Editorial

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A Foreword from the Editor

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Low-carbon and intelligent construction are two of the current research hot spots in the Architecture, Engineering, Construction, and Facilities Management (AEC/FM) field. Green building, smart city, AI, BIM, and sustainable development have become high-frequency words in the field[1]. The lack of the adoption of digital technologies (e.g., BIM, AI, digital twin) will lead to project delays, cost inefficiencies, poor quality, and tedious management[2]. Emerging innovations of those digital technologies are bringing a new evolutionary process of engineering applications towards more sustainable and intelligent development[3-4].

In October 2021, the United Nations Environment Programme (UNEP) and Global Alliance for Buildings and Construction (GlobalABC) release the heavyweight report *Global Status Report on the Building and Construction Industry 2021*[1]. The report states that since the signing of the Paris Agreement in 2015, CO_2 emissions from the buildings and construction sector have peaked in recent years and subsequently fallen to 2007 levels in 2020. This current decline is due mostly to the COVID-19 pandemic; however, this decline appears to be temporary as emissions pick up again with increasing economic activity. Whereas transformative, long-term progress in sector decarbonizing remains limited[1].

To achieve the Paris Agreement, the global buildings and construction sector must almost completely decarbonize by 2050. Collectively, stakeholders in the sector must seize the opportunity that the COVID-19 economic recovery period offers to foster transformation for decarbonizing the sector. The sector must simultaneously meet a projected near-doubling of global demand for energy services in buildings and at least a doubling of floor space as developing economies continue to respond to the growing demand for building floor space, access to energy services and economic activities. Therefore, to meet the future needs and developments of this fast-growing field, a brand-new journal, *Journal of Building Design and Environment* (JBDE) has been launched.

JBDE is a semi-annual, double-blind peer reviewed, open access journal, dedicated to publishing original research articles/reviews—amongst other submission categories—on the research and application of sustainability and intelligence in the field of construction engineering and design. The scope of JBDE covers (but is not limited to) the following:

- Civil and Infrastructure Engineering
- Building and Structural Design
- Construction Materials

- Built Environment
- Construction Engineering and Management
- Computer Aided-Design and Simulation
- Energy and Buildings
- Sustainable Development
- Urban Planning and Resilience
- Architectural Aesthetics and Townscape

To further encourage research in this area, our publisher, Omniscient Pte. Ltd. has decided to waive article processing charge for the first two issues of the journal's first volume. Therefore, we strongly welcome all who are interested in building design and environment research to join us authors, reviewers or editorial board members. It is the hope of the entire editorial team of JBDE that this journal will fulfil the needs of those specialising in building design and facilitate discourses and advances in the field.

References

[1] United Nations Environment Programme (2021). 2021 Global Status Report for Buildings and Construction: Towards a Zero emission, Efficient and Resilient Buildings and Construction Sector. Nairobi. Available from: https://globalabc.org/resources/publications/2021-global-status-report-buildings-and-construction

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