

**CIB World Building Congress 2019**

| 20 June, 2019<br>(Day 4)    |               | Room | Session Chair | Papers  |
|-----------------------------|---------------|------|---------------|---|
| Subtheme 8<br>Smart Service | 11:00 - 12:30 | Z206 | Liyaning Tang | <p>Ab0160 - The role of NPM initiatives in shaping Swedish public client organizations: a driving force or a contributing factor?</p> <p>Ab0172 - Strengthening Academic and Industry Collaboration for Improved Outcomes and Impact: Construction Management Sector Centre Model</p> <p>Ab0205 - Smart Infrastructure - Smart Services: Focus on Non-medical Support Services in Hospitals</p> <p>Ab0296 - Health and Safety Considerations for Older Construction Workers: A Literature Review</p> <p>Ab0292 - Automated Recognition of Construction Workers' Activities for Productivity Measurement Using Wearable Insole Pressure System</p> |
|                             | 14:30 - 16:00 | Z206 | Ivy Wong      | <p>Ab0206 - Factors constraining effective knowledge sharing among construction project managers in South Africa</p> <p>Ab0323 - The evolution of the real estate sector: a focus on Italian PropTech companies How the merge of property and technology is supporting smart cities</p> <p>Ab0336 - Digital technologies and related competences in construction management in the era of fast paced digitalisation</p> <p>Ab0517 - Sentiment Analytics of Social Media Data in the Construction Industry: Preliminary Study on Weibo</p> <p>Ab0520 - Evaluating Users' Benefits from a Crowd Management System in a Smart City Project</p>       |

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| Subtheme 1<br><b>Smart Building and Infrastructure</b> | 11:00 - 12:30 | Z207 | Suzzane Wilkinson | <p>Ab0501 - THE ROLE OF INTERNET OF THINGS IN DELIVERING SMART CONSTRUCTION</p> <p>Ab0506 - Application of deep learning 3D shape recognition approaches for Building Information Modeling element classification and feature extraction</p> <p>Ab0516 - Systematic Framework for Post-earthquake Bridge Inspection through UAV and 3D BIM Reconstruction</p> <p>Ab0529 - The Perceived Effectiveness of a Secondary-Glazing Window and Households' Energy Conservation Attitudes</p> <p>A0530 - Supply chains of high-rise modular buildings in high-density cities</p> <p>A0531 - A navigation and positioning-integrated system for construction quality inspection under self-discipline of responsible personnel</p> <p>Ab0333 - BIM-Based Industrialized Design Solutions – Opportunities and Challenges for Healthcare Projects</p> |
|  | 14:30 - 16:00 | Z207 | Chyi Lin Lee      | <p>Ab0353 - Fault Detection Strategies applied to Smart Building Supervisor System</p> <p>Ab0370 - Improving Urban City Resilience by Incorporating Smart Green Infrastructure Components</p> <p>Ab0444 - Proof-of-concept studies with humanoid robots for smart building services</p> <p>Ab0525 - Prospects for the use of 4D BIM for forensic delay analysis on construction projects</p> <p>Ab0388 - Why transform the building industry? a case for technological change in New Zealand construction</p> <p>A0117 - Application of green BIM-based tools for developing sustainable building proces</p> <p>Ab0151 - Integrated 3D Point Cloud for Emergency First Responders</p>  |

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| <p>Subtheme 3<br/><b>Smart Planning,<br/>Design and<br/>Construction</b></p> | 11:00 - 12:30 | Z209 | Mieke Oostra  | <p>Ab0185 - RICE HUSK ASH AS A PARTIAL CEMENT REPLACEMENT IN RIGID HIGHWAY PAVEMENTS</p> <p>Ab0207 - Strength and Durability Properties of MaizeCob (Corncob) Ash Concrete</p> <p>Ab0189 - Strategy Discussion on Architectural Form and Space Regeneration of Courtyard in Old City of Beijing</p> <p>Ab0502 - Smart Cities Implementation: Challenges in Nigeria</p> <p>A0508 - A BIM data-driven method for producing concreting works schedules in Hong Kong housing construction</p> <p>Ab0524 - Smart Housing in Egypt: socio-economic challenges and potential technological solutions</p> <p>Ab0526 - Smart Factory Adaptation Planning by means of BIM in Combination of Constraint Solving Techniques</p>   |
|  | 14:30 - 16:00 | Z209 | Wafaa Nadim   | <p>Ab0424 - Proposal for a classification system supporting interdisciplinary model exchange between architecture and structural analysis</p> <p>Ab0434 - Modular Construction: Assessing the Challenges Faced with the Adoption of an Innovative Approach to Improve U.S. Residential Construction</p> <p>Ab0451 - Blockchain Applications in Support of a Smart Energy Transition: Case Study Oosterwold</p> <p>Ab0468 - Adoption of Building Information Modelling in Small and Medium-Sized Enterprises in Developing Countries: A System Dynamics Approach.</p> <p>Ab0480 - Green Building Design and the Paradox of Sustainability: Comparative Analysis of Eco-Conscious Architecture on the Environment and Design Practice</p> <p>Ab0486 - Communication Effectiveness in Face-to-Face and Immersive Virtual Environment: An Initial Evaluation for Construction</p> |

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|--|---------------|-------------|-----------------------------|---|
| <b>Subtheme 6<br/>Smart Governance,<br/>Policy and Economy</b> | 14:30 - 16:00 | Z211        | Khurram Iqbal<br>Ahmad Khan | Ab0280 - Challenges for delivering smart cities agenda in India: a systematic review<br><br>Ab0419 - Complexities Associated with Smart City Projects: A Study of Real-Life Case Studies<br><br>Ab0431 - Organisational structure of client teams in two successful infrastructure projects<br><br>Ab0438 - SMART CITY: E-TOPIA, UTOPIA, DYSTOPIA?<br><br>Ab0476 - Capacity building in the Pakistan construction sector: the paradox for small and medium-sized construction enterprises |

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|---|---------------|-------------|--------------------------|---------------|
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| W104<br><b>Open Building<br/>Implementation</b> | 14:30 - 16:00 | Z406        | Beisi Jia<br>Liu Dongwei | Workshop      |

**CIB World Building Congress 2019**

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|--|----------------------|-----------------|--------------------|--|
| <p>Subtheme 4<br/><b>Smart Utilities<br/>and Facilities<br/>Management</b></p> | <p>11:00 - 12:30</p> | <p>Z407-408</p> | <p>Tu Kung-Jen</p> | <p>Ab0308 - STUDY ON UTILIZATION AREA OF PUBLIC FACILITIES FOR DIFFERENT KINDS OS ACTIVITIES</p> <p>Ab0344 - 3D monitoring and damage detection method for damaged building structure</p> <p>Ab0415 - Common Data Environment for Sustainable Smart Real Estate Portfolios</p> <p>A0440 - Empirical Analysis of the Major Renovation and Replacement Cost of an Office Building during its 18-year Building Life</p> <p>Ab0515 - Safety Proactive Control System for Multiple Crawler Cranes Hoisting in Petrochemical Construction based on CPS</p> <p>Ab0458 - Effective Property Maintenance Management for State-Schools in New Zealand: Issues and Challenges</p> |
| <p>Subtheme 7<br/><b>Smart People<br/>and Living</b></p>                       | <p>14:30 - 16:00</p> | <p>Z407-408</p> | <p>JoonOh Seo</p>  | <p>Ab0122 - Occupant satisfaction and consciousness of energy use in green buildings: A case study on a Miljöbyggnad certified office building in Sweden</p> <p>Ab0340 - Adapt or Die: Future of construction requires Individual Adaptability to technological changes</p> <p>Ab0393 - Moderation of Scaffolding on the relationship between Complex Questions and Cognitive Loading in Students of Construction Programs</p> <p>Ab0527 - Quantifying the Variability of a Living-alone Elderly's Activities of Daily Living: Clustering Analysis of Spatio-temporal Occupancy data</p>   |

**CIB World Building Congress 2019**

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|---|----------------------|-------------|---|---|
| <p>TG79<br/><b>Building Regulations and Control in the Face of Climate Change</b></p> | <p>14:30 - 16:00</p> | <p>Z409</p> | <p>Henk Visher<br/>Edwin Chan</p>           | <p>WC0078 - Innovations, regulations and performance optimization for a carbon free Dutch housing stock</p> <p>WC0126 - DIRECTIVES FOR RESILIENT AND REGENERATIVE CITIES</p> <p>WC0175 - Investigation of Factors Influencing the Adoption of Smart Home Energy Technology</p> <p>WC0180 - Exploring ICT for policy improvement of more equity use of Privately-owned Public Open Spaces</p> <p>WC0181 - Carbon-emission Considerations in Built Heritage Conservation to Address the Climate Change</p>  |
| <p>W113<br/><b>Law and Dispute Resolution</b></p>                                     | <p>11:00 - 12:30</p> | <p>Z409</p> | <p>Andrew Agapiou<br/>Jennifer Charlson</p> | <p>WC0019 - TOWARDS THE ELIMINATION OF RESIDENTIAL BUILDING STRUCTURAL FAILURES THROUGH INTERNATIONAL BEST IMPLEMENTATION PRACTICES IN NIGERIA</p> <p>WC0045 - Construction Drone Accidents: A worldwide review of the legal and regulatory environment</p> <p>WC0064 - Risk definition for construction: risk, uncertainty, hazard, opportunity</p> <p>WC0070 - Nudging Public Procurement rivals to bid competitively: The case of contracting firms within municipal road projects in Saudi Arabia</p> |

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|--|---------------|------|------------------|--|
| Subtheme 5<br><b>Smart Environment</b>       | 14:30 - 16:00 | Z414 | Claudio Mourgues | <p>Ab0208 - Monitoring and evaluation in urban densification areas, in the neighbourhood scale: multicriteria analysis of the Belenzinho case study, TOD area in São Paulo, Brazil</p> <p>Ab0312 - Green roofs as an effective strategy for the reduction of CO2 emission: A review</p> <p>A0361 - Applications and Opportunities for Timber Space Frames in the Circular Economy</p> <p>Ab0356 - Identifying the Right Climate Scale to Support Low-Energy Building Design Process</p> <p>Ab0489 - Managing Construction and Demolition (C&amp;D) Waste in Australia</p> <p>Ab0133 - Effective usage of solar power generation and storage battery combined system</p>  |
| Subtheme 7<br><b>Smart People and Living</b> | 11:00 - 12:30 | Z414 | Morten Gjerde    | <p>Ab0050 - Managing Health and Safety in a Fast Changing Market and Organisational Culture: a case study</p> <p>Ab0051 - The Contrasting Approach of Contractors Operating in International Markets to the Management of Well-being, Occupational Health and Safety</p> <p>Ab0136 - A proposal for the innovative management of the elderly's Real Estate properties in Italy. The "Silver Lining" model.</p> <p>A0391 - Analysis of Pedestrian Walkability Using Computer Vision and Deep Learning</p> <p>Ab0437 - Factors Hindering External Stakeholder Management in Construction Projects of Developing Countries: Case Study of Ghana</p> <p>Ab0496 - Comparison of perceived neighbourhood sustainability and liveability among different neighborhoods in transitional China: The case of Chengdu</p> |



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|--|---------------|-------------|---|---|
| <b>W122<br/>Public Private<br/>Partnership</b> | 11:00 - 12:30 | Z505        | Mohan Ku<br>maraswany<br>Giovanni<br>Migliaccio | WC0001 - Comparing the private sector partners' perspectives on procuring public-private partnership infrastructure projects in Ghana and Hong Kong<br><br>WC0007 - Investigating the tender phase of social infrastructure PPPs in Australia: Exploration of a success factor framework<br><br>WC0036 - Adverse selection, moral hazard and hold up in Indian PPP health care projects<br><br>WC0080 - Effects of public supports mitigating revenue risk on Public-Private Partnerships project performances: A guide to choose among support alternatives<br><br>WC0088 - Defining Public-Private Partnership from the Wittgenstein Family-Resemblance Philosophy<br><br>WC0046 - Challenges of public-private partnership project evaluation: A perspective from public sector agencies<br><br>WC0113 - Effects of Competition and Maturity on Indian Municipal Solid Waste Project Procurement |

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|---|---------------|-------------|--|---------------------------------|
| W122<br><b>Public Private<br/>Partnership</b> | 14:30 - 16:00 | Z504        | Akintola<br>Akintoye<br>Giovanni<br>Migliaccio | Research Brainstorming workshop |

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|--|---------------|-------------|-------------------------|---------------|
| TG90<br><b>Information<br/>Integration in<br/>construction</b> | 11:00 - 12:30 | Z506        | Esra Kurul<br>Henry Oti | Workshop      |
| TG91<br><b>Infrastructure</b>                                  | 14:30 - 16:00 | Z506        | Charlie<br>Hargroves    | Workshop      |

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|--|---------------|------|-----------------------------|--|
|  | 11:00 - 12:30 | Z507 | Dean Kashiwagi              | Workshop   |
| <p align="center">W117<br/>Performance<br/>Measurement in<br/>Construction</p> | 14:30 - 16:00 | Z507 | Dean Kashiwagi<br>Le Nguyen | <p>WC0056 - An Exploratory Study to Identify Factors Affecting Performance of Construction Projects</p> <p>WC0094 - Best Value Approach in Teaching Integrated Project of an Undergraduate Programme</p> <p>WC0138 - How FMs can Change the Project Management in Organizations</p> <p>WC0151 -The adoption of innovative ideas from developed countries in Vietnam</p> <p>WQC0152 - Assessment of Risk Factors in the Chinese Construction Industry and the Identification of Potential Solutions for the Chinese Construction Industry</p> <p>WC0154 - How FMs can Change the Project Management in Organizations</p> <p>WC155 - Best Value Approach in Teaching Integrated Project of an Undergraduate Programme</p> <p>WC0137 - Best Value Approach in Teaching Integrated Project of an Undergraduate Programme</p> |

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|---|---------------|-------------|----------------------|--|
| <b>W078<br/>Information<br/>Technology for<br/>Construction</b> | 14:30 - 16:00 | Z508        | Robert Amor          | WC0069 - BIM-supported scanning and data capturing for Integrated Resources and Energy Assessment<br><br>WC0074 - Smart Building Management and Design Decisions through Building Performance and BIM<br><br>WC0101 - A human touch? How machine learning can improve project performance<br><br>WC0139 - Visualization of multiple streams of BMS data in a 3D context<br><br>WC0188 - Stakeholders' Perspective on Blockchain and Smart Contracts Solutions for Construction Supply Chains |

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|--|---------------|-------------|----------------------|---------------|
| W062<br><b>Water Supply and<br/>Drainage</b> | 14:30 - 16:00 | Z510        | Lynne Jack           | Workshop      |