Venue

EES-TRNSYS Days 2009 will take place at the Thermodynamics Laboratory (Sart-Tilman, Liège). Maps of Liège and other information about the meeting are available on the Thermodynamics Laboratory Web site.

Registration fees

before June 26, 2009

Three days ....200 €

One day ....100 €

after June 26, 2009

Three days ....250 €

One day ....125 €

This amount covers the registration, lunches, refreshment and proceedings.

Contacts

Vincent Lemort

Thermodynamics Laboratory

Campus du Sart Tilman, Building B49 (P33)

B-4000 Liege, BELGIUM

Phone : +32 (0)4 366 48 24

Fax : +32 (0)4 366 48 12

vincent.lemort@ulg.ac.be

http://www.labothap.ulg.ac.be

Accommodation

A block of rooms is reserved, until 30 June, with special rates for EES-TRNSYS 2009 participants, at:

MERCURE HOTEL
Bd de la Sauvenière, 100
B-4000 Liège
Phone : + 32 4 221 77 28
Fax   : + 32 4 221 77 01

Single room :   € 89

Double room :   € 105

Please, make your reservation yourself, as soon as possible, mentioning that you are taking part to the meeting! A room reservation form is available on the Thermodynamics Laboratory Web site.

EES-TRNSYS Days'2009

With first presentation of TRNSYS 17

1-3 July

Thermodynamics Laboratory

Liège, Belgium

Meeting Organizers

General Coordination:

Philippe André, Department of Environmental Sciences and Management (DSGE)

Philippe Ngendakumana, Thermodynamics Laboratory (LT)

EES:

Stéphane Bertagnolio, Vincent Lemort, Philippe Ngendakumana and Sylvain Quoilin (LT)

TRNSYS:

Philippe André, Vincent Dolisy and Sébastien Thomas (DSGE)

Preliminary Program

Wednesday July 1st

First session: 9h-10h30

General presentations of EES and TRNSYS:

Including new features in both programs.

Presentation of TRNSYS 17

Second session: 11h-12h30

General presentations (continued):

Examples of applications developed with both softwares.

Presentations made by the participants.

Third session: 14h-15h30

Tutorial and exercises in four groups:

EES beginners, EES advanced, TRNSYS beginners and TRNSYS advanced.

EES Beginners	Introduction to EES (how it works, fluid properties, examples)
EES Advanced	Problems proposed by the participants (*)
TRNSYS Beginners	Weather data (reading, solar processing, shading calculations, ground temperature calculation)
TRNSYS Advanced	Problems proposed by the participants (HVAC, multizone buildings, solar applications, TRNFLOW,…)

(*) Participants are invited to submit specific problems they would like to resolve, preferably in the field of applied thermodynamics, heat and mass transfer, combustion, refrigeration and HVAC.
The following domains are already proposed:
- Modeling of thermal components: heat exchangers, boilers, heat pumps, compressors and expanders, building zones, HVAC components
- Simulation of thermal systems:
Heating, cooling and cogeneration plants, organic - Rankine cycles, refrigeration systems, HVAC systems
- Audit, experimental analysis and system optimization.

Fourth session: 16h-17h30

Continuation of tutorial and exercises in four groups

Thursday July 2nd

Fifth session: 9h-10h30

Sixth session: 11h-12h30

EES Beginners	Selected examples already available
EES Advanced	Problems proposed by the participants (continued)
TRNSYS Beginners	Introduction to Building Simulation
TRNSYS Advanced	Problems proposed by the participants (HVAC, multizone buildings, solar applications, TRNFLOW,…)

Seventh session: 14h-15h30

Presentations and discussions of results got in previous sections.

Eighth session: 16h-17h30

Tutorial and exercises (continued).

Friday July 3rd

Ninth and Tenth session: 9h – 10h30 & 11h-12h30

Tutorial and exercises (continued).

EES Beginners	Selected examples already available
EES Advanced	Training on simulation based auditing tools developed in ULG: "BENCHMARK" & "SIMAUDIT" (project: HARMONAC) Training on simulation based heat pump systems assessment tools developed in ULG : "GENERATION" (project: IEA-ECBCS Annex 48)
TRNSYS Beginners	Simulation of Solar systems
TRNSYS Advanced	Selection within: • New components; • Connection TRNSYS-Excel; • Parametric runs; • Development of TRNSED applications; • Solar cooling applications

Eleventh session: 14h-16h00

Presentation and discussion of results got in previous sessions. General discussion about all possibilities offered by EES, by TRNSYS and by the EES-TRNSYS combination. Conclusions and perspectives.