

## Special Issue

# Sustainable Building Materials for Enhancing Building Energy, Environment and Thermal Comfort Performance under Different Climates

### Message from the Guest Editors

Buildings account for one-third of energy use and a quarter of greenhouse gas (GHG) emissions in the world. They are estimated to make up 24% of baseline energy use by the end of the 21st century due to unmitigated climate change. Building fabrics (wall, roof, and floor) are mainly responsible for 50–60% of heat transfer in buildings. However, lightweight construction materials are being developed to reduce heat transfer loss through building envelope, but they exacerbate summertime overheating under extreme heatwave periods. Summertime overheating enhances heat-related mortalities and morbidities in buildings. Therefore, there is a need to mitigate adverse health and environmental impacts in buildings by developing sustainable construction materials, designing energy-efficient design and retrofit strategies, and alternative passive measures. This Special Issue aims to contribute to new research developments in sustainable construction materials, novel energy-efficient designs, environmentally and economically feasible retrofit and refurbishment strategies, and advanced passive measures for sustainable built environment design under different climate conditions.

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### Deadline for manuscript submissions

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### Editor-in-Chief

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