



Fire Risk in the Built Environment: Design, Simulation and Innovative Safety Measures

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Message from the Guest Editors

Dear Colleagues,

It is our pleasure to announce this Special Issue of *Buildings*, which will focus on fire risk in the built environment: design, simulation, and innovative safety measures. To assure fire safety in our built environment, we attempt to reduce the likelihood of unwanted fire ignition, minimize the rate of fire development, control the spread of fire and smoke, evacuate the occupants, and rescue the people at risk. To achieve this, we may need to investigate: (i) the science of fire development and spread, and the chemistry of combustion; (ii) the people's behavioral reaction in case of fire and the relating management issues.

This Special Issue will provide insight into some of the latest developments in fire risk by presenting state-of-the-art research, developments, and innovations. Original contributions from academia on experimental, numerical, and analytical research as well as from practice on fire risk design concerning fire dynamics, numerical simulations, building evacuation, rescue, smart fire protection measures, new fire protection materials, fire risk management as well as fire protection solutions, experiences and perspectives are encouraged.





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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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