



INVITED SESSION SUMMARY

Title of Session:

Building Retrofit: Transforming and Reusing Existing Buildings Toward Low Carbon Futures

Name, Title and Affiliation of Chair: Prof. Hasim Altan, Prince Mohammad bin Fahd University, Saudi Arabia

Details of Session (including aim and scope):

Retrofitting a building involves changing its systems or structure after its initial construction and occupation. This work can improve amenities for the building's occupants and the overall performance. The environmental impact of buildings has become increasingly apparent; hence the retrofit of existing buildings is crucial to support our path to meeting net-zero carbon targets. Together, we can transform and reuse existing buildings wherever possible, innovating and collaborating, to shape a better future for generations to come enhancing our sustainable future. Given that almost 90% of today's buildings will still be occupied in 2050, transforming and reusing existing buildings have a key role to play in the decarbonisation of the built environment in sustainable ways. The net-zero energy building (NZEB) concept has gained recognition over the last decade as a way to improve energy efficiency within the building sector and as a model for creating sustainable cities. Along with environmental benefits, the commercial and social returns of transforming and reusing existing buildings have often proven far more cost-effective for clients than demolishing and reconstructing, creating characterful places for occupiers whilst preserving heritage value for communities.

This session will focus on research areas related with building retrofitting different type of buildings around the world as exemplar case studies demonstrating both good and best practices.

Main Contributing Researchers / Research Centres (tentative, if known at this stage):**Website URL of Call for Papers (if any):****Email & Contact Details:**

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