

International High- Performance Built Environment Conference – A Sustainable Built Environment Conference 2016 Series (SBE16), iHBE 2016

Editorial



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1. Introduction

This Procedia Engineering issue contains 182 papers accepted by the SBE16: International High-Performance Built Environment Conference (iHBE 2016) held on 17 and 18 November in Sydney, Australia. Jointly organised by UNSW Built Environment and CRC for Low Carbon Living, the conference is part of the Sustainable Built Environment (SBE) 2016 Series and aims to drive research innovation in design, planning and management of high-performance built environments, as well as promoting education and collaboration in this field.

The conference covered a wide range of themes including:

- Performance Assessment in Built Environments
- Design Innovation and Collaboration
- Built Environment Resilience
- High-Performance Materials and Emerging Technology
- Smart Built Environments
- Sustainability Policy and Governance
- Education for Sustainable Built Environments
- Industry, Government and University Collaboration

Fig 1 includes an overview of the distribution of papers among the conference themes.

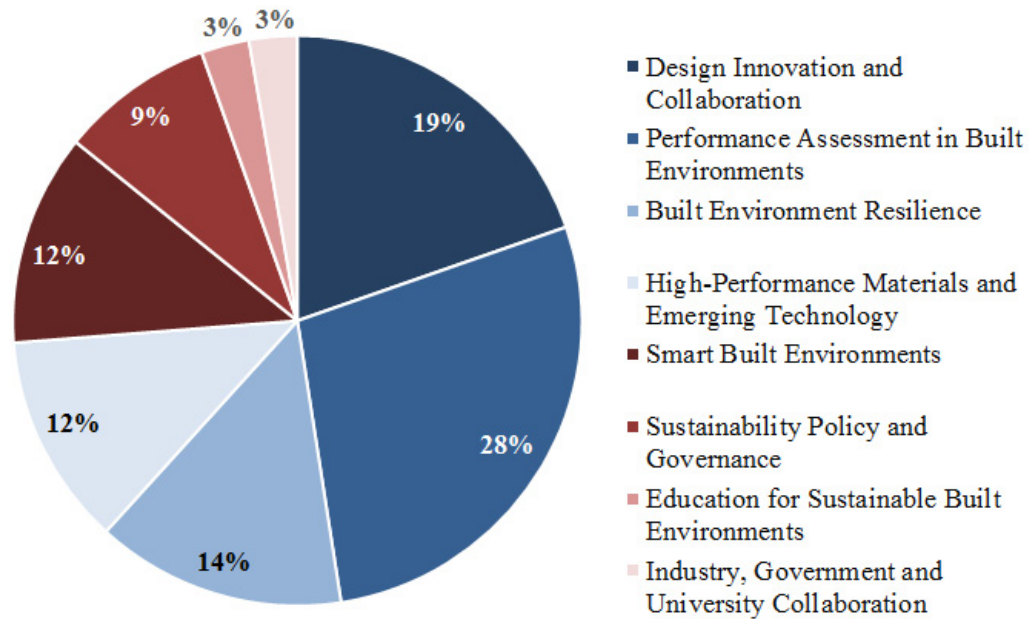


Fig. 1. Overview of the distribution of papers within the conference themes.

2. Overview of Conference Sessions

An opening address by Professor Lucy Turnbull AO, Chair of the Greater Sydney Commission and Adjunct UNSW Professor set the scene for a lively and productive conference.

The initial plenary session was led by UNSW Built Environment Dean Professor Helen Lochhead, CEO of the CRC for Low Carbon Living Scientia Professor Deo Prasad AO, and Nils Larsson, Executive Director of the international SBE conference series. Subsequent plenary speakers were Mr Man-Kit Leung from the Hong Kong Green Building Council; UNSW's Anita Lawrence Chair Professor Mat Santamouris, who explored the past, present and future of building cooling; Professor Peter Newton (Swinburne University) who spoke on innovation for a sustainable low carbon built environment transition; and Professor Dennis Else, Executive Director of Multiplex, who addressed the intriguing topic of reducing carbon emissions through value engineering.

Day one highlights – from different ends of the built environment spectrum – included a presentation on automating the compilation of life cycle inventories [1] and a talk on whether retrofit or behaviour change has the bigger impact on energy consumption in low income households [2]. Day two continued this broad range of topics to exercise delegate's minds. For example, how Australia's National Construction Code could be harnessed to support innovation in building sustainability [3]; a new, probabilistic approach to life cycle cost analysis [4]; and innovations in concrete recycling [5].

This breadth of topics was reinforced in the top student presentations, which included topics on the energy efficiency potential of wind towers [6]; a study of occupant perceptions of nursing home indoor environments [7]; a research on the spatial and activity preferences of Adelaide residents during heatwaves [8]; an introduction to a BIM-based iterative tool for sustainable building design [9]; and substitution of bottom ash from waste incineration in concrete applications [10].

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