

URL entire workshop (except ABM):

<https://qut.zoom.us/j/86598932447?pwd=K2F4RDYyQjBldVNiYkE5bGZlbnk0Sk1JSU09> (Password: 702472)

Thursday, 9 December 2021		Friday, 10 December 2021	
9:00-9:10	Opening	Session A: Digital Transformation in SHM Facilitator: John Vazey(EngAnalysis)	
9:10-10:50	Session 1: Recent developments in NDT and SHM (15+5 mins per presentation) Session Chair: Prof Tommy Chan (Queensland University of Technology)	9:00-9:20	Prof. Tuan Ngo: Application of Industry 4.0 technologies and future construction The University of Melbourne
	Detecting, locating and quantifying damage in hyperbolic cooling towers using vibration data and artificial neural network (Chathurangi Randiligama, Prof David Thambratnam, Prof Tommy Chan, Sabrina Fawzia - QUT) Speaker: Chathurangi Randiligama , Queensland University of Technology	9:20-9:40	Dr Ali Hadigheh: Digital twin for structural health monitoring of post-tensioned reinforced concrete bridges The University of Sydney
	Nonlinear ultrasonic guided wave for detecting rebar deboning in reinforced concrete (Ahmed Aseem & Alex Ching Tai Ng - University of Adelaide) Speaker: A/Prof Alex Ng and Ahmed Aseem, University of Adelaide		
	Sensitivity-Based Model Updating of Cable-Stayed Bridges Considering Monitoring Data Variability (Thomas Sharry, Prof Hong Guan, Dr Andy Nguyen, A/Prof Erwin Oh, A/Prof Nam Hoang - Griffith University) Speaker: Prof Guan Hong and Thomas Sharry, Griffith University	9:40-10:10	Dr Govinda Pandey: Structural Health Monitoring in the era of IoT and AI Rockfield Technologies Australia
	Applications of Non-destructive Damage Evaluation and Structural Health Monitoring in Railway Track Maintenance (Ralph Zhang, Dr Helen Wu and Prof Richard Yang - WSU) Speaker: Prof Richard Yang, Western Sydney University		
	Drive-by bridge modal parameter identification for structural health monitoring (Jiantao Li, Xinqun Zhu- UTS, Siu-seong Law, Bijan Samali - WSU) Speaker: A/Prof Xinqun Zhu, University of Technology Sydney	10:10-10:40	Group discussion #1 in 3 break rooms theme room 1: Industry 4.0 hosted by Prof. Tuan Ngo theme room 2: Digital twin hosted by Dr Ali Hadigheh theme room 3: IoT hosted by Dr Govinda Pandey
10:50-11:20	Break	10:40-11:10	Break
11:20-13:00	Session 2: Data-driven and Learning-assisted SHM (15+5 mins per presentation) Session Chair: Prof Hong Guan (Griffith University)	11:10-11:40	Panel discussions #1 Facilitator: John Vazey (EngAnalysis) Panellists: Prof. Tommy Chan (QUT), Govinda Pandey (Rockfield), Peter Runcie (Natirar Consulting Services), Yew Chin Koay (MTIA)
	Emerging Trends in Digital Twinning of Civil Infrastructure Assets (Dr. Maria Rashidi & Prof. Bijan Samali - UWS) Speaker: Prof Bijan Samali & Dr Maria Rashidi, Western Sydney University	11:40-12:30	AGM
	Smart Automated Fault Detection for Improved Asset Management Planning (Mr Jacob Brisolin and Dr Andy Nguyen, USQ) Speaker: Mr Jacob Brisolin and Dr Andy Nguyen, University of Southern Queensland		
	Deep Learning-Assisted Structural Health Monitoring of Civil Engineering Structures (Jun Li, Hong Hao, Ling Li, Senjian An, Ruhua Wang, Gao Fan, Yanda Shao - Curtin University) Speaker: A/Prof Jun Li, Curtin University		
	1. Intelligent Leakage Detection in Water Pipe Networks using Digital Twin (Dr Mojtaba Mahmoodian and Prof Sujeewa Setunge - RMIT, Mr Kuthur Sriram - Bentley Systems) Speaker: Dr Mojtaba Mahmoodian, RMIT 2. Exploring Visual Patterns for Monitoring Quality of Buildings Constructed by 3D Printing (Dr Jianhu Shen and Dr Lei Hou - RMIT) Speaker: Dr Jianhu Shen and Dr Lei Hou, RMIT		
	Learning Assisted Condition Assessments of Utility Poles (Prof Jianchun Li- UTS, Dr Yang Yu-UWS, Dr Ulrike Dackermann-UNSW) Speaker: Prof Jianchun Li, University of Technology Sydney	12:30-13:20	lunch break
13:00-13:10	Group Photos	13:20-13:40	Prof. Tommy Chan and Mr Isaac Scot : Effective Assessment of Residual Fatigue Life of Historic Steel Bridges Queensland University of Technology and Brisbane City Council
13:10-13:50	Break		
13:50-14:50	Panel discussion Facilitator: Prof Bijan Samali (Western Sydney University) Panellist: A/Prof Colin Caprani (Monash University), Prof Sujeewa Setunge (RMIT), Prof Tuan Ngo (The University of Melbourne), Dr Chen Cai (Data61)	13:40-14:00	A/Prof. Colin Caprani: Practical challenges of AI/ML in SHM Monash University
14:50-15:00	Break		
15:00-17:00	Advisory Board Meeting (ABM) Only for ANSHM Advisory Board/Executive Committee Members, to whom the corresponding Zoom Link has been provided by the Calendar invitation.	14:00-14:30	John Vazey: How to specify a structural health monitoring project to manage risk EngAnalysis Pty Ltd
		14:30-15:00	Group discussion #2 in 3 break rooms theme room 1: Cost effective decision making hosted by Prof. Tommy Chan theme room 2: AI technologies hosted by A/Prof. Colin Caprani theme room 3: Vol (Value of Information) hosted by John Vazey
		15:00-15:30	break
		15:30-16:00	Panel discussions #2 Facilitator: Govinda Pandey (Rockfield Technologies Australia) Panellists: Prof. Brian Uy (Usyd), John Vazey (EngAnalysis), Torill M Pape (TMR), Peter Prasad (ARTC), Isaac Scot (Brisbane City Council)
		16:00-16:10	Closing