International Conference on Sustainability in Energy and Buildings

Invited Sessions

Title of Session:

Climate Changes Impact on the durability and on the energy efficiency of buildings

Name of Chair:

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Description:

In the sequence of climate changes, the warmest years of history as result of greenhouse gases emissions have been recorded recently. Globally, the energy sector is one of the main contributors to the emissions and the buildings sector absorbs a large part of the final energy consumption. Nevertheless, the buildings sector has great potential to reduce its consumption through the implementation of measures aiming to improve its energy efficiency.

Most of the structures and infrastructures around the world have been built in the first half of the 20th-century, so their service life is currently at a critical stage from the maintenance perspective. The growing problem of climate change has caught the attention of maintenance managers of these structures since the end of the last century. Several studies shown that the built environment can be affected by the impact of this phenomenon considering its durability, highlighting the reduction of its expected service life.

Thus, climate change impact on the durability and on the energy performance of buildings is relevant and must be considered for the development of adaptation initiatives and mitigation strategies able to mitigate the impact of this phenomenon in the built environment.

This session will be an opportunity for international researchers, engineers, architects, building management services (including maintenance and facility management) energy managers, designers and other stakeholders to discuss the interventions on the built environment and especially on the building sector aiming to achieve a sustainable performance.

A list of possible topics is:

- Climate changes impact on the energy efficiency of buildings
- Climate changes impact on the durability of built environment
- Durability of energy retrofit interventions
- Maintenance and refurbishment measures to avoid the impact of climate changes

Submission of Papers for Review (complete papers, not abstracts): 19th March 2019 Notification of Acceptance: 5 th April 2019 Upload of Final Camera-Ready Publication Files & Final Conference Registration: 5 th June 2019

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