The ISUenergy 2011 highlights

ISU^{energy} 2011 will provide students with a solid foundation in renewable energies (especially photovoltaics and solar thermal technologies), solar architecture and social-economical aspects. Well-known scientific researchers from leading universities and institutes will give lectures covering a wide range of topics on the principles of solar energy conversion.





Theoretical knowledge will be complemented with practical workshops (table experiments) in the first week and creative group projects (e. g. building a solar oven or installation of a LED lightening system) in the second week with special emphasis on hands-on experience. Overall *ISU*^{energy} 2011 will be two weeks of highly intensive training in the interdisciplinary areas of renewable energies.





Accommodation is arranged in fully-equipped cosy holiday flats with fellow students which stimulates information transfer and networking among participants. Furthermore, the great location of Flims/Laax/Falera allows you to enjoy plenty of outdoor activities during your recreational time.





Partners

DLR German Aerospace Center

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Freie Universität Berlin

Physics Department Arnimallee 14 D-14195 Berlin

Helmholtz-Zentrum Berlin für Materialien und Energie

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Zürcher Hochschule für Angewandte Wissenschaften

Institute of Energy Systems and Fluid-Engineering Technikumstrasse 9 CH-8400 Winterthur



Participants of the ISUenergy 2010

- First call -

ISUenergy 2011

International Summer University on Energy



Renewable Energies III
Photovoltaics & Solar Thermal

21st August - 2nd September 2011 in Falera, Switzerland













International Summer University on Energy

Renewable Energies III

The International Summer University on Energy (ISU^{energy} 2011) invites you to participate in two unforgettable weeks to learn, experience and enjoy a series of seminars on renewable energy in the Swiss Alps. The school integrates different academic fields such as Physics, Material Science, Material Engineering, Sociology, Political Science and Economics and it follows the successful ISU^{energy} 2009 and ISU^{energy} 2010.

The ISU^{energy} 2011 will provide students a solid foundation in photovoltaics and solar thermal technologies. Well-known researchers and scientists from leading universities and institutes will give lectures covering a wide range of topics on the principles of solar energy conversion. Theoretical knowledge will be complemented with practical workshops with special emphasis on handson experience.

Subjects of the school are:

- · Solar cells and solar cell materials
- Photovoltaic systems and applications
- Low temperature solar thermal
- · High temperature solar thermal
- Solar architecture
- · Political, social and economical aspects of renewable energies

When and where does the *ISU*^{energy} 2011 take place?

ISU^{energy} 2011 takes place in Falera (near Chur, Flims/Laax), Switzerland. It starts on 21st August 2011 at 6 pm and continues until 2nd September 2011. Departure is scheduled for 3rd September 2011 in the morning.

Who can enrol?

The school primarily addresses students at Master level or to Diploma students (also young PhD students are welcomed) who prove to have an outstanding performance. You should be highly motivated and interested in renewable energy systems. As the *ISU*^{energy} 2011 is interdisciplinary, participants from different academic fields are encouraged to enrol.

Why should you apply?

- ISU^{energy} 2011 offers you excellent training in an international and interdisciplinary setting. It allows you to grasp issues and topics in a comprehensive way with distinguished, yet easily approachable instructors.
- ISU^{energy} 2011 allows for a transfer of 3 ECTS points to your home university.
- ISU^{energy} 2011 is a platform to gain knowledge and networks with scholars and students in the field of renewable energies.
- *ISU*^{energy} 2011 allows for recreational time to enjoy numerous fun outdoor activities in the gorgeous landscape of the Swiss Alps.

Application

In order to be able to judge on your qualification, please apply online at our homepage by clicking on 'Application'. You are requested to fill in the online form on our homepage plus to submit a short statement that justifies favorable consideration as a participant, your curriculum vitae and your certificates. Applications before 15th May 2011 get a reduction of tuition.

Accommodation

You will be accommodated in Falera in cosy holiday flats with fellow students. The flats are fully equipped with kitchen, private bedrooms, and bathroom. All seminar lessons and sessions will take place in the conference center La Fermata in Falera.

Tuition

ISU^{energy} 2011 enjoys financial support from several partners. Therefore a very competitive tuition fee of 300 € (application before 15th May 2011) / 350 € (application after 15th May 2011) for Master or Diploma students and 650 € (application before 15th May 2011) / 750 € (application after 15th May 2011) for graduates is charged. This fee includes the expenses for accommodation, lunch, as well as coffee breaks during the working week. Travel expenses, breakfast and dinner are not included.

Homepage & Contact

www.helmholtz-berlin.de/events/isu-energy www.helmholtz-berlin.de/events/isu-energy/index_de.html

Academic Director

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Tentative schedule

	So 21 Aug	Mo 22 Aug	Tu 23 Aug	We 24 Aug	Th 25 Aug	Fr 26 Aug
9:00 – 10:40		Centralized solar thermal systems I	Centralized solar thermal systems II	Centralized solar thermal systems III	Centralized solar thermal systems IV	De-centralized solar thermal systems I
10:50 – 12:30		Solar architecture I	Solar architecture II	Solar architecture III	Solar architecture IV	Solar architecture V
		Lunch	Lunch	Lunch	Lunch	Lunch
14:15 – 15:55		PV – cells & modules I	Practical workshop	Practical workshop	Practical workshop	Practical workshop
16:00 – 17:40	Arrival till 18:00	Political, social and economical aspects I	Practical workshop	Practical workshop	Practical workshop	Practical workshop
			break for dinner	break for dinner	break for dinner	break for dinner
20:15 public lecture	18:00: Welcome Address & Barbeque (Prof. Lux-Steiner)		Smart grid	Sustainable buildings	Electro mobility	Industrial view on a PV power plant

	Sa/So 27/28 Aug	Mo 29 Aug	Tu 30 Aug	We 31Aug	Th 1 Sep	Fr 2 Sep
9:00 – 10:40		PV – cells & modules II	PV – systems & components I	PV – cells & modules III	PV – systems & components II	PV – systems & components III
10:50 – 12:30		Political, social and economical aspects II	Political, social and economical aspects III	Solar architecture VI	Political, social and economical aspects IV	De-centralized solar thermal systems II
		Lunch	Lunch	Lunch	Lunch	Lunch
14:15 – 15:55	free for	Excursion	Group project	Group project	Group project	Test
16:00 – 17:40	outdoor activities	Excursion				Presentation of group projects
			break for dinner	break for dinner	break for dinner	break for dinner
20:15 public lecture			Energy storage: battery & fuels	Mixed energy scenarios	Bionics	Farewell Party