

AUBEA 2022 - Detailed Program

Wednesday, 23 November	
17:00 - 18:00	Registration, Coffee and Tea <i>Venue: KW-P.1.Foyer</i>
18:00 - 19:00	Welcome Reception <i>Welcome to Country</i> Mr Nicholas Howie Dharug Man from the Boorooberongal Clan <i>Venue: John Phillips Library Foyer</i>
Thursday, 24 November	
08:00 - 09:00	Registration, Coffee and Tea <i>Venue: KW-P.1.Foyer</i>
09:00 - 10:25	Plenary Session <i>Venue: KW-P.1.24</i>
09:00 - 09:15	Welcome to Western Sydney University Professor Mike Kagioglou Pro Vice-Chancellor, Global Development (UK/Europe) Dean, School of Engineering, Design and Built Environment Western Sydney University
09:15 - 09:30	Address by President of AUBEA Professor Monty Sutrisna Head of School, School of Built Environment, College of Sciences Massey University
09:30 - 09:45	Address by President of CIB Professor Makarand (Mark) Hastak Derrnan Family Head of Construction Engineering and Management Professor of Civil Engineering Purdue University
09:45 - 10:25	Keynote “Sustainability Trends and Future Partnerships” Ms Davina Rooney CEO, Green Building Council of Australia Q&A with Ms Davina Rooney
10:25 - 10:45	Morning Tea <i>Venue: KW-P.1.60</i>

Parallel Paper Presentation Session 1					
	Construction Project Management	Education in Built Environment	Resilience in Built Environment	CIB TG124 Net Zero Carbon	CIB Doctoral School - AUBEA 2022
10:45 - 12:15	Session Chair: Prof Anthony Mills <i>KW-P.1.33</i>	Session Chair: Dr Amir Ghanbaripour <i>KW-P.1.29</i>	Session Chair: Dr Marcus Jefferies <i>KW-P.1.28</i>	Panel Discussion on “Challenges and opportunities for net zero carbon practices in the construction industry” <i>KW-P.1.50</i>	Session Chair: A/Prof Yingbin Feng <i>KW-P.1.36</i>
10:45 - 11:00	2531 - Sustainable Procurement and Modern Slavery Risks in Development and Construction: A Case Study in Australia <i>A/Prof Yingbin Feng, Western Sydney University and Marissa Saunders, Stockland</i>	2079 - A Transdisciplinary Learning Approach to Teaching Construction Entrepreneurship <i>Dr Seng Hansen, Universitas Agung Podomoro</i>	1712 - Climate Change Impact on Cooling and Heating Demand of Buildings in Penrith <i>Dr Keivan Bamdad, Western Sydney University</i>	* Start time 11:00 CIB TG124 Coordinators: Dr Niluka Domingo, Prof Suzanne Wilkinson and A/Prof Sepani Senaratne Panel Moderator: Prof. Srinath Perera	Inauguration of the CIB Doctoral School – AUBEA 2022 <i>Prof. Srinath Perera, Western Sydney University</i>
11:00 - 11:15	2362 - (Online) Insolvency Prediction Models in the Australian Construction Industry: A Proposed Framework <i>Hewa Kanchana Nandasena, Central Queensland University</i>	2407 - Construction Engineering and Management: A Review of Australia-based Research <i>Dr Tayyab Ahmad, Qatar University</i>	6085 - (Online) Evolutionary Designed Building Skins with Embedded Biomimetic Adaptation Lessons <i>Saam Kaviani, London South Bank University</i>	Panel Members: Jorge Chapa (GBCA), Joe Karten (Built), Laszlo Peter (KPMG), A/Prof. Thayaparan Gajendran (University of Newcastle)	1123 - Community-focused Renewable Energy Transition with Virtual Power Plant in an Australian City – A Case Study <i>Chengyang Liu, RMIT University</i>
11:15 - 11:30	2477 - (Online) Causes and Effects of Cost Overruns in Construction Projects <i>Chinthaka Atapattu, Massey University</i>	3501 - (Online) Using 360-Degree Virtual Tours to Teach Construction Students <i>Dr Priya Vishnu, Massey University</i>	1756 - (Online) An A-Priori Framework for Community Transformation through Inclusive Risk-Sensitive Urban Development <i>Devindi Geekiyanage, University of Salford</i>		1371 - Dynamic Construction Scheduling and Resource Planning Based on Real-time Project Progress Monitoring <i>Kartika Nur Rahma Putri, University of New South Wales</i>
11:30 - 11:45	2701 - Examining Site–Office Conflict in Construction Contracting: Adding to an Already Stressful and Stagnant Industry <i>John Smolders, Western Sydney University</i>	2565 - Impact of the Construction Computing Software (CCS) ‘Candy’ Course: Construction Management and Quantity Surveying Students’ Perceptions <i>Prof John Smallwood, Nelson Mandela University</i>	4791 - Comparative Response Spectrum Analysis on 15 Storey Reinforced Concrete Buildings Having Shear Walls with and without Openings as per EN1998-1 Seismic Code <i>Dr Ana Catarina Jorge Evangelista, Engineering Institute of Technology</i>		2026 - Issues in Compliance with Low-Carbon Requirements in the Australian Residential Building Industry <i>Yi Lu, Deakin University</i>
11:45 - 12:00	2776 - What’s in a Job? Indigenous Construction Workers’ Employment Preferences <i>Dr George Denny-Smith, RPS / Social Advisory and Research</i>	3725 - Taxonomy of Digital Skills Needed in the Construction Industry: A Literature Review <i>Fida Hussain Siddiqui, Swinburne University of Technology</i>	5203 - (Online) Resilience of Post-Resource Landscapes <i>Sarvin Elahi, University of Technology Sydney</i>		3010 - A Review of Using Augmented Reality to Improve Construction Productivity <i>Zhidong Xu, Massey University</i>
12:00 - 12:15	4057 - Review of Maturity Models Developed in the Construction Industry: Definitions, Applications and Methodologies <i>Sara Rashidian, Queensland University of Technology</i>	9173 – (Online) Application of Immersive Technologies in Construction Education: An Experimental Study of Project Scheduling <i>Muhammad Sami Ur Rehman, United Arab Emirates University</i>	7847 - Inefficient Regulations that Worsen the Housing Crisis <i>Christian van der Pump, University of Canterbury</i>		
12:15 - 13:15	Lunch <i>Venue: KW-P.1.60</i>				
	Plenary Session <i>Venue: KW-P.1.24</i>				
13:15 - 13:55	Keynote “The Journey from Adjunct Professor to Building Commissioner, 2015 – 2022” David Chandler OAM New South Wales Building Commissioner Q&A with David Chandler OAM				

Parallel Paper Presentation Session 2					
	Digitalisation of Construction	Health & Safety in Construction	Resilience in Built Environment	Sustainability in Built Environment	CIB Doctoral School - AUBEA 2022
14:00 - 15:30	Session Chair: Dr Leila Naeni <i>KW-P.1.29</i>	Session Chair: Prof Imriyas Kamardeen <i>KW-P.1.33</i>	Session Chair: Dr Krisanthi Senevirathne <i>KW-P.1.28</i>	Session Chair: A/Prof. Thayaparan Gajendran <i>KW-P.1.50</i>	Session Chair: A/Prof Yingbin Feng <i>KW-P.1.36</i>
14:00 - 14:15	492 - Comparison of blockchain solutions from the perspective of BIM integration <i>Klaudia Jaskula, University College London</i>	2938 - Modelling Stressor Interconnectivities and Mental Wellbeing Among Construction Workers <i>Prof Imriyas Kamardeen, Deakin University</i>	9783 - Contractor Bankruptcies in the Australian Construction Industry: Causes and Impacts <i>Dr Matt Stevens, Western Sydney University</i>	8506 - Estimation of Construction and Demolition Waste using Meta-Analysis <i>Dr Ali Alashwal, Western Sydney University</i>	3865 - A Method for Establishing an Infrastructure of Play within the Houses of Apartment Buildings <i>Dalia Bukhamsin, The University of Newcastle</i>
14:15 - 14:30	801 - Closing the existing circularity gap in the building construction industry using artificial intelligence: A systematic review of literatures <i>Oluleye Ifeoluwa, The Hong Kong Polytechnic University</i>	7561 - Ontology-based Representation of Implicit and Explicit Knowledge for Job Hazard Analysis: Focusing on Water Infrastructure Jobs <i>Sonali Pandithawatta, University of South Australia</i>	4358 - (Online) Overview of New Zealand legislation for Flood Resilience <i>Widi Auliagisni, Massey University</i>	6138 - (Online) Incentivization of Sustainable Waste Management Solutions for Commercial Construction in Australia <i>Pieter van der Lans, The University of Melbourne</i>	6400 - Optimal BIM and LCA Integration Approach for Embodied Environmental Impact Assessment in Early Building Design <i>Yijun Zhou, Western Sydney University</i>
14:30 - 14:45	1057 - The use of virtual reality in reducing the reliance on human visual construction defects inspection <i>Prof Peter SP Wong, RMIT University</i>	5003 - Scientometric Analysis and Review of Safety in Design in AEC Industry <i>Weifang Shi, University of Auckland</i>	1173 - The Adaptation of the Facility Condition Index (FCI) in the Australian Tertiary Education Sectors Management of a Building Portfolio <i>Jye West, Engineering Institute of Technology</i>	1414 - (Online) Behavioral Attitudes of Construction Professionals Towards the Industry's Waste Minimization Culture: A Factor Analysis of Key Influential Factors <i>Benjamin Ababio, The University of Hong Kong</i>	6574 - Identifying the Validity of Success Indicators in the 'Build Back Better' Approach <i>Francis Hubbard, Massey University</i>
14:45 - 15:00	7978 - Case Study Observations on the Use of Digital Technologies for Onsite Project Success <i>Donald Mason, Western Sydney University</i>	6104 - Recent National Construction Code Changes, Reduced Innovation, and Increased Contractual Risks <i>Christian van der Pump, University of Canterbury</i>	6724 - (Online) Unrecognised Ramifications of Base Isolators in Buildings <i>Ronwyn Coulson, University of Canterbury</i>	4130 - (Online) A Decision Support Tool for Designing out Waste in Construction Projects: A Conceptual Framework <i>Nguyet Tong, Massey University</i>	7556 - Buildings' Indoor Environmental Conditions: A Thematic Analysis of Verbatim Comments from University Library Stakeholders <i>De-Graft Joe Opoku, Western Sydney University</i>
15:00 - 15:15	3058 - (Online) Fuzzy Evaluation of Barriers to Digital Technologies Adoption in the Construction Industry <i>Xichen Chen, The University of Auckland</i>	8031 - (Online) Re-thinking Spatial Design in Homes to Include Means and Access Restriction with Material Impacts as Passive Suicide Prevention Methods: A Systematic Review of Design for Australian Homes <i>Michael Booth, CQUniversity</i>	9885 - (Online) A Tale of Two Projects <i>Robert Mulligan, Massey University</i>	495 - Towards Sustainable Consumption: Enhancing the Use of Reprocessed Construction Materials within the Australian Construction Industry <i>Gihan Tennakoon, University of South Australia</i>	8402 - A Conceptual Framework for Carbon Trading in the Construction Industry <i>Augustine Senanu Komla Kukah, Western Sydney University</i>
15:15 - 15:30	7590 - (Online) Smart Adaptive Homes and Their Potential to Improve Space Efficiency and Personalisation <i>Thomas Goessler, Manchester Metropolitan University</i>	7594 - Conceptual Framework for Suicide Prevention Process in Construction <i>A/Prof Rameez Rameezdeen, University of South Australia</i>		5606 - (Online) A Review of Residential Construction Waste Reduction <i>Hadeel Albsoul, Auckland University of Technology</i>	
15:30 - 16:00	Afternoon Tea <i>Venue: KW-P.1.60</i>				

Parallel Paper Presentation Session 3					
	Construction Project Management	Digitalisation of Construction	Industrialisation of Construction	Sustainability in Built Environment	CIB Doctoral School - AUBEA 2022
16:00 - 17:15	Session Chair: A/Prof Yongjian Ke <i>KW-P.1.33</i>	Session Chair: Prof Peter SP Wong <i>KW-P.1.29</i>	Session Chair: Prof Monty Sutrisna <i>KW-P.1.28</i>	Session Chair: A/Prof. Rameez Rameezdeen <i>KW-P.1.50</i>	Session Chair: A/Prof. Yingbin Feng <i>KW-P.1.36</i>
16:00 - 16:15	4569 - Measuring Knowledge Sharing Processes through Social Network Analysis within Construction Organisations <i>Dr Navodana Rodrigo, University of Adelaide</i>	6042 - Challenges and Enablers for Drone Application in the Construction Industry <i>Dr Janet Mayowa Nwaogu, The Hong Kong Polytechnic University</i>	3765 - Realising United Nations Sustainable Development Goals through Offsite Construction <i>Buddhini Ginigaddara, University of Newcastle</i>	1060 - Estimating the Life Cycle Energy Consumption of Urban Residential Buildings Based on A New System Boundary: An Empirical Study of China <i>Lei Liu, Western Sydney University</i>	8584 - Improving Decision-making of Building Projects Towards a Smart and Sustainable Future via the Integration of Life Cycle Sustainability Assessment and BIM-based Digital Twin <i>Karoline Figueiredo, Universidade, Federal do Rio de Janeiro</i>
16:15 - 16:30	4895 - Engaging External Project Stakeholders within Social Distancing Parameters in Community Development Projects in South Africa <i>Pride Ndlovu, University of the Witwatersrand</i>	4894 - (Online) 3D Printing Technology as an Effective Solution for Sustainable Residential Construction in New Zealand <i>Dr Don Amila Sajeewan Samarasinghe, Massey University</i>	2306 – (Online) Opportunities for Innovation Competitions for the Australian Construction Industry <i>Dr Christopher Jensen, University of Melbourne</i>	938 - (Online) Barriers and Enablers of the Adoption of Recycled Materials Usage in Asphalt Pavement for the USA and Australia: A Systematic Review <i>Timothy Cassidy, Deakin University</i>	8611 - Self-rated Motivational Drivers for Occupant Behaviours: A Case Study of Tertiary Office Buildings <i>Achini Weerasinghe, Massey University</i>
16:30 - 16:45	4949 - (Online) Exploring the Factors Affecting the Cost of Quality (COQ) in Construction Industry: A Systematic Literature Review <i>Nandini Sharma, Indian Institute of Technology</i>	5168 - Opportunities for Application of Disruptive Technology in a Disaster Management System to Address Gaps in Australian Bushfire Response <i>Marianna Cheklin, University of Technology Sydney</i>	3009 - Construction Industry Capacity and Capability Evaluation; Application of Modelling Techniques for Resource Allocation in Multi-Project Portfolios <i>Jaleh Sadeghi, Massey University</i>	8163 - Opportunities for Energy Efficiency Using Biomimicry Strategies in the Construction Industry <i>Alan Todhunter, Western Sydney University</i>	9104 - Sustainability-Enabling Field in Mega Transport Projects: Insights from Two Cases in India <i>Nicola Thounaojam, Indian Institute of Technology</i>
16:45 - 17:00	6538 - Establishing the Symbolic Meaning of Buildability: Construction Practitioners' Point of View <i>Indrani Wimalaratne, University of Moratuwa</i>	5436 - Developing Machine Learning Models for Building Rehabilitation Cost Prediction <i>Dr Wai Kin Lau, Technological and Higher Education Institute of Hong Kong</i>	6321 - Challenges in Measuring the Construction Sector Capacity: Lessons for New Zealand <i>Dr An Le, Massey University</i>	6928 – (Online) Revealing the Value of the Circular Economy as a Solution for Mitigating Waste Implications Within the Construction Industry <i>Nathan Johns, Birmingham City University</i>	9300 - Reaching Net-Zero Targets in the Construction Industry by 2050: Critical Review of the Role of Public-Private Partnerships <i>Isaac Akomea-Frimpong, Western Sydney University</i>
17:00 - 17:15	4958 - (Online) Towards Developing a Conceptual Megaproject Management (MPM) System <i>Jery Johnson, RMIT University</i>	4352 - (Online) Towards Detailed Digital Examination of Masonry Railway Bridges Using Terrestrial Laser Scanner <i>Dr Saeed Talebi, Birmingham City University</i>			
18:15 - 21:00	Conference Gala Dinner <i>Venue: Panthers Penrith – “Jamison Room”, 123 Mulgoa Road, Penrith, NSW 2750</i>				
Friday, 25 November					
08:00 - 09:00	Registration, Coffee and Tea <i>Venue: KW-P.1.60</i>				
09:00 - 10:15	Plenary Session <i>Venue: KW-P.1.24</i>				
09:00 - 09:45	Keynote “Rethinking Tertiary Education: The Role of IATs” Professor Peter Shergold AC Chancellor Western Sydney University Q&A with Professor Peter Shergold AC				
09:45 - 10:15	Presentation by Gold Sponsor - Australian Building Codes Board “Working Together: An Education Opportunity” Professor Gabrielle Wallace , Group Manager NCC Management and Standards Clare Wright , Group Manager NCC Education				

Parallel Paper Presentation Session 4				
10:20 - 11:20	Construction Project Management Session Chair: Dr Rita Peihua Zhang <i>KW-P.1.33</i>	Digitalisation of Construction Session Chair: Dr Navodana Rodrigo <i>KW-P.1.36</i>	Education in Built Environment Session Chair: Buddhini Ginigaddara <i>KW-P.1.29</i>	
10:20 - 10:35	8751 - Determining the Optimum Risk/Reward for a Mega Infrastructure Project: A Case Study of a 2.5-Kilometre Rail Bridge Project <i>Ali Eghbaljoo, ORBIZ Consulting Pty Ltd</i>	6503 - (Online) Deterministic and Probabilistic Risk Management Methods in Construction Projects: A Systematic Literature Review and Comparative Analysis <i>Ania Khodabakhshian, Politecnico di Milano</i>	3897 - Perceptions of Architecture Degree Students Towards Sustainability in Buildings <i>Dr Tayyab Ahmad, Qatar University</i>	
10:35 - 10:50	5026 - (Online) Development of Conceptual Motivational Framework to Improve Construction Labour Productivity in the U.K. <i>John Kojo Tawiah Hayford, London South Bank University</i>	6906 - Ensuring Trusted and Traceable Construction Certifications with Blockchain: A Conceptual Model <i>Thilini Weerasuriya, Western Sydney University</i>	7703 - A Review of Immersive Technology Applications in Occupational Health and Safety Training in the Construction Industry <i>Arka Ghosh, Deakin University</i>	
10:50 - 11:05	7013 - Perception of Usefulness of Building Price Data for Decision Makers in Australia <i>Prof Anthony Mills, Deakin University</i>	3987 - A Socio-Technical Model of Digital Design Coordination and Review: A Game Theoretic Approach <i>A/Prof Julie Jupp, University of Technology, Sydney</i>	4262 - Retention over Attraction: A Review of Factors Affecting Women's Experiences in the Australian Construction Industry <i>Dr Amir Ghanbaripour, Bond University</i>	
11:05 - 11:20	6467 - (Online) Understanding the Relevance and Impact of Systems Thinking in the Construction Industry: A Bibliometric Analysis <i>Natalia Ortega, Massey University</i>	1140 - Exploring the Nexus between Digital Engineering and Systems Engineering and the Role of Information Management Standards <i>Yu Chen, University of Technology Sydney</i>	6554 - (Online) Skill Transformation: Future Requirements, Implementation, and Academic Implications in Quantity Surveying and Construction Management Professionals in the New Zealand Construction Industry <i>Cecily Zhou, Ara Institute of Canterbury</i>	
11:20 - 11:40	Morning Tea <i>Venue: KW-P.1.60</i>			
Parallel Paper Presentation Session 5				
11:40 - 12:40	Construction Project Management Session Chair: Dr Janet Mayowa Nwaogu <i>KW-P.1.33</i>	Industrialisation of Construction Session Chair: Dr Ana Evangelista <i>KW-P.1.29</i>	Sustainability in Built Environment Session Chair: Dr Laura Almeida <i>KW-P.1.36</i>	AUBEA Council Meeting <i>KW-P.1.28</i>
11:40 - 11:55	7781 - Do Australians Dislike Chinese Investment in Australian Infrastructure Sector? <i>Associate Professor Yongjian Ke, University of Technology Sydney</i>	7889 - Capacity Modeling for the Construction Industry; An Initial Framework <i>Dr Azam Zavvari, Massey University</i>	9307 - Developing an Assessment System on Green Construction Sites in Australia <i>Sarah Elattar, University of Canberra</i>	
11:55 - 12:10	8628 - Building Wiser: Fostering Excellence in Procurement Risk Governance <i>Dr Rita Peihua Zhang, RMIT University</i>	5600 - (Online) Inconsistent Workloads Hamper the Transportation Construction Sector in New Zealand <i>Nicola Winter, University of Canterbury</i>	6029 - (Online) Challenges to Zero Carbon Refurbishment of Existing Buildings in New Zealand: An Exploratory Study <i>Thao Thi Phuong Bui, Massey University</i>	
12:10 - 12:25	6820 - Recent National Construction Code Changes, Reduced Innovation, and Increased Contractual Risks <i>Christian van der Pump, University of Canterbury</i>	8484 - Student Observations of Technical Innovation in an Australian Construction Company <i>A/Prof Mary Hardie, Western Sydney University</i>	3453 - (Online) Enhancing the Decision-Making Process of Life Cycle Assessment Towards Circular Economy Measurement in the Construction Industry <i>Prince Antwi-Afari, The University of Hong Kong</i>	
12:25 - 12:40		1693 - A Conceptual Model to Compare the Pipeline and Sector Information in the Construction Industry <i>Prof Monty Sutrisna, Massey University</i>	4416 - (Online) Exploring Critical Success Factors for Promoting a Circular Economy in New Zealand Construction <i>Kam Yuen Cheng, Ara Institute of Canterbury</i>	
12:45 - 13:15	Plenary Session <i>Venue: KW-P.1.24</i>			
12:45 - 13:05	Closing Summaries by Theme Leaders Dr Ali Al-Ashwal, Dr Wei Zhou, Dr Md Kamrul Hassan, A/Prof Sepani Senaratne, Dr Robert Osei-Kyei, Dr Sameera Wijesiri Pathirana, Dr Brendan Kirkland, A/Prof Yingbin Feng			
13:05 - 13:15	Vote of Thanks Prof Srinath Perera Director, Centre for Smart Modern Construction (c4SMC) Chair Professor of Built Environment & Construction Management Western Sydney University			
13:15 - 14:00	Lunch <i>Venue: KW-P.1.60</i>			
14:00 - 16:00	Site Visit Western Sydney International (Nancy-Bird Walton) Airport			

Note: All times are in Australian Eastern Daylight Time (AEDT). The information in this program was correct at the time of publishing, however is subject to change