

International Conference on Sustainability in Energy and Buildings

Invited Sessions

Title of Session:

Recycling Materials to address carbon neutrality

Name of Chair:

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Description:

Each year, about 90 billion tonnes of primary materials are extracted and used globally, with only nine per cent being recycled. The indiscriminate use of natural materials was a trend in buildings and infrastructures for many years, leading to the depletion of non-renewable natural resources. However, considering that these sectors generate a huge quantity of waste, it is also responsible for promoting more commercially and environmentally sustainable systems.

Nowadays, in order to promote awareness of environmental sustainability, a circular economy model considers preventing waste (material, pollution, energy, water, etc.) being generated at the beginning of the process by adopting responsible manufacturing/production options, along with the reuse and recycling of the wastes to be incorporated into the system.

This Invited Session focuses on research that address the recycling phase of the circular economy, at any phase of a system, aiming to promote sustainable development practices, green materials, and recycling, and to reduce the impacts of climate change.

In this Invited Session, original research articles and reviews are welcome. Research areas may include (but not limited to) the following:

- Sustainable and green materials;
- Solid waste recycling;
- Carbon-neutral processes and carbon offset;
- Waste management;
- Emission reduction through impact desing;
- Life cycle assessment (LCA): Analysis and ecodesing
- Recovered, refurbished or remanufactured construction materials

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