

15 August 2024, Thursday

Location : Ballroom 1			
Chairperson : Prof Tan Kang Hai			
900	Honorary Session Precast Segmental Bridge Response to BLEVE loading Prof Hao Hong		
930	Tea Break		
Location : Ballroom 1	Location : Spottiswoode		Location : Read
Prof Hao Hong Honorary Session (I)	Session 11_Performance of Structures under fire		Session 14_Structure protection, monitoring and design (I)
Chairpersons : Zhejiang Li and Huawei Li	Chairpersons : Dr Liming Jiang and Prof Mitsuo Ozawa		Chairpersons : Mr Yong Hong Koh and Dr Mingjun Xu
1000	WELCOME BY SESSION ORGANIZERS Wensu Chen, Kaiming Bi, Jun Li QUASI-STATIC AND DYNAMIC TENSILE BEHAVIOUR OF 316L STAINLESS STEEL FABRICATED BY LASER-POWDER BED FUSION (LPBF) Jian Liu	EFFECTS OF CONCRETE SPALLING ON THERMAL-INDUCED COMPRESSION FORCE IN RESTRAINED REINFORCED CONCRETE COLUMNS EXPOSED TO NON-STANDARD FIRE Truong-Thang Nguyen, Tuan-Trung Nguyen, Thi-Nguyet-Hang Nguyen, Viet-Hung Dang, Tuan-Ninh Nguyen, Ngoc-Phuong Nguyen	NONDESTRUCTIVE DETECTION OF POWER CABLES USING ELECTROMAGNETIC SIGNALS Weifeng Yuan, Jiang Xueli
1015	RISK ASSESSMENT OF HYDROGEN LEAKAGE EXPLOSION FOR HYDROGEN REFUELING STATIONS Yanchao Shi, Ziyu Zhong, Zhongxian Li, Jian Cui	THE PERFORMANCE OF CABLE CLAMP SYSTEMS IN SUSPENSION BRIDGES CONSIDERING BOLT FRACTURE UNDER VEHICLE FIRE Rujin Ma, Huseyin Saglik, Airong Chen	IMPACT OF NATURAL HAZARDS ON BUILDINGS: THE CASE OF ROCKFALLS AGAINST MASONRY STRUCTURES Valerio De Biagi, Maddalena Marchelli, Foad Kiakojouri
1030	TOWARDS DYNAMIC DIGITAL TWIN FOR MONOPILE-SUPPORTED OFFSHORE WIND TURBINES Ying Wang, Jun Liang, Yuhao Fu	MODEL FIRE TEST AND SIMILARITY RELATIONSHIP DEVELOPMENT OF RC COLUMNS SUBJECTED TO UNEVEN FIRE EXPOSURE Weian Jiang, Haiyan Zhang, Lijun Yuan	FAILURE BEHAVIOR OF BALL GRID ARRAY PACKAGE IN FIRE SMOKE ENVIRONMENT Qian Li, Mengke Zhao, Jin Lin
1045	VERTICAL VIBRATION MITIGATION OF STRUCTURES USING INCLINED TUNED LIQUID COLUMN DAMPERS Hao Ding, Kaiming Bi, Jian Song, Xiaojun Fang	FIRE EFFECTS AND SAFETY ASSESSMENTS ON THE BRIDGE DECK STRUCTURES OF LARGE-SPAN CABLE-STAYED BRIDGE Yang Li, Changjian Wang, Hongsheng Ma, Zuocai Wang, Yin Zhang	EXPERIMENTAL INVESTIGATION OF HYDROGEN JET FLAME INHIBITION BY NITROGEN JET Xuxu Sun, Jiale Yang
1100	STRUCTURAL MONITORING DATA LOSS RECONSTRUCTION USING UNSUPERVISED NETWORKS Wenhao Zheng, Jun Li, Hong Hao	EXPERIMENTAL INVESTIGATION ON SIZE EFFECT AND SIMILARITY OF RC CIRCULAR COLUMNS EXPOSED TO FIRE Junlin Gong, Ying Wan, Haiyan Zhang	EXPERIMENTAL STUDIES ON THE DYNAMIC RESPONSE OF PRECAST CONCRETE SLABS UNDER BLAST LOAD Shuanzhu Tian, Qiushi Yan, Xiuli Du
1115	IMPROVED SDOF ANALYSIS FOR RC STRUCTURES AGAINST IMPACT LOADING Xihong Zhang, Liuliang Cui, Hong Hao	FIRE BEHAVIOUR OF A FUSIBLE LINK FOR FIRE WALL IN SINGLE-STOREY STEEL STRUCTURES Thi Thuy Mai, Sébastien Durif, Abdelhamid Bouchair, Christophe Renaud, Bin Zhao	MICROWAVE DRYING TREATMENT OF EXCAVATED SOIL: EXPERIMENTS AND ANALYSIS Yan Li
1130	IMPACT MITIGATION PERFORMANCE OF KIRIGAMI CORRUGATED PANELS Zhejiang Li, Qiusong Yang, Xianlong Wen, Yufeng Wen, Hong Hao, Wensu Chen	SCALE EFFECT ON THE FIRE RESISTANCE PERFORMANCE OF MULTILAYER COMPOSITE FLOOR STRUCTURES Jun Hao Gao, Shouxiang Lu	EDGE INTELLIGENCE IN SMART WIRELESS IOT NETWORK FOR RAPID STRUCTURAL DAMAGE DETECTION UNDER EXTREME EVENTS Shuaiwen Cui, Wei, Shen, Hao Fu, Yuguang Fu
1145	NUMERICAL STUDY OF CONCRETE-FILLED STEEL TUBE COLUMNS UNDER CONCURRENT BLAST AND FIRE LOADS Huawei Li, Jiangcan Wu, Wensu Chen, Hong Hao		STUDY ON FIRE CHARACTERISTICS OF INDOOR VEGETABLE INSULATION OIL TRANSFORMER UNDER DIFFERENT LEAKAGE OF INSULATION OIL Xiao Chen, Yongpeng Xie
1200	Lunch		

15 August 2024, Thursday

Location : Spottiswoode			
Student Presentation Competition			
1230	THERMAL MANAGEMENT INSIDE A VIRTUAL STRUCTURAL FIRE RESISTANCE FURNACE USING PID CONTROL METHOD Xu Jie		
	EDGE INTELLIGENCE IN SMART WIRELESS IOT NETWORK FOR RAPID STRUCTURAL DAMAGE DETECTION UNDER EXTREME EVENTS Shuaiwen Cui		
	NUMERICAL PREDICTION OF FIRE RESISTANCE OF CONCRETE-FILLED STEEL TUBULAR (CFST) COLUMNS PROTECTED BY INTUMESCENT FIRE COATING Dravesh Yadav		
	A DIGITAL TWIN SOLUTION FOR CRACK ASSESSMENT IN X-JOINTS UNDER BRACE LOADING Evan Cheok		
	DAMAGE MODES OF H-SECTION STEEL COLUMNS SUBJECTED TO CLOSE-IN EXPLOSIONS Siqi Chen		
	PERFORMANCE EVALUATION OF ALUMINUM FOAM-CLADDED STRUCTURES ACROSS A BROAD BLAST LOAD SPECTRUM: PI DIAGRAMS ANALYSIS Ola Wattad		
Location : Ballroom 1	Location : Spottiswoode		Location : Read
Prof Hao Hong Honorary Session (II)	Session 12_Performance of structures under blast and penetration (I)	Session 15_Structure protection, monitoring and design (II)	
Chairpersons : Chao Li and Gao Fan	Chairpersons : Prof Jun Yu and Dr Choon Keat Ang	Chairpersons : Assoc Prof Chao Hou and Prof Ying Lei	
1330	DYNAMIC BEHAVIOR AND LATERAL IMPACT RESISTANCE OF UHPC-FST MEMBERS Qiang Zhang, <u>Xiaoqiang Yang</u> , Kaiming Bi, Zhichao Lai	EXPERIMENTAL AND NUMERICAL STUDY ON DYNAMIC BEHAVIORS OF PRECAST CONCRETE SLABS UNDER BLAST LOADING <u>Gongqing Chen</u> , Hao Wu, Jinxian Lyu, De Chen	VEHICLE SECURITY BARRIER AS A COUNTER-MEASURE FACILITY AGAINST DELIBERATE AND ACCIDENTAL VEHICLE IMPACT <u>Tat Seng Lok</u> , C.T.Ong Danny, A. Crooks
1345	DATA-DRIVEN PREDICTION OF DIMENSIONLESS QUANTITIES FOR SEMI-INFINITE METAL TARGET PENETRATION BY INTEGRATING MACHINE-LEARNING AND FEATURE SELECTION METHODS Qingqing Chen, <u>Jie Zhang</u> , Zhihua Wang	PARAMETRIC ANALYSIS OF THE RESIDUAL AXIAL LOAD CAPACITY OF WIDE-FLANGE STEEL COLUMNS SUBJECTED TO FAR-FIELD DETONATIONS <u>Jaswanth Gangolu</u> , Hezi Grisaro	APPLICATION OF CO2 MINERALISED CONCRETE TO REDUCE EMBODIED CARBON FOR A SUSTAINABLE BUILT ENVIRONMENT IN SINGAPORE <u>Su Wang</u> , Anne Thymotie, Kwek Shi Ying, Yap Zhen Shyong
1400	POST-BLAST DAMAGE OF CORRODED RC COLUMNS CONSIDERING DYNAMIC BOND-SLIP BETWEEN REBAR AND CONCRETE <u>Yu Liu</u> , Hong Hao, Yifei Hao	EXPERIMENTAL INVESTIGATION ON THE DYNAMIC RESPONSES OF A BOX-SHAPED STRUCTURE UNDER INHOMOGENEOUS HYDROGEN DEFLAGRATIONS: EFFECTS OF VENTILATION AREA AND IGNITION DELAY TIME <u>Hongsheng Ma</u> , Changjian Wang, Yang Li, Jiaqing Zhang	THERMAL MANAGEMENT INSIDE A VIRTUAL STRUCTURAL FIRE RESISTANCE FURNACE USING PID CONTROL METHOD Jie Xu, Yi Zhang, Junhao Gao, Jin Lin, Shouxiang Lu
1415	SEISMIC PERFORMANCE OF A PRECAST BRIDGE PIER WITH DAMAGE CONTROLLABLE AND REPAIRABLE PLASTIC HINGE <u>Chao Li</u> , Yaowei Peng, Yiwei Xiang, Pengyu Yang, Linqi Huang	PERFORMANCE EVALUATION OF ALUMINUM FOAM-CLADDED STRUCTURES ACROSS A BROAD BLAST LOAD SPECTRUM: PI DIAGRAMS ANALYSIS <u>Ola Wattad</u> , Hezi Grisaro	CARBON EMISSION REDUCTION POTENTIAL OF CONCRETE STOCK IN BUILDINGS BASED ON GIS AND LCA: A CASE STUDY IN PEARL RIVER DELTA CITIES, CHINA <u>Zhang Tao</u> , Bo Wu
1430	DEEP LEARNING ENHANCED MULTIVIEW 3D RECONSTRUCTION FOR STRUCTURAL MODELLING <u>Gao Fan</u> , Shihong Chen, Jun Li, Hong Hao	RESIDUAL AXIAL CAPACITY OF GROUTING SLEEVE CONNECTED PRECAST CONCRETE COLUMNS AFTER EXPLOSIONS <u>Jinxian Lyu</u> , Hao Wu, Gongqing Chen, Yuehua Cheng	DISASTERS SUCH AS ROCKFALLS DURING THE NOTO PENINSULA EARTHQUAKE <u>Hiroshi Masuya</u> , Michiaki Yamamoto, Yoichi Nishita, Yusuke Kurihashi
1445		STRUCTURAL INTEGRITY AND FAILURE MODES OF MILD STEEL SANDWICH PANELS SUBJECTED TO UNDERWATER EXPLOSION <u>Prince Jeva Lal Lazar</u> , Anupoju Rajeev	TEMPERATURE ANALYSIS OF OFFSHORE WIND TURBINE SUPPORT TOWER STRUCTURE CONSIDERING THE EFFECT OF WIND FIELD Linren Zhou, <u>Zheng Zewu</u>
1500	Tea Break		

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	Location : Ballroom 1	Location : Spottiswoode	Location : Read
	Prof Hao Hong Honorary Session (III)	Session 13_Performance of structures under blast and penetration (II)	Session 16_Structure protection, monitoring and design (III)
	Chairpersons : Xiaojun Fang and Zhen Peng	Chairpersons : Assoc Prof Paolo Del Linz and Mr Eu Chang Leonard Heng	Chairpersons : Asst Prof Shen Liu and A/P Truong-Thang Nguyen
1530	AN OUT-OF-PLANE VIBRATION DISPLACEMENT MEASUREMENT SYSTEM USING MONOCULAR COMPUTER VISION TECHNIQUES <u>Yanda Shao</u> , Ling Li, Jun Li, Qilin Li, Senjian An, Hong Hao	PEAK DISPLACEMENT OF LARGE STRUCTURES SUBJECTED TO CLOSE-IN EXPLOSIONS <u>Tusshar Goel</u> , Shashank Pathak	TENSILE STRENGTH OF THERMOPLASTIC BFRP RODS SIMULATING BENDING PART UNDER ALKALINE ENVIRONMENT <u>Tosei Morita</u> , Daisin Hanaoka
1545	GRAPH NEURAL NETWORK-BASED RAPID PREDICTION OF THE PENETRATION PROCESS IN RIGID PROJECTILES <u>Beibei Li</u> , Bin Feng, Li Chen	EFFECTS OF HYDROGEN EXPLOSIONS ON VIBRATION AND DEFORMATION BEHAVIORS OF STEEL BOX GIRDER BRIDGES Yang Li, <u>Changjian Wang</u>	IGNITION AND COMBUSTION CHARACTERISTICS OF ROCKET KEROSENE IN OXYGEN-ENRICHED ATMOSPHERES WITH A STUDY ON THE FIRE SPREAD MECHANISM Shouxiang Lu, Haidong Liu, Chaoying Li, Zehua Yang, Wenbin Yao
1600	RESEARCH ON THE MECHANISM AND THEORETICAL MODEL OF GAS EXPLOSION OSCILLATORY LOAD IN LARGE-SCALE ENCLOSED TUBE <u>Chengjun Yue</u> , Li Chen	ENHANCING THE DAMAGE RESISTANCE OF HIGH-STRENGTH CONCRETE UNDER PENETRATION BY AN OPTIMIZED LAYERED-STRUCTURE CONCEPT Yangyueye Cao, <u>Dianyi Song</u> , Yimin Huang	VULNERABILITY ANALYSIS OF FLEXIBLE ROCKFALL BARRIER SYSTEM USING MACHINE LEARNING TECHNIQUES <u>Shiqi Wu</u> , Hu Xu, Linxu Liao, Zhixiang Yu
1615	NOVEL HYDRO-ELASTOPLASTIC DAMAGE CONSTITUTIVE MODEL FOR THE NONLINEAR DYNAMIC BEHAVIOR OF RC BEAMS UNDER CONTACT EXPLOSION <u>Lei Yan</u> , Li Chen	DAMAGE MODES OF H-SECTION STEEL COLUMNS SUBJECTED TO CLOSE-IN EXPLOSIONS <u>Siqi Chen</u> , Weifang Xiao	A MULTIAXIAL LOAD INDUCED THERMAL STRAIN (LITS) MODEL FOR CONCRETE SUBJECTED TO TRIAXIAL COMPRESSIVE LOAD AT ELEVATED TEMPERATURE <u>Hongwei Wang</u> , Liang Li
1630	A MATERIAL POINT-FINITE ELEMENT (MPM-FEM) MODEL WITH A PENALTY-BASED PARTICLE-TO-SURFACE <u>Puchu Xie</u> , Li Chen	INTERIOR PRESSURE DUE TO EXTERIOR BLAST AT BUILDINGS WITH EXTERIOR WALL OPENINGS Ashok Malhotra, <u>Scott McFadden</u> , Babak Mashayekhi	HOW TO USE OPENSEES TO SIMULATE A REAL FIRE TEST ON LARGE-SCALE STEEL-CONCRETE COMPOSITE TRUSS STRUCTURES? Jin Qiu, <u>Liming Jiang</u> , Shaojun Zhu, Guo-qiang Li, Asif Usmani
1645	INTEGRATING 3D VISION AND AUTONOMOUS ROBOTS FOR POST-DISASTER ASSESSMENT OF REINFORCED CONCRETE STRUCTURES <u>Cheng Yuan</u> , Hong Hao, Qingzhao Kong, Wensu Chen	IMPACT FORCE OF EVALUATION FOR FULL-SCALE ROCKFALL PROTECTION NET USING DEM APPLIED TO PLANAR CLUMP MODEL <u>Toshiyuki Horiguchi</u> , Toshinobu Takahashi, Hiroshi Hashiguchi	EXPERIMENTAL STUDY ON THERMAL RUNAWAY PROCESS OF LARGE-FORMAT POUCH LiNi 0.8 Co 0.1 Mn 0.1 O 2 POWER BATTERY UNDER PRELOAD <u>Kaiyu Zou</u> , Zehua Yang, Mengke Zhao, Shouxiang Lu
1700	SEISMIC PERFORMANCE ENHANCEMENT OF SHEAR WALL STRUCTURE USING LEAD VISCOELASTIC COUPLING BEAM <u>Xiaojun Fang</u> , Kaiming Bi, Hong Hao, Yun Zhou	ANALYSIS OF UNDERGROUND STRUCTURES UNDER BLAST LOAD <u>Tin V. DO</u> , Asher GEHL	NUMERICAL STUDY ON THE PERFORATION OF COATED RC PANEL BY HARD PROJECTILES <u>Alagappan Ponnalagu</u> , Roouf Un Nabi Dar
1715	DRIVE-BY METHOD FOR BRIDGE MODE SHAPE IDENTIFICATION WITH DENSE SPATIAL RESOLUTION <u>Zhen Peng</u> , Jun Li, Hong Hao	NORMAL AND UHPFRC BASED STEEL CONCRETE COMPOSITE SLABS AGAINST COMBINED EFFECT OF IMPACT AND BLAST <u>Manish Kumar</u> , Shreya Korde, Prakash Nanthagopalan	"DOMINO" PROGRESSIVE FALL OF LARGE-SPAN SUSPENDED CEILING <u>Duozi Wang</u> , Guanglu Xu, Fengze Li, Rong Zhang
Location : Ballroom 1			
1730	Closing		
1745	End		