



February 2018

**REMINDER: CIB Recognised Journal
Call for Papers Special Issue
BEPAM: Built Environment Project and Asset Management**



Data Analytics and Big Data in Construction Project and Asset Management

Call for Papers

Application of data analytics is an emerging and growing area in the Architecture, Engineering and Construction (AEC) sector. The need for data analytics and its potential benefits have been heightened by the rapidly increasing use of advanced digital technology and processes including Building Information Modeling (BIM) and Virtual Design and Construction (VDC).

While data analytics have been extensively applied in the Banking and Insurance sectors for many years, there has been a limited application in construction. However, the increasing adoption of digital technology and the rapid proliferation of data, has spurred the application of data mining and analytics to drive smart project and asset management. We are likely to see the rise of new approaches to information management and data usage within the AEC sector.

Transforming data and information into intelligence and knowledge would change the way projects and assets are managed and will facilitate optimal solutions across the AEC sector. However, despite its significance, data analytics methods, tools and approaches are still in the early stage of research and development in the context of AEC and their applications are still lacking and or limited in practice.

The Special Issue will focus on emerging concepts of data analytics and big data and its various current and potential applications and opportunities in the context of built environment project and asset management. It will also open up valuable directions for relevant research and teaching, apart from facilitating the adoption of useful analytics in project and asset management practice.

This special journal issue provides a forum to explore, develop and disseminate emerging concepts of data analytics and big data and their potential applications and opportunities in the AEC sector, along with innovative insights into data harvesting and different methods and tools of data analysis, data mining and machine learning; and demonstrate how they can be applied in AEC, what is possible and what is not possible.

Detailed live examples of how leading-edge organizations are already using analytics is sought to demystify its application and document good practices in the AEC sector based on case studies, surveys, meta-analyses and overall reviews. It also calls for identification of ways in which big data, data mining and analytics can be or are being incorporated into built environment education and training.



Anticipated Themes

The following is an indicative, hence a non-exhaustive, list of anticipated themes that could be explored and disseminated in this Special Issue, all in the context of advancing Construction Project and Asset Management:

- Data analytics concepts
- Big data concepts
- Data sources, data harvesting, data storage issues
- Data analytics implementation in construction organizations (adoption issues)
- Data analytics techniques including advanced statistical methods, Artificial Intelligence etc. (especially prescriptive and predictive)
- Data visualization
- Challenges and limitation of analytics in AEC and how they may be addressed
- Historical review of analytics in AEC
- Critical review of the relevance of analytics in project and built asset management, highlighting significant gaps in knowledge and shortfalls in practice
- Contractual issues and frameworks for facilitating data mining and analytics in the AEC sector
- Data analytics and Big data in tertiary construction project and asset management curriculum etc.

Submission Guidelines

Author guidelines, including on formats and length limit, must be strictly followed and can be found on the journal website [here](#).

Submissions to this Special Issue must be through Scholar-One Manuscripts. Registration and access are available [here](#).

Authors should select (from the drop-down menu) the special issue "Data Analytics and Big Data in Construction Project and Asset Management" at the appropriate step in the submission process, i.e. in response to "Please select the issue you are submitting to".

Submitted articles must not have been previously published, nor should they be under consideration for publication anywhere else, while under review for this journal.

Key Dates

The window for submissions for this special issue will open on the 1st March 2018, and will close on the 30th April 2018. Papers cannot be submitted before 1st March nor after 30th April 2018.

Journal

BEPAM is a CIB recognised international journal. It is indexed and abstracted in databases such as SCOPUS, EBSCO, INSPEC and as well as the ESCI ('Emerging Sources Citation Index') maintained by Clarivate Analytics (previously by Thomson Reuters) in 'Web of Science'. For further information on the journal, please visit: Built Environment Project and Asset Management Journal page [here](#).

Submissions

You may, if you wish, initially contact the Guest Editors to discuss your submission and/or submit abstracts in advance. Informal queries, or formal submission of abstracts, are encouraged. Papers submitted through the Scholar-One system, will first be reviewed by the Guest Editors. Those judged suitable for the special issue will be sent to at least two independent referees for double blind peer review, after which submissions may be recommended for revisions and further review, acceptance or rejection.

Guest Editors

Dr. Ajibade A. Aibinu
Melbourne School of Design, Faculty of Architecture Building and Planning, The University of Melbourne, Australia.
aaibinu@unimelb.edu.au

Dr. Fernando Koch
Melbourne School of Design, Faculty of Architecture Building and Planning, The University of Melbourne, Australia and Commonwealth Science and Industrial Research Organisation (CSIRO), Australia.
fkoch@unimelb.edu.a

Professor Thomas Ng
Department of Civil Engineering, Faculty of Engineering, The University of Hong Kong.
tsstng@hku.hk

CIB Recognised (& CIB Encouraged) Journals

BEPAM is one of the three CIB recognised Journals. For a complete list of CIB recognised and CIB encouraged journals, and information on these journals see [here](#).

Follow CIB on [LinkedIn](#)
[twitter](#)