

## Hydropower and Geo-Energy in Switzerland Challenges and Prospects

12 - 13 September 2016

HES-SO Valais-Wallis, Sion



© Electricité d'Emosson SA



© Sankt Galler Stadtwerke

On the first day of the SCCER-SoE Annual Conference 2016, everything revolves around hydropower. On the second day, we focus on geo-energy.

Both **mornings** are dedicated to lectures about the developments and milestones of the numerous SCCER-SoE research projects. The language will be mainly English. Over lunch, a poster exhibition offers the opportunity to further delve into the topic and exchange views.

**Monday afternoon** will be under the theme of „hydropower southwestern Switzerland“. First, the SCCER-SoE points out how the hydropower targets of the Energy Strategy 2050 can be reached. Then, during a panel discussion, representatives from industry, politics, research and federal offices will illustrate their views on the current situation. The contributions will be held in German and French and simultaneously translated into English.

On **Tuesday afternoon**, the topic „geothermal energy in Switzerland“ will be viewed in a broader context and discussed at a round table by representatives from industry, politics, and federal offices. The language will be mainly English.

In cooperation with the CTI



Energy funding programme  
Swiss Competence Centers for Energy Research



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation

Commission for Technology and Innovation CTI

## Monday, 12 September 2016

### Hydropower

09:50	Welcome address <i>Y. Buttet (National Council VS)</i>
10:00	SCCER-SoE phase II <i>D. Giardini (ETHZ)</i>
10:20	Highlights from hydropower: usage and infrastructure <i>Andreas Bauder, Ian Delaney, Nadav Peleg, Daniela Anghileri (ETHZ), Philipp Meier (eawag), Irene Samora (EPFL)</i>
11:10	Demonstrator for small hydropower plants <i>C. Alligné-Münch (HES-SO)</i>
11:20	Demonstrator Sedmix: an innovative tool to release fine sediments from hydropower reservoirs <i>A. Schleiss (EPFL)</i>
11:30	Demonstrator Flexstor: progress on ongoing research on a complex large hydropower systems <i>P. Manso (EPFL)</i>
11:45	Innovative technologies and computational energy science <i>C. Alligné-Münch (HES-SO), R. Krause (USI)</i>
12:05	Lunch and poster exhibition Introduction: <i>M. Schmid (eawag)</i>
13:35	Weissbuch für die Erstellung neuer, grosser Wasserkraftanlagen <i>R. Boes (ETHZ)</i>
13:50	Livre blanc : modernisation des aménagements hydroélectriques <i>F. Avellan (EPFL)</i>
14:05	Sozio-ökonomische Einflussfaktoren <i>A. Patt (ETHZ), H. Weigt (UNIBAS)</i>
14:25	Die weltweite Rolle der Wasserkraft für die nachhaltige Entwicklung von wasserwirtschaftlichen Mehrzweckanlagen <i>A. Schleiss (ICOLD)</i>
14:40	Stratégie énergétique et activités de la HES-SO Valais-Wallis <i>F. Seppey (HES-SO)</i>
14:55	Coffee and poster exhibition
15:30	Lage und Entwicklung der Schweizer Wasserkraft aus der Sicht des BFE <i>C. Dupraz (SFOE)</i>
15:45	Défi et opportunité pour l'industrie <i>M. Imhof (FMV)</i>
16:00	Zukunft der Wasserkraft: Sicht der Kantone <i>U. Nyffenegger (AUE BE)</i>
16:15	Table ronde : L'agenda Suisse hydroélectrique Lead: <i>F. Avellan (EPFL)</i>
16:55	Aperitif, poster exhibition, award ceremony, and visit of hydraulic laboratory
18:00	Closure

## Tuesday, 13 September 2016

### Geo-energy

09:00	Welcome address Swiss geo-energy agenda <i>D. Giardini (ETHZ)</i>
09:20	Mapping the Swiss underground <i>O. Lateltin (swisstopo)</i>
09:40	Challenges for stimulation <i>B. Valley (UNINE)</i>
10:00	Challenges for limiting induced seismicity <i>S. Wiemer (ETHZ)</i>
10:20	Coffee and poster exhibition Introduction: <i>T. Driesner (ETHZ)</i>
11:25	Demo: Flagship stimulation experiment in the deep underground laboratory, risk study <i>F. Amann (ETHZ), V. Gischig (ETHZ)</i>
11:40	Demo: Geneva basin-scale hydrothermal play for heat exchange and storage <i>A. Moscariello (UNIGE)</i>
11:55	Demo: Reservoir engineering for heat exchange Haue Sorne <i>P. Meier (Geo-Energie Suisse AG)</i>
12:10	Demo: CO <sub>2</sub> geological storage pilot <i>M. Mazzotti (ETHZ)</i>
12:25	Global observatory of electricity resources <i>S. Hirschberg (PSI), P. Burgherr (PSI)</i>
12:45	Lunch and poster exhibition
14:15	Social discourses on deep geothermal energy <i>M. Stauffacher (ETHZ), O. Ejderyan (ETHZ)</i>
14:30	SCCER-SoE: meeting the expectations of the Swiss Federal Office of Energy <i>G. Siddiqi (SFOE)</i>
14:45	Future of hydrothermal applications and heat for the districts <i>M. Meyer (SIG)</i>
15:00	Perspectives de développement de la géothermie dans le cadre de la stratégie énergétique 2050 <i>R. Cramer (Council of States GE)</i>
15:15	Round table on the Swiss geo-energy agenda Lead: <i>D. Giardini (ETHZ)</i>
15:55	Aperitif, poster exhibition, award ceremony, and visit of the earthquake simulator
17:00	Closure

## Registration

Personal registration is requested until 1 September 2016 [on this website](#).

Entrance is free.

## Call for Posters

Academic research partners are invited to present their projects on a poster.

Authors have to register their poster until 1 September 2016 [on this website](#).

Requirements:

- A0 size, vertical / portrait format only
- If a project is funded by the SCCER-SoE, the authors are required to use the [poster template on the conference website](#).

On both days, the top three posters made by PhD students will be awarded by a committee.

## Location & Getting There

HES-SO Valais-Wallis  
School of Engineering  
Aula „François-Xavier Bagnoud“  
Route du Rawyl 47  
1950 Sion

See schedule public transport and map on the following page

Walking: 20 minutes from Gare de Sion (1.5 km)  
Car: There is no parking available

## Contact

ETH Zurich  
Ueli Wieland  
Sonneggstr. 5  
8092 Zurich  
Phone: +41 44 632 32 64  
E-Mail: [uwieland@ethz.ch](mailto:uwieland@ethz.ch)

HES-SO Valais-Wallis  
Aline Dayer  
Route du Rawyl 47  
1950 Sion  
Phone: +41 27 606 85 14  
E-Mail: [aline.dayer@hevs.ch](mailto:aline.dayer@hevs.ch)

## Academic Research Partners

**ETH** zürich



Hes-SO VALAIS WALLIS

Lucerne University of Applied Sciences and Arts

**HOCHSCHULE LUZERN**



PAUL SCHERRER INSTITUT  
**PSI**

**Unil**  
UNIL | Université de Lausanne

**eawag** aquatic research

**EPFL**  
ÉCOLE POLYTECHNIQUE  
FÉDÉRALE DE LAUSANNE

**UNIVERSITÉ DE GENÈVE**

**HSR**  
HOCHSCHULE FÜR TECHNIK  
RAPPERSWIL  
FH O Fachhochschule Ostschweiz

**u<sup>b</sup>**  
UNIVERSITÄT  
BERN

Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra  
Swiss Confederation  
Federal Office of Topography swisstopo  
[www.swisstopo.ch](http://www.swisstopo.ch)



## Cooperation Partners

**SULZER**



**BKW**



**axpo**

**ALPIQ**

**KWO**  
GRIMMELSTROM

**sarmap**  
your information gateway

**esr**  
énergies sion région



**FMV**

**nagra**

**groupe e**

## Schedule public transport & map

Monday, 12 September 2016

Trains to Sion			Buses from Sion, gare
Zurich	Bern	Lausanne	
06:32*	07:34*	07:50*	09:04 - 09:11 nr. 341 to Sion, Capucins
07:02	08:06	08:21	09:38 - 09:44 Extra SCCER-SoE bus or nr. 351 to Sion, Brasserie
Trains from Sion			Buses from Sion, Brasserie to Sion, gare
Zurich	Bern	Lausanne	
17:25	17:25	17:36	17:09 - 17:20 nr. 353
18:20	18:20	18:01	17:46 - 17:54 nr. 341

Tuesday, 13 September 2016

Trains to Sion			Buses from Sion, gare
Zurich	Bern	Lausanne	
06:02	07:06	07:17	08:40 - 08:46 Extra SCCER-SoE bus or nr. 353 to Sion, Brasserie
Trains from Sion			Buses from Sion, Brasserie to Sion, gare
Zurich	Bern	Lausanne	
16:25	16:25	16:36	16:19 - 16:30 nr. 353
16:58	16:58	17:01	16:46 - 16:54 nr. 341
17:25	17:25	17:36	17:09 - 17:20 nr. 341

\* recommended for participants with a poster

