Conference and Workshops

On 25th and 26th of February 2016
At the University of Kaiserslautern

Language: English

Free Workshop for Students
on Feb 26th (Computer Pool, 13:45 - 17:00)
An Introduction to Building Simulation
Prof. Dr.-Ing. Philippe André, Samuel Hennaut, Fabien Claude,
University of Liège
(full – students can be placed on wait list)

NEW: Advanced Workshop
on Feb 26th (Computer Pool, 13:45 - 17:00)
Introduction to Daylight Simulation and the Modelling of Complex Fenestration Systems
Dipl.-Ing. Jochen Lam, Transsolar
A work station with TRNSYS will be provided to participants
(Minimum number: 6 Maximum number: 12)
Fees: 295,00 € plus VAT
Register at: hotline@transsolar.com

Conference Venue

Technische Universität Kaiserslautern
Rotunde, Building 57
Erwin-Schrödinger-Straße
67663 Kaiserslautern
Germany

Workshops

(All workshops will be held in English)

Friday, February 25th

Workshop for Students
13:45 - 17:00 Hands-on workshop with TRNSYS
Software will be provided for the workshop
Students will be able to choose their level of expertise.

Advanced Workshop
Register at hotline@transsolar.com

13:45 - 15:15 Short introduction to daylight simulations
Presentation of daylight simulation approach in TRNSYS 18

Thermal and daylight simulation of a standard office building:
• Setting up geometry and daylight sensor
• Integration of daylight model in TRNSYS
• Setting up controls for artificial lighting considering daylight results

13:45 - 15:15 Break

15:30 - 17:00 Short introduction to complex fenestration calculation

Simulation of a standard office building with the complex fenestration model:
• Creating a BSDF glazing system in LBNL WINDOW 7.3
• Exporting and preparing window data for TRNSYS
• Integration of complex window in TRNBuild
The 2016 TRNSYS Experience Seminar is the second edition after a first successful event at Nancy in May 2015. This year, the seminar will take place at the University of Kaiserslautern on February 25-26, 2016.

The TRNSYS Experience Seminar focuses on case studies and the exchange between research and practice. The seminar provides an excellent opportunity to learn about the current state of research, the latest developments in the field of simulation software and the use of TRNSYS for engineering and consulting services.

Organization
Professor Dr.-Ing. Sabine Hoffmann
University of Kaiserslautern (GERMANY)
Professor Dr.-Ing. Philippe André
Université de Liège (BELGIUM)
Professor Dr.-Ing. Riad Benelmir
Université de Lorraine (FRANCE)
Ass.-Prof. Dr.-Ing. Frank Scholzen
Université du Luxembourg (LUXEMBOURG)
Dr.-Ing. Julien Carton
ICSEED – Research and Consultancy (FRANCE)

Registration
Please use our website to register online: http://trnsysexperience.eu/registration

Conference Fees
Standard fees: 270 €
Students of the University of the Greater Region: Free

Conference Program
Thursday, February 25th

10:00 – 11:00 OPENING SESSION
Chair: Sabine Hoffmann
Welcoming speech
Prof. Dr.-Ing. Norbert Wehn
Vice-president of University of Kaiserslautern
Keynote talk by Marion Hiller (Transsolar)

11:00 – 11:30 Coffee break

11:30 – 13:00 FIRST SESSION
Chair: Philippe André
1-1. Simulation versus Reality: a case study on a net zero energy office building
Ewen Raballand (ETAMINE)
1-2. Simulation of a complex HVAC system including a Micro CHP plant
Vincent Cousin (University of Liège)
1-3. Optimisation of a solar combisystem including a thermochemical storage
Samuel Hennaut (University of Liège)

13:00 – 14:00 Lunch break

14:00 – 15:30 SECOND SESSION
Chair: Sabine Hoffmann
2-1. TRNSYS Toolbox for Rhino / Grasshopper
N.N. (Transsolar)
2-2. New Feature: Daylight Simulation Integration in TRNSYS
Jochen Lam (Transsolar)
2-3. TRNSYS Building and System Simulations for Hardware-in-the-loop test benches
Arno Dentel, Julian Buderus (Technische Hochschule Nürnberg)

15:30 – 16:00 Coffee break

16:00 – 17:30 THIRD SESSION
Chair: Frank Scholzen
3-1. Modeling of public swimming pools
Vincent Coste (AMOES)
3-2. Thermal simulation in very extreme conditions with application to a space vessel
Philippe André (University of Liège)
3-3. Heat losses in the distribution network of multi-family houses
Jens Glemin (Institut für Solarenergieforschung, Emmental)

Friday, February 26th

09:00 – 10:30 FOURTH SESSION
Chair: Riad Benelmir
4-1. Investigation of different strategies of refurbishment and comparison of their energy savings
Klara Bauer, Angèle Tersluisen
(University of Kaiserslautern)
4-2. Case study of a wooden-house: impact of mineral wool vs wood fiber insulation on energy & thermal comfort
Julien Carton (ICSEED – Research and Consultancy), Frank Scholzen (University of Luxembourg)
4-3. Simulation and Validation of PCM-chilled Ceilings
Modar Yasin, Felix Klinker, Helmut Weinläder
(ZAE Bayern)

10:30 – 11:00 Coffee break

11:00 – 12:30 FIFTH SESSION
Chair: Frank Scholzen
5-1. Emulation of different energy systems using TRNSYS in connection to a real scale laboratory
Elisabeth Davin (University of Liège)
5-2. Simulation of a solid absorber in combination with a heatpump
Kamyar Nasrollahi, Tilman Gauer, Matthias Pahn
(University of Kaiserslautern)
5-3. PV HEAT - Simulation and experimental validation of a photovoltaic domestic hot water system
Mathias Kimmling, Sabine Hoffmann
(University of Kaiserslautern)
5-4. Simulation of a solar assisted tri-generation system for non-residential buildings
D’Antoni Matteo, EURAC Bolzano

12:30 – 12:45 CLOSING SESSION
P. André, R. Benelmir, S. Hoffmann, F. Scholzen