

## Technical Exhibition

A Technical Exhibition will take place along with the symposium.

## Students Corner

Students and young professionals from universities are encouraged to present their dam related works, diploma theses, etc. in poster sessions. Awards for excellent works are foreseen.

## Venue

The name „Innsbruck“ originates from a bridge crossing the river Inn, first erected in the 12<sup>th</sup> century. Innsbruck has developed due to its opportune geographical position to an important junction of trade routes both North-South and East-West. Prosperity followed, climaxing in the reign of emperor Maximilian (1459–1519) who initiated that Innsbruck became

the main residence for the Habsburg family. The world famous „Goldenes Dachl“ (Golden Roof) in the centre of the town reminds us of him. The regional capital with approx. 130.000 inhabitants is surrounded by a picturesque panorama of mountain peaks, several of which can be reached by cable cars offering a superb view of Innsbruck and the surrounding area. Numerous museums provide an insight into the history of Innsbruck, e.g. Ferdinandeum Provincial Museum of Tyrol, Imperial Hofburg or Ambras Castle Museum of Art History. The centre of Innsbruck, with modern shops and an urban atmosphere, is a very special open-air shopping mall.



## Organizer



**Austrian National Committee on Large Dams**  
Stremayrgasse 10/II, A-8010 Graz

### Scientific Committee

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Pius Oberhuber (Verbund AHP, Austria)  
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### Co-Organizer

Graz University of Technology  
University of Innsbruck  
TIWAG - Tiroler Wasserkraft AG  
Verbund Austrian Hydro Power AG



## Information

**Website** <http://www.IECS2010.TUGraz.at>  
**E-mail** [IECS2010@TUGraz.at](mailto:IECS2010@TUGraz.at)  
**Phone** ++43/316/873/8861  
**Fax** ++43/316/873/8357

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

22<sup>nd</sup> - 23<sup>rd</sup> September 2010 Innsbruck, Austria

IECS 2010

# DAM SAFETY

## Sustainability in a Changing Environment

22<sup>nd</sup> - 23<sup>rd</sup> Sept. 2010  
Innsbruck, Austria

Preliminary Bulletin  
Call for Papers



Austrian National Committee on Large Dams

## Mission

During the last decades significant changes in personnel resources for design, construction, and operation of dams occurred in many European countries, leading to a decrease of skilled practitioners. In contrast to that, the construction of new dams undergoes a renaissance now, due to the demands of sustainable water and energy management, whereas the existing dams require increasing efforts for their maintenance and upgrading in order to sustain adequate safety and operability.

Therefore, strategic resource management becomes more and more important for the dam industry. One main aspect thereby is the transfer of valuable experience and knowledge from senior practitioners to their successors – an issue crucial for all parties involved: dam owners, designers, and contractors, as well as authorities. Accordingly, sustainable management of knowledge transfer between the generations and between science and “day-to-day-business” will be one main scope of the symposium.

In addition, the symposium will provide a forum for the dam and hydro power industry to exchange experience, to become familiar with recent developments, and to meet young professionals which are just planning their career. The symposium should also encourage young engineers to enter the dam industry. Participants not older than 30 will benefit from a reduced participation fee.

Thus, a series of successful events will be continued:

Crans-Montana, Switzerland (1995)  
Stockholm, Sweden (1996)  
Barcelona, Spain (1998)  
Geiranger, Norway (2001)  
Canterbury, UK (2004)  
Freising, Germany (2007)

## Topics of the Symposium

Abstracts are invited to the following topics:

### A Sustainability of Know How

- Strategies for maintaining and developing profound knowledge: within a company, within the European dam community
- Human resources: Recruiting strategies, resource crises?
- Know how transfer: Role of universities, organisations/committees, dam owners, authorities, consultants; regulations and guidelines.
- Education and training: Methods, models (process simulation); courses, certifications
- Research activities

### B Public Awareness of Dams and Dam Safety

- Benefits from dams: Assessment and communication to the public, dams and public economy
- Future of dams in Europe: visions, new projects
- Dam safety philosophies: Traditional concept, probability based concept (risk analysis)
- Emergency preparedness plans: Contents, warning systems, communication to the public, training
- Public safety according to the terms of reference of the appointed European Working Group
- Supervision by authorities

### C Maintenance and Rehabilitation

- Strategies and decision making, importance of documentation
- Case histories

### D Regulations and Guidelines

- Regulations versus engineering judgement, view of authorities and of dam owners
- Regulations and guidelines in the European countries: Survey, compatibility with European codes
- Do we need a European code for dams?

### E Small Dams

- Hazard assessment, categories for dams
- Inventory
- Regulations and guidelines
- Supervision: Role of authority, role of dam owner

### F Surveillance Practice

- Strategies: Main focus, with respect to failure modes, to acquire knowledge about dam performance
- Frequency of visual inspections, measurements, testing
- Role of geodetic measurements
- Interpretation of data, behaviour models (deterministic, statistic, hybrid)
- New monitoring methodologies
- Automated monitoring and remote control: Strategies and methodologies; automated warning
- Test procedures for operational equipment (gates, outlets, emergency power supply etc.), monitoring equipment, alarm equipment
- Data management, reporting
- Organisational aspects: Key personnel, responsibilities

Please note that submitting a contribution requires that at least one of the authors will attend the symposium.

## General Program

Day 1

### 21<sup>st</sup> September 2010

Technical Excursion: Finstertal, Zillerguendl  
Evening: Meeting European Workgroups

European Dam Symposium

Day 2

### 22<sup>nd</sup> September 2010

- Sustainability of Know How
  - Public Awareness of Dams and Dam Safety
  - Maintenance and Rehabilitation
- Evening Event

Day 3

### 23<sup>rd</sup> September 2010

- Regulations and Guidelines
- Small Dams
- Surveillance Practice

Evening: Meeting European Club Board

Day 4

### 24<sup>th</sup> September 2010

Technical Excursion: Finstertal, Zillerguendl

## Important Dates

31 <sup>st</sup> Jan. 2010	Deadline for Abstracts
28 <sup>th</sup> Feb. 2010	Acceptance of Contribution
31 <sup>st</sup> May 2010	Full Paper Submission

## Study Tours

Study tours to the Sellrain Silz hydro power scheme with the Finstertal dam and to the hydro power plants at the Zillertal with the 186m high Zillerguendl arch dam will be offered on two days: pre study tours on 21<sup>st</sup> Sept. and post study tours on 24<sup>th</sup> Sept. 2010.



Finstertal



Zillerguendl