

International Conference on Sustainability in Energy and Buildings

Invited Sessions

Title of Session:

Advance Insulation Materials (AIMs) for achieving energy efficiency in smart buildings

Name of Chair:

Dr Mahmood Alam, Cardiff Metropolitan University, UK
Dr Harjit Singh, Brunel University London, UK
Dr John Littlewood, Cardiff Metropolitan University, UK

Description:

Improving energy efficiency in buildings is one of the key challenge that should be addressed for cities, urban areas and rural conurbations to become smart and sustainable. Buildings in general contribute significantly to energy consumption and approximately half of that energy is used for space heating. Insulating building elements can assist in saving the space heat energy and reduction in carbon emissions from buildings. Thus, Advance Insulation Materials (AIMs) with enhanced thermal performance can help in achieving energy efficiency and smart design requirements in and for buildings. The main focus of the session is on the development and use of Advance Insulation Materials (AIMs) for example, Vacuum insulation panels (VIPs) and aerogels, which can be used to reduce heat loss from buildings and increase their performance considerably so that can become smart buildings This session aims in presenting research in developments and testing of AIMs, designing innovative products and systems using AIMs. This session will be an opportunity for international researchers, manufacturers, engineers, energy managers, designers and other stakeholders to discuss the state of the art related to development and application of AIMs.

A list of possible topics is:

- Advance Insulation Material (AIMs) such as Vacuum insulation panels and silica aerogels
- AIMs development, testing and applications
- Monitoring and performance assessment of AIMs
- Design and development of building components or systems using AIMS
- Energy and economic analysis of AIMs in building applications
- Application of AIMs for smart buildings and for retrofit to existing buildings

Submission of Papers for Review (complete papers, not abstracts): **3rd April 2017**

Notification of Acceptance: **2nd May 2017**

Upload of Final Camera-Ready Publication Files: **26th May 2017**

Website URL (if any):**Email & Contact Details:**

Dr Mahmood Alam, Cardiff Metropolitan University, Cardiff School of Art & Design, The Ecological Built Environment group, Llandaff Campus, CF5 2YB, UK: malam@cardiffmet.ac.uk

Dr Harjit Singh, Brunel University, College of Engineering, Design and Physical Sciences, Uxbridge, UB8 3PH, UK: harjit.singh@brunel.ac.uk

Dr John Littlewood , Cardiff Metropolitan University, Cardiff School of Art & Design, The Ecological Built Environment group, Llandaff Campus, CF5 2YB, UK: jlittlewood@cardiffmet.ac.uk