

ASFE'19 Conference Tentative Programme Overview

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

1 st Day	13 June 2019 (Thursday)	
7:30 – 8:30	Registration	
8:30 – 8:45	Opening Ceremony	
8:45 – 9:35	Keynote Presentations	
9:35 – 9:45	Group Photo	
9:45 – 10:05	Tea Break	
	<i>TCT LT*</i>	<i>LT4**</i>
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[^]	

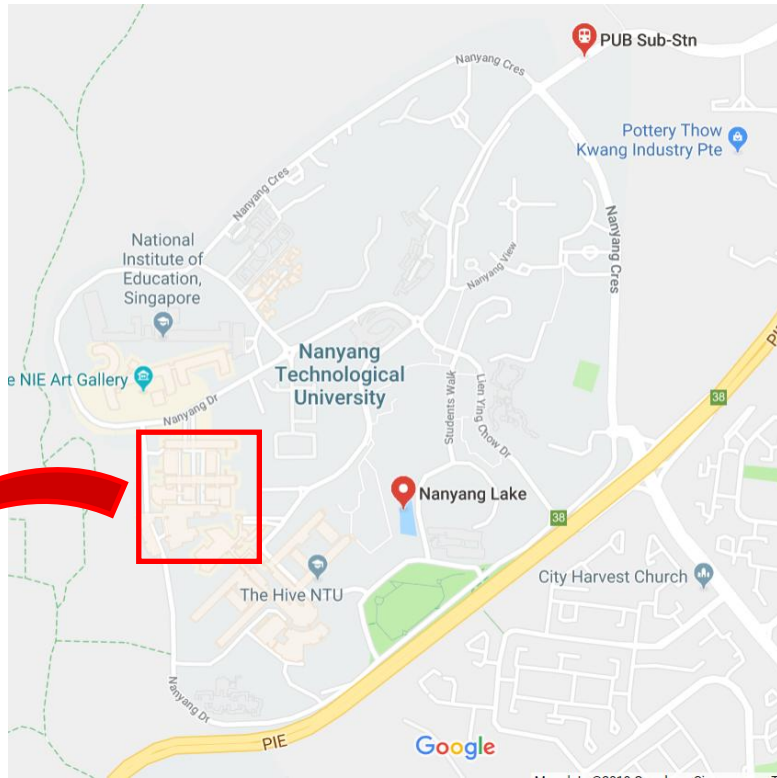
[^]The coach will depart NTU to the banquet venue at 16:45

2 nd Day	14 June 2019 (Friday)	
	<i>Tan Chin Tuan Lecture Theatre</i>	
8:30 – 9:20	Keynote Presentations	
9:20 – 10:00	Lab Tour	
10:00 – 10:20	Tea Break	
	<i>TCT LT*</i>	<i>LT4**</i>
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	

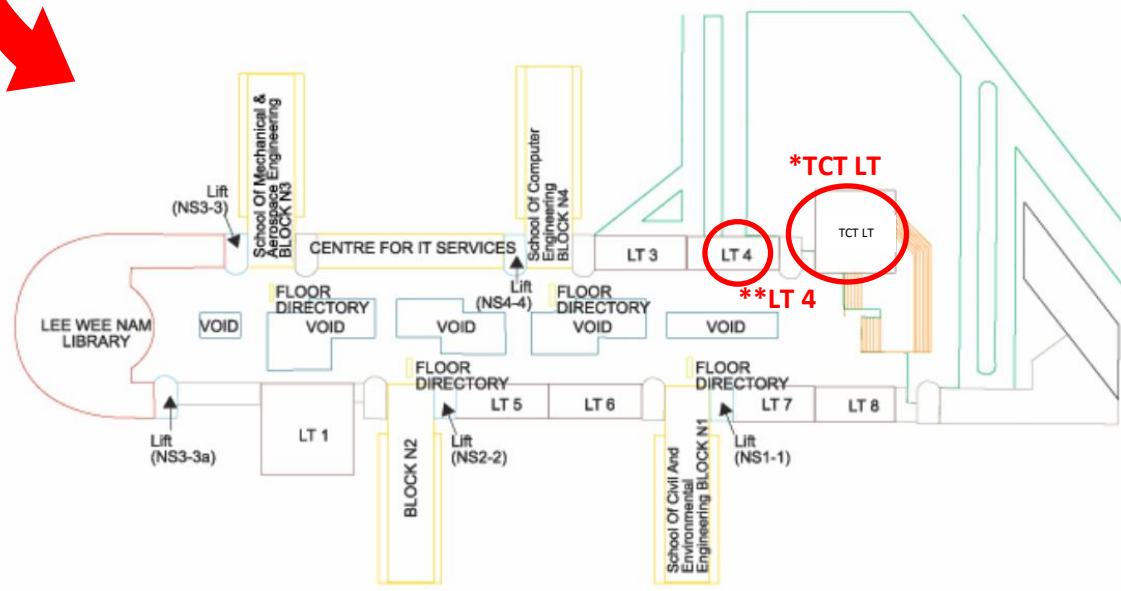
*TCT LT = Tan Chin Tuan Lecture Theatre

**LT4 = Lecture Theatre 4

Venue Map



Floorplan - NS 2ND LEVEL



Tentative 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) <i>Florian Block</i>
	9:10-9:35	Keynote Speech II (Approach for assessment of fire damaged concrete structures) <i>Venkatesh Kodur</i>
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) <i>YongHyun Cho, Lip H. Teh, Ben Young</i>
	10:20 - 10:35	Fire resistance of temporary structures (P2) <i>Tom Molkens, Barbara Rossi</i>
	10:35 - 10:50	Simulation of weld fracture in steel connections at elevated temperatures (P3) <i>Wenyu Cai, Mohammed A. Morovat, Michael D. Engelhardt, Guo-Qiang Li</i>
	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, <i>Tao-Chun Yang, Yang Zhou</i>
	11:05 - 11:20	Stainless steel elements in building fire - a numerical study on the fundamentals of thermo-mechanical effects (P5) <i>Mhd Anwar Orabi, Yao Sun, Asif Usmani, Ou Zhao</i>
	11:20 - 11:35	Experimental investigation of T-stub assemblies and flush endplate connections at elevated temperature (P6) <i>Jincheng Zhao, Yandi Li</i>
	11:35 - 11:50	Ductile connections for the robustness of steel-framed buildings in fire (P7) <i>Yu Liu, Shan-Shan Huang, Ian Burgess</i>
	11:50 - 12:05	Full-scale fire tests of steel and plasterboard sheathed LSF walls (P8) <i>Yomal Dias, Mahen Mahendran, Poologanathan Keerthan</i>
12:05 - 12:20	Residual mechanical properties of G550 cold-formed steels after exposure to elevated temperatures (P9) <i>Ye-Hua Wang, Yuan Qi Li, Venkatesh Kodur, Xue Kuan Fan</i>	
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) <i>Yong Yang, Yicong Xue, Yunlong Yu, Shiqiang Feng</i>

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

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

	15:40 - 15:55	Performance of post-tensioned timber beam-column connections in fire (P36) <i>Paul Horne, Anthony K Abu, Alessandro G Palermo, Peter J Moss</i>
	15:55 - 16:10	Application of Broido-Shafizadeh model to determine char front temperature of wood in non-standard fire (P37) <i>Robert Pečenko, Tomaž Hozjan</i>
	16:10 - 16:25	Fire performance of concealed timber connections with varying bolt patterns (P38) <i>Aba Owusu, Osama (Sam) Salem and George Hadjisophocleous</i>
	16:25 - 16:40	Effects of charring for prototype composite FRP-Timber Glulam beam (P39) <i>Abdulrahman Zaben Sohan Roopra, Henri Bailleres, David Lange, Cristian Maluk</i>
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) <i>Ira Banoth, Anil Agarwal</i>
	15:40 - 15:55	Residual resistance of cross—shaped steel reinforced concrete columns after high temperature (P41) <i>Yuzhuo Wang, Ziqing Liu</i>
	15:55 - 16:10	Experimentally determined stress-strain relationships for normal strength limestone concrete after exposure to high temperatures (P42) <i>Urška Dolinar, Gregor Trtnik, Tomaž Hozjan</i>
	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) <i>Yusuke Akutsu, Mitsuo Ozawa, Haruka Akasaka, Yusuke Sugino</i>
	16:25 - 16:40	Effects of geometry and fraction of polypropylene fibers on residual permeability of ultra-high performance concrete (P44) <i>Ye Li, Kang Hai Tan</i>
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?) <i>Ian Burgess</i>
	8:55-9:20	Keynote Speech IV (Main issues on behaviour of intumescent coatings) <i>Guo-Qiang Li</i>
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) <i>Zhi-Wei Yang, Sheng Lin Tang, Adomako Kumi George, Ying Hu</i>
	10:35-10:50	Fire performance of ultra high performance-strain hardening cementitious composites (UHP-SHCC) (P46) <i>Jin-Cheng Liu, Kang Hai Tan</i>
	10:50-11:05	Experimental study on creep properties of Q690 steel at elevated temperatures (P47) <i>Xin-Xin Wang, Chao Zhang, Guo-Qiang Li</i>
	11:05-11:20	Reduction factors for clod-formed steel at elevated temperatures (P48) <i>Liufan Yue, Ying Hu, Sheng-Lin Tang, George Adomako Kumi</i>
	11:20-11:35	Experimental study on the anti-aging properties of topcoated intumescent coating (P49) <i>Wang Lingling, Zhang Qianqian, Chen Bowen, Li Guoqiang</i>
	11:35-11:50	Evaluating the performance of intumescent coatings using cone calorimeter and gas furnace (P50) <i>Donatella de Silva, Naveed Alam, Antonio Bilotta, Ali Nadjai, Emidio Nigro</i>
	11:50-12:05	Mechanical properties of artificial and natural stone after exposure to high temperatures (P51) <i>Antonio Bilotta, Donatella de Silva, Emidio Nigro, Agostino Viglione, Annalisa Pranno, Franco Iacobini</i>
	12:05-12:20	A parametric study on the influence of residual strength of fly ash geopolymer after exposure to high temperatures (P52) <i>Li Jie Wang, Wei Ping Zhu, Tian Han Poh, Kang Hai Tan and En Hua Yang</i>

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) <i>Emma Johnstone, Charlie Sofe, Mayank Shrivastava, Anthony K Abu & Peter J Moss</i>
	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) <i>Xiliang Ning, Ruben Van Coile, Luc Taerwe</i>
	10:50-11:05	Ultimate load-carrying capacity of RC slabs subject to fire (P56) <i>Duc Toan Pham, Romain Mège</i>
	11:05-11:20	Behavior of Two-way Concrete Slab with Four Moment Restraint Edges in Fire (P57) <i>Yu-Li Dong, Yuan-yuan Fang, Da-shan Zhang</i>
	11:20-11.35	Second-order direct analysis on progressive collapse of single-layer latticed shells in localised fire (P58) <i>Yong Du, Youwen Zhang, J.Y. Richard Liew</i>
	11:35-11:50	Suspension domes exposed to localised fire (P59) <i>Wang Shuang, Yong Du</i>
11:50-12:05	Numerical analyses of the structural behaviour of steel and FRP reinforced slabs in fire (P60) <i>Bilotta Antonio, Alberto Compagnone, Laura Esposito, Emidio Nigro</i>	
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) <i>Bartłomiej Sędlak, Grzegorz Kimbar, Jacek Kinowski, Paweł Sulik</i>
	13:20-13:35	Fire behaviour of restrained CFS built-up box columns: experimental study (P62) <i>Jingjie Yang, Weiyong Wang, Yu Shi, Lei Xu</i>
	13:35-13:50	External steel columns: implications on the development of tensile membrane action (P63) <i>Panagiotis Kotsovinos, Yavor Panev, Graeme Flint</i>
	13:50-14:05	Effect of insulations on trapezoidal sheet roof fire resistance based on fire tests (P64) <i>Paweł Roszkowski</i>
	14:05-14:20	Shear resistance of sandwich panel connection to the substructure at elevated temperature (P65) <i>Tesfamariam Arha, Kamila Cábová, František Wald</i>
14:20-14:35	Static equilibrium paths of steel corrugated arch-shaped sheets with imperfections specified for simulated fire conditions (P66) <i>Mariusz Maślak, Michal Pazdanowski, Maciej Suchodol</i>	

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) <i>Omid Pouran, Steffen Anders, Reinhard Harte, Ulrich Montag</i>
	13:20-13:35	Fire resistance of high-rise wall composed of prefabricates RC panels (P68) <i>Mingguan Yang, Duc Toan Pham, J é r é ny Bleyer, Patrick de Buhan, Jean-Vivien Heck</i>
	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) <i>Norlizan Wahid, Tim Stratford, Luke Bisby</i>
	13:50-14:05	Mechanical properties of fibre-reinforced concrete with 120 MPa after Elevated Temperature (P70) <i>Aoyu Yan, Yong Du</i>
	14:05-14:20	Behavior of non-silicate based activated blast furnace slag at elevated temperature (P71) <i>Virendra Kumar, Amit Kumar, B.K. Prasad</i>
	14:20-14:35	The steel and fibre-reinforced concrete circular hollow column exposed to fire (P72) <i>Tkalenko Illia, Tretyakov Alexey, Wald František</i>
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) <i>Guo-Qiang Wei, Wen-Da Wang, Qiang Li</i>
	15:10-15:25	Experimental investigation of stiffness in bending of sandwich panels at elevated temperature (P74) <i>C ě bová K., Tesfamariam Arha, Nikola Lišková, František Wald.</i>
	15:25-15:40	Experimental study of residual capacity on ultra-high strength concrete filled short circular steel tube columns post-fire conditions (P75) <i>X. Lyu, G.P. Shu, and Er-F. Du</i>
	15:40-15:55	Exploratory study into a safety format for composite columns exposed to fire (P76) <i>Ruben Van Coile, Thomas Gernay, Negar Elhami Khorasani, Danny Hopkin</i>
	15:55-16:10	Importance of concrete slabs in composite beam to column connectivity during severe fire (P77) <i>G Charles Clifton, F Meng, C Mohammadjani, A Abu</i>
16:10-16:25	Heat transfer analysis on green concrete filled steel hollow column subjected to fire Using ABAQUS (P78) <i>Z Nurizaty, AA K Mariyana, P N Shek, M S A Rahman, M M Najmi</i>	

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) <i>Grzegorz Krajewski, Wojciech Węgrzyński</i>
	15:10-15:25	Fire loads in educational and office buildings (P80) <i>Namita Nayak, Lakshmi Subramanian</i>
	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) <i>M. Manes, David Rush</i>
	15:40-15:55	The use of wood in multi-family housing in the aspect of fire safety (P82) <i>Paweł Sulik, Bartłomiej Sędlak</i>
	15:55-16:10	Experimental study on fire-induced concrete spalling – Influence of moisture content, heating conditions, and dosage of PP fibres (P83) <i>Yunpeng Zhu, Thomas Thorne, David Lange, and Cristian Maluk</i>
	16:10-16:25	Fire assessment of an existing steel-concrete composite structure applying Performance Based approach (P84) <i>Donatella de Silva, Antonio Bilotta, Emidio Nigro</i>
	16:25-16:40	Fire protection of unoccupied buildings (P85) <i>Stefania Trifan Teodorescu, Cristina Olga Gociman, Cristina Victoria Ochinciuc</i>
16:40 – 17:20	Closing Ceremony	