



Nature-Based Solutions to Mitigate the Effects of Urban Heat Islands and Urban Flooding

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Message from the Guest Editors

The increasing frequency and cost of climatic disasters highlight the vulnerability of our built infrastructure. Nature-Based Solutions (NBS) are recommended to mitigate the impacts of urban heat islands (UHI) and urban flooding (UF), offering co-benefits such as carbon sequestration, water purification, green growth, and increased biodiversity.

As the Guest Editors for the Special Issue “Nature-Based Solutions to Mitigate the Effects of Urban Heat Islands and Urban Flooding”, we invite you to submit articles on topics including:

- Climate Resiliency of Built Environment
- Nature-Based Solutions in Buildings and Communities
- Sustainability Assessment at Building, Community, and City Levels
- Green Technologies and Smart Cities
- Decarbonization and Carbon Emission Estimation
- Life Cycle Assessment of Nature-based Solutions
- Mitigation Strategies and Adaptation Techniques to Combat UHI and UF Impacts

We look forward to your contributions to advance the dialogue on these critical issues.





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Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

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