

Special Issue

Advances and Applications in Sustainable Wooden Construction

Message from the Guest Editors

Wood is one of the most abundant biomaterials in the world and has historically been used for construction. Recent research on advanced engineered wood products outlines the enormous but largely untapped potential of this material to address global sustainability challenges. In parallel with this, there are significant developments in technology that push the limits of wooden construction today. At the same time, it has become more economically competitive to build with wood beyond low-rise buildings. As a result, there has been a remarkable shift in public perception of the acceptance of wood as a material for tall buildings. This Special Issue focuses on advances and applications in sustainable wood construction, such as adhesive-free and metal fastener-free dovetail wooden board elements in timber-framed building construction.

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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.

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