



AUSTRALASIAN SIMULATION CONGRESS

11 – 14 Aug 2025
Adelaide Convention Centre
Transformative Futures
building tomorrow together



DRAFT Australasian Simulation Congress 2025 Program

11 - 14 August 2025
Adelaide Convention Centre

*Program subject to change without notice

Monday 11 August 2025	8:00-9:00	Foyer M					Registration Open					
		City 1	City 2	City 3	City 4	Offsite						
		Masterclass	Masterclass		Masterclass							
	09:00 - 12:30	Simulation Demystified: Foundations of Simulation Elyssbeth Leigh	Breaking Barriers: Interdisciplinary Knowledge Sharing Jawahar Bhatta, Prof Guy Wallis, Katherine L. Morse, Paultetta Irwin		11:00 - 12:30 SHAPES SUMMIT Ben Berg & Belinda Judd *This is a closed session*							
12:30 - 13:30	Break											
13:30 - 17:00	Building "safe-to-fail" simulation environments to develop workforce-ready skills: Simulation and Skills Development (with Cubic) Craig Noe, Mark Horn, Mitchell Day, Chris Reynolds	Simulating Complex Processes – Predicting the Future: Simulation-Driven Decision Support Across Industries Michael Johnstone, Bruce Gunn				Adelaide Health Simulation Workshop & Tour						
Tuesday 12 August 2025	7:00 - 8:30	Foyer M					Registration Open					
	8:30 - 8:35	Hall L	Daily Updates			Chair: Dr. Amanda Davies						
	8:35 - 8:45	Hall L	Welcome To Country			Chairs: Amanda Davies						
	8:45 - 8:55	Hall L	Open Address Guest Michael Brown MP			Chair: Philip Swadling						
	8:55 - 9:00	Hall L	Welcome Remarks			Chair: Philip Swadling						
	9:00 - 10:00	Hall L	Keynote Address: Professor Victoria Brazil "Data science, AI and simulation. Are your simulations really leading to actionable insights?"									
	10:00-10:30	Hall M&N	Morning Tea & Exhibition									
	SESSION 1 10:30-12:30		Hall L	City 1	City 2	City 3	City 4					
			Technology innovations	Modelling & decision support systems	Human dimensions in simulation	Educational development (Curriculum & techniques)	Advancing professional practice with simulation-based learning					
			Chair: Prof. Victoria Brazil	Chair: Jawahar Bhatta	Chair: Elita Huynh	Chair: Ahmad Alsuwaidi	Chair: Anna Phillips					
10:30-12:00		22473 Simplifying Simulation: Visually Enhanced Mental Simulation (VEMS) Design and Delivery Presented by :Eve Purdy, Victoria Brazil 90minutes	10:30-10:50 22512 Enhancing Remaining Useful Life Prediction through Severity-Aware Change Point Detection. Presenting Author: Abrar Mahi Al Mr. Rashid	10:30 -10:50 22519 Strategies to manage human factors in mixed reality pilot training: a survey. Presenting Author: Antonio C Perez	10:30 -10:50 22484 Enhancing music students' confidence through performance simulation in virtual reality. Presenting Author: Ben Loveridge	10:30 -10:50 22517 The Capabilities of Simulation Tools in Designing Human Spaces for High Stakes Environments. Presenting Author: Simon R Modra						
		Host: Prof. Victoria Brazil	10:50-11:10 22515 Intelligent Biogas Policy: AI-Driven Clustering and Prediction Intervals for Sustainable Energy Expansion . Presenting Author: Mohammad Hosen	10:50-11:10 22616 Developing AI-assisted Cognitive Load Approach for Improving Mission Aviators' Training. Presenting Author: Gary Eves	10:50-11:10 22647 Interprofessional Simulation as a Catalyst for Professional Identity Formation. Presenting Author: Belinda Judd & Paultetta Irwin	10:50-11:10 22557 Coordination through Chaos: A Whole-of-Hospital Disaster Simulation for Systems Change. Presenting Author: Nicole Sing						
		11:10-11:30 22532 Design and Implementation of a Digital Twin for Enhancing Operational Planning in Vote Scrutiny Systems. Presenting Author: Michael Johnstone	11:10-11:30 22508 Technical Agility and Systems Thinking in Military Simulation Delivery. Presenting Author: Gregory P Quilliam	11:10-11:30 22641 Designing the Airspace of the Future: The Role of Simulation, Modelling, and Human-Centred Practice. Presenting Author: Elita Huynh	11:10-11:30 Simulation – is it one sizes fits all? A model for designing in inclusivity of learner characteristics in simulation-based learning. Presenting Author: Amanda Davies	11:10-11:30 22581 From Theory to Practice: A Competency-Based Framework for Critical Incident Management Training in Singapore. Presenting Author: Siew Ghim Tan						
		11:30-11:50 22575 Coupling MBSE and Simulation for Early Validation: Capella and POOSL in Action. Presenting Author: Romain Horcada	11:30-11:50 22641 Designing the Airspace of the Future: The Role of Simulation, Modelling, and Human-Centred Practice. Presenting Author: Elita Huynh	11:30-11:50 22641 Designing the Airspace of the Future: The Role of Simulation, Modelling, and Human-Centred Practice. Presenting Author: Elita Huynh	11:30-11:45 22594 Integrating Learning Sciences and Technology: Advancing Educational Practices through Learning Engineering Methodologies. Presenting Author: Kevin Wood	11:30-11:45 22580 Optimising Simulation Training: A Standardised Approach to Debriefing for the Home Team. Presenting Author: Charlene Ong						
		11:50-12:10 22523 IoT-Enabled Reporting Interfaces for Real-Time Occupant Feedback in Building Performance Evaluation. Presenting Author: Adil Mr Shykov	11:50-12:10 22843 From Chaos to Clarity: Exploring Cymefyn through a M&S and Systems Lens. Presenting Author: Jawahar Bhatta	11:50-12:10 22843 From Chaos to Clarity: Exploring Cymefyn through a M&S and Systems Lens. Presenting Author: Jawahar Bhatta	11:50-12:10 22565 Adaptive Curricula generation for Human-Machine Team Training Scenarios. Presenting Author: Gary Eves							
		12:10-12:30 22530 Training simulators and Digital Twins, bridging the standards gaps. Presenting Author: Simon Skinner	12:10-12:30 22514 Using Heads-Up-Displays to Improve Non-Line of Sight Spatial Audio Source Detection and Localization under Stress. Presenting Author: Hsiang-Ting Chen	12:10-12:30 22514 Using Heads-Up-Displays to Improve Non-Line of Sight Spatial Audio Source Detection and Localization under Stress. Presenting Author: Hsiang-Ting Chen	12:10-12:30 22471 Simulation – bridging the education gap between 'knowing about' and 'being able'. Presenting Author: Elyssbeth Leigh							
12:30-13:30		Hall M&N					Lunch & Exhibition					
		City 1	12:30-13:30 Chair: Belinda Judd SHAPES SUMMIT no.2 Ben Berg & Belinda Judd This is an open session, all welcome									
13:30-14:30	Hall L	Keynote Address: Dave Donohue APM "Airport Exercising – the need to be realistic"					Chair: Amanda Davies					
14:30-15:30	Hall L	Panel discussing the realism aspect and its importance to learning transfer? Dr Tanaka, Dave Donohue and Professor Victoria Brazil					Chair: Philip Swadling					
15:30-16:00	Hall M&N	Afternoon Tea & Exhibition										
SESSION 2 16:00-17:00		Hall L	City 1	City 2	City 3	City 4						
		Modelling & decision support systems	Human dimensions in simulation	Educational development (Curriculum & techniques)	Technology Innovations	Workshop Technology Innovations - healthcare						
		Chair: Guy Wallis	Chair: Paultetta Irwin	Chair: Belinda Judd	Chair: Michael Johnstone	Chair: John Paige						
	16:00-16:30	22541 A Multi-Objective Agent-Based Model for Optimising Polling Place Resource Allocation. Presenting Author: Burhan Khan	16:00-16:40 WORKSHOP 22436 Harnessing Generative Artificial Intelligence to Enhance Low Fidelity Paediatric Simulation Education. Presenter: Jonathon Talbot	16:00-16:30 22494 Innovative Online Method for Teaching Simulation Design. Presenting Author: Janiece Roche	16:00-16:20 23036 Summative Simulation Assessment: Best Practices Presenting Author: Benjamin Berg	16:00-17:00 WORKSHOP 22619 Turning Up the Volume: Using Decibel Levels as Measurement of Teamwork in Simulation-based Team Training. Presenter: John Paige						
	16:20-16:40	26000 A Systemic and Human-Centred Emergent Perspective of the Sustainable Development Goals. Presenting Author: Jawahar Bhatta		16:20-16:40 22400 Using Artificial Intelligence to facilitate undergraduate nursing learning in end-of-life care. Presenting Author: Karen Hall	16:20-16:40 22649 Building Digital Health Capability: HealthERSim ¹ as a Transformative Simulation Innovation. Presenting Author: Paultetta Irwin							
16:40-17:00	22610 The value of a terrain database is in its source data, not the database. Presenting Author: Chris Joslin		16:40-17:00 22618 Embracing the Transformative Future of Healthcare Through Simulation-Based Learning. Presenting Author: Kaitling, Maureen Teo									
17:00 -19:00	Welcome Reception											

7:00-16:30	Foyer M					Registration Open				
	8:00-8:15 Hall L					Daily Updates				
8:15-9:15 Hall L					Defence Keynote: Air Marshall (AM)(Rtd) Mel Hupfeld					Chair: Phillip Swadling
9:15-10:15 Hall L					Keynote Address: Prof. Satoshi Tanaka, President of the Japan Society for Simulation Technology (JSST), the Asia Simulation Federation (ASIASIM), and vice president of the Visualization Society of Japan High-Resolution Point-Based Visual Analysis of Cultural Heritage Using 3D Scanned Data					Chair: Amanda Davies
10:15-10:30 Hall M&N					Morning Tea & Exhibition					
SESSION 3 10:30-12:30	Hall L		City 1		City 2		City 3		City 4	
	Defence Stream		Technology innovations		Modelling & decision support systems		Educational development (Curriculum & techniques)		Advancing Professional Practice	
	Chair: Phillip Swadling		Chair: Guy Wallis		Chair: Jawahar Bhalla		Chair: Michelle Kelly		Chair: Ben Berg	
	10:30-11:00 Overcoming the Human Challenges to Support Training for Multi-Domain Operations BRIG Damien Hill - J7, HQJOC		10:30-10:50 22572 Modelling an accurate multispectral atmosphere in a real-time physics simulation . Presenting Author: Ella Roberts		10:30-10:50 22383 A digital twins simulation approach for escalating intelligence led policing. Presenting Author: Amanda Davies		10:30-10:50 22453 Embedding clinical yarning into the Faculty of Medicine and Health simulation curriculum. Presenting Author: Justine Dougherty		10:30-10:50 22533 Conceptual Foundations of Professional Identity Formation and the Role of Simulation Based Education. Presenting Author: Matthew Tieu and Luke Vater	
	11:00-11:30 The ADF's Joint Synthetic Training Environment Lieutenant Colonel Sebastian Aleksandrowicz, RAEME		10:50-11:10 22573 Valid real-time radiometric simulations of multi-band infrared scenes in Unreal Engine 5. Presenting Author: Jonathan P Hedger		10:50-11:10 22474 Reducing Uncertainty in UAV Operations Through Modelling and Simulation. Presenting Author: Ying Chen		10:50-11:10 22600 Culturally Ready: Preparing Student Nurses and Midwives Through Simulation. Presenting Author: Gihane GE Endrawes		10:50-11:10 22514 Professional Pathways for Recognising Simulation Careers: Enhancing Australia's Workforce. Presenting Author: Mark Horn	
	11:30 -12:00 Engineering the Future: Building Australia's Digital Engineering Capability Professor Braden McGrath		11:10-11:30 22607 Simplifying Complex Simulations: Enhancing Accessibility in Infinite Studio by Developing an Externally Controlled Application. Presenting Author: Logan Copeland		11:10-11:30 System Testability Ontology Modeling to support Test and Evaluation Practice Presenting Author: Mahmoud Elatmaneshnik		11:10-11:30 22518 QSAFe: Supporting quality simulation design for the Australian/NZ context. Presenting Author: Melanie Barlow		11:10-11:30 22583 Applying theory in Practice: A virtual and simulated practicum in professional psychology. Presenting Author: Kylie Rice	
	12:00-12:30 Panel Discussion - BRIG Damien Hill - J7, HQJOC, Lieutenant Colonel Sebastian Aleksandrowicz, RAEME, Professor Braden McGrath		11:30-11:50 22602 AI-Driven Smart Helmets for Tactical and Rider Safety. Presenting Author: Mohammad Hosen		11:30-12:10 Standards are the Building Blocks of Future Interoperability Presenter: Katherine Morse		11:30-11:50 22534 "I hate role play" – addressing learner resistance to role play based simulations. Presenting Author: Elysebeth Leigh		11:30-11:50 22444 Outcomes following an independent evaluation of the "Talking Together" simulation communication training program. Presenting Author: Derek Eng	
			11:50-12:10 22417 Building Modern Military Simulators with LS Core 2.0. Presenting Author: Craig Williams				11:50-12:10 22437 The impact of structured debriefing in simulation on the development of competencies in nursing students. Presenting Author: Joana Quintão			
			12:10-12:30 22497 A worthwhile journey: migrating legacy simulators to modern toolchains. Presenting Author: Jonathan Mitchell				12:10-12:30 22538 "Escape Rooms: The Key to Unlocking High-Performing Teams in Healthcare Simulation". Presenting Author: Kim Heaslip			
	12:30-13:20 Hall M&N					Lunch & Exhibition				
13:20-14:20 Hall L					Keynote Address: Professor Sharon Weldon "Transformative simulation"					Chair: Belinda Judd
14:20-14:40 Hall M&N					Afternoon Tea & Exhibition					
SESSION 4 14:40-17:00	Hall L		City 1		City 2		City 3		City 4	
	Defence Stream		Serious Games & concepts		Technology innovations		Educational development (Curriculum & techniques)		Advancing Professional Practice	
	Chair: Phillip Swadling		Chair: Fred Hardtke		Chair: Marcus Watson		Chair: Ahmad Alsuwaidi		Chair: Tess Vawser	
	14:40-15:10 Land Domain Training System BRIG Sean Parkes - Deputy G7, Army		14:40-15:00 22593 Gamifying traffic incident response: a simulation based training model from the Dubai Police Academy Presenting Author: Ahmad Alsuwaidi		14:40-15:00 22526 Using Gaze and Gesture Cues to Enhance Communication in Immersive Simulation. Presenting Author: Mark Billinghurst		14:40-15:00 22492 Enhancing Pharmacology Learning through Inquiry-Based Simulation in Emergency Critical Care . Presenting Author: Cecilia HM Kong		14:40-15:00 22570 Looking at - and with - a facilitator's perspective on simulation. Presenting Author: Elysebeth Leigh	
	15:10-15:40 Speed of relevance – developing the Future Maritime Training System CDRE John Stavridis - Commodore Training, Office of the Chief of Navy		15:00-15:20 22598 Serious Escape Rooms prepare students with transferable skills for diverse work. Presenting Author: Harrison Burgin		15:00-15:20 22498 Spot the Difference! Using automated testing on simulated avionics displays to reduce regression. Presenting Author: Kerry Spanhel		15:00-15:20 22587 Immersive Lab Safety Training Through Virtual Reality: A Case Study in Educational Simulation. Presenting Author: Daniel Ugarte		15:00-15:20 1522470 The invisible capabilities of simulation professionals – how to prove you have them? Presenting Author: Elysebeth Leigh	
	15:40-16:10 From the Synthetic Training Environment to the Battlefield- a Capability Manager's Perspective COL Sarah Craig - Director Land Training Capabilities, Army HQ		15:20-15:40 22579 Modelling Simulation Participant Behaviour as a Markov Decision Process. Presenting Author: Dave A Gould		15:20-15:40 22642 Exploring the Potential of Generative AI to Support Training Scenario Development for Air Traffic Controllers. Presenting Author: Elita Huynh		15:20-15:40 22611 Using simulation to build cultural sensitivity among nursing and midwifery (USB -CSI): An integrative review. Presenting Author: Gihane GE Endrawes		15:20-15:40 22595 No Gear. All the Ideas: SiteSeer as an Ergodic Learning Tool for Architecture Presenting Author: Andrew Lynn-Penning	
	16:10-17:00 Panel Discussion - BRIG Sean Parkes, CDRE John Stavridis & COL Sarah Craig		15:40-16:00 22569 Beyond Headsets: Evolving the Digital Training Twin into a 3D Simulation Ecosystem. Presenting Author: Tanya Fraser		15:40-16:00 22555 The Once and Future Flight Simulator. Presenting Author: Phillip Swadling		15:40-16:00 22553 Advancing Emergency Nursing Education through XR Simulation and AI-Driven Feedback: A Scalable Curriculum Innovation. Presenting Author: Yew Hiang Tan		15:40-16:00 22520 Using AI and Digital Technologies to Improve Realism, Relevance, and Communication in Clinical Simulation . Presenting Author: Danielle Gardner	
			16:00-16:20 22529 Gamifying the Past: Challenges of Immersive 3D for Heritage. Presenting Author: Erik Champion		16:00-16:20 22564 SiVR: Comparing Metaphorical and Abstract Interfaces in an Immersive VR Simulation for Silviculture Education. Presenting Author: Spencer J O'Keefe		16:00-17:00 WORKSHOP 22584 Simulation of a future society. Presenting Authors: Cat Kutay, Elysebeth Leigh		16:00-16:20 22645 A medical simulator with Perfect fidelity. Presenting Author: Stewart Montano	
			16:20-16:40 22521 Development and implementation of a simulation game for health professionals . Presenting Author: Sabine SM Munzenmay		16:20-16:40 Students in Simulation Presenter: Elita Huynh				16:20-16:40 22646 Building Tomorrow's Healthcare Teams: An Online Interprofessional Simulation Pilot. Presenting Author: Belinda Judd	
	18:30 - 22:30 Panorama Ballroom					ASC25 Awards Dinner & Presentations Sponsored by Bohemia				
7:30-15:00 Foyer M					Registration Open					
8:00-8:15 Hall L					Daily Updates- Amanda Davies					
8:15-9:45 Hall L					Mediqlip/IRIS Sim Scenario Writing Competition Grand Final					Chair: Adam Montague
10:00-10:45 Hall L					UNISA Special cross sector presentation "AI meets Simulation: What's Real, What's Ready, What's Next"					Chair: Phillip Swadling
10:45-11:00 Hall L					Morning Tea & Exhibition					
August 2025 9:11:00-13:00	Hall L		City 1		City 2		City 3		City 4	
	Simulcast Presentation		Serious Games		Workshop & Presentation		Educational development (Curriculum & techniques)		Advancing Professional Practice	
	Chair: Prof Victoria Brazil		Chair: Fred Hardtke		Workshop Chair: Elise Sutton Presentation Chair: Kevin Woods		Chair: Ahmad Alsuwaidi		Chair: Prof. Sharon Weldon	
	11:00-12:00 Simulcast Live recording Presenter: Prof. Victoria Brazil, with guests Patrick Frost, Ellen Davies and Adam Montagu		11:00-12:30 WORKSHOP Serious Games Australia New Zealand: Reconnecting and Shaping the Future of Serious Games in Australia Chair Presenter: Fred Hardtke		11:00- 12:00 WORKSHOP 22552 Translational Simulation as a tool to address Occupational Violence and Aggression. Presenter: Elise Sutton and Dr. Kinn Channa		11:00-11:20 22524 Virtual Reality Simulation for Dementia Care Staff Training: Scoping Review. Presenting Author: Yan Wang		11:00-11:20 22522 "If You Don't Measure It, You Can't Improve It": Developing Clinical Competence Using High-Frequency Simulation. Presenting Author: Jean-Paul Veronese	
							11:20-11:40 22485 Unlocking minds: Using escape rooms to enhance mental health nursing education. Presenting Author: Karen Hall		11:20-11:40 22606 Preparing practice-ready physiotherapists: An intensive Simulated Clinical Placement Model. Presenting Author: Amanda S Maddern	

Thursday 14	SESSION 5			12:00-12:40 SISO Standards Status -a short overview of SISO's standards development processes Presenter: David L. Drake Chair:Kevin Woods	11:40-12:00 22554 Exploring extended immersive simulation-based education to prepare undergraduate nursing students for professional practice. Presenting Author: Caitlin Morse	11:40-12:00 22603 RMIT University Hospital Game. Presenting Authors: Gillian M Vesty, Dale N Linegar		
					12:00-12:20 22418 The Inclusion of Diverse Simulation Capabilities to Increase Training Fidelity - An RBTNA Approach. Presenting Author: Uditha RAJASEKARA	12:00-12:20 22639 Flight Simulation and Training – Time to Broaden Horizons! Presenting Author: Philip Swadling		
		Hall L	12:30-13:00 Beyond the congress. Let's talk! Derek Wade, Philip Swadling, Fred Hardtke, Jan Roche					Chair: Derek Wade
			13:00-14:00 Hall M&N <i>Lunch & Exhibition</i>					
	SESSION 6 14:00-16:00	Hall L	14:00: 14:45 Future Research: Defining Key research initiatives for Modelling & simulation. Chair: Fred Hardtke					
		Hall L	14:45-15:45 New Ideas Strategic activity by design. Lead: Derek Wade					
		Hall L	15:45-16:00 Closing Remarks					Phil Swadling & Amanda Davies
		Offsite - UniSA	16:00- 18:00 University of South Australia - Site visit					