

The 12th ANSHM Workshop Recordings (with Youtube Links)

Time	Monday, 7 December 2020	Tuesday, 8 December 2020
9:00-9:10am	<u>Opening</u> (https://www.youtube.com/watch?v=7IFan8Shg8g)	
9:10 - 10:30 am	Session 1: Bridge Structural Health Monitoring (Session Chair: Prof Jianchun Li) 1. <u>"Structural Health Monitoring of Buildings and Bridges – Research at QUT: From Theory to Application and Implementation – Part I" – Prof Tommy H.T. Chan & Prof David P. Thambiratnam & Dr Khac-Duy Nguyen, etc., Queensland University of Technology (QUT)</u> (https://www.youtube.com/watch?v=10tsZs261jo) 2. <u>"Structural Health Monitoring of Buildings and Bridges – Research at QUT: From Theory to Application and Implementation – Part II" – Prof Tommy H.T. Chan & Prof David P. Thambiratnam & Dr Khac-Duy Nguyen, etc., Queensland University of Technology (QUT)</u> (https://www.youtube.com/watch?v=kBs5DAG1yeo) 3. <u>"Assessing the performance of alkali silica reaction (ASR) affected structures: modelling and monitoring" – Prof Jianchun Li, University of Technology Sydney</u> (https://www.youtube.com/watch?v=aEok8G2zo2g)	Session 3: Non-destructive Techniques (Session Chair: Prof Tuan Ngo) 1. <u>"Vision-based automated crack detection using convolutional neural networks for condition assessment of infrastructure" – Prof Tuan Ngo & Dr Tuan Nguyen University of Melbourne</u> (https://www.youtube.com/watch?v=otQjcBvD9kE) 2. <u>"The Use of Electron Migration Media as Moisture Sensor for Building Structure Health Monitoring" – Kenneth PAK C.W & Professor Jie Li, RMIT</u> (https://www.youtube.com/watch?v=14ibUKjnGJo) 3. <u>"Creation of a digital twin for intelligent maintenance of port infrastructure" – Dr Mojtaba Mahmoodian & Prof Sujeeva Setunge & Prof Kevin Zhang, RMIT; Dr Said Mazaheri, Beta International Associates</u> (https://www.youtube.com/watch?v=zhdMuDY4YUk) 4. <u>"A Structural Health Monitoring System for the Sir Leo Hielscher Bridge" – Ben Itzstein & Nguyen Lu Dang Khoa & Filippo Ammazalorso & Huy Pham & Raghav Chalapathy & Dilusha Weeraddana & Chen Cai, CSIRO; Dr Mehrisadat Makki Alamdari, UNSW</u>



	4. <u>"Autonomous underwater robot for bridge pile cleaning and condition assessment"</u> – Dr Andrew To, Centre for Autonomous Systems, University of Technology Sydney (https://www.youtube.com/watch?v=GEkDuOHCsOE)		
10:30 - 11:00am	Break		Break
11:00 - 12:20pm	Session 2: Data-driven Structural Health Monitoring (Session Chair: Prof Tommy Chan)	11:00 - 11:40am	Annual General Meeting (AGM)
	1. <i>"Image-based 3D Vibration Measurement for Structural Health Monitoring"</i> – Prof Hong Hao, Curtin Uni	11:40 - 12:20pm	Session 4: Big Data Analytics for Structural Health Monitoring (Session Chair: Prof Hong Guan)
	2. <u>"AI-Assisted Structural Health Monitoring"</u> – A/Prof Jun Li & Prof Hong Hao & Ruhua Wang & Gao Fan & Ling Li & Senjian An & Wanquan Liu, Curtin Uni (https://www.youtube.com/watch?v=KinevK0zfSg)		1. <u>"Finite Element Model Updating of a Cable-Stayed Bridge Using Structural Health Monitoring Data"</u> – Thomas Sharry & Hong Guan & Erwin Oh, Griffith University; Hoang Nam, Ho Chi Minh City University of Technology; Andy Nguyen, University of Southern Queensland (https://www.youtube.com/watch?v=z4sodPBESf0)
	3. <i>"Visual-based structural health monitoring of bridge structures"</i> – Dr Ali Hadigheh & Prof Brian Uy & Prof Wije Ariyaratne, The University of Sydney		2. <u>"Evaluation of Cross Laminated Timber Panels Non-destructively: Experimental and Numerical Study"</u> – Adam Faircloth, Salisbury Research Facility Qld; Loic Brancheriau, CIRAD France; Hassan Karampour & Stephen So, Griffith University; Henri Bailleres, Hyne Timbers & Son Qld; Chandan Kumar, Salisbury Research Facility Qld (https://www.youtube.com/watch?v=rKp)
	4. <i>"Investigation of effectiveness of crack detection using noncontact measurements and deep learning techniques"</i> – Dr Andy Nguyen & R.R. Chianese & Thiru Aravinthan & Allan Manalo, University of Southern Queensland; V.R. Gharehbaghi, Kharazmi University; Mohammad Noori, California Polytechnic State University		



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12:20 - 12:30p m	Group Photos	Break	
12:30 - 1:20p m	Break		



1:20- 2:40pm	Industry Workshop: Structural Health Monitoring Practices (Facilitated by John Vazey) 1. Opening Speech (John Vazey, EngAnalysis) 2. <i>"Corrosion Monitoring on Concrete Structures - New and Old"</i> – William Ward, PCTE (https://www.youtube.com/watch?v=KxQNG0kznSs) 3. <i>"Iris CM™ from RDI Technologies Opens Up the World of Motion Amplification to Structural Health Monitoring"</i> –Andrew Gale, Optical Motion Technologies (https://www.youtube.com/watch?v=SfsKcY7_QMY)	
2:40- 3:00pm	Break	Break
3:00- 5:00pm	Advisory Board Meeting (ABM)	3:00 - 4:30pm Industry Forum (Facilitated by A/Prof Colin Caprani & Govinda Pandey & John Vazey) <u>Open Speech</u> (https://www.youtube.com/watch?v=OTAEjMdAwGk) Special presentations before the forum discussion 1. <i>"What is the value of SHM?"</i> – A/Prof Colin Caprani & Dr Shaohua Zhang & M. Shihab Khan, Monash University (https://www.youtube.com/watch?v=4_t1lHi6xml) 2. <i>"InfraTech: SHM and Beyond?"</i> – Govinda Pandey, Rockfield (https://www.youtube.com/watch?v=Fgo)



12th ANSHM Workshop Recordings

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		3.	“FiBridge: Digital asset management enabled by low-cost fiber-optic sensing and advanced analytics” – Dr Ajay Raghavan, Xerox; Dusan Stojkovic, VicTrack (https://www.youtube.com/watch?v=4blcgTn971E)
		4:30- 4:40p m	Closing (https://www.youtube.com/watch?v=G13pJB1om0I)