

## 15 August 2024, Thursday

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

## 15 August 2024, Thursday

	Prof Hao Hong Honorary Session (II)	Session 12_Performance of structures under blast and penetration (I)	Session 15_Structure protection, monitoring and design (II)
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> , Chan Wai Mun, Anne Thymotie, Kwek Shi Ying, Yap Zhen Shyong
1400	EXPERIMENTAL AND NUMERICAL STUDY OF CONCRETE SLABS RAPIDLY REPAIRED BY G-UHPC CANVAS UNDER CONTACT DETONATIONS  <u>Shenchun Xu</u> , Pengcheng Yuan, Ting Yang, Chengqing Wu	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	POST-BLAST DAMAGE OF CORRODED RC COLUMNS CONSIDERING DYNAMIC BOND-SLIP BETWEEN REBAR AND CONCRETE  <u>Yu Liu</u> , Hong Hao, Yifei Hao	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	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	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	DEEP LEARNING ENHANCED MULTIVIEW 3D RECONSTRUCTION FOR STRUCTURAL MODELLING  <u>Gao Fan</u> , Shihong Chen, Jun Li, Hong Hao	STRUCTURAL INTEGRITY AND FAILURE MODES OF MILD STEEL SANDWICH PANELS SUBJECTED TO UNDERWATER EXPLOSION  <u>Prince Jeva Lal Lazar</u> , Anupuju 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		

## 15 August 2024, Thursday

	Prof Hao Hong Honorary Session (III)	Session 13_Performance of structures under blast and penetration (II)	Session 16_Structure protection, monitoring and design (III)
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, <u>Wenbin Yao</u>
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 PROTECTION BARRIERS USING MACHINE LEARNING TECHNIQUES  <u>Shiqi Wu</u>
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	EASY-TO-USE ANALYTICAL MODEL OF COMPRESSIVE ARCH ACTION OF BI-DIRECTIONAL PRIMARY RC BEAMS IN FRAMED STRUCTURES UNDER DIFFERENT COLUMN REMOVAL SCENARIOS  Yintong Bao, <u>Qiao Meixia</u> , Tan Kang Hai
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>Duozhi Wang</u> , Guanglu Xu, Fengze Li, Rong Zhang
1730	Closing		
1745	End		