

International Conference on Sustainability in Energy and Buildings

Invited Sessions

Title of Session:

Energy efficiency in Commercial and Retail buildings

Name of Chair:

Matthias Haase, Dr., SINTEF Building and Infrastructure

Description:

The European wholesale and retail sector is the big marketplace of Europe, contributing with around 11% of the EU's GDP, representing 28% of the total non-residential building stock and produces the highest specific energy demand (BPIE, 2011). Commercial and retail buildings are not interchangeable with other kinds of complex buildings, such as office blocks, hospitals or schools. Their form, function, usage, and users provide them with a particular character, one that has implications for energy use. The renovation rate is very high compared with the renovation rate in the residential sector, for example, the shopping centre renovation rate is 4.4%. Thus, sustainability of the retail sector and deep energy retrofitting strategies, with all their challenges, may significantly contribute to reaching the long-term environmental and energy goals of the EU.

The aim of this special session is to provide to the attendees of SEB with the latest developments of solutions and challenges for energy efficient retrofitting technologies, design and operation of commercial and retail buildings.

Topics of interest include, but are not limited to:

- Application of renewable energy in commercial buildings
- Exploitation of natural sources for bioclimatic solutions
- Energy efficient issues in commercial buildings
- Energy demands, balances, and consumption in commercial buildings
- Coupling HVAC + Refrigeration and use of wasted heat
- Indoor environment quality, air distribution, ventilation
- Heat recovery systems in commercial buildings
- Building physics
- Possible effect of greenery integration
- Evaluation and control of indoor thermal and lighting systems
- Construction energy efficient issues
- Building's total performance and intelligent buildings
- New materials in buildings and their impact on energy demands
- Zero CO₂ emission
- Building-grids interactions

This session will provide ample opportunities for researchers (including masters and doctoral students), architects, designers, system and building developers, and other stakeholders to present and review theoretical and applied work in the retrofitting design, development, optimization, integration, and operation of commercial and retail buildings.

We thus invite authors to submit original research and case studies on the latest developments and innovations in relation to commercial and retail buildings.

Deadlines:

Submission of abstracts: May 8

Notification of acceptance: 18.May

Submission of full paper: 10.June

Notification of acceptance: 10.Jul

Please send an initial abstract to Matthias Haase, Dr., at matthias.haase@sintef.no, before sending full paper in via the submission system.

Website URL (if any):

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