

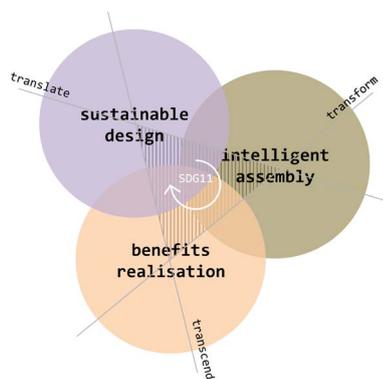
## Centre for Comparative Construction Research

### RESEARCH MISSION AND VISION

The Centre for Comparative Construction Research (CCCR) is focused on creating new insight into the performance of the built environment, and in particular, contributing to the United Nations Sustainable Development Goal 11 (SDG11), through an interdisciplinary evidence-based process of:

- Translating sustainable design into superior urban infrastructure
- Transforming intelligent assembly into safer and more productive construction practices, and
- Transcending benefits realisation into successful economic, social, political and environmental outcomes.

Our vision is to be a respected and independent source of research concerning the contribution that the built environment makes to our collective prosperity. Our impact can be assessed in terms of collaborative industry links and funding support. Bond University is a signatory to the United Nations Sustainable Development Goals (SDG1-17).



### CAPABILITIES

Our Centre comprises three research incubators that explore the Built Environment and Design Field of Research (FoR) via one of the above performance pillars:

- TAED - sustainable design (architectural focus, led by Associate Professor Daniela Ottmann). Other members are Professor Adrian Carter, Associate Professor Marja Sarvimaki, Associate Professor Danny O'Hare and Associate Professor Bhishna Bajracharya.
- OPiC - intelligent assembly (construction focus, led by Associate Professor Jasper Mbachu). Other members are Associate Professor James Birt, Assistant Professor Dane Miller, Assistant Professor Vanessa Menadue and Assistant Professor Noor Azeyah Khiyon.
- PMI\_LAB - benefits realisation (project management focus, led by Professor Craig Langston). Other members are Professor Alan Patching, Associate Professor Greg Skulmoski and Assistant Professor Alexander Lang.

The strength of CCCR lies in its interdisciplinary collaboration combining, but not limited to, architecture, construction and urban planning expertise. Buildings and other urban infrastructure have become complicated and expensive assets that reflect a mix of economic, social, political and environmental characteristics. Our research is cognisant of expected trends in future practice - climate change, automation and globalisation. The nexus of our research interests is sustainable cities and communities using conceptual frameworks such as Correlator.



## Highlights for 2019

### TECHTONIC ARCHITECTURE X ECOLOGICAL DESIGN (TAED): SOLOMON ISLANDS INITIATIVE

CCCR's research incubator TAED hosted Bachelor of Architecture Studies graduands for an internship from January to March 2019 to help with the development of the Pawa School in the Solomon Islands. The group was awarded New Colombo Plan scholarships in late 2018 to travel to the Solomon Islands to work on this exciting initiative. The results of intensive interviews conducted with the students and teachers at Pawa School as well as a previous site analysis undertaken by Bond Urban Planning students were converted into design proposals for a multi-purpose congregation building, staff accommodation, library and general learning area for the benefit of pupils at the Pawa School.



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### OPTIMISING PRODUCTIVITY IN CONSTRUCTION (OPIC): INTERNATIONAL BOOK PROJECT

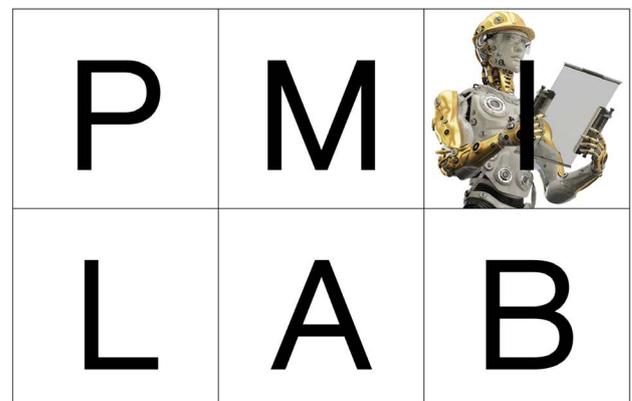
CCCR's research incubator OPIC produced its second international research book, including chapters from a number of CCCR members and external collaborators from around the world. Edited by Rick Best and Jim Meikle, this volume is titled Accounting for Construction: Frameworks, Productivity, Cost and Performance and is published by Routledge. Taken together, the two volumes collate a range of topics that are only addressed, if addressed at all, in occasional academic papers and the publications of bodies such as national statistical offices and the World Bank. Volume 2 presents international examples from the UK, Australia and New Zealand and from academic and professional contributors.



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### PMI - LAB: ASSESSING INFRASTRUCTURE IN DEVELOPING COUNTRIES

For the second year, CCCR's research incubator PMI LAB has collaborated with the Asian Infrastructure Investment Bank and The Economist Intelligence Unit. The costs of road infrastructure across 15 cities and the costs of water treatment plants across 8 cities were analysed using a novel approach developed by Bond staff. In addition, a new method for measuring project success, called i3d3, was created to meet the principles endorsed at the 2019 G20 Leaders' Summit and tested on two prominent international case studies: the Hong Kong- Zhuhai-Macau Bridge across the Pearl River Delta and the Bangladesh Electricity Expansion project powering 2.5 million rural households for the first time.



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