

International Conference on Sustainability in Energy and Buildings

Invited Sessions

Title of Session: Sustainability through Greening Urban and Rural Conurbations

Name of Chair:

Diana Waldron (Lead Chair)
John Littlewood
Robert Howlett
Graham Ormondroyd

Description:

This invited session aims to explore the integration between biology/ecology and architecture, to contribute to the sustainability of towns and cities.

For some time urban development has adversely affected the natural environment. The unification of several countries agreeing on the recent Climate Emergency Declaration reflected the environmental degradation that has been evidently increasing for several decades.

However, as populations become more urbanised there is a need to ensure that the built environment in which they live is sustainable and promotes health and well-being. Buildings which achieve the mutual interaction between the natural world and the built environment, for example 'plants integrated in the built environment', can help achieve this. In Asia, Singapore claims to take a lead in this area with tiered building facades which carry tropical ferns, creeping vines, and trailing plants, linked to smart water and energy saving measures. The London Assembly encourages the greening of the capital through living roofs and walls, street trees and rooftop pocket parks. Germany even includes green roofs within its legislation, providing various incentives and subsidies for the integration of green roofs in buildings. Urban greening is considered to have a positive effect on issues related to the urban heat island effect (UHI), urban biodiversity, air pollution, health issues, psychological impact on city dwellers, beautification of metropolis and more. Urban biodiversity - enhancing wildlife, plants and their habitats - is itself vital for human health and visual amenity for living, working and leisure in urban and rural conurbations.

This session invites contributions from academics, practitioners, researchers and scientists on all areas relating to the issues mentioned above. Submissions are welcomed from the industrial and research community into areas that help to improve urban and rural conurbations by using an ingenious and holistic integration of nature.

"Helping cities to behave as ecosystems rather than parasites" – Despommier, 2013.

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