



## CIB NEWS ARTICLE

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in Building and Construction

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CIB Encouraged Journal

## Automation in Construction

Special Issue on "Interoperability in Construction (AEC-FM)"

Call for Papers



Guest Editors

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### About the Journal

Automation in Construction is an international journal for the publication of original research papers. The journal publishes refereed material on all aspects pertaining to the use of Information Technologies in Design, Engineering, Construction Technologies, and Maintenance and Management of Constructed Facilities. The scope of Automation in Construction is broad, encompassing all stages of the construction life cycle from initial planning and design, through construction of the facility, its operation and maintenance, to the eventual dismantling and recycling of buildings and engineering structures.

### Rationale for Special Issue

Modernisation of the workplace has been a topic for research and innovation for long. Although – apart from few companies – Europe has not a strong industry sector developing technologies and solutions, there is a strong tradition in multi-disciplinary research

in this area. Main challenge is to realise real innovation and change in workplace, and cope with the many obstacles – human, organisational, societal, and technological – through learning and experimentation. [The Future Workspaces Book]. These so-called next generation collaborative workspaces will be achieved through enhanced human communication, innovative visualisation, knowledge support and natural interaction and aim to transform current practice to more competitive, productive and creative collaboration-driven work patterns.

Considering AEC-FM domains, innovation of the workplace is of major importance, as practice is intrinsically collaborative, within knowledge-rich multi-functional working environments. Such team-work exists in all key-phases of life-cycle: from Planning, e.g. where planners interact with Public Authorities to develop zone plans; to Design, e.g. where architects interact with engineers and owners to develop the construction project; to Build, e.g. where many contractors for many purposes cooperate towards the goal of building the structure, and with owners to



report on progress status; to Facilities Management, where operation & maintenance personnel rely on information made available after project conclusion, to, along with technology be effective and efficient in their tasks.

Combining the workspace dimension in the collaborative process with other performance boosters like interoperability (e.g. data-exchange based on Building Information Model - BIM), integrated business processes (internally and/or externally to organization) and enhanced analysis techniques (e.g. nD-modelling) one gives birth to the next-generation VBE (Virtual Building Environment) where both workers and businesses exploit technologies to perform superiorly.

Goal is to uphold, among researchers and users, the workspace aspect of the collaboration process supported by interoperable BIM, associated technologies, requirements and constraints to foresee the collaborative working environments of the future in AEC-FM domain, that enable those involved to achieve the intended benefits which are worth the investment.

Special Issue Focal Topics include:

- Reference architectures, methodologies and tools to support BIM-based Collaborative Workspaces
- Innovative design and approaches Virtual Building Environments based on BIM and Interoperability
- Case studies of relevant applications of BIM and Interoperability to support VBE.

Target Audience for the Special issue includes:

- Researchers on BIM, Interoperability, VBE and CWE focused on the AEC-FM sector
- AEC industrial managers with interest in the latest research, innovation and practices
- ICT vendors related with the AEC industry with interest to support advanced collaboration capabilities.

### **Submissions for the Special Issue**

E-mail the guest editors by return your Expression of interest on submitting a paper, including a description of scope and contents and the date you intend to submit the full-paper.

Submit your expression of interest and then your full-text paper to guest editors at:

[rg@uninova.pt](mailto:rg@uninova.pt), or  
[achg@fct.unl.pt](mailto:achg@fct.unl.pt)

Note: The submissions will be reviewed according to the Automation in Construction Journal standards.

### **Website**

The journal's website can be found at:

[www.elsevier.com/locate/autcon](http://www.elsevier.com/locate/autcon)

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