VITRUVIO - International Journal of Architectural Technology and Sustainability

Call for VITRUVIO December 2023

Digitalization processes for the built environment

The efficient and effective management of the built environment, as well as infrastructures and related processes, requires nowadays advanced knowledge of complex enabling tools and technologies, also supported by appropriate machine learning and artificial intelligence algorithms. Building Information Modelling (BIM) is now being used for understanding urban environments at different scales down to the individual building even of historical and architectural value. A great deal has been done to transform the vision of urbanized human systems from a static to a dynamic framework, directing scientific research toward use of Digital Twin Models for built environments and infrastructure.

Research in these fields increasingly needs to comply with theories, methods, and techniques for managing processes related to building construction and construction sites, transformation and recovery of existing structures, and processing of the built environment, ranging from the scale of individual buildings to urban and territorial scales.

The general objectives of such research, oriented towards sustainability, quality, and safety throughout the life cycle of buildings, should be pursued through a methodological approach focused on engineering modelling and the integration of digital methods and technologies for the control of complex systems, including related ecosystem interactions, taking into account procedural, socio-economic, and environmental issues, as well as legal and cultural implications.

We are seeking contributions that investigate informative and computational modelling, as well as theories, methods, and technologies for the coordination and control of design, construction, transformation, and maintenance of buildings and infrastructures, as well as related product and process innovation for the improvement of economic, social, and environmental sustainability in the construction and infrastructure sector. Digital systems and technologies need to be considered, also in light of the need for the enhancement, preservation, and management of the built environment, both in the context of new construction and in the conservation and improvement of buildings and structures of historical and architectural value.

Papers must be submitted in **English**.

Submission is done through the Open Journal System platform, which requires registration as an author:

https://polipapers.upv.es/index.php/vitruvio/about/submissions#onlineSubmissions

The authors are called to use the provided TEMPLATE and follow the instructions that are written in the TEMPLATE.

Deadline for submission of papers: October 15, 2023

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