Special Issue

AI-Aided Carbon Engineering in the AEC Industry

Message from the Guest Editors

Advanced technologies such as artificial intelligence (AI) can provide a new and perhaps more efficient way to solve carbon-related problems in the building sector, but exploration in this field is still at an early stage. This Special Issue is therefore intended to encourage researchers and practitioners to apply advanced technologies to solve carbon-related problems. Advanced technologies include, but are not limited to, computer vision, machine learning, deep learning, Internet of Things (IoT), Building Information Modeling (BIM), digital twin, AR/VR, etc. Carbon-related problems include, but are not limited to, the assessment/prediction of carbon reduction potential, carbon peak/neutrality pathway design, carbon reduction techniques, etc. The research objects may vary from products and components to buildings and cities, ranging from the planning and design phase to the operation phase.

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Deadline for manuscript submissions

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About the Journal

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.

Editor-in-Chief

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