

Climate Smart Engineering Conference 2023

Wednesday 29 November 2023 - Thursday 30 November
Melbourne Convention and Exhibition Centre



As at 23 November 2023

| Wednesday, 29 November 2023 | |
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| Melbourne Room 2 (Plenary) | |
| 08:30 | Opening and Welcome to Country Arron Wood AM Sustainable business expert and former Deputy Lord Mayor, City of Melbourne |
| 08:50 | The time to lead with courage is now Dr Margie Warrell Best-selling author of <i>Stop Playing Safe</i> |
| 09:20 | Navigating transition and transformation in all parts of our economies Zoe Whitton Managing Director and Head of Impact (Pollination) |
| 09:50 | The crucial role of technology and innovation on the path to net zero Dr Larry Marshall (Former Chief Executive Officer of CSIRO) Romilly Madew AO FTSE HonFIEAust EngExec Chief Executive Officer (Engineers Australia) |
| 10:20 | Sustainability, diversity and equity: the EWB way Eleanor Loudon Chief Executive Officer (Engineers Without Borders Australia) |
| 10:30 - 11:00 | Morning tea Melbourne Room 1 (Exhibition Hall) |
| Melbourne Room 1 (Exhibition Hall) | |
| 10:40 | The opportunity for professional bodies in learning from climate disaster Ms Astrid Kauffman (Engineers Australia) |
| Melbourne Room 2 (Plenary) | |
| 11:00 | Beyond 1%: how can digitalisation help Australia punch above its weight in the global net zero race? Peter Halliday Chief Executive Officer (Siemens Australia and New Zealand) |
| 11:10 | Circular economy Lisa McLean Chief Executive Officer (Circular Australia) Professor John Thwaites AM Chair (Monash Sustainable Development Institute) and Chair (Climateworks Centre) |
| 11:40 | How can organisations overcome the engineering skills shortage that might inhibit progress? Moderator - Jane MacMaster FIEAust CPEng EngExec NER Chief Engineer (Engineers Australia) Kane Thornton Chief Executive (Clean Energy Council) Dr Damian Oliver Assistant Secretary, Workforce Futures Branch (Jobs and Skills Australia) Department of Employment and Workplace Relations Amy Lezala Zaher FIEAust EngExec Chief Engineer – Rail (Department of Transport and Planning) Paul Williams Managing Director of Mining and Energy (WSP) |
| 12:30 - 13:30 | Lunch (Exhibition Hall) |
| Melbourne Room 1 (Exhibition Hall) | |
| Room 206 | |
| 12:40 | Bridging the Gap: Setting a Carbon Footprint Benchmark for Sustainable Bridge Designs Mr Neil Ganju (WSP) |
| 12:50 | Engineering Recruitment Mr David Armstrong (Australia Wide Engineering) |
| 13:00 | Engineers Australia Climate Change Tools Mr Brian Haggerty (Engineers Australia) |
| 13:15 | How to become a Chartered engineer Mr Jerry Andrews (Engineers Australia) |
| Networking masterclass for young professionals Alisha Stafford (Engineers Australia) | |

| | Melbourne Room 2 | Room 203 | Room 204 | Room 207 | Room 208 | Room 209 |
|---------------|--|---|--|--|---|---|
| 13:30 | Energy Transition - mineral resources and energy storage | Technology and Innovation - buildings | Resilience - water | Energy Transition - renewables (wind, geothermal, solar) | Circular Economy - infrastructure | Adaptation and Mitigation - other |
| 13:30 | How Decarbonisation of the Pilbara could see Western Australia replicate the National Electricity Market (NEM) by 2050 Mr Parth Dave (KPMG) | Building climate smart resilience for a changing world through city-level technologies Dr Robyn Mansfield (Biourbanism Lab, McGregorCoxall), Dr Hossein Rizeei (Biourbanism Lab, McGregorCoxall) | Improving flood resilience in the Hawkesbury-Nepean Valley: Working on TNSW's Hawkesbury-Nepean Valley Flood Evacuation Road Resilience Program Mr Jared Crossley (AECOM), Ms Anna Luong (AECOM) | Pioneering the path to net zero emissions with engineering innovations in solar lighting and clean energy solutions Ms David Wilson (Green Frog Systems) | Pathways to achieving a lower Carbon and more sustainable Asphalt Mr Trevor Distin (COLAS Australia Group) | Climate change adaptation and disaster risk reduction strategy for our plastic and microplastics pollution disaster Ms Kala Senathirajah (Bureau of Meteorology) |
| 13:45 | Promoting climate smart engineering in oil and gas Mr Iain Wylie (Oceanering, Engineers Australia Hydrocarbon and Energy Transition Working Group) | Implementing climate smart delivery through digital engineering capabilities Mr Maisara Al Rais (WSP) | Creating Water-Sensitive Cities in Disadvantaged Communities: Australia-India Water Security Initiative Mr Shaw Abrey (McGregor Coxall) | Government investment in solar in large scale projects vs distributed installation Mr Dharmit Thakore (Moonish Ent Pty Ltd) | Bitumen rubber asphalt application: achieving optimal performance for Australia Mr Johannes Lodewikus Van Heerden (Fulton Hogan Ltd Infrastructure Services - Western Australia) | Sustainable durability engineering and its application on major project design and construction in Victoria Mr Miles Dacre (AECOM) |
| 14:00 | The Challenges of a Reducing Carbon Footprint on the Resource Sector Mr Damian Connelly (METS Engineering Group) | Measuring, Tracking & Reducing Embodied Carbon in Structures Mr Edward Bond (Robert Bird Group) | HOW nature-based solutions to a wastewater problem improves climate resilience Mr Liam Owen (Unitywater) | Shallow geothermal energy: Using the ground and geosstructures to efficiently heat and cool buildings Prof Guillermo Narsilio (The University of Melbourne) | Paving the Way: Carbon Reduction and Sustainable Practices on North Queensland's Largest Road Project Mr Andrew Kindness (Cairns Southern Access Corridor Stage 3: Edmonton to Gordonvale Project) | Renovation Pathways show how existing homes can reach zero carbon cost-effectively Mr Glen Currie (Climateworks Centre) |
| 14:15 | Energy Storage - Australia's Key to a Net Zero Future Mr Harry Jupp (WSP Australia Pty Ltd) | Building the future: T3 Collingwood and the innovative approach to sustainable hybrid timber buildings Mr Andrew Thompson (AECOM) | Behind-the-meter solar integration: a potential way to improve water distribution systems resilience for changing future Ms Jiayu Yao (The University of Melbourne) | Spatial optimality and temporal variability in Australia's wind resource Dr Andrew Gunn (Monash University) | Decarbonisation Pathways for Concrete : Major Projects Concrete Technical Program Dr Fangjie (sam) Chen (Arup), Mr Rhys Owen-Roberts (Major Road Projects Victoria) | Cross-sector Synergies towards Decarbonization for Commercial Landmark in Hong Kong Miss Christy Chow (Arup Climate & Sustainability Group), Miss Hayton Chan (Arup Climate & Sustainability Group) |
| 14:30 | Optimal Energy Storage Configuration for Indonesia Mr Ahmad Amiruddin (Monash University) | A smart building semantic platform to enable data re-use in energy analytics applications: the Data Clearing House. Mr Daniel Hugo (CSIRO) | Managing the effects of climate variability – Cleaner water for Northern Mallee Communities Mr Jonathon Horstfall (GWMWater), Mr Nalaka Vitharana (GWMWater) | How to connect offshore wind generation in Australia Overcoming barriers to success Miss Charlotte Guthleben (Aurecon) | Development of new eco-friendly grout products using waste materials for sustainable mining and construction Dr Hadi Nourizadeh (The University of Southern Queensland) | Reducing Carbon Emissions from Concrete through the use of Ultra High Performance Fibre Reinforced Concrete Dr Scott Taylor (Major Road Projects Victoria) |
| | Energy Transition - leadership | | | | | |
| 14:45 | Leading the gas transition: the skills required to meet the engineering challenges of electrification Mr Adrian Piani (ACT Government) | Decarbonization of Buildings to Meet Net Zero Carbon Emission Targets Mrs Bandula Subasinghe (Arup) | Future Water Supplies – considering Reliability and Resilience together Mr Wayne Middleton (Arup) | Integrating energy supply and demand to enhance the business case for high efficiency heat pumps. Mr Yale Carden (GeoExchange Australia) | Circular Economy in Solar PV Industry Miss Kavya Santhosh (ENCOME Energy performance) | Nanocatalyst development and improvement for CO2 conversion Mr Pradeep Murthy (School of Chemical & Biomolecular Engineering, University of Sydney) |
| 15:00 | What to leverage to reach net zero Ms Dee Nee Ong (GHD Pty Ltd) | Active Decarbonisation through Structural Optimisation of Buildings Mr Mahdi Babee (WSP) | The future of water infrastructure services in an impacted world Mr Marco Van Winden (AECOM) | Empowering the Future Generation of Engineers: Fostering Student Engagement and Institutional Collaboration in Engineering Education for a Sustainable Future Dr Induni Jayatilake (TAFE Queensland, Brisbane Region) | Engineering sustainability for circular and green economy A/Prof Wahidul Biswas (Curtin University) | Concept design of a centralized organic waste processing facility in Funafuti, Tuvalu Dr Dusan Ilic (University of Newcastle) |
| 15:15 | What will Australia's electricity grid look like, post 2050? Mr Wayne Fitzsimmons Oam (Pearcey Foundation), Ms Jennifer George (Strategic Commercialisation Australia) | Leveraging AI and LiDAR Technology for Climate Smart Engineering: Maximizing Solar Energy Potential Dr Hossein Rizeei (Biourbanism Lab, McGregorCoxall) | Wharf Street Next Generation Community Park – unlocking the potential of a fenced off stormwater basin Ms Rachel Williams (City of Canning) | The Materials Knowledge Exchange (MAKE) – a collaborative tool to foster innovative material adoption on major infrastructure projects Ms Jotha Ramesh (Level Crossing Removal Project Technical Advisory Services AECOM GHD), Ms Anna-Kristina Collett (Level Crossing Removal Project) | Leading net zero transition in infrastructure delivery in Australia Mr Sal Jayaraman (Beca Pty Ltd), Dr Anumita Mirti (Beca Pty Ltd) | Challenges in the supply chain for Australia's transition to a renewable powerhouse Mr Ali Nami (TBH) |
| 15:30 | Afternoon tea (Exhibition Hall) | | | | | |
| 16:00 | Circular Economy - infrastructure (cont'd) | Technology and Innovation - other | Social Impact - other | Systems Thinking - collaboration and energy | Demonstrating Engineering Leadership in mitigating and adapting to climate change | |
| 16:00 | Regenerative Approach to Decarbonizing Infrastructure Projects Ms Lyndal Isakhan (ACCIONA Construction), Ms Maria Koutsimpris (ACCIONA Construction) | PV/ Thermal hybrid system for residential hot water system Dr Saad Odeh (Sydney Institute of Business and Technology/ Western Sydney University- Sydney City Campus), Mr Ilyas Aden (Western Sydney University) | Smart Solar Lighting for Social, Economic and Environmental Benefits Ms Katie Said (Leadsun Australia), Mr Kieran Mcgrane (Leadsun Australia) | Simplifying complexity in uncharted territory: Combining multidisciplinary expert knowledge with geospatial data for natural asset discovery Ms Manasi Sabnis (McGregor Coxall) | Demonstrating Engineering Leadership in mitigating and adapting to climate change Dr Anne Hellestedt (Mott MacDonald), Dr David Cruickshanks-Boyd (WSP Australia), Mr Neil Greet (Collaborative Outcomes) | |
| 16:15 | Creating climate resilient urban parks with sustainable wetland systems Mr Phi Bang Do (Mcgregor Coxall) | Subambient Passive Radiative Cooling Effects of Barium Sulfate and Calcium Carbonate Points under Malaysia's Tropical Climate A/Prof lanatul Khoiroh (University of Nottingham Malaysia) | Real Estate and the S in ESG (Environmental, Social, Governance) Mrs Rhonda Lenardon (KPMG), Mr Andrew Iles (KPMG) | Planetary Boundaries and wiseGRIDs Mr Graham Davies (Arup), Mrs Maria Pedicini (Arup) | | |
| | Energy Transition - other | Resilience - other | | | | |
| 16:30 | Energy Transition in the Food and Beverage Manufacturing Sector – a case study Mr Graeme Harding (Beca) | de-HIVE: Network of sustainable workspaces and professional services Mr Quang Nguyen (Digital Environment P/L) | Parking Sustainably Mr Chris Coath (Stantec) | Human Factors in new energy – a systems thinking approach Ms Joanne Knight-Smith (HF Integration) | | |
| 16:45 | Achieving carbon neutrality in an island resort Mr Kavinga Karunasekara (Wellington Shire Council) | Community-centred outcomes for the Sunbury Gap Road Bridge Mr Sergio Saludes Requena (AECOM), Mr Grant Viljoen (AECOM) | Everyone cares about the environment...until it's time to pay for it Mr Matthew Tendam (Aurecon Australasia Pty Ltd) | An Investigation into Overnight Energy Consumption at the University of Wollongong Mr Henry Andresen (Stantec) | | |
| 17:00 - 18:00 | Networking Reception (Exhibition Hall) | | | | | |

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| Thursday, 30 November 2023 | |
|---|---|
| Melbourne Room 2 (Plenary) | |
| Welcome | |
| 8:30 | Update on the Climate Smart Engineering Initiative Damian Ogden Group Executive Policy and Public Affairs (Engineers Australia) |
| 08:45 | The next generation's hopes for the future Simone Costello Graduate Process Engineer (Water) (Arup) Sarbjot Singh Stormwater Engineer (City of Greater Geelong) Eve Smolinska Project Engineer (Syal Infrastructure) Mohamed Ishraf Mohamed Ismath Bachelor of Engineering (Honours) student (Swinburne University of Technology) |
| 9:15 | Calling for engineers to work on the largest economic transition since the dawn of agriculture Dr Alan Finkel AC Former Chief Scientist of Australia, Chair of Stile Education, Adviser to government and companies on clean energy technologies |
| 9:50 | A just transition - embracing Indigenous approaches in the energy transition Ruby Heard CPEng Director (Alinga Energy Consulting) |
| 10:20 | The importance of coherence and collaboration in the energy transition Prof George Tuckwell (Director, RSK) |
| Morning tea Melbourne Room 1 (Exhibition Hall) | |
| Engineering Education Australia - Supporting your professional development throughout your career Mr Jason Fletcher (Engineers Australia) | |
| Melbourne Room 2 (Plenary) | |
| 11:00 | Energy systems in mission critical environments Denis Colbourne General Manager (genZ) |
| 11:10 | The engineering mindset – making change happen Eytan Lenko Chief Executive Officer (Boundless Earth) |
| 11:40 | Communicating the value of engineering for greater influence and impact Jane MacMaster FIEAust CPEng EngExec NER Chief Engineer (Engineers Australia) Dr Nick Fleming FIEAust CPEng EngExec NER National President and Board Chair (Engineers Australia) Amy Lezala Zahr FIEAust EngExec Chief Engineer – Rail (Department of Transport and Planning) Adrian Piani FIEAust CPEng EngExec NER ACT Chief Engineer (ACT Government) Emeritus Professor James Trevelyan FIEAust CPEng |
| Lunch (Exhibition Hall) | |
| Melbourne Room 1 (Exhibition Hall) | |
| 12:40 | The changing face of research: a collaborative impact model Ms Celeste Young (Victoria University) |
| 12:40 | Why wait for green energy? Mr Greig Hutton (Radlink) |
| 12:50 | Low Carbon Fundamentals for Engineers Mr Nolan Bear (Costpro Pty Ltd & Swinburne University) |
| 13:00 | How to become a Chartered engineer Mr Jerry Andrews (Engineers Australia) |

| 13-15 | Melbourne Room 2 | Room 203 | Room 204 | Room 207 | Room 208 | Room 209 |
|-------|---|---|--|--|--|--|
| 13:30 | Energy Transition - transport | Adaptation and Mitigation - water and other | Resilience - Infrastructure and other | Systems Thinking - other | Business management | Circular Economy - waste |
| 13:30 | A systems perspective of the transition to EVs in Australia Mr Thomas Manley (Decision Analysis Services / SESA) | 'Pilbara Proof' Waterways - a socio-economic approach to defining design outcomes Mrs Lara Parsons (Jacobs Australia) | A resilient future through intelligent infrastructure Mr Arne Nilsen (Aurecon) | Climate mitigation integrated in design - Creating positive impact through carbon accountability Mr Ken Lundy (Arcadis), Ms Nicole Liang (Arcadis) | Australia's first Environmental Product Declaration Process Certification Mr Evan Smith (Holcim) | The role of engineered landfills in transitioning towards a climate smart future Miss Aya Salih (Bajwa EnviroConsult) |
| 13:45 | Techno-Economic Optimization and Evaluation of EV Charging Profiles for Grid-Scale Network Studies Dr Muhammad Ali (MathWorks) | Quantifying the flood and erosion susceptibility Kunhar river basin based on Morphometric dynamics integrated with PCA Approach Dr Shan E Hyder Alias Tahir Soomro (College of Hydraulic and Environmental Engineering, China Three Gorges University, Yichang 443002, China) | Role of nature-based solutions in achieving asset resilience. Mr Adam Davis (AECOM), Ms Cathy Crawley (AECOM) | Realising meaningful sustainability outcomes during design of infrastructure Mrs Ellen Worthington (Aurecon) | How mandating the use of sustainability and safety in design procedures can fast-track the implementation of sustainability in engineering projects Ms Melanie Collett (AECOM Australia Pty Ltd) | Renewable biogas via anaerobic digestion - Avoiding the pitfalls Mr Richard Lovett (Arup Australia) |
| 14:00 | Car Charging Demand Management for Apartment Blocks Mr Charles Edward Esson (AIE GLOBAL) | Biochar to store carbon and water - engineering biochar designed for climate resilience in agriculture and mine site regeneration Prof Wendy Timms (School of Engineering, Deakin University, Centre for Sustainable Bioproducts, Deakin University) | Sustaining super structures: Using climate smart engineering for asset regeneration Mr Scott Collins (Aurecon) | Partnering for multiple benefits - Horsham SmartWater Agriculture and Integrated Water Management Project Mr Graeme Dick (GWMWater), Mr Nathan Harders (Grampians Wimmera Mallee Water) | The journey to net-zero: taking advantage of easy wins Ms Renny Chivunga (Aurecon) | Bamboo and palm oil waste applications within partition-walling: assessing whole-cost elemental alternatives for high-rise developments in Singapore and Malaysia A/Prof Andrew Whyte (Curtin University) |
| 14:15 | Developing a spatial index of electric vehicle solar charging potential Dr Patricia Lavieri (University of Melbourne) | Coping with Climate Change in the Water Industry Mr Chris Irvine-Brown (RSK) | Future proofing existing infrastructure Dr Anne Gibbs (Asset Management Council) | How Digital Engineering Technologies are Driving Sustainable Innovation for Emissions Reductions Mr Alex Shin (MathWorks) | PAS2080 - Managing carbon emissions and reducing the environmental impact of infrastructure projects. Mr Matt Colton (Institution of Civil Engineers) | The Role of Waste to Energy in the Circular Economy Mr Anthony Douglas (Ramboll Australia) |
| 14:30 | A hybrid diesel-electric power and propulsion system for commercial vessels Dr Steve Mitchell (Amprocontrol) | The implementation of subterranean barriers with mine pre-drainage to reduce coal mine methane emissions from open-cut and underground metallurgical-coal mines Prof Raymond Johnson Jr (Novus Fuels) | Economic Assessment of Climate Change Adaptation for Roads Ms Amelia Tomkins (Arup) | Eliminating the dark side of safety barriers in GHG reduction vision and mission Mr Jawahar Kumar Murugiah (Petroleum Development Oman) | Greenwashing - Make sure you're not part of the problem! Mr Gavin Treseder (KPMG) | A Circular Economy Systems Approach to the Problem of 'Waste' for Regional Communities and Beyond Dr Tristan Shelley (The University of Southern Queensland), A/Prof Paulomi (polly) Burey (University of Southern Queensland) |
| 14:45 | Decarbonising Traction Energy in Freight Trains through Battery-Electric and Partial Electrification Dr Sundar Shrestha (Arup) | Australian agriculture and mining: a winning combination for carbon sequestration Mr Harold Burnett (AgSeq) | Building Resilience through Engineering: Mitigating Climate Change Impacts on Infrastructure Mr Mayuran Sivapalan (Adaptus), Mr Stuart Cassie (Seqwater) | Integrating occupational hygiene into smoke control measures to reduce smoke inhalation exposure risks during bushfires. Mr Adrian Moscose (Thornton Tomasetti) | Engineering Boards and Committees for Successful Climate Leadership & Regenerative Outcomes Mrs Stacy Daniel (Board Presence) | Carbon Negative Production of Biochar from Organic Waste using Pyrolysis Mr Andrew Newman (Detriicycle) |
| 15:00 | Gird-to-Vehicle (G2V) Algorithm with Voltage Control: A Case Study Based on Monash Microgrid Mr Soobok Yoon (Monash University) | International trends in Aviation to reach the net zero target. A/Prof Jonathan Couldrick (Australian National University) | A complex systems approach to design for resilience Mr Thomas Jacquier (Shoal Group) | | | |
| 15:15 | An application of a Victorian transport emissions model Mr Finn Gurry (AECOM) | | Progressive sediment management using natural infrastructure interventions in Andean coastal environments. Mr James Ghent (Arup) | | | |
| 15:30 | Afternoon tea (Exhibition Hall) | | | | | |
| 16:00 | Energy Transition - hydrogen | Technology and Innovation - infrastructure | Technology and Innovation - tools | Resilience - communities and other | Energy Transition - infrastructure | Circular Economy - other |
| 16:00 | Technical requirements for the safety of Hydrogen Transportation and storage Mr Jason Amiri (Nacap) | Developing accessible, online greenhouse gas emission estimation tools to inform New Zealand's horizontal infrastructure Mr Luke Eisen (AECOM) | Industrial internet of things for energy assets Mr Cyril Thomas (The University of Queensland) | Building resilient communities with socio-technical engineering: case studies from Engineers Without Borders Australia in the Asia-Pacific Region Dr Peter Mcardle (Engineers Without Borders Australia) | Sustainable solutions for energy infrastructure Mrs Lara Kruk (Jacobs) | Processing end-of-life coated paper products for use as structural materials Dr Matthew Flynn (University of Southern Queensland) |
| 16:15 | Water for hydrogen - will there be enough to support the energy transition? Ms Simone Costello (Arup), Ms Priyanti Madan (Arup) | Smart Integrated Water Management to respond to the climate change: A Case Study Mr Craig Hood (Stantec) | Harnessing SCADA and IIOT Data for Sustainable Engineering and Business Decision-Making Mr Ahmed Al Kindi (GPA Engineering) | Allowing Communities to Co-Engineer Network Responses to a Changing Climate Ms Sally Busch (Ausgrid) | With distributed power comes interoperability Mr Aravind Raju (enX) | Timber - from nature to nurture and back again Mr Quentin Jackson (Aurecon) |
| 16:30 | H2Pathways: techno-economic analysis of sustainable hydrogen supply chain paths Dr Keelan O'Neill (University of Western Australia) | Augmenting Australia's carbon inventory management in wastewater treatment for better planning Mr Rigo Manahan (Arup), Mr Steve Adamthwaite (Arup) | Explainability of Artificial Intelligence Models in Project Waste Management A/Prof Mehrdad Arashpour (Monash University) | Local Community - The missing piece in Australia's Energy Transition jigsaw Mr John Thomason (Engineers Australia) | Security-constrained integrated system planning with multi speed allocation of frequency response services. Ms Saeede Nazari Goldar (Monash University) | Creating business opportunities using data: an analysis of Queensland's glass waste Dr Jessica Feldman (University of Southern Queensland) |
| 16:45 | Least-Cost System Design and Operation: A Comparative Study of PEM, Alkaline, and Solid Oxide Electrolysers Dr Changlong Wang (Monash University) | A confluence of sustainability, circularity, and digital today, for tomorrow Mr Tim Munford (Beca), Mr Sai Jayaraman (Beca Limited) | A feasibility study of monitoring earthfill dam behavior using remote sensing Mr Farid Fazel Mojahedi (The University of Melbourne) | Building Australia's Humanitarian Engineering Capability for Resilience and Social Impact Dr Jeremy Smith (ANU) | Resilience optimisation of a 100 % renewable Australian energy Grid Mr Harry Thawley (Australian National University) | A circular economy for radioactive waste Dr Jo Lackenby (Frazer-Nash Consultancy) |
| 17:00 | Life cycle assessment of conventional and green ammonia production via grid power Dr Graham Palmer (Monash University) | How can adequate geotechnical input improve environmental outcomes through the lifecycle of a project? Mr Alex Petty (Stantec Australia Pty Ltd) | Gmetrik - A Digital Platform for Environmental & Costing Metrics Mr Peter Geoghegan (Geotron Engineering Consultants) | Future ready infrastructure - learnings from recent extreme events Mr Rob Kilgour (WSP) | | The Circular Economy and use of recycled materials for infrastructure assets Dr Jacqueline Balston (IPWEA) |
| 17:15 | Digitalisation Driving Decarbonisation: Digital Twins to accelerate Hydrogen applications. Mr Eyeol Tegegn (Siemens) | Storing atmospheric CO2 in roads by means of biogenic binder technology Dr Erik Denneman (Puma Energy) | A blockchain enabled water platform to improve the accountability and transparency of the Australian water markets Mr Bill Robinson (Arup), Mr Laurent Lambert (IBM) | | | Circular Economy In Design - The Benefits of Adaptive Reuse Ms Maree Marshall (WSP) |