Australasian Tunnelling Conference 2025
10 - 14 November 2025
Perth Exhibition and Convention Centre

Program current as of 17 October 2025, subject to change

Monday 10 November 2025				
08:30	**Registration**			08:30
	Meeting Room 1	**Meeting Room 9**	**Meeting Room 10**	
09:00	**Meaningful Quality Control for Shotcrete** *Des Vlietstra, Glen Maclennan, Caroline Bierne, Arnold Dix, Stefan Bernard and Tony Cooper*	**Risk Management for Underground Works** *Bill Newns, Alex Gomes, Arnold Dix, Roger Irvine, Tom Roper, Randy Essex, Rob Nievergelt, Phil Clark and Ted Nye*	**Geospatial Applications in Tunnelling and Underground Spaces** Carl Falkner, Steve Wilson, Matt Jarvis, Brett Growcock, David Ibbotson, Luke Moffat, Lewis Walsh, Blanca Payas and Steven Langley	09:00
10:30	**Morning Tea**			10:30
10:45		**Morning Tea**		10:45
11:00	**Meaningful Quality Control for Shotcrete** (continued)			11:00
11:15		**Risk Management for Underground Works** (continued)	**Geospatial Applications in Tunnelling and Underground Spaces** (continued)	11:15
12:30	**Lunch**		**Lunch**	12:30
13:00			**Geospatial Applications in Tunnelling and Underground Spaces** (continued)	13:00
13:30	**Meaningful Quality Control for Shotcrete** (continued)	**Risk Management for Underground Works** (continued)		13:30
14:30			**Afternoon Tea**	14:30
15:00	**Afternoon Tea**		**Geospatial Applications in Tunnelling and Underground Spaces** (continued)	15:00
15:30	**Meaningful Quality Control for Shotcrete** (continued)	**Risk Management for Underground Works** (continued)		15:30
17:00	**Workshops Conclude**			17:00
17:30	**Conference Sundowner** BelleVue Ballroom 1 + Foyer			17:30
19:30	**Day 1 Conclude**			19:30

Australasian Tunnelling Conference 2025
10 - 14 November 2025
Perth Exhibition and Convention Centre

Program current as of 17 October 2025, subject to change

Tuesday 11 November 2025

07:30	**Registration**			07:30
	ACCIONA Room (BelleVue Ballroom 2)			
08:30	**Opening Ceremony**			08:30
09:15	**Keynote Presentation**			09:15
	Chinese technological developments and innovations in the tunnelling industry **Jenny Yan (ITA Immediate Past President - China Railway Academy Group Co., Ltd)**			
10:15	**Morning Tea**			10:15
	ACCIONA Room (BelleVue Ballroom 2)	**Meeting Room 1**	**Meeting Room 2**	
	Linings and TBMs	**Underground mining**	**Tunnelling systems**	
10:45	Efficient design in the Alkimos intake and outfall tunnels **Kamalachandran Katpakanathan, Michael David**	Hydropower, mature and proven mechanized technology for tunnel and shaft construction supporting the implementation of sustainable clean energy transition **Karin Bäppler**	Split ventilation systems for road tunnel **Cristian Biotto**	10:45
11:00	Design challenges on Western Harbour Tunnel mega TBM segment and cross passages **Harry Asche**	Integrative feedback loops: Optimised tunnelling with digital platforms to improve efficiency, safety, and sustainability through a paperless Permit-To-Tunnel process **Kaylah Macintosh**	Ventilation challenges and opportunities at tunnelling construction operation – Snowy 2.0 powerhouse complex ventilation **Murray Jamieson**	11:00
11:15	Autonomous tunnel boring machines in action **Daniel Boylan**	Influence of strain-softening behaviour of fissured clays on deep shaft excavations **Ardie Purwodihardjo**	A study of mitigation strategies against excessive trackway depressurisation in stations with full-height platform screen doors **Kerem Oguz, Ozgur Ceylan**	11:15
11:30	Design of deep undrained tunnels for groundwater pressure using Australian Standards **Hamid Alaeddini**	A cutting pick for tunneling roadheaders to improve sustainability **Warren Roach**	GNSS repeater trial at the Cooks River crossing tunnel, Sydney NSW **Phil Clark**	11:30
11:45	Comparative analysis of crack width calculation methods for tunnel lining design **Nima Shafiei, Chun Ng**	Assessment of seismic wave velocity in underground mines using optimized learning algorithms **Hanan Samadi, Fidelis Suorineni**	Thermal properties of the Triassic rock formations across the Sydney region for the use in tunnel ventilation design **James Davidson**	11:45
12:00	A comparative study on 2D numerical modelling methods for tunnel junctions **Catherine Chan**	Effects of in-situ principal stress magnitudes on unloading strength **Abtin Farshi Homayoun Rooz**	Muck discharge technology and application through slurry circulation system on the EPB TBM **Zhiguo Zhang**	12:00
12:15	Shallow urban tunnelling method in complex geological conditions; Case study: Naghsh-e-Jahan Station-Line 2 Metro of Esfahan **Hanan Samadi**	Temporary slender pillar design in low strength sandstone: A theoretical study on enhancing stability of temporary deep caverns **Soroush Salari, Hansaja De Silva, Manjesh Narayana**	Advanced belt conveying systems and processing plants for tunneling projects – Insights from Gotthard spoil management Lot 111 **Pierre-Alain Scherwey**	12:15
12:30	**Lunch**			12:30
13:30	**ACCIONA Room (BelleVue Ballroom 2)**			13:30
	Keynote Presentation			
	Smart monitoring of tunnels **Wout Broere (Professor of Underground Space Technology - Delft University of Technology)**			

Australasian Tunnelling Conference 2025
10 - 14 November 2025
Perth Exhibition and Convention Centre

Program current as of 17 October 2025, subject to change

Tuesday 11 November 2025

	ACCIONA Room (BelleVue Ballroom 2)	Meeting Room 1	Meeting Room 2	
	Linings and TBMs	**Caverns** *Proudly sponsored by Jacobs*	**Tunnelling systems**	
14:30	Melbourne North East Link – TBM launch temporary works **David Kubik**	Design and construction of the AS1 shaft within the Albert Street station cavern, Cross River Rail, Brisbane **Alexander Rogan, Ben Swinn**	Validation of plume dispersion modelling for approval/acceptance against CASA requirements **Conrad Stacey**	14:30
14:45	North East Link segmental lining lessons learnt - from design to construction **Michael Behrens, Renee Shi**	Design and testing of BA anchors for temporary support of reinforcement in the cavern linings of the Cross River Rail project **Strath Clarke**	The critical velocity saga **Conrad Stacey**	14:45
15:00	Sydney Metro West – Eastern Tunnelling Project – TBM temporary works **David Kubik**	Design and construction challenges for the TBM traverse through Brisbane's partially excavated Albert Street Station cavern **Michael Habte**	Enhancing operator enclosure air quality in tunnelling operations: addressing silica dust exposure and compliance through AS/ISO23875 **Simon Rooney, Jeffrey Moredock, Kate Cole**	15:00
15:15	Repurposing Roma Street station's temporary access adit as an emergency egress tunnel **Maria Lecina Moraleda**	Design and construction of the Woolloongabba station caverns for Brisbane's Cross River Rail project **Bernard Shen**	Challenges implementing AS61508 on infrastructure projects **Peter Kroon**	15:15
15:30	**Afternoon Tea**			15:30
	ACCIONA Room (BelleVue Ballroom 2)	**Meeting Room 1**	**Meeting Room 2**	
	Linings and TBMs	**Caverns** *Proudly sponsored by Jacobs*	**Asset management**	
16:00	Impact of construction phase on the interaction between lining and rock mass in pressure tunnel and shafts **Mahdi Zoorabadi**	Investigations for tunnels and storage caverns **Ian Gray**	Durability design for tunnels and approaches **Frank Papworth**	16:00
16:15	Insights into the load transfer mechanisms of grouted rock bolts under tension **Amin Emadi**	Snowy 2.0 down stream surge shaft chamber geological/geotechnical hazards and design challenges **Ana Palomo, Javier Sotomayor Miqueles**	Advanced engineering methods to extend and expand the use of reclaim tunnels at Pilbara mine sites **Govinda Pandey, Ji Wang Lee**	16:15
16:30	Use of precast lining within the mined spurs on Sydney Metro West - Western tunnelling package **Nick Lewis**	Observational method for the deep powerhouse cavern construction of Snowy 2.0 project **Ivan Ching, Kishor Acharya**	Application of geospatial data and artificial intelligence in underground infrastructure development near existing structures **Wei Wang**	16:30
16:45	Robofactory: the future of large-scale TBM segments production **Daniele Sirtori**	Ground response for construction of fifteen caverns in diverse ground conditions in Sydney **Michael Salcher, Mark Trim**	Challenges in electrical and mechanical asset renewal in established tunnels **Jaime Cadena Gomez**	16:45
17:00	Overcoming space constraints in Australia's Suburban Rail Loop East Tunnels South: umbilical and flying launch systems **Valeria Tata, Jake Mackell**	Innovations in strand anchor design as part of the support system for a deep underground cavern **Sander Van Ameijde**		17:00
17:15	Spoil reconciliation in slurry TBM tunnelling: a literature review and framework for field application **Manuj Taneja, Massimiliano Terenzi**	Modelling the impact of blasting on excavation perimeters **Peter Dare-Bryan**		17:15
17:30	**Welcome Reception** BelleVue Ballroom 1 + Foyer ***Proudly sponsored by AusTunnel***			17:30
18:30	**Young Members Boat Cruise** Departs from Barrack Street Jetty			18:30
21:00	**Day 2 Conclude**			21:00

Australasian Tunnelling Conference 2025
10 - 14 November 2025
Perth Exhibition and Convention Centre

Program current as of 17 October 2025, subject to change

Wednesday 12 November 2025

08:00	**Registration**			08:00
08:30	**ACCIONA Room (BelleVue Ballroom 2)**			08:30
	Keynote Presentation			
	Recent developments in large scale subaqueous tunnels **Ozturk Ozgur (Executive Director - AECOM)**			
	ACCIONA Room (BelleVue Ballroom 2)	**Meeting Room 1**	**Meeting Room 2**	
	Temporary support	**Geotechnics**	**Case histories**	
09:30	Designing canopy tubes for tunnel stability in weak ground: a comparison of analytical and 3D numerical approaches **Arun Sarathchandran**	Tunnel nearshore ground investigation for Alkimos seawater desalination plant, Western Australia **Tony Gourlay**	Design and construction of the Sydney Metro West turnback tunnels **Andrew Merritt**	09:30
09:45	Effect of recycled fine waste glass powder on workability performance in sustainable backfill **Mehdi Serati**	Engineering geotechnical model and geotechnical interpretation, Alkimos seawater desalination plant, Western Australia **Tony Gourlay**	Tunnel collapse and recovery **Thomas Cheung**	09:45
10:00	The mined tunnels of the Sydney Metro West – Western Tunnelling package: large spans, narrow pillars and heritage sewers **Jeremy Nethercott**	Seawater intake riser and brine linear outfall diffuser geotechnical pile design and impacts from tunnel construction, Alkimos seawater desalination plant, Western Australia **Peter Retsos**	Design and construction of Te Ara o Te Ata - Mt Messenger bypass project tunnel **Katerina Howard**	10:00
10:15	Primary support for the Albert Street Station cavern and main station entry shaft intersection, Cross River Rail, Brisbane **Robert Elliott**	Research on the monitoring technology of the Qingdao Jiaozhou Bay second subsea tunnel project **Wenbo Zhang**	The Blue Mountains Route clearance project - Tunnel lining modifications for the Zig Zag Ten Tunnel deviation **Christian Bodner**	10:15
10:30	**Morning Tea**			10:30
	ACCIONA Room (BelleVue Ballroom 2)	**Meeting Room 1**	**Meeting Room 2**	
	Temporary support	**Geotechnics**	**Case histories**	
11:00	Numerical analysis and design of an SEM tunnel through jet-grouted Coode Island silt **Ashkan Shafee, Erich Kaese**	Evaluating deterministic and probabilistic seismic hazard assessments for a tunnel project in Sydney: insights and comparisons **Ching Dai**	Research and application of key technologies of 15m super-large diameter single shield TBM in complex geological highway tunnel **Zhiguo Zhang**	11:00
11:15	Research on the mechanism of shotcrete support based on the combined effect of rock-shotcrete **Yisan Deng**	Vibration impacts of roadheader excavations in Hawkesbury sandstone on underground structures **Mark Sheffield**	Delivering Watercare's Central Interceptor project, Auckland, New Zealand **Jon Sickling**	11:15
11:30	Stability analysis of a nozzle headwall considering interaction with adjacent piles: Insights from Sydney Metro West – Western Tunnelling Package **Ivy Zhang**	Towards reliable UCS inputs for tunnel design: learnings from Snowy 2.0 **Albert Chen**	Southern Tunnel Works – A case history **Noah Mackintosh, Thomas Bentley, Kenji Teruya**	11:30
11:45		Dyke encounters in the Sydney basin: insights from 30 km of mined tunnel excavations **Nick Lyons**	Brisbane Metro - Surface monitoring of the Urban Canyon **Drew Coulthard**	11:45
12:00	**Lunch**		**Diversity in Tunnelling Lunch** Panellists: Alex Atkins, Arjun Shivasami, Isolde Piet	12:00
13:30	**ACCIONA Room (BelleVue Ballroom 2)**			13:30
	Keynote Presentation			
	The management of subsurface risks – GBR lessons learned and forgotten **Randy Essex (Tunnelling and Risk Management Consultant - R J Essex LLC)**			

Australasian Tunnelling Conference 2025
10 - 14 November 2025
Perth Exhibition and Convention Centre

Program current as of 17 October 2025, subject to change

Wednesday 12 November 2025

	ACCIONA Room (BelleVue Ballroom 2)	Meeting Room 1	Meeting Room 2	
	Sprayed concrete and ground support	**Geotechnics**	**Planning, procurement and risk management**	
14:30	Shrinkage cracking in slender shotcrete tunnel linings **Erik Bernard**	Tunnels and the geologist – are we using geologists effectively? Thoughts and case studies from a 20 year career **Helen Baxter-Crawford**	Important considerations when assessing options to manage ground risk on tunnelling and underground works **Stephen Barrett**	**14:30**
14:45	High temperature bond behaviour of Spray Applied Waterproof Membranes (SAWMs) **Matthias Reinhold, Gokarna Bhatta**	Tunnelling in hydrothermally altered Silurian sedimentary rock on Melbourne's North-East Link Project **Denis Tepavac**	Methodology for comparing dangerous goods risks in road tunnels to those on alternative routes **Conrad Stacey**	**14:45**
15:00	Practical shotcrete design approach based on full-scale load-deflection tests using numerical analysis **Joung Oh**	Reducing cost and carbon emissions through rapid design optimisation during construction **Thomas Roper**	The novel approach to major tunnelling fire safety during the construction phase **Luke Haines**	**15:00**
15:15	Evaluating the setting behaviour of shotcrete with crushed waste glass as sand replacement **Xuanyu Zhu**	Effect of moving train load on tunnel deformation and track-tunnel interaction **Hafsa Farooq**	Selection of different arch shapes rock mass opening for underground space development – from use of rock reinforcement technique and excavation volume point of view **Keith Kong**	**15:15**
15:30	**Afternoon Tea**			**15:30**
	ACCIONA Room (BelleVue Ballroom 2)	**Meeting Room 1**	**Meeting Room 2**	
	Sprayed concrete and ground support	**Groundwater control**	**Planning, procurement and risk management**	
16:00	Optimizing artificial ground freezing design for cross passage construction: innovations and practical considerations **Chin Fung Tsang**	Using the Lugeon test in tunnelling groundwater control - analysis and interpretation **Harry Asche**	Study on the cross-section layout scheme for the longmenshan Ultra-long Highway Tunnel **Xie Tang**	**16:00**
16:15	Laboratory test methods and results for double shear performance of Australian CT bolts in simulated strata **Simon Worrall**	Waterproofing system selection for tunnel linings **Ulrike Pelz**	Evaluating progress: trends in respirable crystalline silica exposure in tunnel construction (2016–2024) **Kate Cole**	**16:15**
16:30	Characterization of fiber-reinforced concretes activated at very early ages **Nicolas Leclere**	Exploring innovative groundwater control methods and waterproofing techniques in Sydney tunnels **Andrew Talos**	Importance of risk mitigation for a live tunnel refurbishment project **An-Tzu Chang**	**16:30**
16:45	Stress analysis of composite shell lining interfacesurface in hard rock tunnel **Shuyi Wen**	Optimum pressure for rockmass grouting between TBM segmental linings of a twin tunnel **Iris Yim**	Using AI agents for risk mitigation a case study - the Lane Cove tunnel collapse **Ted Nye**	**16:45**
17:00	Evaluation of rockbolt performance using field testing and monitoring **Subhash Soni**	Water ingress into UECP-2A tunnel – its mitigation and control **David Lees**		**17:00**
17:15	Low-carbon fibre reinforced concrete in sprayed, precast & cast-in-situ concrete underground ppplications in Singapore **Cheng Chian Gan**	Groundwater control in tunnelling using injected polymer barriers **Ron Colman**		**17:15**
18:30	**Conference Dinner** Fraser's Kings Park - 60 Fraser Avenue, Kings Park WA 6005 ***Proudly sponsored by CPB Contractors***			**18:30**
22:30	**Day 3 Conclude**			**22:30**

Australasian Tunnelling Conference 2025
10 - 14 November 2025
Perth Exhibition and Convention Centre

Program current as of 17 October 2025, subject to change

Thursday 13 November 2025

08:30	**Registration**			08:30
9:00	**ACCIONA Room (BelleVue Ballroom 2)**			9:00
	Keynote Presentation			
	Advances of trenchless technology for underground infrastructures **Albert Shou (Chairman of ISTT - National Chung-Hsing University)**			
	ACCIONA Room (BelleVue Ballroom 2)	**Meeting Room 1**		
	Pipe jacking and trenchless technologies	**Shafts and cut and cover**		
10:00	XXL pipe jacking: technological aspects of large-diameter and long-distance drives **Ben Hayes**	Design and construction of a non-conventional elliptical shaft to support efficient TBM operations **Lorenzo Facibeni**		10:00
10:15	Mechanized cross passage construction in tunnelling projects **Maximilian Bischoff**	Multi-criteria analysis of construction methodologies and lining options for deep bored shaft excavations **Peter Booth**		10:15
10:30	Gold Coast Light Rail: an example of capitalising on underground space to deliver above ground infrastructure **Dan Keating, Andrea Edney**	Geotechnical design and performance of a cut and cover structure in Sydney **Dimitra Zografou**		10:30
10:45	**Morning Tea**			10:45
	ACCIONA Room (BelleVue Ballroom 2)	**Meeting Room 1**	**Meeting Room 2**	
	Linings and TBMs	**Shafts and cut and cover**	**Digital engineering**	
11:15	Comparative study on waterproofing and drainage design and lining water pressure calculation methods for tunnels in China and Europe **Ning Wang**	Westmead metro station excavation: design challenges and ground performance **Howard (Yit Haw) Toi, Chia Weng Boon**	Automated extraction of geotechnical data from core photography for tunnelling projects using artificial intelligence **Sam Johnson**	11:15
11:30	Assessing the geotechnical feasibility of shallow TBM launch in India's urban landscape: a focused case study **Gowtham Sri Sai Mallavarapu**	Ground anchor design considerations and installation challenges within saturated Sydney Basin alluvium: A case study for Sydney Metro - The Bays Station **Fernando Ceballos Martinez**	Digital Engineering - lessons learnt from a major Sydney tunnel project **Mark Sheffield, Chloe Williams**	11:30
11:45	Research on rock breaking tests and efficiency evaluation of cutter disk hobs for TBM with large taper face **Jianbin Li**	Impact of deep underground station excavation on existing assets in Sydney, Australia **Sujatha Manoj**	Image recognition and numerical output extraction in tunnelling using convolutional and artificial neural network **Nick Mirsepassi**	11:45
12:00	Pioneering innovations for tunnelling **Massimo Franceschi, Mark Fox**	Large secant piled temporary peanut shaft for the Alkimos Desalination Plant in Perth **Jose Ramon Bombin Saiz**	Use of photogrammetry to assess overbreak in tunnels **Matthew Smith**	12:00
12:15	Design criteria for underground structures – structural verifications of waterway concrete linings in pumped storage power plants **Massimo Cadenelli, Federico Cippà**	Melbourne's Metro Tunnel – City Square rock pillar replacement wall **Alistair Watson**	Enhancing tunnel design and construction through Building Information Modeling (BIM): a case study approach **Anne Sherin Arokia Gnana Rajesh**	12:15
12:30	**Lunch**			12:30
13:30	**ACCIONA Room (BelleVue Ballroom 2)**			13:30
	Keynote Presentation			
	Milestones, challenges and opportunities for tunnelling and underground infrastructure in Australia **Ulrike Pelz (Senior Technical Director – Tunnels & Major Projects - GHD)**			

Australasian Tunnelling Conference 2025
10 - 14 November 2025
Perth Exhibition and Convention Centre

Program current as of 17 October 2025, subject to change

Thursday 13 November 2025

	ACCIONA Room (BelleVue Ballroom 2)		Meeting Room 2	
	Linings and TBMs		**Digital engineering**	
14:30	Real-time geological prediction technology based on TBM rock-breaking seismic source HSP method and engineering practice **Song Lu, Xu Wang**		Advancing geotechnical construction phase workflows: leveraging digital tools for improved construction outcomes **Harry Buchanan**	14:30
14:45	The use of optical televiewer and endoscope imaging methods in TBM tunnels to predict ground conditions **Kara Stariha**		The hidden engine of project success: Best practices for managing large 3D models and 2D documentation in infrastructure projects **Elnaz Saminfar**	14:45
15:00	To jamb or not to jamb: evaluating cross passage permanent support systems **Thomas Cheung**		Automation of tunnel modelling for enhanced project efficiency **Fernando Ceballos Martinez**	15:00
15:15	Artificial ground freezing for cross passage construction **Chor Kin Tsang**		Automatic and real-time positioning of vault and full round tunnel shutters using camera sensor units. **Matt Jarvis**	15:15
15:30	Comparison of the effects of new and existing building developments on large tunnels **Duorina Duorina**			15:30
15:45	**Afternoon Tea**			15:45
16:15	**ACCIONA Room (BelleVue Ballroom 2)**			16:15
	Closing Ceremony			
16:45	**Day 4 Conclude**			16:45