EASEC-17 General Program

Time	27/6/2022
	Opening Ceremony
zoom details	https://nus-sg.zoom.us/j/81004152713?pwd=Y1A1SnFsYXpLRHBPNjZzRTRkZlJDUT09
	meeting ID: 886 8327 6911; password: Easec17
	Opening Address by EASEC ISC chair
1810-1820	**Opening Address by Local Organizer Committee chair**
1820-1830	**Award Presentation - Nishio Medal and Prize, EASEC Young Researcher Award**
	Master of Ceremony: Guoqing GENG
1830-1915	**"Metal additive manufacturing in construction: Developments and opportunities" - Prof. Leroy Gardner, Imperial College London**
1915-2000	**"Title TBC" - Prof. Pietro Lura, ETH Zurich**
	Session Co-chairs: Tamon UEDA and Chien Ming WANG

Time	28/6/2022
	Keynote Session
zoom details	https://nus-sg.zoom.us/j/81004152713?pwd=Y1A1SnFsYXpLRHBPNjZzRTRkZlJDUT09
	meeting ID: 886 8327 6911; password: Easec17
1100-1145	**"Graphene Origami Enabled Metamaterial Structures" - Prof. Jie YANG, RMIT University**
1145-1230	**"Towards a resilient and abundant urban bay under climate change through adaptation and mitigation measures linked with ecosystem services" - Prof. Jun Sasaki, University of Tokyo**
	Session Co-chairs: Sritawat KITIPORNCHAI and Paul H.F. LAM
1230-1330	Lunch

1330-1530	**Symposium 1: Sustainable Binding Materials**	**Symposium 2A: Seismic Resilient Structures**	**Symposium 4: Smart Construction & Management**	**Parallel session A: Advanced Transportation Insfrastructure and System**	**Parallel session B: Composite Materials and Structures**
	Chairs: Guoqing GENG and Jiaqi LI	**Chairs: Songye ZHU and Bin WANG**	**Chairs: Justin Ker-Wei YEOH and Qian WANG**	**Chairs: Lihai ZHANG and Yuanfeng DUAN**	**Chairs: Johnny HO and Binglin LAI**
zoom details	https://nus-sg.zoom.us/j/88413807610?pwd=NWNyZTNuUDVzeENnWmlEcjl4NGw3UT09	https://nus-sg.zoom.us/j/88678900196?pwd=Und1WUxFdVZXdWZGdHFZK1B0L2dWZz09	https://nus-sg.zoom.us/j/87352012480?pwd=UXpPTFVIYmQya29uaFpMRWR3MzJuQT09	https://nus-sg.zoom.us/j/88226701942?pwd=Z2Z3R0xIN0FFMis0MHJPYlcwdThuQT09	https://nus-sg.zoom.us/j/84657799662?pwd=VU5UYjZUNFdmMlJxNm05ZkFQamhEUT09
	meeting ID: 884 1380 7610 password: Easec17	meeting ID: 886 7890 0196 password: Easec17	meeting ID: 873 5201 2480 password: Easec17	meeting ID: 882 2670 1942 password: Easec17	meeting ID: 846 5779 9662 password: Easec17
	Low-carbon Concrete Made with Waste Glass as SCM for Cement Replacement - *Zhiyu Luo, Hongjian Du*	Development of Energy Dissipation Walls with Oil Dampers and Totally Reinforced Support Members Using Pre-Stress - *R. Sakamoto, K. Matsuda, S. Hanai*	Potential Application of Smart Contracts in the Indonesian Construction Industry - *Kartika Wulandary, Kriengsak Panuwatwanich, Michael Ward Henry*	Application of ai-based deformation extract function from a road surface video to a road pavement condition assessment system - *Hisao Emoto, Miori Numata, Atsuki Shiga*	Numerical Simulation and Data-Driven Analysis on the Biaxial Behavior of High Strength Steel Reinforced Concrete Composite Columns - *Bing-Lin Lai, Jia-Hui Zhao, J. Y. Richard Liew, Wei-Kai Tan*
	Study of Methods for Improving Strength and Durability of Low-Quality Recycled Aggregate Concrete - *R. Yuya, N. Matsuda, M. Kojima, T. Iyoda*	Comparative Numerical Study on Efficiency of Various Energy Dissipating Devices used in Hybrid Post-Tensioned Shear Wall - *Shubham Tiwari, S.R. Dash, G. Mondal*	Construction Process Simulation Facing Digital Twin - *Miaosi Dong, Bin Yang, Shanshan Jiang, Boda Liu*	Bridge roughness identification using response of a moving two-axle vehicle - *Z.L. Wang, B.Q. Wang, Y.B. Yang*	Experimental study on the uni-axial behaviour of MSCFST columns considering concrete's wet packing density - *J.H. Mo,M.R. Zeng, S.J. Yang, J.C.M. Ho, M.H. Lai*
	A Study on Strength and Durability of Mortar Using Low-Quality Recycled Fine Aggregate with Accelerated Carbonation - *Y. Inoue, N. Matsuda, Y. Nishioka, T. Iyoda*	Three-dimensional FEM simulation of hysteretic performance of traditional Chinese dou-gong connections - *Xiaogang Zhang, Xiaobin Song, Jingliang Dong*	Establishment and application of multi-agent simulation system based on on-site construction performers - *B.D. Liu, B. Yang, Yilong Han, J.Z. Xiao, M.S. Dong*	Influence of environmental changes in signal energy based damage identification in bridges under traffic load - *Riya Catherine GEORGE*	Load-carrying capacity of CFST columns: Current design rules assessment - *X.L. Ou, J.C.M. Ho, M.H. Lai*
	Experimental Study to Improve Performance of Two-Stage Concrete without Injection Focusing on the Interfacial Transition Zone - *Karen Midori Masunaga,Tomoki Nagoya,Takeshi Iyoda*	Structural control using tuned Fluid Viscous Dampers (tFVD) for Performance Based Seismic Design - *Arun Puthanpurayil, Rob Jury, David Wood, Weng Yuen Kam*	Dynamic Neural Network for Structural Model Updating in Bridge Construction Process - *Z.Y. Tang, T. Yin, G.D. Han*	FACTORS AFFECTING THE DETERIORATION OF BITUMINOUS PAVEMENTS IN KHYBER PAKHTUNKHWA PROVINCE, PAKISTAN - Azam Amir,Michael Henry	Experimental study on the behaviour of CFST columns with steel slag concrete under axial compression - *Y.H. Lin, Y.Y. Jin, J.C.M. Ho, M.H. Lai*
	Application of granite fines to substitute sand in Concrete production - *Shunzhi Qian, Kang Hai Tan, Ziyang Li, Namyo Salim Lim, Lu Jinping, Wong Sook Fun*	Seismic behavior of high-rise modular steel constructions with various module layouts - Fengwei Shi,Yang Ding,Liang Zong	Digital Fabrication for DfMA of a Prefabricated Bridge Pier - *TK. Kim, DC. Nguyen, CS. Shim*	Assessing the sustainability characteristics of modified asphalt concrete - *Grace Muna,M. Henry*	Experimental study on the post-fracture property of laminated glass - *Zhifei CHEN; Suwen CHEN; Xing CHEN*
	Carbonation of Granite-dust Concrete in Tropical Environment - *Ni Zhen, Xudong Qian*	Research on Seismic Behavior of CFT-Frame-Buckling Restrained Steel Plate Shear Wall Structures Using Recycled Aggregate Concrete - *Amer Mohammed,Yansheng Du,Zhihua Chen,Jin Huang*	Study on the open data system for infrastructure maintenance and management - *Junha Hwang, Kei Kawamura, Shuji Sawamura*	Incremental dynamic analysis on a bridge with varying-friction functional bearing - *Li-Wei Liu, Kuang-Yen Liu, Tsai-Ling Tsai*	Study on Mechanism of Pore Modification by Polymer Particles - *R. Yahiro, T. Kanda, K. Nishimura, T. Iyoda*
	Effects of Various Ions in Seawater on Chloride Ion Behavior in Mortar using Ground Granulated Blast-Furnace Slag - *Takuma Nakada, Yuko Ogawa, Kenji Kawai, Riya Catherine George*	Seismic Response Mitigation of Atrium Buildings with Truss-IMD System - *Siyuan Li, Yung-Tsang Chen*	Road Development Risks and Challenges in the Philippines - Kenneth Edward Torrella Fernando , Michael Henry	Investigation on recycling application of waste rubber tyres in concrete - *Shengtian Zhai, Yunsheng Zhang, Laibao Liu*	BEHAVIOUR OF BAMBOO SCRIMBER BEAM-COLUMN JOINTS WITH BOLTED STEEL ANGLES AND T-STUBS - *Jun Xiong, Shurong Zhou, Shao-Bo Kang*
					Service load level of mortise-tenon joints in Chinese traditional timber structures - *Y Zhang, X.B Song*
1530-1545	Break				

Time	Keynote Session				
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1545-1630	"Multi-scale Digital Twin Driven Research Efforts Toward Resilient and Sustainable Smart Cities" - Prof. Shang-Hsien (Patrick) Hsieh, National Taiwan University				
	Session Chair: Ser-Tong QUEK				
1630-1645	Break				
1645-1845	**Parallel session C: Advanced and Sustainable Concrete Materials**	**Symposium 2B: Seismic Resilient Structures**	**Symposium 3: The Resilience of Steel and Composite Structures**	**Symposium 6: Resilient Infrastructural Solutions**	**Symposium 5: Teaching and Learning During and After Pandemic**
	Chairs: Guoqing GENG and Jiaqi LI	**Chairs: Ying ZHOU and Bin WANG**	**Chairs: Liuyang FENG and Xiaowei LIAO**	**Chairs: Dongming ZHANG and Xiaogang HE**	**Chairs: Hongjian DU and Sze Dai PANG**
zoom details	https://nus-sg.zoom.us/j/88413807610?pwd=NWNyZTNuUDVzeENnWmlEcjl4NGw3UT09	https://nus-sg.zoom.us/j/88678900196?pwd=Und1WUxFdVZXdWZGdHFZK1B0L2dWZz09	https://nus-sg.zoom.us/j/87352012480?pwd=UXpPTFVIYmQya29uaFpMRWR3MzJuQT09	https://nus-sg.zoom.us/j/88226701942?pwd=Z2Z3R0xIN0FFMis0MHJPYlcwdThuQT09	https://nus-sg.zoom.us/j/84657799662?pwd=VU5UYjZUNFdmMlJxNm05ZkFQamhEUT09
	meeting ID: 884 1380 7610 password: Easec17	meeting ID: 886 7890 0196 password: Easec17	meeting ID: 873 5201 2480 password: Easec17	meeting ID: 882 2670 1942 password: Easec17	meeting ID: 846 5779 9662 password: Easec17
	DEF Expansion Behavior of Hardened Cement Using Fine Aggregate generated by Blast Furnace Air Cooling Slag - *Y.Ohashi, T.Iyoda*	Seismic Performance of Isolated Liquid Storage Tanks Supplemented with Negative Stiffness and Inerter Based Dampers - *Naqeeb Ul Islam, R.S. Jangid*	Axial Behavior of High-Strength Rectangular Concrete-Filled Steel Tube Long Columns - *Zhichao Lai,Jie Yan,Dong Li*	Analysis of the Clearance Time of Roadblock Events Caused by Geohazards in Bhutan - *Dhan Raj Chhetri, Michael Henry*	Preliminary Implementation of Adaptive Learning for Teaching Structural Systems to Non-Engineering Students - *Xinping Hu, Yang Miang Goh, Alexander Lin, Qizhang Liu*
	Development of an eco-friendly ultra-high performance concrete based on waste frozen basalt aggregates from Tibetan plateau - *Q. Luo, G.Q. Geng, T. Qin, P.F. Liu, B.N. Zhang, F.Y. Yuan, B. Chen*	Experimental study on seismic behavior of liquid storage tanks subjected to vertical earthquakes - *Jieying Wu, Q. Q. Yu, X. L. Gu*	Tests on low cycle fatigue behavior of a stainless-clad bimetallic steel - *Xiaowei Liao, Liuyang Feng, Huiyong Ban*	Research on cumulative plastic deformation of the soft clay under cyclic loading - *Xubing Xu, Zhendong Cui, Yonglai Zheng*	Scenario-based Student Generated Questions for Active Learning and Authentic Assessments – Results from Implementation Across Two Modules - *Mavian Xin Yi Tay, Stephen En Rong Tay*
	Sustainable Engineering Cementitious Composites (ECC) with granite fine as fine filler - *Ziyang Li, Bing Lu, Kang Hai Tan, Shunzhi Qian*	Hybrid Test of Viscoelastically Damped Frame Structures under Different Seismic Waves - *Yao-Rong Dong, Zhao-Dong Xu, Ying-Qing Guo, Qiang-Qiang Li*	On the Accurate Strain Measurement in Spilt Hopkinson Tensile Bar Tests - *Cheng Chen, Xudong Qian*	Investigation of the performance of a bioinspired two-fold blades wind turbine with airfoil blade sections by using Qblade - *Yung Jeh Chu, Heung-Fai LAM, Hua-Yi PENG*	Reflections and Results From an Interdisciplinary Module Spanning Three Disciplines for Sustainable Built Environments - *Nyuk Hien Wong, Stephen En Rong Tay*
	Prediction on the lubrication layer of pumped concrete based on flow induced particle migration - *X.X. Xie, L.H. Zhang , X.M. Liu*	Development of Oil -Damper Energy Dissipation Wall with Totally Reinforced Support Members by Using Pre-Stress ~Mechanical Behavior of The Dissipation Wall Using LVL Braces~ - *R. Sakamoto, K. Kazuhiro ,S Hanai*	A New Design Guide for Fire Resistance of High-Strength Composite Beam-Columns - *Shan Li, J.Y.Richard Liew*	POSITIONING ACCURACY COMPARISON OF RTK RECEIVERS USED FOR DISASTER INVESTIGATION - *Toru YAMANO, Kai KIRIYAMA, Osamu OKAMOTO, Kei KAWAMURA*	SafeSim Design: A Digital Game-Based Learning Approach to Address Design for Safety (DfS) Competency - *Sufiana Safiena, Juliana Tay, Yang Miang Goh, Michelle Lim*
	Effect of Interfacial Transition Zone on Mass Transfer Properties using Low-Quality Recycled Aggregate Concrete - Nobuhiro Matsuda, T. Iyoda	Seismic Behavior of an alternative Gusset Plate Connection in a Sandwiched Buckling Restrained Brace of a Steel Two-story X_BRBF - *PHAM DINH HAI*	Experimental study on a novel sandwich panel under repeated impact loads - *Wei Zhang, Zhenyu Huang*	Corrosive Behavior of Structural Steel and Hot Dipped Galvanized Steel in the Central Part of Thailand by Atmospheric Exposure Test - *Bunya Chea , Taweep Chaisomphob , Takashi Matsumoto*	Identification of Critical Factors Influencing Students' Engagement and Satisfaction of Online Live Learning in Higher Education - *Lei Zhu, Lina Zhang, Guifeng Zhu*
	Carbonation resistance of Portland blast furnace slag cement type B concrete internally cured by using roof-tile waste aggregate - *Yusuke Inoue, Yuko Ogawa, Kenji Kawai, Riya Catherine George*	Seismic retrofit and resilience design as key sustainability strategies in earthquake regions - *Weng Yuen Kam*	Adaptive Fatigue Assessment of Welded Plate Joints Based on Crack Measurements - *Liuyang Feng, Xudong Qian*		Evolution of Experiential Learning Before and During the COVID-19 Pandemic - *Paul Ong*
	Strength Characteristics of Blast-Furnace Cement Mortar with Silicate-Type Surface Penetrants - *Futagami Kei, Kondo Takuya, Yokoi Katsunori*	Free and forced vibration characteristics of functionally graded sandwich beam with GPL-reinforced porous core - *Tran Quang Hung, Do Minh Duc, Tran Minh Tu*	Compressive Behaviour of Circular Concrete Axially Loaded CFDST Stub Columns - *Xi-Feng Yan*		Online Laboratory Class for Structural Concrete Design - *Hongjian Du*

Time	29/6/2022				
	Keynote Session				
zoom details	https://nus-sg.zoom.us/j/81004152713?pwd=Y1A1SnFsYXpLRHBPNjZzRTRkZlJDUT09				
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1100-1145	"Digital-based Technology for Smart Constructions" - Dr. Sung-min CHO, South Korea government R&D project for smart constructions				
1145-1230	"Research advances on geopolymer-based ultra-high performance concrete against blasts" - Porf. Chengqing Wu, University of Technology Sydney				
	Session Co-chairs: Leong Hien POH and Justin K.W. YEOH				
1230-1330	Lunch				
1330-1530	**Symposium 7A: High Performance Materials and Structures**	**Symposium 9: Structural Health Monitoring and Sensor Technologies for Civil Infrastructure**	**Symposium 11: Advanced Cementitious Composite and Applications in Protective Technology**	**Symposium 13: Advances in Design and Intelligent Optimization of Large-Span Bridge**	**Symposium 12 A: Mechanics of Materials and Structures with Generalized Continua: Flexible Structures, Composite Materials, Optimizations, and Applications**

	Chairs: Jiabao YAN and Yanbo WANG	**Chairs: Kevin KUANG and Dan LI**	**Chairs: Leong Hien POH and Rui ZHONG**	**Chairs: Hongyou CAO and Wenming ZHANG**	**Chairs: Pruettha NANAKORN and Duy VO**
zoom details	https://nus-sg.zoom.us/j/88413807610?pwd=NWNyZTNuUDVzeENnWmlEcjl4NGw3UT09	https://nus-sg.zoom.us/j/88678900196?pwd=Und1WUxFdVZXdWZGdHFZK1B0L2dWZz09	https://nus-sg.zoom.us/j/87352012480?pwd=UXpPTFVlYmQya29uaFpMRWR3MzJuQT09	https://nus-sg.zoom.us/j/88226701942?pwd=Z2Z3R0xIN0FFMis0MHJPYlcwdThuQT09	https://nus-sg.zoom.us/j/84657799662?pwd=VU5UYjZUNFdmMlJxNm05ZkFQamhEUT09
	meeting ID: 884 1380 7610 password: Easec17	meeting ID: 886 7890 0196 password: Easec17	meeting ID: 873 5201 2480 password: Easec17	meeting ID: 882 2670 1942 password: Easec17	meeting ID: 846 5779 9662 password: Easec17
	Constitutive modeling of structural steels considering the influence of strain history - *Yun Long Zhong,Yan Bo Wang, Guo Qiang Li*	Structural Health Monitoring of Steel-concrete Composite Beams Using Acoustic Emission - *Dan Li, Jia-Hao Nie, Jia-Bao Yan, Chen-Xun Hu, Peng Shen*	FLEXURAL PERFORMANCE OF MILL CUT STEEL FIBER REINFORCED CONCRETE BEAM DEGRADED BY MILD CORROSION - *Khanh Minh Vo, Withit Pansuk, Thi Nguyen Cao, Hai Yen Thi Nguyen*	Dimensionless continuum model of vertical free vibration of spatial self-anchored suspension bridge - *Jianling Zhao,Fan Wang,Xiaoming Wang,Pei Tao,Pengfei Li*	Nonlinear Vibrations of Deepwater Catenary Riser Subjected to Wave Excitation - *Nutwadee Lertchanchaikun, Karun Klaycham, Chainarong Athisakul, Somchai Chucheepsakul*
	Experimental and Theoretical Study on the Shear Performance of Self-tapping Screw Connections of Light Steel-timber Composite Structures - *Anling Zhang,Jiadi Liu,Zhihua Chen,Xiangyuan Niu*	Capture of crack evolution for evaluation of concrete properties using dynamic mode decomposition - *Jixing CAO, Ser-Tong Quek, Yao Zhang*	Structures under Blast Loads from Academic Research into Engineering Applications: Advances and Limitations - *Tin Do, Asher Gehl*	Assembly Tolerance Interval Inversion Method for Cable-stayed Bridge based on Bilayer Surrogate Model - *Fan Wang, Jianling Zhao,Xiaoming Wang,Pengfei Li,Pei Tao*	Effects of High turbulence intensity on Dynamic Characteristics of Membrane Structure in Typhoon - *Dong Li, Yiteng Lin, Hongwei Huang*
	INNOVATION OF UHPC STRUCTURES AND DESIGN METHOD IN BRIDGE STRUCTURES - *Yuqing Hu,Jingquan Wang*	Model Updating with Neural Network based on Component Model Synthesis - *Zihan Cao, Tao Yin*	Experimental investigation on compressive fatigue properties of ultra-high performance concrete containing coarse aggregate - *Lijian Li, Lihua Xu, Yin Chi, Le Huang*	Mechanical Model for Three-tower Self-Anchored Suspension Bridge with Central Buckle - *Shuang Liu, Hongyou Cao, Zhijun Chen, Changyu Shao*	Effects of Discretization Schemes on Free Vibration Analysis of Planar Beam Structures Using Isogeometric Timoshenko-Ehrenfest Beam Formulations - *Duc Van Nguyen, Duy Vo, Pruettha Nanakorn*
	Behavior of circular ultra-high strength concrete-filled steel tube columns under unequal end moments - *Siqi Lin,Yan-Gang Zhao*	Crack assessment of beam using machine learning with augmented sensing - *Jin Ho Hwang, Hyun Woo Park*	Punching Shear Test on Flat Slabs Strengthened by Angle Plates - *Hussein Riyadh Taresh, Mohd Yazmil Md Yatim, Mohd Reza Azmi*	Study on time synchronization method for creating a cable surface image of Cable-Stayed bridge using image processing - *Z.Wei, K. Kawamura, T.Nakamura,M.Shiozaki*	Geometrically Nonlinear Behavior of L-shaped Frames Under Forces Applied at Different Positions - *Nghi Huu Duong, Duy Vo, Pruettha Nanakorn*
	Research on the mechanism of FRP-confined concrete-filled steel tube column using high-strength materials - *Yansheng Du,Yutong Zhang,Dinghui Gao,Mingxuan Fu,Zhihua Chen*	Evaluation of the Application of Unmanned Aerial Vehicle Technology on Damage Inspection of Reinforced Concrete Buildings - *Jiehui Wang, Tamon Ueda*	Strain-hardening fiber reinforced cementitious composites with modified basalt fibers - *Zhiming Pang, Cong Lu, Jianxun Liu*	Analysis of Vehicle-Bridge Interaction Concerning Non-uniform Effect of Bridges - *Judy Yang*	- *W. Wongviboonsin, P.A. Gourgiotis, J. Rungamornrat* Interfacial Displacement Discontinuity in Coated Substrate with Couple-Stress Effects
	Experimental Investigation of Circular Reinforced Concrete Columns Exposed to Elevated Temperatures - *Jia Xu, Riyad Aboutaha*	Predicting the modal frequencies of a cracked beam considering crack modes Ⅰ and Ⅱ - *Taejeong Lim, Hyun Woo Park*	Punching shear performance of steel-UHPC-steel slabs considering composite action - *Z. Wang, J. Yan, Y. Lin, F. Fan*	Dynamic Modal Parameters of an Extremely Lightweight Structure using a Gyroid Core for Bridge Bearings - *Pasakorn Sengsri, S. Kaewunruen*	Mechanical properties of lattice specimens having a triangular pattern with different relative densities - iltthidet Thawon,Pana Suttakul, Thongchai Fongsamootr, Yuttana Mona
	Mechanical model for parallel-to-grain withdrawal failure of self-tapping screw in glulam - *Lijing Fang, Wenjun Qu, Shengdong Zhang*	Deep learning-based Crack Detection and Classification for Concrete Structures Inspection - *Cuong Nguyen kim, Kei Kawamura, Hideaki NaKamura*		Exploring patterns in municipal bridge management issues and their relationship with municipal conditions in Hokkaido, Japan - *Michael Henry*	Analytical Solution for Circular Microbeams with Strain Gradient Elasticity - iZwe Yan Aung, Duy Vo, Toan Minh Le, Jaroon Rungamornrat
1530-1545	Break				
Time	**Keynote Session**				
zoom details	https://nus-sg.zoom.us/j/81004152713?pwd=Y1A1SnFsYXpLRHBPNjZzRTRkZlJDUT09				
	meeting ID: 886 8327 6911; password: Easec17				
1545-1630	**"Carbon Saving in Circular Building Materials" - Prof. Caijun Shi, Hunan University**				
	Session Chair: Hongjian DU				
1630-1645	Break				
1645-1845	**Symposium 7B: High Performance Materials and Structures**	**Symposium 16: Advances in Vibration Mitigation of Long-Span Bridges and High-Rise Structures**	**Symposium 15: Practice of Sustainable Urban Development**	**Symposium 8: Prefabricated Construction and Composite Structures**	**Parallel session E: Structural Integrity Assessment**
	Chairs: Yonghui WANG and Mingxiang XIONG	**Chairs: Lin CHEN and Yongkui WEN**	**Chairs: Kian Hau KONG and Paul Pang Awn ONG**	**Chairs: Zhenyu HUANG and Chao HOU**	**Chairs: Xianjun PEI and Tak-Ming Chan**
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	Behaviors of steel-concrete composite structures at cold-region low temperatures - *Jia-Bao Yan, Jian Xie*	Damping effects of cable dampers on girder vibrations in cable-stayed bridges - *P. Sae-ma, L. Sun, L. Chen, Z. Liu*	Influence Mechanism of Farmers' Sense of Gain in Tourism-oriented Rural Infrastructure Construction and Operation - *Hongtao Jia, Lei Zhu, Jing Du*	Numerical study on out-of-plane mechanical behavior of new type precast shear wall with unspliced vertical distribution bars - *Qiang Fu, Zhiwei Cao, Heng Dong*	Data-Driven Modeling of Multiaxial Fatigue in Frequency Domain - *Xiaokun Zhou, Xiangwei Li, Xianjun Pei, Pingsha Dong*
	Development of Novel Sigma-shaped Self-locking Inter-modular Joints for Robust Modular Steel Buildings - *Kashan Khan, Zhihua Chen, Xingwang Liu, Jia-Bao Yan, Jiadi Liu*	Double-track Nonlinear Energy Sink for Dynamic Response Control in Wind Turbine Tower - *Dong Li, ZhengYu Zhang, Xuhui Zhang*	Understanding Sustainability Practices through Sustainability Reports and Its Impact on Organizational Financial Performance - *Mavian Xin Yi Tay, Stephen En Rong Tay*	Lightweight and Advance Precast Concrete System for Modular Building Construction - *Junxuan WANG, Kian Hau Kong, Richard Jat Yuen Liew*	A Study on Estimation Method of Curing Influence Area for Prediction of Remaining Life on Real Concrete Structures - *Takeshi Iyoda, Aki Sugiyama, Masashi Miyawaki*
	Shear performance of interface between normal concrete and ultra-high performance concrete in cryogenic circumstance - *Yujie Chen, Jian Xie, Ercong Kang*	Multi-Stage Objective Algorithm for Accelerating the Structural Optimization of Tall Building Structure - *Xin Zhao,Gang Wang, Jie Yao*	EARTHQUAKES, REINFORCED CONCRETE STRUCTURES, AND CIRCULAR ECONOMY: A SYSTEMATIC REVIEW OF STUDIES - *Teklewoin Haile Fitwi*	Study of initial imperfection of concrete-filled square steel tube columns for direct analysis - *Zijuan ZHANG, Jiale XING, Yao-Peng LIU, Guochang LI*	Ballastless track support deterioration evaluation using machine learning - *Jessada Sresakoolchai, Ting Li, Sakdirat Kaewunruen*

	Effects of Arctic Low Temperatures and Freeze-thaw Cycles on Mechanical Properties of Ultra-high Performance Concret - *Ercong Kang, Jian Xie, Jiabao Yan, Jing Tang*	Stochastic Optimization of Multiple Tuned Inerter Dampers for Mitigating Seismic Responses of Bridges Isolated with Friction Pendulum Systems - *Yongkui Wen, Bo Hui*	Design Method on Flexural Behaviour of Singly-Reinforced PVA-ECC Beams - *Dan-Dan Wang , Shao-Bo Kang , Xiao-Fan Yu, Kun Liu, Xun-Tian Tan*	Nonlinear coupled thermal-structural analysis of monolithic and precast concrete corbel beam-to-column connection - *Noor Azim Mohd. Radzi, Shanmugam Muniandy, Fadlin Sakina Ismasafie, Roszilah Hamid*	Damage Statistics and Integrity Assessment of Brick Masonry Structures in Historic Buildings - *Haiyang Qin, Yongjing Tang, Jiao He, Zhiwang Gu*
	Compressive Behavior of High Strength Steel Wire-Mesh Reinforced Concrete Filled Steel Tubular Columns - *Fangyuan Gao, Mingxiang Xiong, Fengming Ren*	Optimization of Damped Outriggers for Maximizing Multimode Damping of Long-span Bridges for Vibration Suppression - *Zhanhang Liu, Lin Chen, Limin Sun*	Numerical Analysis of Precast RC Composite Wall under Concentric Axial Loading for Concrete PPVC Building - S.S. Yee,K.H. Kong,R.J.Y Liew	Mechanical Performance of Novel UHPFRC Grouted SHS Tube-Sleeve Connection: Experiments, Numerical Simulation and Analytical Approaches - *Zhenyu HUANG, Weixiong DENG*	Investigation on buckling and low-cycle fatigue performance of high-strength steel bars HTRB600 - *Dianqi Wu, Yang Ding, Junsheng Su, Zhong-Xian Li*
	Axial compression behaviours of concrete-filled square GFRP tube stub columns at arctic low temperatures - *wang zhe*	Optimal Design of Energy-dissipated Substructure with Viscous Damper for High-rise Building - *Daohang Hu,Xin Zhao*	Patterns in the Social Perspectives of Concrete Industry Stakeholders and Their Impact on the Sustainability Evaluation of Concrete - *Ludmila Soares Carneiro, Michael Henry*	Effects of gap arrangement on the compression behavior of square tubed steel reinforced-concrete columns - *Biao Yan, Quanlin Zhou, Dan Gan*	Experimental and Numerical Studies on the Behaviour of Interior Slab-Column Joints Subjected to Eccentric Loading - *Mengzhu Diao, Hong Guan, Huizhong Xue, Yi Li, Xinzheng Lu*
	Shrinkage and crack characteristics of filling materials under restrain stress in prefabricated structure connection - *Dongkyu Lim, Myoungsung Choi, Youngjin Kim*	Design and optimization of viscous damping outrigger vibration reduction for ultra-high structures - *Jie Yao,Xin Zhao*	Research on the Industry Acceptance and Promotion Path of Interim Payment in Civil Engineering Projects - *Lei Zhu, Hui Xiong*	A Modified Beam-to-Column Connection for Steel Modular Structures with Enhanced Repairability - *Jiajia Xu, Xudong Qian, Chengguang Xu, Ran Tao*	A fundamental study on pull-out behaviour of masonry column structures strengthened with bonded anchor - *Daisuke Sasaki, Zice Qin, Hitoshi Moriyama, Masahide Matsumura, Kaname Iwatsubo, Toshitaka Yamao*
Time	**30/6/2022**				
	Keynote Session				
zoom details	https://nus-sg.zoom.us/j/81004152713?pwd=Y1A1SnFsYXpLRHBPNjZzRTRkZlJDUT09				
	meeting ID: 886 8327 6911; password: Easec17				
1100-1145	**"Coupling models for fluid-seabed interactions around marine structures" - Prof. Dong-Sheng JENG, Griffith University**				
1145-1230	**"Effective use of high strength S690 steel in construction and effects on their mechanical properties after welding" - Prof. Kwok-Fai CHUNG, The Hong Kong Polytechnic University**				
	Session Co-chairs: Xudong QIAN and Guoqing GENG				
1230-1330	Lunch				
1330-1530	**Parallel session D: Progressive Collapse and Ultimate Structural Resistance**	**Symposium 10: Bayesian System Identification of Civil Engineering Structures: Development and Application**	**Symposium 17: Intelligent Shield Tunnelling**	**Parallel session F: Engineering Design and Dynamics Structural Response**	**Symposium 12 B: Mechanics of Materials and Structures with Generalized Continua: Flexible Structures, Composite Materials, Optimizations, and Applications**
	Chairs: Kang Hai TAN and Gang SHI	**Chairs: Hua-Yi PENG and Heung Fai LAM**	**Chairs: Jian CHEN and Darren Siau Chen CHIAN**	**Chairs: Pearl Yuzhu LI and Gary Jiarui LEI**	**Chairs: Pruettha NANAKORN and Duy VO**
zoom details	https://nus-sg.zoom.us/j/88413807610?pwd=NWNyZTNuUDVzeENnWmlEcjl4NGw3UT09	https://nus-sg.zoom.us/j/88678900196?pwd=Und1WUxFdVZXdWZGdHFZK1B0L2dWZz09	https://nus-sg.zoom.us/j/87352012480?pwd=UXpPTFVIYmQya29uaFpMRWR3MzJuQT09	https://nus-sg.zoom.us/j/88226701942?pwd=Z2Z3R0xIN0FFMis0MHJPYlcwdThuQT09	https://nus-sg.zoom.us/j/84657799662?pwd=VU5UYjZUNFdmMlJxNm05ZkFQamhEUT09
	meeting ID: 884 1380 7610 password: Easec17	meeting ID: 886 7890 0196 password: Easec17	meeting ID: 873 5201 2480 password: Easec17	meeting ID: 882 2670 1942 password: Easec17	meeting ID: 846 5779 9662 password: Easec17
	Full-scale Experimental Test on 3D Composite Floor Substructures under External Column Removal Scenarios - Luming Ren, Hao Huang, Bo Yang	A robust Bayesian sensor placement scheme with enhanced sparsity and useful information for structural health monitoring - *Mujib Olamide Adeagbo, Heung-Fai Lam*	A Preliminary Review of Digital and Intelligent Cutterhead Management and the Enabling Technologies in Shield Tunnelling - *Ziwei Yin,Gang Li, Hanbin Luo, Zhengjun You*	Studies on the relationship between anchor force of prestressed anchor cable and nonlinear vibration of anchor head - *Hao Li, Hui Cao*	Free Vibration Analysis of Toroidal Shell Segments with Novel Four-Unknown Refined Theory - *Van-Loi Nguyen, Suchart Limkatanyu, Jaroon Rungamornrat*
	Numerical Investigation on Progressive Collapse Resistance of Mountainous Step-Terrace Frame Structures - Shan Wang, Shao Bo Kang, Liang Tan	Improved Vehicle Scanning Method for Bridge Damage Detection - *D.S. Yang, C.M. Wang, W.H. Duan*	Data-driven safety assessment for shield tunnel excavation: Interoperability between parametric modeling and numerical simulation - *Ping Xie,Gang Li, Hanbin Luo, Xiao Yang*	Plate Thickness Distribution Estimation of a Belt Conveyor Support Structure Member Based on Cross-Sectional Vibration Modes Using Machine Learning - *Daichi Ogawa, Yaohua Yang, Tomonori Nagayama, Sou Kato, Kazumasa Hisazumi, Tomonori TominagaDaichi Ogawa, Yaohua Yang, Tomonori Nagayama, Sou Kato, Kazumasa Hisazumi, Tomonori Tominaga*	Linear analysis of planar curved bi-directional functionally graded microbeams using the modified couple stress theory - *Duy Vo, Pana Suttakul, Jaroon Rungamornrat, Pruettha Nanakorn*
	Numerical investigation on collapse-resistant performance of unbonded prestressed RC beam-column sub-assemblages - Licheng Wang, Wenliu Xu, Hongjie Yin	Bayesian structural model updating of a large-span cable-stayed bridge through MCMC-based approach and vibration data - *C. Fang, H.J. Liu, H.F. Lam, M.O. Adeagbo, H.Y. Peng*	A Dynamic Model of Machine Learning and Deep Learning in Shield Tunneling Parameters Prediction - *Ruohan Wang, Guan Chen, Yong Liu*	Design for local buckling behaviour of welded high strength steel I-sections under bending - *S.X.Chen,H.Fang,J.Z.Liu, T.M.Chan*	Data-driven Multi-scale Simulations of Nonlinear Elastic Heterogeneous Materials - *Zhongbo Yuan,POH Leong Hien*
	Enhancing anti-collapse capacity of steel frame with welded connection based on energy dissipation cover-plates - *Bao Meng , Du Qiangqiang, Weihui Zhong*	Multi-view Target-free Video Structural Motion Estimation: a Self-adaptive Co-calibration Model - *Yi Zhang,Enjian Cai*	Development of a Digital Shield Cutterhead Management System - *Ziwei Yin, Hanbin Luo*	Clustering Analysis in Determination of Equivalent Static Wind Load - *Ming-Hui Huang, Yuan-Lung Lo*	Finite element model updating based on neural network ensemble - *Yuxuan He,Tao Yin*
	Numerical Study of Prestressed Concrete Girder-Deck System with Variable Reinforcement and Span-depth Ratios - *Haoran Ni, R.S. Aboutaha*	Application of Bayesian Optimization and Genetic Algorithm to Improve Seismic Performance of RC Frame with Setbacks using BRBs - *Taufiq Ilham Maulana, Zheng Gao, Taiki Saito*	Research Progress and Technical Trend of Self-driving Shield - MinHu, Binglian Wu, Jing Lu	Simulation and simplified method study on seismic collapse of core-outrigger structures - *Yue Liu, Jie Huang, Feifei Sun, Guanyuan Chen*	Numerical simulation for parallel-to-grain withdrawal failure of self-tapping screws in glulam - *Lijing Fang, Wenjun Qu, Shengdong Zhang*
	Effects of modeling methods of RC diaphragm on the behavior of steel staggered truss framing structures - *Zexiang Li, Dan Gan, Xuhong Zhou*	Inverse Identification of Cyclic Constitutive Law of Structural Steels using Multi-objective Bayesian Optimization - *Bach Do, Makoto Ohsaki*	Hybrid model for predicting average cutter wear in TBM excavation - A. Li,G. Ll,C. Wang,W.-L. Liu	FEM Aspects of RC Buildings Modeling and Design - *Viktor Hristovski,Emil Jankulovski*	Steel Braces Optimization Design of Steel Tall Building Based on Sensitivity Analysis of Wind Vibration Stiffness Performance - Yuzhou Hou, Xin Zhao
	FINITE ELEMENT ANALYSIS OF BONDED POST-TENSIONED SLAB-COLUMN CONNECTION WITH SHEAR STUD UNDER LATERAL LOAD - *K. Kingkokgruad, U. Prawatwong*	Void detection of CA mortar layer of the slab track structure utilizing MCMC-based method - *Qin Hu, F. Fang*	Optimal control of operation parameters during EPB shield tunnelling based on artificial neural network model - *Xuejian Chen, Qing Kang, Yong Liu*	Bursting effects in prestressed concrete sleepers at different prestressed levels - *Dan Li, Sakdirat Kaewunruen*	Sensitivity Data Driven Composite Floor Structural Optimization for Tall Office Buildings - *Morn Chornay,Xin Zhao*
Time	**Keynote Session**				
zoom	https://nus-sg.zoom.us/j/81004152713?pwd=Y1A1SnFsYXpLRHBPNjZzRTRkZlJDUT09				

details	meeting ID: 886 8327 6911; password: Easec17
1545-1630	**Awardee Presentation: EASEC-17 Best Young Researcher's Paper Award**
	Session Chair: Leong Hien POH
1630-1645	**Closing Ceremony**
	Master of Ceremony: Guoqing GENG