

INVITED SESSION SUMMARY**Title of Session:****Climate-resilient neighbourhoods: analysis and design****Name, Title and Affiliation of Chair:**

Michele Morganti, Assistant Professor, Sapienza University of Rome
Nicola Colaninno, Assistant Professor, Polytechnic of Milan
Carlos Alonso Montolio, Assistant Professor, UPC Barcelona Tech

Details of Session (including aim and scope):

Nowadays, addressing climate change and global warming in urban areas is crucial and increasingly tangible, with extreme weather events growing in intensity and frequency worldwide. Therefore, counteracting climate vulnerability becomes a priority for cities. In addition, climate change is leading to increased building energy demand and associated emissions, producing negative effects on the outdoor microclimate and urban heat island, thus triggering an unstoppable loop. There is strong evidence that the complex interaction between urban microclimate, environmental quality of neighbourhoods, urban spaces and buildings, requires cross-scale analyses and methods to implement effective solutions.

Cities represent a stimulating field of exploration as considerable investments by the EU are concentrating on climate-resilient and adaptation measures of the built environment. This opens an opportunity for architecture and urban design: to adapt urban spaces and buildings to climate change and produce significant side benefits, including improved health, well-being, and comfort.

The session offers a scientific platform for the presentation of studies that pushes the boundaries of analysing and designing urban microclimate and associated energy and thermal performances, exploring key topics, approaches and best practices. In particular, the session aims to explore the following prior issues in climate-vulnerable neighbourhoods:

1. urban climate analysis and modelling;
2. heat vulnerability assessment; outdoor and indoor thermal comfort;
3. building and urban energy modelling
4. adaptive design solutions for buildings and urban spaces;
5. decision support systems for urban planning and design.

Dates and Deadlines

- **May 12th 2023:** submission of **full papers (not abstracts)**
- **May 29th 2023:** notification of full papers acceptance and review
- **June 23rd 2023:** submission of revised papers
- **July 3rd 2023:** upload of final camera-ready publication files & author early registration.

Email & Contact Details

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