome you in Venice.

*The Organizing Committee*



## NH Laguna Palace Mestre-Venice

Mestre is the **mainland of Venice**, the territory of the city based on normal land (instead of natural or artificial islands like the most well-known parts of Venice) connected to the historical center by a long rail and road bridge over the Venetian lagoon, called Ponte della Libertà (Freedom Bridge).



### NH Laguna Palace, 4\*

Viale Ancona, 2 - 30172 Venezia Mestre (Italia)

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<http://nhlagunapalace.hotelinvenice.com>

The NH Laguna Palace is situated in a privileged location, 15 minutes from Marco Polo Airport, 5 minutes to Mestre Railway Station.

The hotel is made up mainly of two buildings, linked together by a flat and transparent glass roof, which is the biggest in Europe. A marina has been created between both buildings of the hotel, which connects with all canals, enabling you to reach the city of Venice by boat.

The conference center is a point of reference for this destination.



## How to reach - Nh Laguna Palace

### From Marco Polo Airport, Venice

**Distance:** 12 km, 15 minutes driving

- **Bus n. 15** (the bus stop is 5 minutes walking away from the hotel) travel time: 35 minutes - 1 bus every 30 minutes timetable available on line at <http://www.actv.it>
- **Atvo Blue Bus:** from the airport to Mestre railway station travel time: 17 minutes - 1 bus each 10-15 minutes. timetable available on line at <http://www.atvo.it>
- **Taxi** - travel time: 15 minutes  
<http://www.radiotaxivenezia.com>  
Info e reservations Office in the airport: call 0039 041 5416363  
Radiotaxi 24h/24h (from 22 to 7 with automatic service): call 0039 041 5952080

### From the railway station Venice Mestre

**Distance:** 1 km, 5 minutes driving

- **Bus n. 31** or n. 32 (the bus stop is 5 minutes walking away from the hotel) travel time: 15 minutes - 1 bus every 15 minutes timetable available on line at <http://www.actv.it>
- **Taxi** - travel time: 5 minutes  
<http://www.radiotaxivenezia.com>  
Info e reservations Office at Mestre railway station call 0039 041 929499  
Radiotaxi 24h/24h (from 22 to 7 with automatic service): call 0039 041 5952080





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## Marco Polo Airport (Venice)



## Railway station Venice Mestre



The technical European community from the dam field has to face many and difficult challenges in the new millennium. The preservation and development of the European hydraulic infrastructure system emerges for their present-day importance, considering the ageing of the dams that were built during the industrialization phase of the past century. The rehabilitation, refurbishment, modernization and maintenance of the existing plants, as well as preservation and sustainability of know-how and transfer between generations, fall within the challenging aspects to be faced.

Moreover, the climate change effects on water resources management requires a new perspective in the use of reservoirs: the interaction between renewable energy plants, storage, and electricity grid needs an integration in a multiple use of reservoirs operating in an environmentally sustainable context.

The Organizers feel that the Symposium could help to focus the interest of the experts on the most challenging topics and represents an effective motivating force towards the improvement and harmonization of the governance of the dams in Europe.

The technical contributions will be related to the Topics reported hereunder:

### A) Water resources management in Europe

Topic contents: multiple use of water resources; analysis of water demand; long-range hydraulic interconnections; integrated water management; sustainable management and cost recovery; dam-break analyses; emergency planning; climate change effects on water resource management.

### B) Preservation and development of European hydraulic infrastructure system

Topic contents: maintenance, rehabilitation, surveillance, and monitoring; management of siltation; upsizing existing schemes; use of new materials; construction of new hydro plants; refurbishment, modernization and maintenance of existing plants; preservation of historical dams; decommissioning; preservation and sustainability of know-how and transfer between generations.

### C) An outlook to the future of dams and hydropower: the new challenges

Topic contents: interaction between renewable energy plants, storage, and electric grid; pumped storage hydropower plants; climate change effects on energy production; smart grids to balance the variability in renewable electricity supplies; innovative partnership to manage the complex components of the "system response".

### D) Social/environmental impacts vs. benefits of reservoirs: a still open question

Topic contents: sustainability; public awareness, management of conflicts and needs to improve communication; minimum ecological flow, upstream and downstream continuity facilities, hydropeaking mitigation, sediment/bedload transport; multipurpose reservoirs; climate change effects on river flow; role of storage in flood mitigation.

## Scope of the Symposium



### E) Towards improving and harmonizing dams governance in Europe

Topic contents: risk analysis; tolerability and acceptance of risk; critical infrastructures; regulations and guidelines for dam safety & security management; bridging the gap from "science" to "practical needs" to cope with inherent risks; new seismic maps crossing European borders for national seismic hazards; application of European Directives in the water sector and development of Eurocodes; new trends for renewal of hydroelectric licence policy.

## Deadlines

The full paper should be submitted by **December 20<sup>th</sup>, 2012**

The paper can of course be submitted, within the given deadline (December 20<sup>th</sup>), even if the abstract has not been uploaded, obviously accepting the possibility that the paper could raise some comments.

## Submission instructions

Authors who intend to submit a paper are kindly requested to upload it on the reserved area of the web site <http://www.2013eurdamsymposium.it>

## Instructions to authors for full papers

Papers should be written in English and should not exceed 10 pages in length. All papers should be uploaded in PDF format.

For detailed instructions and template for abstracts and full papers, please visit the Call for papers section on the web site <http://www.2013eurdamsymposium.it>

## Overview of the Symposium programme



Wed 10 <sup>th</sup> April	Thu 11 <sup>th</sup> April	Fri 12 <sup>th</sup> April	Sat 13 <sup>th</sup> April
<b>Meetings:</b> - European Club - Symposium Officers - European Club Working Groups	Symposium Second session	Symposium Fourth session	Technical visits
Symposium First session	Symposium Third session	Symposium Fifth session	

The selection of the papers for oral presentation and for the poster session will be carried out by the Scientific and the Organizing Committee. The detailed program of the presentations will be given in the Final Bulletin.

## Poster session



A Poster session will be organized in order to allow Authors not selected for the oral speech to present their papers; moreover, young participants and students also are warmly invited to present their scientific works in the Poster session. The instructions for the preparation of the posters are available on the web site <http://www.2013eurdamsymposium.it>



Technical Visits to the Vajont Dam e Mose System are planned on Saturday, April 13<sup>th</sup>. The booking is to be carried out via our On Line Registration tool on the website <http://www.2013eurdamsymposium.it>

## Vajont Dam

### Program of the visit

The program of the visit includes an illustration of the history of the dam, from the first design in 1926 to the tragedy in 1963. The visit to the sites of the physical model and to the dam will follow. Near the dam you will see the scene of the landslide which extends about 2 km.

### The foreseen program for the visit includes

- Departures from Mestre
- Technical illustration of the history of the dam.
- Visit to the hydraulic model of the landslide located in the power plant of Nove (TV)
- Visit to the Vajont dam
- Lunch
- Return to Mestre.

All the transfers will be by bus.

We recommend the use of outdoor clothing, trekking shoes as footwear.

**Price:** € 90,00 per person

*The indicated cost is referred to a minimum of 30 registered participants. In case of a lower number of registrations, the Organizing Committee reserves the right to cancel the technical visit or to propose participants to move on another visit. Please be aware that registrations to technical visits will be closed when reached the maximum number of possible persons per visit.*

### The hystorical background

At the end of the second world war Italy was engaged in the difficult task of the economic reconstruction and of the rise of a new industry. Not having fossil fuel, the only natural resource available for the development was its 'blue oil' - the water - and so a lot of hydroelectric power plants were built. During the 50s the construction of the dams saw a great technological and scientific challenge in which the best brains of the country were involved. The Vajont dam represented the greatest technological challenge: the highest double curvature dam in the world.



The gorge of the Vajont

### The Dam

The initial project of a dam at the Vajont site dates back to 1926, but the design was modified in the following years. The first excavation took place in 1957. In 1960 there was the first experimental infill.

### The discovery of the landslide

On the 4<sup>th</sup> November 1960 there was a first small landslide. Several thorough geological studies were carried out. It was discovered the existence of a big landslide of ancient origin, the so called paleoslide.

To evaluate the effects, a physical model of the valley and the landslide was built near the hydropower plant of Nove.

### The Tragedy

On the 9<sup>th</sup> October 1963, at 22.39 a huge landslide of about 200 million cubic meters from the Toc Mountain fell into the lake. A wave with an height of about 250 m. and a mass of about 50 million cubic meters was formed. A part of this wave destroyed the villages along the banks. A part over passed the crest of the dam. This wave destroyed the city of Longarone and several villages located just at the mouth of the Vajont valley and along the Piave river. More than 2000 people were killed.



The first infill



View of the dam after the event of the 9<sup>th</sup> October 1963



The Vajont valley today



## Mose System

### Program of the visit

The high water condition frequently affecting Venice is a major problem, both for the normal life in the city and for the conservation of the architectural heritage. The technical visit will illustrate the main features of the "Mose" system, designed to protect Venice and to mitigate the problem.

### The foreseen program for the visit includes

- Departures from Mestre (morning)
- Technical description of the Mose system and visit to the area where the Mose system is under construction, by boat
- Return to Mestre around noon.

Transfers from Mestre to the embarkation point and back will be by bus. Please note that lunch is not included in the visit.

**Price:** € 90,00 per person

*The indicated cost is referred to a minimum of 30 registered participants. In case of a lower number of registrations, the Organizing Committee reserves the right to cancel the technical visit or to propose participants to move on another visit.  
Please be aware that registrations to technical visits will be closed when reached the maximum number of possible persons per visit.*

### What is Mose?

Since the beginning of the 1900s, high waters in Venice have become ever more frequent as the level of the land has dropped with respect to the sea.

The Mose System to safeguard Venice from high waters consists of mobile barriers able to temporarily separate the lagoon from the sea and protect Venice. It is being constructed at the three openings in the barrier island through which tides propagate in the lagoon.

### How does it work?

The mobile barriers consist of rows of gates. In normal tidal conditions, the gates rest in housing structures on the bed in the inlets, completely invisible and without modifying exchanges between sea and lagoon. They are raised only when necessary to block the incoming tide and avoid flooding the lagoon and built up areas.

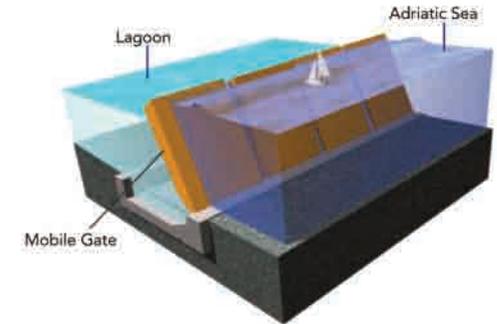
The work sites have been organised along precise criteria to prevent interference with the fragile barrier island and activities taking place there.

Till now, about 75% of the construction work has been completed.

### Restoration of environmental balance

Mose is the last and most important element in the plan of measures to safeguard the lagoon well being. Its construction proceeds in parallel with a programme of work to protect the ecosystem unequalled anywhere in the world for the size of the area involved, nature of the problems tackled and scale and characteristics of the measures implemented.

85% of the Plan of Interventions in the lagoon has now been completed.





On line registration will be available at <http://www.2013eurdamsymposium.it> tentatively from **January, 2013**.

Congress Registration fees (all fees in Euro and include VAT)

	<b>Regular registration</b> <i>before 10<sup>th</sup> February 2013</i>	<b>Late registration</b> <i>after 10<sup>th</sup> February 2013</i>
Full registration fee	€ 500,00	€ 600,00
Reduced young fee*	€ 250,00	€ 300,00
Accompanying persons fee	€ 150,00	

\* aged below 30

#### Delegate/Young Registration Fee includes

- Access to working sessions
- Welcome dinner on 10<sup>th</sup> April 2013
- Coffee breaks and lunches on 11<sup>th</sup>-12<sup>th</sup> April 2013
- Social dinner on 11<sup>th</sup> April 2013
- Farewell toast on 12<sup>th</sup> April 2013

#### Accompanying persons Registration Fee includes

- Welcome dinner on 10<sup>th</sup> April 2013
- Social dinner on 11<sup>th</sup> April 2013
- Farewell toast on 12<sup>th</sup> April 2013
- Classic Venice sightseeing tour (minimum 15 participants required)

#### Technical visit

- Vajont Dam € 90,00
- Mose System € 90,00

The price is valid for delegates as well as accompanying persons

## Payment

Registration fees are payable with credit card or bank transfer.

Bank administration fee and credit card fee are at participant's charge.

Registration at the congress will not be completed until payment is received. On receiving the registration and corresponding payment, the Organizing Office will send a confirmation receipt to participants. Please present this confirmation receipt at the registration counter when collecting your badge and Symposium materials.

For bank transfer details and accepted credit card info please visit the web site

<http://www.2013eurdamsymposium.it>

## Cancellation policy

All cancellations must be made in writing to [organizingoffice@2013eurdamsymposium.it](mailto:organizingoffice@2013eurdamsymposium.it) No telephone calls will be accepted.

- Cancellations received **before 10<sup>th</sup> February 2013** will be eligible for a refund of 90% of the paid registration fee.
- Cancellations received **from 10<sup>th</sup> February through 1<sup>st</sup> March 2013** will be eligible for a refund of 50% of the paid registration fee.
- Cancellations occurring **after 1<sup>st</sup> March 2013** will not be eligible for a refund.
- Bank administration fee and credit card fee will not be refunded.

It is possible to replace the name of a registered participant with another one without cancelling the registration by communicating the substitution in writing to [organizingoffice@2013eurdamsymposium.it](mailto:organizingoffice@2013eurdamsymposium.it) within **20<sup>th</sup> March 2013**.





The Organizing Office has booked a number of rooms at the **NH Laguna Palace** for Symposium participants.

Booking requests will be allocated on a first come, first served basis.

We suggest you to make your reservation as soon as possible in order to find the best option available in the Congress Venue Hotel e to take advantage of **the preferential rate applied exclusively to the first 100 reservations received.**

## Rates and reservation

In order to book your room visit the "Accommodation" section on the web site <http://www.2013eurdamsymposium.it>

**Please be aware that the rates you find below are specials and will be applied exclusively to the first 100 reservations received.**

Reservations received after that number are subject to availability at the prevailing rate

We remind you that all reservations need to be guaranteed by credit card.

The following room types are available in Building Palace and Building Suites.  
Please be aware that the working sessions of the Symposium and the breakfast room are located in Building Palace.

**The walkaway between the two buildings is external.**

### Building Palace - Deluxe room

- Double room sole use € **100,00** daily
- Double room double use € **125,00** daily

### Building Suites - Standard room

*(no room service and no restaurant in this building, breakfast in Palace Building)*

- Double room sole use € **90,00** daily
- Double room double use € **115,00** daily

Rates are intended per room, daily with hot buffet breakfast and Vat 10% included.

Rooms are on first come first served basis.

City tax euro 2.80 per person per night not included, to be paid upon check out.

## Cancellation policy

All changes and/or cancellations must be made in writing to

[nhlagunapalace@nh-hotels.com](mailto:nhlagunapalace@nh-hotels.com)

[organizingoffice@2013eurdamsymposium.it](mailto:organizingoffice@2013eurdamsymposium.it)

No telephone calls will be accepted.

### Please be aware of the following cancellation policy

- Up to 10<sup>th</sup> March 2013: no penalty will be charged for cancellations
- For cancellation later than the above term or no-shows: 100% fee.





## Classic Venice sightseeing tour: Piazza San Marco and Palazzo del Doge

### Description:

This is an introductory sightseeing tour of Venice visiting Piazza San Marco, the Basilica and the Palazzo del Doge. Piazza San Marco was the political and religious centre of the Republic of Venice; since ancient times it has been a place extraordinarily rich in historical and artistic value. We shall visit the Basilica with its precious mosaics and the ducal palace with its well-known Bridge of Sighs, the Procuratie palaces and the Napoleonic Wing, the Clock Tower, the Campanile and the Marciana National Library.



**Duration:** 2 hours  
**Price:** the tour is included in the Accompanying persons registration fee  
**Language:** english



## Organizer

ITCOLD - Italian National Committee on Large Dams  
 Via dei Crociferi 44, 00187 Rome, Italy  
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## Hosted by

