

## INVITED SESSION SUMMARY

**Title of Session:**

BIM, BEM and Digital twin implementations in Sustainable and Smart urban context

**Name, Title and Affiliation of Chair:**

Dr. Laura Pompei, PhD and postdoc researcher at **Sapienza University of Rome**  
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**Co-chair**

Dr. Costanza Vittoria Fiorini, PhD [costanzavittoria.fiorini@uniroma1.it](mailto:costanzavittoria.fiorini@uniroma1.it)  
Dr. Miriam Di Matteo, [miriam.dimatteo@uniroma1.it](mailto:miriam.dimatteo@uniroma1.it)

**Details of Session (including aim and scope):**

The architecture, engineering, construction and operations (AECO) sector is responsible for a considerable amount of global energy consumption and environmental impacts, assuming a key role in the energy transition. To contribute to the energy transition of the countries, the use of Building Information Modelling (BIM) capabilities is quickly growing, thanks to the publication of normative. BIM is currently a mandatory tool for developing projects within public tenders financed by the PNRR (National Recovery and Resilience Plan) and by the PNC (National Plan for Complementary Investments). Parallel to this, BEM (Building Energy Model) models are crucial for improving the performances of the building sector in terms of energy efficiency and sustainability.

However, many efforts are still required to manage these innovative models (BIM, BEM and Digital Twin models), such as consolidating the processes of data exchange, data acquisition, analysis, and finally, decision-making procedures that are often focused on the specific problem.

In this context, this Special Issue encourages contributions of new approaches and applications of BIM, BEM and Digital twin in sustainable and smart cities. Colleagues are encouraged to submit original research articles, short communications, and reviews dealing with (but not limited to) the following topics:

- Building Information Modelling (BIM) applications.
- Building Energy Model (BEM) applied to Sustainable City.
- Emerging BIM and BEM practices in Sustainable and Smart City.
- Interoperability.
- Digital twin.
- Intelligent buildings assessment.
- Simulation tools for building.

**Deadlines:**

- Submission deadline: TBD
- Acceptance/Reject notification: TBD
- Author Registration: TBD

**Submission**

Each submission should be at most 10 pages in total including bibliography and well-marked appendices and must follow the Procedia proceedings format.

Submissions for the conference must be made as complete papers (there is no abstract submission stage) submitted as PDF documents through the PROSE online submission and review system.

<http://seb-23.kesinternational.org/submission.php>

**Publication**

The conference proceedings will be published by Springer as book chapters in a volume of the KES Smart Innovation Systems and Technologies series, submitted for indexing in Scopus and Thomson Reuters Conference Proceedings Citation Index (CPCI) and the Web of Science.

**Website URL of Call for Papers (if any):**

Conference: <http://seb-23.kesinternational.org/cmsISdisplay.php>

**Email & Contact Details:**

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