As of 18 May, 2010

Programme

EuroSun 2010
International Conference
on Solar Heating, Cooling and Buildings

28 September - 1 October 2010
Sparkassenplatz 1
Graz, Austria

Tuesday, 28 September – Technical Tour 1 — Meeting Point: Congress Graz

08:00 h	Registration at Congess Graz	
08:45 h	Departure of the bus (Andreas Hofer Platz)	
09:15 h- 09:45 h	**Large-scale solar renovation Dieselweg, Graz** Retrofit of several multi-family houses to passive house level by using multifunctional prefabricated facade elements Figure: AEE INTEC	
10:30 h- 11:00 h	**Solar assisted biomass district heating, Gleinstätten** 1300 m² collector area and wood chip boiler for the supply of the village Gleinstätten Figure: S.O.L.I.D.	
12:00 h- 13:30 h	Lunch	
13:45 h- 14:30 h	**Solar air conditioning – office building Feistritzwerke Steweag, Gleisdorf** 64 m² new developed high temperature flat plate collectors within integrated teflon foil, 19 kW ammonia-water chiller with a new wet cooling tower prototype Figure: Feistritzwerke Steweag	
14:45 h- 15:00 h	**Micro solar and biomass district heating with decentralized feeding, Gleisdorf** Three decentralised solar thermal systems (265 m², 230 m² and 100 m² collector area) and three pellet boilers feed into a micro-district heating net in order to supply hot water and space heating for multi-family houses, offices as well as heat for a public swimming pool Figure: AEE INTEC	
16:00 h- 16:30 h	**Large-scale solar heating system on retrofitted multi-family buildings – Berlinerring, Graz** 2340 m² collector area in combination with a 60 m³ hot water store for the heat supply of 752 flats Figure: S.O.L.I.D.	
17:00 h	Arrival in Graz (Andreas Hofer Platz)	

18:30 h Welcome Reception — Venue: Old University Graz, Hofgasse 14

ISES International Solar Energy Society
SHC SOLAR HEATING & COOLING PROGRAMME INTERNATIONAL ENERGY AGENCY
PSE projects in solar energy
AEE INTEC

Technical Tour 2 — Meeting Point: Congress Graz

08:00 h	Registration at Congress Graz	
08:45 h	Departure of the bus (Andreas Hofer Platz)	
09:15 h- 09:45 h	**Large-scale solar system – high school "Augustinum" Graz** 270 m² in roof solar collector generate thermal energy for heating and hot-water in school, sports hall, commercial kitchen and boarding house. The solar storage tank works as a hydraulic switch and reduces the district heating load in addition. The hot-water preparation is made with 3 fresh water modules including thermal disinfection Figure: Sonnenkraft	
10:30 h- 11:00 h	**Large-scale solar district heating Wasserwerk, Graz** A ground mounted 3855 m² solar collector field feeds heat into the district heating network of the city of Graz. The system is also equipped with a heat pump in order to boost the solar thermal system during wintertime Figure: S.O.L.I.D.	
12:00 h- 13:30 h	Lunch	
13:45 h- 14:30 h	**Solar air conditioning – office building PAAR, Graz** 350 m² solar collector field for heating and cooling (245 kW_{th}) Figure: Fa. Paar	
14:45 h 15:00 h	**Solar air-conditioning Service Centre and Town hall, Gleisdorf** 304 m^2 new developed high temperature collectors and 4600 Litre Heat store, the absorption chiller (35 kW_{th} cooling power) and the DEC-Air flow rate is 6250 m^3/h (about 35 kW_{th}) Figure: S.O.L.I.D.	
16:00 h	**Large-scale facade integration of solar collectors – Students hostel Elisabethstrasse, Graz** 187 m² front integrated collectors and 160 m² collector area on the roof (243 kW_{th}) for hot water and space heating and also for district heating Figure: AEE INTEC	
17:00 h	Arrival in Graz (Andreas Hofer Platz)	

18:30 h Welcome Reception — Venue: Old University Graz, Hofgasse 14

Wednesday, 29 September — Congress Graz

		OPENING SESSION — Session Chair: Prof Dorota Chwieduk, ISES Europe, Poland	**Stefaniensaal**
09:00 h		**Opening and Welcome** Prof Dorota Chwieduk, ISES Europe President Dr David Renné, ISES President Doug McClenahan, IEA Solar Heating and Cooling Programme Prof Wolfgang Streicher, Scientific Committee Chair Werner Weiss, Organising Committee Chair Dr Hubert Mattersdorfer, General Solar Systems, Platinum Sponsor	
09:35 h		**Resultes of Austria´s Energy Research** Doris Bures, Austrian Minister for Innovation and Technology (inquired)	
09:50 h		**Renewables Global Status Report 2010** Dr Janet L. Sawin, World Watch Institute, USA (inquired)	
10:05 h		**Elminate change and the rate of buildings and solar thermal use to minimize its impacts** Prof Diana Ürge-Vorsatz, Intergovernmental Panel on Climate Change (IPCC), Hungary	
10:30 h		**Coffee Break**	
PARALLEL SESSIONS	**11:00 h**	**Advanced Solar Domestic Hot Water Heating** — Chair: Dr Elimar Frank, SPF Rapperswil, Switzerland	**Stefaniensaal**
	11:00 h	**Performance of a solar heat pump to produce domestic hot water for a multifamily building** Dr Mihai Radulescu, EDF R&D, France	
	11:20 h	**Numerical and experimental comparison of the performance of standard and PV-numerical and SDHW System** Mrs Yu BAI, LOCIE, France	
	11:40 h	**Energetic interest of the use of phase change materials in a domestic hot water system** Stéphane Gibout, LaTEP – UPPA, France	
	12:00 h	**Cost effective domestic solar thermal energy systems for northern maritime climates** Dr David Redpath, University of Ulster, United Kingdom	
	12:10 h	**New high efficiency thermal-electrical solar still to produce distilled and hot water for rural hospitals in Botswana** Philip Monowe, University of Botswana, Botswana	
	11:00 h	**Solar Energy in Architecture I** — Chair: Prof Maria Wall, Lund University, Sweden	**Kammermusiksaal**
	11:00 h	**Retrofitted buildings go solar-active!** Sonja Geier, AEE – Institute for Sustainable Technologies, Austria	
	11:20 h	**Demonstration plant of a solar thermal energy facade for commercial and industrial buildings** Roland Heinzen, FSAVE, Germany	
	11:40 h	**A study of the influence of housing unit form and density on solar potential** Caroline Hachem, Concordia University, Canada	
	12:00 h	**Rehabilitation of an office building of the 60-ties with solar heating panels for solar cooling** Matthias Herzog, Kreuzroither Metallbau Gmbh, Austria	
	12:10 h	**Analysis of the energy performance of sunspaces: A new method** Dr Albatici Rossano, University of Trento, Italy	
	11:00 h	**Solar Space Heating with High Solar Fraction** — Chair: Dr Alexander Thür, AEE – Institute for Sustainable Technologies, Austria	**Casineum**
	11:00 h	**Simulation results of high solar fraction combi-systems in different European locations using Transol 3** Dr Aristotelis Aidonis, Politecnico di Milano, Italy	
	11:20 h	**Seasonal storage coupled to a solar combisystem: Dynamic simulations for process dimensioning** Gwennyn Tanguy, INES RDI, France	
	11:40 h	**In-situ investigation of a domestic solar/heat pump heating systems in a single-family house** Christoph Trinkl, Ingolstadt University, Germany	
	12:00 h	**Systematic classification of combined solar thermal and heat pump systems** Dr Elimar Frank, SPF, Switzerland	
	12:10 h	**Concentrated heat storage for solar heating** Adil Lari, ACE Group ZT-GmbH, Austria	
12:20 h		**Lunch Break**	

PARALLEL SESSIONS	**14:00 h**	**Testing and Certification** — Chair: Jan-Erik Nielsen, PlanEnergi, Denmark	**Stefaniensaal**
	14:00 h	**IEA-SHC Task 43: Research on solar collector and system testing and certification** Kevin DeGroat, Antares Group, Inc., United States	
	14:20 h	**Dynamic System Testing: Development of a parameter indentification tool and long term performance prediction validation** Maria Joao Carvalho, LNEG, Portugal	
	14:40 h	**Qualification of collectors and components by exposure to extreme climatic conditions** Michael Köhl, Fraunhofer ISE, Germany	
	15:00 h	**Joint European efforts on solar thermal collector standardization and certification** Peter Kovacs, SP Technical Research Institute of Sweden, Sweden	
	15:20 h	**Development of a test procedure for external domestic hot water moduls** Florian Ruesch, SPF, Switzerland	
	15:30 h	**An advanced solar air-conditioning test facility** Mark Goldsworthy, CSIRO, Australia	
	14:00 h	**Net Zero Energy Buildings** — Chair: Björn Karlsson, Sweden	**Kammermusiksaal**
	14:00 h	**Net zero energy houses – status, forces for change, vision of future houses** Prof Robert Hastings, AEU Ltd., Switzerland	
	14:20 h	**Criteria for definition of net zero energy buildings** Dr Igor Sartori, SINTEF, Norway	
	14:40 h	**Load matching and grid interaction of Net Zero Energy Buildings** Prof Karsten Voss, University Wuppertal, Germany	
	15:00 h	**The German contribution to the Solar Decathlon Europe 2010 – A comparison of four net zero energy building prototypes monitored under equal conditions** Jan Cremers, HFT Stuttgart, Germany	
	15:20 h	**The road towards "zero energy" in buildings: Lessons learning from solar XXI buildings in Portugal** Dr Laura Aelenei, LNEG, Portugal	
	15:30 h	**Design optimization methodology for a near zet zero energy demonstration home** Scott Bucking, Concordia University, Canada	
	14:00 h	**Solar Radiation and Solar Energy Availability** — Chair: Dr David Renné, NREL, USA	**Casineum**
	14:00 h	**Forecasting solar irradiance using NWP models: An evaluation study in Andalusia** Dr David Pozo-Vazquez, University of Jaén, Spain	
	14:20 h	**A physical method for a satellite-based surface radiation database** Dr Manajit Sengupta, National Renewable Energy Laboratory, United States	
	14:40 h	**Solar irradiance forecasting, benchmarking of different techniques and applications of energy meteorology** Wolfgang Traunmueller, BlueSky Wetteranalysen, Austria	
	15:00 h	**A guide for non-experts to determine the most appropriate use of solar energy resource information** Dr Carsten Hoyer-Klick, German Aerospace Center (DLR), Germany	
	15:20 h	**City of Graz solar roof cadastre, GIS-based local analysis for solar power units – a planning tool** Anneliese Kapfenberger-Pock, Surveyor's Department of the City of Graz, Austria	
	15:30 h	**Trends in global radiation between 1950 and 2100** Jan Remund, Meteotest, Switzerland	
14:00 – 15:30 h		**Poster Session**	**Saal Steiermark**
		Topic 1 – Solar Energy in Architecture Topic 5 – Advanced Solar Domestic Hot Water Heating Topic 6 – Solar Space Heating with High Solar Fraction Topic 10 – Thermal Energy Storage	
15:40 h		**Coffee Break**	

PARALLEL SESSIONS	**16:10 h**	**Large-scale Solar Thermal Applications** — **Stefaniensaal** Chair: Prof Jan-Olof Dalenbäck, Chalmers University of Technology, Sweden
	16:10 h	**Current developments and prospects of solar district heating in Europe** Thomas Pauschinger, Solites – Steinbeis, Germany
	16:30 h	**Large-scale solar district heating plants in Graz – operational experiences and further developments** Moritz Schubert, S.O.L.I.D, Austria
	16:50 h	**Stagnation of large-scale solar thermal systems** Robert Hausner, AEE INTEC, Austria
	17:10 h	**Solar district heating taking the full summer load in cities** Dr Christian Holter, S.O.L.I.D., Austria
	17:20 h	**stadt:werke:lehen solar heating in a concerto district** Dr Boris Mahler, STZ-EGS, Germany
	17:30 h	**Solar energy systems in Chile - application potential** Prof Roberto Roman, University of Chile, Chile
	17:40 h	**Reliable technology for large-scale solar thermal energy ESCO projects** Sabine Putz, S.O.L.I.D., Austria
	16:10 h	**Energy Efficiency in Buildings through Solar Application** — **Kammermusiksaal** Chair: Prof Manuel Collares Pereira, Lisbon University of Technology, Portugal
	16:10 h	**Cost effective energetic refurbishment of office buildings in Norway** Prof Matthias Haase, NTNU, Trondheim, Norway
	16:30 h	**Monitoring and evaluation of renewable heating and cooling in a multi-purpose building** Prof Wilfried Zörner, Ingolstadt University of Applied Sciences, Germany
	16:50 h	**Combined solar and pellet heating systems for houses: Improvement of energy efficiency and reduction of boiler on/off cycling** Michel Haller, Graz University of Technology, Austria
	17:00 h	**Solar/electric heating systems using smart solar tanks and variable electricity costs** Dr Bengt Perers, DTU Byg, Denmark
	17:10 h	**Energy demand reduction by PCM based plasterboard application for passive houses on polish climate condition** Dr Ryszard Wnuk, The Polish National Energy Conservation Agency, Poland
	17:20 h	**Performance and design of a heat recovery system for natural ventilation of low energy buildings** Henrik Davidsson, Lund University, Sweden
	17:30 h	**Solar gains regulation via holistically defined control system of the internal environment** Dr Mitja Košir, University of Ljubljana, Slovenia
	17:40 h	**Tool for evaluation of energy efficiency of buildings in early design stages** Markus Gratzl-Michlmair, Graz University of Technology, Austria
	16:10 h	**Other Solar Energy Related Topics** — **Casineum** Chair: Dr Esther Rojas Bravo, CIEMAT, Spain
	16:10 h	**Solar thermal potential in the building stock – achievable levels of solar thermal energy supply** Marcel Gutschner, NET Nowak Energy & Technology Ltd, Switzerland
	16:30 h	**Conservation first! A new ESCO model to combine energy efficency and renewable supply in large buildings and industry** Jan W. Bleyl-Androschin, Grazer Energieagentur, Austria
	16:50 h	**Modeling the impact of solar thermal support policies** Dr Lukas Kranzl, Vienna University of Technology, Austria
	17:10 h	**Solarcampus – A complementing path for turning universities to renewables and energy efficiency** Prof Klaus Vajen, Kassel University, Germany
	17:20 h	**Student center "Energy" in Bulgaria** Yordanka Eneva, Vocational Secondary School of Economics "Dr Ivan Bogorov", Bulgaria
	17:30 h	**Extensive on-field studies of a novel family solar cooker** Prof Prabha Dashora, University of Rajasthan, India
	17:40 h	**Promoting the use of solar thermal applications in Southern Africa through a social network** Dr Anton Schwarzlmüller, Domestic Solar Heating P/L, Zimbabwe
16:10 – 17:30 h	**Poster Session** — **Saal Steiermark**	
	Topic 02 – Net Zero Energy Buildings Topic 12 – Testing and Certification Topic 13 – Solar Radiation and Solar Energy Availability	
18:00 – 19:30 h	Happy Hour solar beer, solar cooled wine, Jazz band	
19:30 h	Sightseeing Tour Graz — Meeting Point: Registration Desk, Congress Graz	

		Plenary Session — **Stefaniensaal** Session Chair: Prof Wolfgang Streicher, Innsbruck University, Austria
	09:00 h	**Key-note - 100 % Renewables vision by 2050** Christine Lins, European Renewable Energy Council (EREC), Brussels, Belgium
	09:25 h	**Key-note - The challenge to exploite the solar thermal potential** Werner Weiss, AEE - Institute for Sustainable Technologies, Austria
	09:50 h	**Key-note - Solar air-conditioning and refrigeration - achievements and challenges** Dr Hans-Martin Henning, Fraunhofer ISE, Germany
	10:15 h	**Coffee Break**
PARALLEL SESSIONS	**10:40 h**	**Solar Energy for Industrial and Commercial Applications** — **Stefaniensaal** Chair: Prof Klaus Vajen, Kassel University, Germany
	10:40 h	**The potential of medium scale solar thermal power and solar polygeneration** Dr Werner Platzer, Fraunhofer ISE, Germany
	11:00 h	**Demonstration of direct steam generation in a Mirroxx linear fresnel collector** Michael Berger, PSE AG, Germany
	11:20 h	**Potential for solar process heat in Germany – Suitable industrial sectors and processes** Christoph Lauterbach, Kassel University, Germany
	11:30 h	**Einstein – Expert system for an intelligent supply of thermal energy in the industry – Audit methodology and software tool** Dr Hans Schweiger, Energyexperts, Germany
	11:40 h	**Sustainable beer production by combining solar process heat and energy efficiency – Holistic system concept and preliminary operational eyperiences** Bastian Schmitt, Kassel University, Germany
	11:50 h	**Energy efficiency, high temperature heat pump and solar heat for industrial processes – Case study of an Austrian company** Franz Mauthner, AEE INTEC, Austria
	12:00 h	**Methodological analysis of industrial processes regarding the implementation of a solar-thermal process heating system** Holger Müller, Ingolstadt University of Applied Sciences, Germany
	12:10 h	**Solar heat for industrial processes: RefleC-collector development and system design** Stefan Heß, Fraunhofer ISE, Germany
	10:40 h	**Solar Energy in Architecture II** — **Kammermusiksaal** Chair: Andreas Eckmanns, Bundesamt für Energie, Switzerland
	10:40 h	**Technical advances in the EU-Cool Roof project** Michele Zinzi, ENEA, Italy
	11:00 h	**Barriers and needs for building integration of solar thermal and photovoltaics** Klaudia Farkas, NTNU, Norway
	11:20 h	**A new angle selective see through bipv façade for solar control** Dr Francesco Frontini, Fraunhofer Istitut for Solar Energy Systems, Germany
	11:40 h	**On an integrated DSM package associated to a solar thermal obligation. The ProSTO EU project and the Portuguese Experience** Manuel Prates, LNEG, Portugal
	12:00 h	**Architecturally appealing solar thermal systems – a great marketing tool in order to attract new customers and market segments** Ingvild Skjelland, Aventa as, Norway
	12:10 h	**Evaluation of solar control efficiency in cold climates office buildings** Pietro Finocchiaro, DREAM Università di Palermo, Italy
	10:40 h	**Thermal Energy Storage I** — **Casineum** Chair: Dr Wim van Helden, WvH-Renewable Heat, The Netherlands
	10:40 h	**Development of a compact heat storage system based on salt hydrates** Dr Martijn van Essen, Energy Research Centre of the Netherlands (ECN), Netherlands
	11:00 h	**Experimental und numerical investigations on thermo chemical heat storage** Dr Henner Kerskes, University of Stuttgart, Germany
	11:20 h	**Long-term heat storage with NaOH** Robert Weber, Empa, Switzerland
	11:40 h	**Novel binderless granulated molecular sieves for thermochemical heat storage** Jochen Jänchen, Technical University of Applied Sciences Wildau, Germany
	12:00 h	**Long term results from a latent heat storage developed for a solar heating and cooling system** Michael Himpel, Bavarian Center for Applied Energy Research, Germany
	12:10 h	**Theoretical investigation of a long-term solar energy storage based on LIBR/H2O absorption cycle** K. Edem N´Tsoukpoe, Université de Savoie, France

10:40 – 12:00 h	**Poster Session** — **Saal Steiermark**	
	Topic 04 - Large-Scale Solar Thermal Applications Topic 03 – Energy Efficiency in Buildings through Solar Application Topic 14 – Other Solar Energy Related Topics	
12:20 h	**Lunch Break**	
PARALLELSESSIONS	**14:00 h**	**Solar Cooling and Air Conditioning I** — **Stefaniensaal** Chair: Dr Hans-Martin Henning, Fraunhofer ISE, Germany
	14:00 h	**Performance and perspectives of solar cooling** Dr Edo Wiemken, Fraunhofer ISE, Germany
	14:20 h	**Monitoring programme of small-scale solar heating and cooling systems within IEA SHC TASK 38 – Procedure and first results** Dr Alexander Thuer, AEE - Institute for Sustainable Technologies, Austria
	14:40 h	**Field test of a solar-assisted cooling system** Prof BJ Huang, National Taiwan University, Taiwan
	15:00 h	**French high quality solar heating and cooling demo projects incentive scheme** Romain Sire, TECSOL, France
	15:10 h	**Tailoring and testing a new sorbent for adsorption chillers driven by a moderate solar insulation** Dr Mikhail Tokarev, Boreskov Institute of Catalysis, Russian Federation
	15:20 h	**In-situ analysis and operational optimisation of a solar-driven Dec-System** Tobias Bader, Ingolstadt University, Germany
	15:30 h	**Experimental study on a cross flow plate-type dehumidifier for a liquid desiccant cooling system** Mustafa Jaradat, Kassel University, Germany
	14:00 h	**Solar Collector Technology I** — **Kammermusiksaal** Chair: Prof Brian Norton, Dublin Institute of Technology, Ireland
	14:00 h	**Qualification of new polymeric materials for solar thermal applications** Karl-Anders Weiß, Fraunhofer ISE, Germany
	14:20 h	**Condensation and subsequent icing on structured plates in low speed flows – An experimental study** Dr Christoph Reichl, AIT- Austrian Institute of Technology, Austria
	14:40 h	**An improved dynamic solar collector model including condensation and asymmetric incidence angle modifiers** Dr Bengt Perers, DTU Byg, Denmark
	15:00 h	**Polymeric thermotropic glazings for overheating protection of solar collectors** Dr Katharina Resch, University of Leoben, Austria
	15:10 h	**Solar collector absorbers in high-performance polymeric materials** Prof John Rekstad, University of Oslo, Norway
	15:20 h	**Three dimensional ray tracing and reliability analysis of a novel ICPC collector after twelve years of operation** Prof William Duff, Colorado State University, United States
	15:30 h	**Theoretical analysis of solar unglazed hybrid photovoltaic-thermal liquid collector** Dr Tomas Matuska, Czech Technical University in Prague, Czech Republic
	14:00 h	**Thermal Energy Storage II** — **Casineum** Chair: Dr Andreas Hauer, ZAE Bayern, Germany
	14:00 h	**Thermochemical storage using composite materials: From the material to the system** Stéphanie Hongois, EDF R&D, France
	14:20 h	**Thermal energy storage with phase change materials in solar combisystems – a promising solution?** Dr Andreas Heinz, Graz University of Technology, Austria
	14:40 h	**Towards seasonal heat storage based on stable super cooling of sodium acetate trihydrate** Prof Simon Furbo, Technical University of Denmark, Denmark
	15:00 h	**Energy efficient buildings: II- How to determine the most suitable PCM and environment to maximize energy saving** Prof Mohammed Farid, University of Auckland, New Zealand
	15:20 h	**Novel adsorption material for thermal energy storage** Dr Alenka Ristic, National Institute of Chemistry Slovenia, Slovenia
	15:30 h	**Vapor chamber energy storage system with Al203 and water mixture as medium** Dr Chung-Kuan Kung, National Taiwan University, Taiwan
14:00 – 15:30 h	**Poster Session** — **Saal Steiermark**	
	Topic 01 – Solar Energy in Architecture Topic 02 – Net Zero Energy Buildings Topic 08 – Solar Cooling and Air Conditioning	
15:40 h	**Coffee Break**	

PARALLELSESSIONS	16:10 h	**Primary energy optimization of solar adsorption cooling plants through dynamic simulations** Antoine Dalibard, ZAFH.NET - HFT Stuttgart, Germany
	16:30 h	**Dynamical studies with a semi virtual testing approach for characterization of small scale absorption chiller** François Boudéhenn, CEA LITEN INES, France
	16:50 h	**Testing of an evaporative cooling system that supplies air near the dew point temperature** Dr Frank Bruno, University of South Australia, Australia
	17:10 h	**Solar ejector air-conditioning and refrigeration system** Dr Dmytro Buyadgie, Wilson Ltd., Ukraine
	17:30 h	**Preliminary findings on the performance of a new residential solar desiccant air conditioner** Daniel Rowe, CSIRO, Australia
	17:40 h	**Practical experience of two small scale solar cooling plants and cost comparison to PV driven chillers** Daniel Neyer, Graz University of Technology, Austria
	16:10 h	**Industry Session** — **Kammermusiksaal** Chair: Nigel Cotton, European Copper Institute, Brussels, Belgium
	16:10 h	**Successful solar thermal support mechanisms worldwide** Bärbel Epp, Solrico, Germany
	16:30 h	Platinum sponsors
	16:50 h	Gold sponsors
	17:10 h	Silver sponsors
	17:20 h	Bronze sponsors
	17:40 h	Solar cooling – Green chiller and district heating and industrial application
	16:10 h	**Other Components of Solar Thermal Systems** — **Casineum** Chair: Prof Istvan Farkas, Szent Istvan University, Hungary
	16:10 h	**Developing quality indicators for large solar heating systems and district heating** Alexandre Andrade, IPUC / PUC Minas, Brazil
	16:30 h	**Heatboxquality – Decentralized hydraulic stations on testing rig** Alexander Kaiser, AEE - Institute for Sustainable Technologies, Austria
	16:50 h	**Evaluation of solar combisystems – Overview and methodology** Jens Ullman, University of Stuttgart, Germany
	17:10 h	**Analyses of functionality and quality of 120 solar thermal systems in residential buildings and commercial applications** Christian Fink, AEE - Institute for Sustainable Technologies, Austria
	17:20 h	**Comprehensive evaluation and monitoring of solar thermal combisystems for detached houses** Johann Breidler, AEE - Institute for Sustainable Technologies, Austria
	17:30 h	**Unglazed photovoltaic-thermal collectors in heat pump systems** Erik Bertram, Institute for Solar Energy Research, Germany
	17:40 h	**Pressure and temperature development in a solar heating system during stagnation** Janne Dragsted, Technical University of Denmark, Denmark
16:10 – 17:30 h	**Poster Session** — **Saal Steiermark**	
	Topic 07 – Solar Energy for Industrial and Commercial Applications Topic 09 – Solar Collector Technology Topic 11 – Engineering and Simulation Tools	
19:30 h	**Conference Dinner** **IEA SHC Award ceremony / Solar Decathlon**	**Venue: Convention Center Messe Graz** **Messeplatz 1 / Messeturm**

Friday, 1 October — Congress Graz

	Plenary Session — Stefaniensaal Session Chair: Torben Esbensen, Esbensen Consulting Engineers, Denmark	
09:00 h	**Key-note – Solar buildings** Arch Karin Kappel, Solar City Copenhagen, Denmark	
09:25 h	**Key-note – Polymeric materials for solar thermal applications** Prof Reinhold W. Lang, Linz University, Austria	
09:50 h	**Key-note – Compact thermal storages: Potential and limitations for different applications** Dr Astrid Wille, PTJ, Germany	
10:15 h	**Coffee Break**	
PARALLEL SESSIONS	**10:40 h**	**Solar Collector Technology II** — Stefaniensaal Chair: Prof Gerhard Faninger, Klagenfurt University, Austria
	10:40 h	**Insulating glass solar thermal collector technology** Simon Scheffler, IP Bewertungs AG, Germany
	11:00 h	**Experimental evaluation of natural convective fluid flow phenomenon in compound parabolic concentrating (CPC) solar collector avities** Dr Harjit Singh, Kingston University, United Kingdom
	11:20 h	**Heat losses of highly efficient flat plate collectors with a selectively coated double glazing** Sebastian Föste, Institut für Solarenergieforschung Hameln, Germany
	11:40 h	**Performance and applications of an evacuated flat plate solar thermal collector** Dr Cristoforo Benvenuti, SRB Energy Research – CERN, Switzerland
	12:00 h	**Partial stagnation in direct-flow vacuum tube collectors: Conditions for occurrence, risks and consequences** Jens Glembin, Institut für Solarenergieforschung Hameln, Germany
	10:40 h	**Building of Tomorrow** — Kammermusiksaal Chair: Theodor Zillner, Austrian Ministry for Transport, Innovation and Technology
	10:40 h	**Solar COMPLEET - The innovative heating solution** Dr Wolfgang Guggenberger, Sonnenkraft, Austria
	11:00 h	**SolarCooling Monitor - Evaluation of energy efficiency and operation modes of solar cooling systems for air-conditioning in buildings** Anita Preisler, Austrian Institute of Technology, Austria
	11:20 h	**Solrose FP – bionical designed solarthermal collector** Gerhard Mütter, SOLution Solartechnik GmbH, Austria
	11:40 h	**ChristophorusHaus – Multifunctional office and logistic building** Franz X. Kumpfmüller, BBM Beschaffungsbetrieb der MIVA, Austria
	12:00 h	**ENERGYbase – Office building of the future** Arch Ursula Schneider, pos- architekten, Austria
	10:40 h	**Engineering and Simulation Tools** — Casineum Chair: Prof Wolfgang Streicher, Innsbruck University, Austria
	10:40 h	**Development of a web-based monitoring and diagnostics tool for solar thermal systems** Philip Ohnewein, SOLID GmbH, Austria
	11:00 h	**SORCE: A design tool for solar organic rankine cycle systems in distributed generation applications** Dr Matthew Orosz, MIT, United States
	11:20 h	**High quality solar architecture: Do architects have tools supporting early design phase decisions?** Prof Marie-Claude Dubois, Université Laval, Canada
	11:40 h	**Using a multi-criteria analysis to select design alternatives aiming the energy efficiency and IEQ** Prof Sandra Monteiro da Silva, University of Minho, Portugal
	11:50 h	**Evaluation, diagnosis and improvement of a solar cooling plant by means of experimental analysis and dynamic simulation** Fernando Palacin, CENER, Spain
	12:00 h	**New features for solar thermal simulation in Transol** Dr Jaume Salom, IREC, Spain
	12:10 h	**Polysun inside: A universal platform for commercial software and research applications** Dr Andreas Witzig, Vela Solaris AG, Switzerland
10:40 – 12:15 h	**Poster Session** — Saal Steiermark	
	Topic 08 – Solar Cooling and Air Conditioning Topic 10 – Thermal Energy Storage Topic 15 – Other Components of Solar Thermal Systems	

12:40 h	**Closing Session** — Stefaniensaal **100 years solar thermal collectors: From the first hot water system to the multi megawatt system**
	Session Chair: Michael Köhl, Fraunhofer ISE, Germany
12:40 h	**100th Anniversary of flat-plate collectors for solar water heating** John Perlin, Santa Barbara, California
13:10 h	**25 MWth - the biggest solar thermal system worldwide at the Princess Noura University in Riad, Saudi Arabia** Hisham Mikhi, Millenium Energy Industries, Jordan and Rudolf Moschik, AEE- Institute for Sustainable Technologies, Austria
13:30 h	**Closing remarks** Prof Dorota Chwieduk, ISES Europe President Doug McClenahan, Chair, IEA Solar Heating and Cooling Programme Prof Wolfgang Streicher, Scientific Committee Chair Werner Weiss, Organizing Committee Chair
14:00 h	**Farewell Lunch**

B2fair matchmaking event at the EuroSun2010 conference

STOP 4 business

Wednesday, 29th Sept 2010 — 9:00 – 18:00 h
Thursday, 30th Sept 2010 — 9:00 – 18:00 h
Friday, 1st Oct 2010 — 9:00 – 13:00 h

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