

**19 September**

**Lund Institute of Technology, Sölvegatan 24, A-building, conference room floor 4**

|  |   |   |
|--|---|---|
| 13:00-14:00  | IBPSA-Nordic General Meeting, Ala Hasan VTT                       | Attendance : IBPSA-Nordic members only      |
| 14:00-16:00  | IBPSA-Nordic Board Meeting, Ala Hasan VTT                         | Attendance: IBPSA-Nordic Board members only |
| <b>Lund Institute of Technology, Sölvegatan 24, A-building, hall C</b> |   |   |
| 16:00-16:30  | IBPSA-Nordic Seminar 2013 Opening                                 | open  |
| 16:30-18:30  | Session about building simulation teaching, Matthias Haase SINTEF | open  |
| 20:00-   | Joint dinner  | open  |

**20 September**

**IBPSA-Nordic Seminar 2013 - Participant's Sessions, Lund Institute of Technology, Sölvegatan 24, A-building**

|             |  |
|-------------|--|
| 08:30-09:00 | <b>Registration including payment of meeting fee 600 SEK</b> |
|-------------|--|

**Session A1 on BIM and Energy, Lund Institute of Technology, Sölvegatan 24, A-building, hall A**

**Session leader: Kim Wittchen**

|             | Author                               | Affiliation  | Title  | Simulation tool            | Topic  | Country |
|-------------|--------------------------------------|--|--|----------------------------|--------|---------|
| 09:00-09:20 | Researcher, Marko Granroth           | Division of Building Service and Energy Systems, KTH | Smart Building Performance Assessment, integrated real time monitoring and building simulation             | BIM based simulation tools | BIM    | Sweden  |
| 09:20-09:40 | PhD candidate, Vladyslav Shchuchenko | Norconsult/Telemark University College               | Low energy hospitals   | IDA ICE                    | Energy | Norway  |
| 09:40-10:00 | PhD candidate, Jérôme Le Dréau       | Department of Civil Engineering, Aalborg University  | Modelling the energy performance of night-time ventilation using the quasi-steady state calculation method | Calculation method         | Energy | Denmark |
| 10:00-10:20 | Takeshi Ihara                        | Department of Architectural Design, NTNU             | Building energy controlled by the highly reflective facades  | WUFI Plus                  | Energy | Norway  |
| 10:20-10:50 | Coffee break                         |  |  |                            |        |         |

**Session A2 on Energy and NZEB, Lund Institute of Technology, Sölvegatan 24, A-building, hall A**

**Session leader: Åke Blomsterberg**

|             | Author                                 | Affiliation   | Title   | Simulation tool         | Topic         | Country |
|-------------|--|---|---|-------------------------|---------------|---------|
| 10:50-11:10 | PhD Candidate, Andreas Eggertsen Teder | Department of Architectural Design, NTNU            | Form and energy optimization of Plus energy office buildings - Learnings from Powerhouse One                                | Simien, PVSyst, Ecotect | Energy - nZEB | Norway  |
| 11:10-11:30 | Sunliang Cao                           | HVAC technology, Aalto University                   | Extended matching indices and dynamic matching analysis of simulated buildings with hybrid on-site energy systems           | TRNSYS                  | Energy - nZEB | Finland |
| 11:30-11:50 | Postdoc, Genku Kayo                    | Department of Energy Technology, Aalto University   | Simulation analysis of energy sharing effects in a cluster of buildings   | Unknown                 | Energy - nZEB | Finland |
| 11:50-12:10 | PhD Candidate, Qian Wang               | Division of Building Service and Energy System, KTH | Energy modelling of low temperature heating system-A comparison study for energy and thermal comfort retrofitting potential | Unknown                 | Energy - nZEB | Sweden  |
| 12:10-13:30 | Lunch                                  |   |   |                         |               |         |

**Session A3 on Energy and nZEB, Lund Institute of Technology, Sölvegatan 24, A-building, hall A**  
**Session leader: Patrik Rhodin**

|             | Author   | Affiliation                                       | Title   | Simulation tool                             | Topic         | Country |
|-------------|--|---|---|---|---------------|---------|
| 13:30-13:50 | PhD Candidate, Janne Hirvonen  | Department of Energy Technology, Aalto University | TRNSYS simulation of building energy systems for heat and electricity sharing   | TRNSYS                                      | Energy - nZEB | Finland |
| 13:50-14:10 | PhD Candidate, Ayman Mohamed   | Department of Energy Technology, Aalto University | Using Matching capability to select micro-cogeneration heat and power achieving Net Zero Energy Building under thermal and electric tracking strategies | TRNSYS                                      | Energy - nZEB | Finland |
| 14:10-14:30 | Master students Martin Adolfsson, Hannes Hjerpe, Alejandro Pacheco Diéguez | Lund University                                   | Office Building Energy Efficient Refurbishment in Lund (Sweden) with Especial Focus on Daylight Use and HVAC design                                     | Designbuilder, Ecotec, Radiance, Energyplus | Energy - nZEB | Sweden  |

|             |   |   |  |   |               |        |
|-------------|---|---|--|---|---------------|--------|
| 14:30-14:50 | Master student Ariane Hartmann, Thorunn Arnardottir | Lund University                             | Different Methods, Examples and Programs to Improve Lighting Conditions in Buildings | Designbuilder, Ecotec, Radiance, Energyplus | Energy - nZEB | Sweden |
| 14:50-15:10 | PhD candidate, Henrik Davidsson                     | Division of Energy and Building Design, LTH | Hybrid ventilation with heat recovery - system analysis                              | TRNSYS                                      | Energy        | Sweden |
| 15:10-15:30 | Coffee break  |   |  |   |               |        |
| 15:30-16:00 | Discussion and summary                              |   |  |   |               |        |

**Session C1 on software issues etc., Lund Institute of Technology, Sölvegatan 24, A-building, hall C**

**Session leader: Vojislav Novakovic**

|             | Author                              | Affiliation                                       | Title   | Simulation tool       | Topic              | Country |
|-------------|-------------------------------------|---|---|-----------------------|--------------------|---------|
| 09:00-09:20 | Ciarán Flynn                        | Department of Energy Technology, Aalto University | Modelling the Drake Landing Solar Community with TRNSYS 17 and estimating its potential performance under Helsinki conditions | TRNSYS                | Energy - solar     | Finland |
| 09:20-09:40 | Jiangtao Du                         | Division of Energy and Building Design, LTH       | Daylight availability, building orientations and ground factors in urban areas: a case in Sweden                              | DAYSIM                | Indoor environment | Sweden  |
| 09:40-10:00 | Matti Palonen (presenter Ala Hasan) | Aalto university                                  | MOBO a multi-objective building performance optimization software   | Optimisation software | Software issues    | Finland |
| 10:00-10:20 | Mette Havgaard Vorre                | Danish Building Research Institute                | Radiation in thermal comfort simulations  | Simulation model      | Software issues    | Denmark |
| 10:20-10:50 | Coffee break                        |   |   |                       |                    |         |

**Session C2 on software issues and validations and calibration, Lund Institute of Technology,**

**Sölvegatan 24, A-building, hall C**

**Session leader: Jörgen Christensen**

|             | Author        | Affiliation           | Title   | Simulation tool | Topic           | Country |
|-------------|---------------|-----------------------|---|-----------------|-----------------|---------|
| 10:50-11:10 | Daniel Olsson | CIT Energy management | Weather forecast control for heating of buildings compared with some other control strategies | Unknown         | Software issues | Sweden  |

|             |                                  |   |   |                       |                            |         |
|-------------|----------------------------------|---|---|-----------------------|----------------------------|---------|
| 11:10-11:30 | PhD candidate, Benjamin Berhendt | Building physics and services, DTU Bygg | Simple Simulation Tool for Thermally Activated Building Systems based on ISO 11855. | Calculation procedure | Software issues            | Denmark |
| 11:30-11:50 | PhD candidate, Benjamin Berhendt | Building physics and services, DTU Bygg | Climate Classification for the Simulation of Thermally Activated Building Systems.  | Calculation procedure | Software issues            | Denmark |
| 11:50-12:10 | Pär Carling                      | EQUA Solutions AB                       | Empirical model validation based on existing control system signals                 | IDA ICE?              | Validation and calibration | Sweden  |

12:10-13:30 Lunch

**Session C3 on software issues and validations and calibration, energy-nZEB, Lund Institute of Technology, Sölvegatan 24, A-building, hall C**  
**Session leader: Matthias Haase**

|             | Author                          | Affiliation   | Title   | Simulation tool                             | Topic                      | Country |
|-------------|---------------------------------|---|---|---|----------------------------|---------|
| 13:30-13:50 | Stipendiat, Line Røseth Karlsen | Institutt for Bygg og Energiteknikk, Høgskolen i Oslo og Akershus | Operative temperature in the sun  | Calculation procedure                       | Validation and calibration | Norway  |
| 13:50-14:10 | Li Rong                         | Department of Engineering, Aarhus University                      | Application of Computational Fluid Dynamics (CFD) to study a hybrid ventilation system in a cattle building       | CFD Ansys Fluent 14.0                       | Validation and calibration | Denmark |
| 14:10-14:30 | PhD candidate, Jouri Kaners     | Division of Energy and Building Design, LTH                       | A comparison of two solar energy tools for assessing the solar potential of building blocks in dense environments | Ecotect and DIVA-for-Rhino                  | Software issues            | Sweden  |
| 14:30-14:50 | Master student Anton Hilling    | Lund University   | Energy Efficient Office Building – Integrating Daylight and Ventilation   | Designbuilder, Ecotec, Radiance, Energyplus | Energy - nZEB              | Sweden  |
| 14:50-15:10 | Master student Ludde Gölén      | Lund University   | Refurbishment Office Building   | Designbuilder, Ecotec, Radiance, Energyplus | Energy - nZEB              | Sweden  |

15:10-15:30 Coffee break

15:30-16:00 Discussion and summary