PREFACE

The Association of Schools of Construction of Southern Africa (ASOCSA) Built Environment conference series in its 15th year of existence continues to be one of the major cutting-edge built environment conferences on the African continent. Since its inception in 2006, the blind peer reviewed conference proceedings have been referred to by both private and public sector policy and decision makers. The series produces a post-conference edition of the Journal of Construction, which is on the list of journals approved by the South African Department of Higher Education and Training (DHET) for subsidy. The conference series continues to be endorsed by the International Council for Research and Innovation in Building and Construction (CIB), one of the largest global built environment research organizations and recognized by the Australian Institute of Building (AIB). The conference provides an interactive international forum and also networking opportunities among researchers, academics, administrators and practitioners, representing institutions of higher learning, government agencies, contracting organisations, consulting enterprises, financial institutions, and other construction-related organisations.

The 14th Built Environment Conference held in Durban, South Africa from September 21-22, 2020 was severely impacted by the effects of the COVID-19 pandemic as had been the rest of the academic world across the world with conferences either having to be cancelled or converted to virtual events. However, true to its vision and commitment to continue being a premier African built environment conference, ASOCSA and the organizers persevered under difficult and challenging circumstances to present the current version in the long-standing Built Environment series as a virtual conference to prevent the spread of COVID-19 infections to participants. Given the importance of the Built Environment series of conferences as one of the few conferences that allow South African researchers to participate in and claim subsidy from the Department of Higher Education and Training (DHET), cancelling it would have had a serious negative impact of the research outputs of these academics. Delivering a world-class virtual conference is novel for ASOCSA and not without its technical glitches and snags. Further, all protocols were observed by the small team of conference organizers in Durban who were together physically for the duration of the conference to ensure a hands-on quality conference without any compromise on standards. For the first time the post-conference proceedings will be SCOPUS-indexed in a separate high class publication.

OBJECTIVES

The 14th Built Environment Conference with its theme of Technology, Transformation and Sustainable Construction had a range of interesting and cutting edge peer-reviewed research papers addressing topical issues that affect the built environment not only in South Africa but in the regions beyond. Notwithstanding the ever-increasing challenging global economic environment with shrinking sponsorship budgets, the conference continued in the tradition of previous conferences in the series and provided an excellent virtual international forum with a clear industry development and sustainability focus. This focus provided the opportunity for researchers and practitioners from developed and developing nations to deliberate topical current issues that impact the Built Environment.

The broad objectives of the conference were:

- To provide a forum for multi-disciplinary interaction between academics and industry practitioners;
- To disseminate innovative and cutting-edge practices that respond to the conference theme and outcomes, namely Technology, Transformation and Sustainable Construction;
To provide a world class leading internationally recognized, accredited and SCOPUS-indexed conference for the built environment; and

To contribute to the existing built environment body of knowledge (BEBOK) and practice.

The conference organizers brought together in a single virtual forum using the ZOOM online platform, a group of researchers and academics from the wide range of built environment disciplines that included engineers, architects, quantity surveyors, construction and project managers. Virtual ‘delegates’ and participants were drawn not only from South African institutions of higher education, government agencies, and other construction-related organizations but also from across the African continent, Europe, New Zealand, Australia and the United Kingdom.

Keynote presentations were presented as follows:

Why and How to encourage the uptake of smart construction and support the use of robotic, off-site, and modular construction Prof John Obas Ebohon from London Southbank University, UK

Enabling a Paradigm Shift to Facilitate Built Environment Higher Education Learning in VUCA Environments: A New Zealand Perspective Prof Monty Sutrisna from Massey University, New Zealand

Digitizing a Smart Built Environment: “Case Studies of Industry Practice Prof David Edwards from Birmingham City University, UK

Beyond Building Information Modelling: The emergence of Digital Engineering in Australia Dr Reza Hosseini from Deakin University, Australia.

Authors were allowed a 20-minute time slot to deliver their papers and respond to any questions under the chairpersonship of various designated session chairs. The program comprised of 8 parallel sessions during which a total of 34 papers were presented. A total number of 50 participants attended the conference.

CONFERENCE THEME AND OUTCOMES

TECHNOLOGY, TRANSFORMATION AND SUSTAINABLE CONSTRUCTION

This conference sought responses to questions related to current conversations and debates on technology, transformation and sustainable construction such as,

- Use of technology and innovation
- Sustainable construction, design and environment
- Construction industry transformation and development
- Sustainable infrastructure design and delivery challenges
- Procurement innovation, transformation and cost management
- Innovative waste management
- Transformative education, training and skills development
- Construction health and safety
- SME development
- Women in construction

The virtual conference included papers that addressed, inter alia,
• Current trends and developments
• Policies
• Legislation and regulations
• Practices
• Case studies.

These internationally peer reviewed, and edited proceedings were aimed at contributing significantly to the body of knowledge relative to the science and practice of construction not only in South Africa but everywhere where the products of construction are produced even in these new challenging times of fear and uncertainty.

Prof Theo C Haupt and Mariam Akinlolu
Association of Schools of Construction of Southern Africa
Durban, South Africa
September 21, 2020
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