ASFE'19 Conference Programme Overview

Reception	12 June 2019 (Wednesday)
	Cosmo (opposite of Nanyang Executive Centre)
18:00 – 21:00	Registration and Welcoming Reception Cocktail

1st Day	13 June 2019 (Thursday)	
7:30 – 8:30	Registration (at TCT LT*)	
8:30 – 8:45	**Opening Ceremony**	
8:45 – 9:35	**Keynote Presentations**	
9:35 – 9:45	Group Photo	
9:45 – 10:05	Tea Break	
	*TCT LT**	*LT4***
10:05 – 12:20	**Parallel Session 1A: Metallic Structures I**	**Parallel Session 1B: Concrete Structures I**
12:20 – 13:05	Lunch	
13:05 – 15:05	**Parallel Session 2A: Composite Structures I**	**Parallel Session 2B: Applications of Structural Fire Engineering**
15:05 – 15:25	Tea Break	
15:25 – 16:40	**Parallel Session 3A: Timber Structures**	**Parallel Session 3B: Concrete Structures II**
17:40 – 20:00	**Conference Banquet^**	

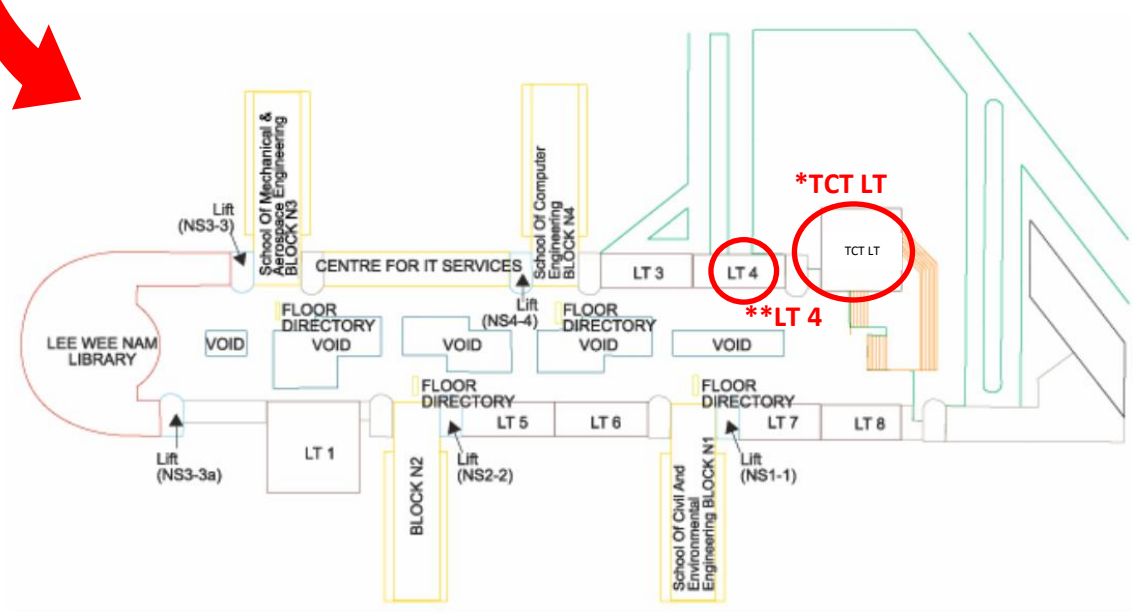
^The coach will depart NTU to the banquet venue at 16:45

2nd Day	14 June 2019 (Friday)	
	Tan Chin Tuan Lecture Theatre	
8:30 – 9:20	**Keynote Presentations**	
9:20 –10:00	Lab Tour	
10:00 – 10:20	Tea Break	
	*TCT LT**	*LT4***
10:20 – 12:20	**Parallel Session 4A: Material in Fire Engineering**	**Parallel Session 4B: Analytical Approaches and Numerical Analyses of Fire Engineering Subjects**
12:20 – 13:05	Lunch	
13:05 – 14:35	**Parallel Session 5A: Metallic Structures II**	**Parallel Session 5B: Concrete Structures III**
14:35 – 14:55	Tea Break	
14:55 – 16:40	**Parallel Session 6A: Composite Structures II**	**Parallel Session 6B: Various Fire Engineering Topics**
16:40-17:20	**Closing Ceremony**	

*TCT LT = Tan Chin Tuan Lecture Theatre
**LT4 = Lecture Theatre 4

Venue Map

Floorplan - NS 2ND LEVEL



Conference Programme

13 June 2019 (Thursday)		
7:30 – 8:30	Registration	
8:30 – 8:45	**Opening Ceremony**	
Keynote Presentations (TCT LT) 8:45 – 9:45	8:45-9:10	Keynote Speech I (Structural fire engineering and the challenge to turn a computer model into a real building) *Florian Block*
	9:10-9:35	Keynote Speech II (Approach for assessment of fire damaged concrete structures) *Venkatesh Kodur*
9:35 – 9.45	Group Photo	
9:45 – 10:05	Tea Break	
Parallel Session 1A: Metallic Structures I (TCT LT) 10:05 – 12:20	10:05 - 10:20	Post-fire properties of high strength steel S900 (P1) *YongHyun Cho, Lip H. Teh, Ben Young*
	10:20 - 10.35	Fire resistance of temporary structures (P2) *Tom Molkens, Barbara Rossi*
	10:35 - 10:50	Simulation of weld fracture in steel connections at elevated temperatures (P3) *Wenyu Cai, Mohammed A. Morovat, Michael D. Engelhardt, Guo-Qiang Li*
	10:50 - 11:05	Test design of progressive collapse resistance of planar steel frames under localized fire (P4) *B. Jiang, Guo-Qiang Li, Michael C.H. Yam, Asif Usmani, Tao-Chun Yang, Yang Zhou*
	11:05 - 11:20	Stainless steel elements in building fire - a numerical study on the fundamentals of thermo-mechanical effects (P5) *Mhd Anwar Orabi, Yao Sun, Asif Usmani, Ou Zhao*
	11:20 - 11.35	Experimental investigation of T-stub assemblies and flush endplate connections at elevated temperature (P6) *Jincheng Zhao, Yandi Li*
	11:35 - 11:50	Ductile connections to improve structural robustness in fire (P7) *Yu Liu, Shan-Shan Huang, Ian Burgess*
	11:50 - 12:05	Full-scale fire tests of steel and plasterboard sheathed LSF walls (P8) *Yomal Dias, Mahen Mahendran, Poologanathan Keerthan*
	12:05 - 12:20	Residual mechanical properties of G550 cold-formed steels after exposure to elevated temperatures (P9) *Ye-Hua Wang, Yuan Qi Li, Venkatesh Kodur, Xue Kuan Fan*
Parallel Session 1B: Concrete Structures I (LT4) 10:05 – 12:20	10:05 - 10:20	Post-fire behaviour of partially precast SRC columns: An Experimental Study (P10) *Yong Yang, Yicong Xue, Yunlong Yu, Shiqiang Feng*

	10:20 -10.35	Effect of confinement on fire behavior of reinforced concrete columns –experimental study (P11) *Hemanth Kumar Chinthapalli, Anil Agarwal*
	10:35-10:50	Effect of polypropylene fibres On the prevention of explosive spalling in ultra high-performance concrete (P12) *Dong Zhang, Kang Hai Tan, Aravind Dasari*
	10:50-11:05	Constitutive model for steel-fibre-reinforced concrete in compression at elevated temperatures (P13) *Shan Li, J.Y. Richard Liew, Binglin Lai*
	11:05-11:20	Reinforced concrete columns exposed to fire - evaluation of the fire resistance under biaxial bending conditions (P14) *D. Peña, V. Albero, A. Hospitalera, C. Ibañez, A. Espinos, M. L. Romero*
	11:20-11.35	Numerical simulation for a Fire Spalling Model based on thermal stress and vapor pressure of High-strength Concrete (P15) *Mitsuo Ozawa, Kentaro Fujimoto, Yusuke Akutsu, Haruka Akasaka*
	11:35-11:50	Corrosion model of reinforced concrete structure after fire (P16) *Fai-ling Mi, Yong-jiang Shen, Zheng-liang XIang , Zi-xian Chen*
	11:50-12:05	Thermal properties of structural foam concrete enhanced by carbon nanofibers (P17) *Su Wang, Kang Hai Tan*
	12:05-12:20	Fire resistance of RC columns with diagonal ties: experimental study (P18) *Hemanth Kumar Chinthapalli, Anil Agarwal*
12:20 – 13:05	Lunch	
Parallel Session 2A: Composite Structures I **(TCT LT)** 13:05 – 15:05	13:05 - 13:20	Composite beam heat-transfer and structural analyses under fire conditions using three-dimensional FE Models (P19) *Akinobu Takada, Tomohito Okazaki*
	13:20 - 13:35	Fire performance of concrete-filled square steel tubular columns with internal profiled steel subjected to two-adjacent-surface fire (P20) *Wen-Jing Mao, Wen Da Wang*
	13:35 - 13:50	Experimental study on high strength concrete encased composite columns subject to fire (P21) *Huikai Zhou, Du Yong, J.Y. Richard Liew*
	13:50 - 14:05	Experimental studies of circular high strength concrete-filled stainless steel tube (HCFSST) stub columns after exposure to fire (P22) *An He, Ou Zhao*

	14:05 - 14:20	Evaluating fire resistance of composite box bridge girders (P23) *Gang Zhang, Venkatesh Kodur, Chaojie Song, Weifa Yao, Qiao Huang*
	14:20 - 14:35	Fire resistance of concrete-encased concrete-filled steel tubular columns under eccentric compression (P24) *Xiang Kai, Yan Chong Pan*
	14:35 - 14:50	Experimental study on structural performance of profiled composite wall at elevated temperature (P25) *Q.X. Le, Jose L. Torero, Vinh T.N. Dao*
	14:50 - 15:05	Analysis of load-carrying process of steel-concrete composite beam based on measured restrained forces under fire (P26) *Da-shan Zhang, Jianchun Zhang, Yuli Dong*
Parallel Session 2B: Applications of Structural Fire Engineering (LT4) 13:05 – 15:05	13:05 - 13:20	Comparison between the behaviour of single storey steel and concrete structures subjected to fire or accidental events (P27) *Tom Molkens, Barbara Rossi*
	13:20 - 13:35	Modeling of reinforced concrete tunnel structure in fire (P28) *B. Choubey, Virendra Kumar, S C Dutta*
	13:35 - 13:50	Progressive collapse behaviour of steel framed structures under spreading multi-compartment fires (P29) *Jian Jiang, Chao Zhang, Guo-Qiang Li*
	13:50 - 14:05	Qualitative evaluation of structure robustness in fire (P30) *Ha Nguyen, Ann E. Jeffers.*
	14:05 - 14:20	Design of RC columns for fire resistance: Revised guidelines (P31) *Shujaat Hussain Buch, Umesh Kumar Sharma*
	14:20 - 14:35	Structural fire engineering practice of modern commercial buildings: a consultant's perspective (P32) *Linus Lim, James O'Neill, Martin Feeney*
	14:35 - 14:50	Structural fire performance of cultural heritage timber structures (P33) *Bronwyn Chorlton, Georgette Harun, John Gales, Panos Kotsovinos*
	14:50 - 15:05	Benchmarking of 3D steel shell element models native to LS-DYNA for structural fire engineering applications (P34) *Egle Rackauskaite, Panagiotis Kotsovinos, Graeme Flint*
15:05 – 15:25	Tea Break	
Parallel Session 3A: Timber Structures I (TCT LT) 15:25 – 16:40	15:25 - 15:40	Studying the resistance to fire of wood building materials using infrared thermography (P35) *D P Kasymov, Agafontsev Mikhail Vladimirovich, Perminov Vladislav Valerievich, Reyno Vladimir Vladimirovich*

	15:40 - 15:55	Performance of post-tensioned timber beam-column connections in fire (P36) *Paul Horne, Anthony K Abu, Alessandro G Palermo, Peter J Moss*
	15:55 - 16:10	Application of Broido-Shafizadeh model to determine char front temperature of wood in non-standard fire (P37) *Robert Pečenko, Tomaž Hozjan*
	16:10 - 16:25	Fire performance of concealed timber connections with varying bolt patterns (P38) *Aba Owusu, Osama (Sam) Salem and George Hadjisophocleous*
	16:25 - 16:40	Effects of charring for prototype composite FRP-Timber Glulam beam (P39) *Abdulrahman Zaben Sohan Roopra, Henri Bailleres, David Lange, Cristian Maluk*
Parallel Session 3B: Concrete Structures II (LT4) 15:25 – 16:40	15:25 - 15:40	Bond behaviour between steel and concrete at elevated temperatures (P40) *Ira Banoth, Anil Agarwal*
	15:40 - 15:55	Residual resistance of cross—shaped steel reinforced concrete columns after high temperature (P41) *Yuzhuo Wang, Ziqing Liu*
	15:55 - 16:10	Experimentally determined stress-strain relationships for normal strength limestone concrete after exposure to high temperatures (P42) *Urška Dolinar, Gregor Trtnik, Tomaž Hozjan*
	16:10 - 16:25	Effects of curing age on spalling behavior under ring-restraint testing of mixture proportions for tunnel-segment concrete during fire (P43) *Yusuke Akutsu, Mitsuo Ozawa, Haruka Akasaka, Yusuke Sugino*
	16:25 - 16:40	Geometry and fraction of polypropylene fibres on permeability of ultra0high performance concrete after heating (P44) *Ye Li, Kang Hai Tan*
17:40 – 20:00	**Conference Banquet**	

14 June 2019 (Friday)		
Keynote Presentations (TCT LT) 8:30 – 9:30	8:30-8:55	Keynote Speech III (Tensile membrane action of composite slabs in fire – Are there any reliable design methods?) *Ian Burgess*
	8:55-9:20	Keynote Speech IV (Main issues on behaviour of intumescent coatings) *Guo-Qiang Li*
9:20 – 10:00	Lab Tour	
10:00 – 10:20	Tea Break	
Parallel Session 4A: Materials in Fire Engineering (TCT LT) 10:20 – 12:20	10:20-10:35	Constitutive models for austenitic stainless steel bolts after fire (P45) *Zhi-Wei Yang, Sheng Lin Tang, Adomako Kumi George, Ying Hu*
	10:35-10:50	High temperature performance of ultra high performance-strain hardening cementitious composites) (P46) *Jin-Cheng Liu, Kang Hai Tan*
	10:50-11:05	Creep properties of Q690 steel at elevated temperatures (P47) *Xin-Xin Wang, Chao Zhang, Guo-Qiang Li*
	11:05-11:20	Reduction factors for clod-formed steel at elevated temperatures (P48) *Liufan Yue, Ying Hu, Sheng-Lin Tang, George Adomako Kumi*
	11:20-11.35	Experimental study on the anti-aging properties of topcoated intumescent coating (P49) *Wang Lingling, Zhang Qianqian, Chen Bowen, Li Guoqiang*
	11:35-11:50	Evaluating the performance of intumescent coatings using cone calorimeter and gas furnace (P50) *Donatella de Silva, Naveed Alam, Antonio Bilotta, Ali Nadjai, Emidio Nigro*
	11:50-12:05	Mechanical properties of artificial and natural stone after exposure to high temperatures (P51) *Antonio Bilotta, Donatella de Silva, Emidio Nigro, Agostino Viglione, Annalisa Pranno, Franco Iacobini*
	12:05-12:20	A parametric study on the influence of residual strength of fly ash geopolymer after exposure to high temperatures (P52) *Li Jie Wang, Wei Ping Zhu, Tian Han Poh, Kang Hai Tan and En Hua Yang*

Parallel Session 4B: Analytical Approaches and Numerical Analyses of Fire Engineering Subjects (LT4) 10:20 – 12:20	10:20-10:35	Comparative evaluation of analysis methods for Probabilistic Structural Fire Engineering (P53) *Emma Johnstone, Charlie Sofe, Mayank Shrivastava, Anthony K Abu & Peter J Moss*
	10:35-10:50	Explorative study into a simplified numerical evaluation of the bending capacity of rebar reinforced steel fibre reinforced concrete beams during fire exposure (P55) *Xiliang Ning, Ruben Van Coile, Luc Taerwe*
	10:50-11:05	Ultimate load-carrying capacity of RC slabs subject to fire (P56) *Duc Toan Pham, Romain Mège*
	11:05-11:20	Behavior of Two-way Concrete Slab with Four Moment Restraint Edges in Fire (P57) *Yu-Li Dong, Yuan-yuan Fang, Da-shan Zhang*
	11:20-11.35	Advanced analysis of single-layer latticed domes subject to localised fire (P58) *Yong Du, Youwen Zhang, J.Y. Richard Liew*
	11:35-11:50	Suspension domes exposed to localised fire (P59) *Wang Shuang, Yong Du*
	11:50-12:05	Numerical analyses of the structural behaviour of steel and FRP reinforced slabs in fire (P60) *Bilotta Antonio, Alberto Compagnone, Laura Esposito, Emidio Nigro*
12:20 – 13:05	Lunch	
Parallel Session 5A: Metallic Structures II (TCT LT) 13:05 – 14:35	13:05-13:20	Study of aluminium glazed partitions stiffness influence on deflection in fire resistance tests (P61) *Bartłomiej Sędłak, Grzegorz Kimbar, Jacek Kinowski, Paweł Sulik*
	13:20-13:35	Fire behaviour of restrained CFS built-up box columns: experimental study (P62) *Jingjie Yang, Weiyong Wang, Yu Shi, Lei Xu*
	13:35-13:50	External steel columns: implications on the development of tensile membrane action (P63) *Panagiotis Kotsovinos, Yavor Panev, Graeme Flint*
	13:50-14:05	Effect of insulations on trapezoidal sheet roof fire resistance based on fire tests (P64) *Paweł Roszkowski*
	14:05-14:20	Shear resistance of sandwich panel connection to the substructure at elevated temperature (P65) *Tesfamariam Arha, Kamila Cábová, František Wald*
	14:20-14:35	Static equilibrium paths of steel corrugated arch-shaped sheets with imperfections specified for simulated fire conditions (P66) *Mariusz Maślak, Michal Pazdanowski, Maciej Suchodol*

Parallel Session 5B: Concrete Structures III (LT4) 13:05 – 14:35	13:05-13:20	Influence of variation of concrete compressive strength on the bending response of a cut-and-cover tunnel structure considering results of small-scale testes at elevated temperatures (P67) *Omid Pouran, Steffen Anders, Reinhard Harte, Ulrich Montag*
	13:20-13:35	Fire resistance of high-rise wall composed of prefabricates RC panels (P68) *Mingguan Yang, Duc Toan Pham, Jácány Bleyer, Patrick de Buhan, Jean-Vivien Heck*
	13:35-13:50	Calibration of Concrete Damaged Plasticity model parameters at high temperatures using three-dimensional model of reinforced concrete flat slab in fire (P69) *Norlizan Wahid, Tim Stratford, Luke Bisby*
	13:50-14:05	Mechanical properties of fibre-reinforced concrete with 120 MPa after Elevated Temperature (P70) *Aoyu Yan, Yong Du*
	14:05-14:20	Behavior of non-silicate based activated blast furnace slag at elevated temperature (P71) *Virendra Kumar, Amit Kumar, B.K. Prasad*
	14:20-14:35	The steel and fibre-reinforced concrete circular hollow column exposed to fire (P72) *Tkalenko Illia, Tretyakov Alexey, Wald František*
14:35 – 14:55	Tea Break	
Parallel Session 6A: Composite Structures II (TCT LT) 14:55 – 16:40	14:55-15:10	Numerical analysis of concrete-filled steel tubular columns subjected to post-earthquake fire (P73) *Guo-Qiang Wei, Wen-Da Wang, Qiang Li*
	15:10-15:25	Experimental investigation of stiffness in bending of sandwich panels at elevated temperature (P74) *Čábová K., Tesfamariam Arha, Nikola Lišková, František Wald.*
	15:25-15:40	Experimental study of residual capacity on ultra-high strength concrete filled short circular steel tube columns post-fire conditions (P75) *X. Lyu, G.P. Shu, and Er-F. Du*
	15:40-15:55	Exploratory study into a safety format for composite columns exposed to fire (P76) *Ruben Van Coile, Thomas Gernay, Negar Elhami Khorasani, Danny Hopkin*
	15:55-16:10	Importance of concrete slabs in composite beam to column connectivity during severe fire (P77) *G Charles Clifton, F Meng, C Mohammadjani, A Abu*
	16:10-16:25	Heat transfer analysis on green concrete filled steel hollow column subjected to fire Using ABAQUS (P78) *Z Nurizaty, AA K Mariyana, P N Shek, M S A Rahman, M M Najmi*

Parallel Session 6B: Various Fire Engineering Topics (LT4) 14:55 – 16:40	14:55-15:10	Flat air stream as a non-structural barrier for smoke and heat in case of fire (P79) *Grzegorz Krajewski, Wojciech Węgrzyński*
	15:10-15:25	Fire loads in educational and office buildings (P80) *Namita Nayak, Lakshmi Subramanian*
	15:25-15:40	Fire response time: effects on life safety and property: response time and consequences on life safety, spread and damage based on UK fire statistics (P81) *M. Manes, David Rush*
	15:40-15:55	The use of wood in multi-family housing in the aspect of fire safety (P82) *Paweł Sulik, Bartłomiej Sędłak*
	15:55-16:10	Experimental study on fire-induced concrete spalling – Influence of moisture content, heating conditions, and dosage of PP fibres (P83) *Yunpeng Zhu, Thomas Thorne, David Lange, and Cristian Maluk*
	16:10-16:25	Fire assessment of an existing steel-concrete composite structure applying Performance Based approach (P84) *Donatella de Silva, Antonio Bilotta, Emidio Nigro*
	16:25-16:40	Fire protection of unoccupied buildings (P85) *Stefania Trifan Teodorescu, Cristina Olga Gociman, Cristina Victoria Ochinciuc*
16:40 – 17:20	Closing Ceremony	