Date: 24-27 Nov 2024
Western Sydney University,
Parramatta South Campus, Australia
https://icfserp.org/



WESTERN SYDNEY

UNIVERSITY



Organised by:

Fire Safety Engineering Research Group School of Engineering, Design and Built Environment Western Sydney University



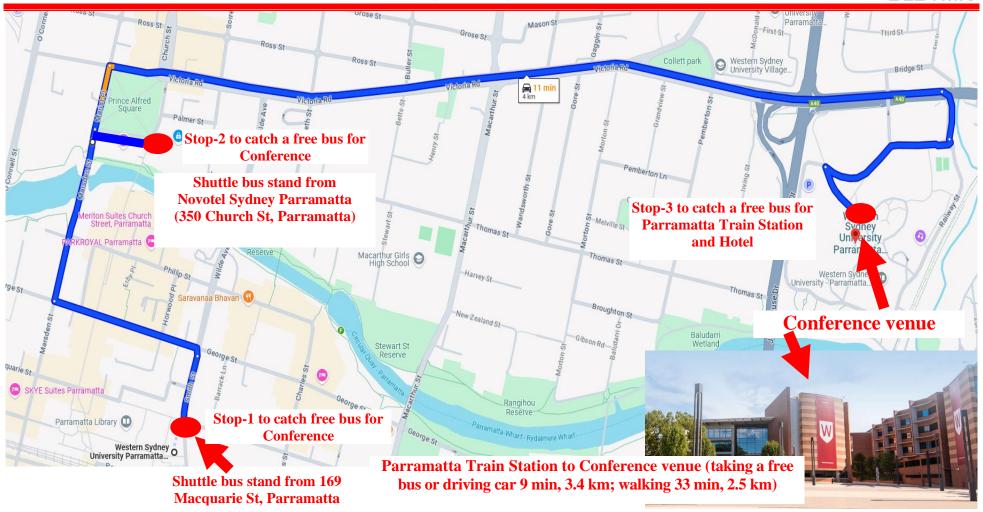
Global Circle for Scientific, Technological and Management Research (GCSTMR)



24-27 Nov 2024, Western Sydney University, Parramatta South Campus, Australia



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Click here for Map of Free Shuttle Bus for Conference Venue

Note: The free shuttle bus timetable is shown on the next page.



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Schedule of Free Shuttle Bus Service

Sunday 24 Nov 2024

- 5:00 pm: Depart from Parramatta train station (169 Macquarie St) and Novotel Hotel Parramatta (Destination- WSU, Building EA)
- 5:30 pm: Depart from Parramatta train station (169 Macquarie St) and Novotel Hotel Parramatta (Destination: WSU, Building EA)
- 7:30 pm: Depart from WSU Building EA (destination: Novotel Hotel Parramatta and Parramatta train station)
- 8:00 pm: Depart from WSU Building EA (destination: Novotel Hotel Parramatta and Parramatta train station)

Monday 25 Nov 2024

- 7:30 am: Depart from Novotel Hotel Parramatta and Parramatta train station (Destination: WSU, Building EA)
- 8:00 am: Depart from Novotel Hotel Parramatta and Parramatta train station (Destination: WSU, Building EA)
- 8:30 am: Depart from Novotel Hotel Parramatta and Parramatta train station (Destination: WSU, Building EA)
- 1:30 pm: Depart from WSU Building EA (destination: Novotel Hotel Parramatta and Parramatta train station)
- 5:00 pm: Depart from WSU Building EA (destination: Novotel Hotel Parramatta and Parramatta train station)
- 5:30 pm: Depart from WSU Building EA (destination: Novotel Hotel Parramatta and Parramatta train station)
- 6:00 pm: Depart from WSU Building EA (destination: Novotel Hotel Parramatta and Parramatta train station)

Tuesday 26 Nov 2024

- 8:00 am: Depart from Parramatta train station (169 Macquarie St) and Novotel Hotel Parramatta (Destination- WSU, Building EA)
- 8:30 am: Depart from Parramatta train station (169 Macquarie St) and Novotel Hotel Parramatta (Destination- WSU, Building EA)
- 1:30 pm: Depart from WSU Building EA (destination: Novotel Hotel Parramatta and Parramatta train station)
- 5:30 pm: Depart from WSU Building EA (destination: Novotel Hotel Parramatta and Parramatta train station)
- 6:00 pm: Depart from WSU Building EA (destination: Novotel Hotel Parramatta and Parramatta train station)
- 6:30 pm: Depart from WSU Building EA (destination: Novotel Hotel Parramatta and Parramatta train station)
- 7:00 pm: Depart from WSU Building EA (destination: Novotel Hotel Parramatta and Parramatta train station)

Tuesday 26 Nov 2024

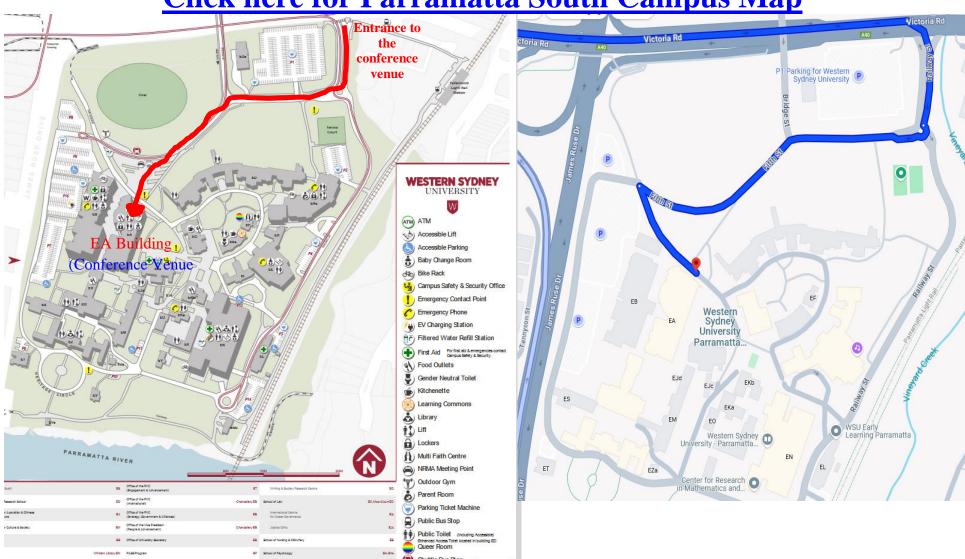
- 8:00 am: Depart from Parramatta train station (169 Macquarie St) and Novotel Hotel Parramatta (Destination- WSU, Building EA)
- 8:30 am: Depart from Parramatta train station (169 Macquarie St) and Novotel Hotel Parramatta (Destination- WSU, Building EA)
- 2:00 pm: Depart from WSU Building EA (destination: Parramatta South, Campus Building EA to Kingswood Campus Building XC)
- 4:00 pm: Depart from WSU Kingswood Campus Building XC (destination: Parramatta train station and Novotel Hotel Parramatta)



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Click here for Parramatta South Campus Map





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Overview of Conference Program for iCFSERP2024

Registration day (24 Nov 2024, Hallway of EA.G.18, Building EA, Parramatta South Campus, Western Sydney University)

Registration and welcome reception: 6:00-8:00 pr	Registration and welcome reception		
	Conference Da	y-1 (25 Nov 2024)	
Registration: 8:00-9:00 am	Registration (Hallway of EA.G.18)		
Opening ceremony: 9:00-9:40 am	Opening ceremony (EA.G.18)		
Plenary speaker: 9:40-10:20 am	Plenary talk (EA.G.18)		
Gold Sponsors' talks: 10:20-10:30 am	Gold Sponsors' talks (EA.G.18)		
Morning tea: 10:30-11:00 am	Morning tea (Hallway of EA.G.32)		
Keynote speakers: 11:00 am-12:00 pm Gold Sponsors' talks: 12:00-12:10 pm	Keynote talks No. 1-2 (EA.G.18) Gold Sponsors' talks (EA.G.18)		
Lunch: 12:10-1:30 pm	Lunch (Hallway of EA.G.32)		
Technical sessions: 1:30-3:35 pm	TS-1: Invited & Technical papers (EA.G.26)	TS-2: Invited & Technical papers (EA.G.27)	TS-3: Technical papers (EA.G.32)
Afternoon tea: 3:35-4:00 pm	Afternoon tea (Hallway of EA.G.32)		
Technical sessions: 4:00-5:30 pm	TS-4: Technical papers (EA.G.26)	TS-5: Technical papers (EA.G.27)	TS-6: Technical papers (EA.G.32)
	Conference Da	y-2 (26 Nov 2024)	
Registration: 8:30-9:00 am	Registration (Hallway of EA.G.18)		
Keynote speakers: 9:00-10:30 am	Keynote talks No. 3-5 (EA.G.18)		
Morning tea: 10:30-11:00 am	Morning tea (Hallway of EA.G.32)		
Keynote speakers: 11:00 am-12:00 pm	Keynote talks No. 6-7 (EA.G.18)		
Networking: 12:00-12:30 pm	Interaction with industry partners and academ	ics (EA.G.19)	
Lunch: 12:30-1:30 pm	Lunch (Hallway of EA.G.32)		
Technical sessions: 1:30-3:20 pm	TS-7: Invited & Technical papers (EA.G.26)	TS-8: Technical papers (EA.G.27)	TS-9: Technical papers (EA.G.32)
Afternoon tea: 3:20-4:00 pm	Afternoon tea (Hallway of EA.G.32)		
Technical sessions: 4:00-5:30 pm	TS-10: Technical papers (EA.G.26)	TS-11: Technical papers (EA.G.27)	TS-12: Technical papers (EA.G.32)
Conference Dinner: 7:00-10:00 pm			
	Conference Day-3 (27 Nov 2024)		
Keynote speakers: 9:00-10:00 am	Keynote talks No. 8-9 (EA.G.18)		
Morning tea: 10:00-10:30 am	Morning tea (Hallway of EA.G.32)		
Technical sessions: 10:30-11:30 am	TS-13: Technical papers (EA.G.26)	TS-14: Technical papers (EA.G.27)	TS-15: Technical papers (EA.G.32)
Roundtable discussion: 11:30 am-12:40 pm	Industry practice and research needs for fire sa	afety engineering (EA.G.19)	
Closing ceremony: 12:40-1:00 pm	Best paper awards and closing ceremony (EA.	G.19)	
Lunch: 1:00 pm-2:00 pm	Lunch (Hallway of EA.G.32)		



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Room numbers and Zoom ID for All Sessions

Each session will have zoom facility as well as physical attendance. Please use an appropriate room and zoom ID to join the session.

Session Name/No	Room	Zoom ID
	No	
Opening ceremony and	EA.G.18	https://uws.zoom.us/j/83844214180?pwd=ZykPLThriX0wA1CQIrEGK7g5uaQSZI.1
Keynote sessions		Meeting ID: 838 4421 4180 Password: 901386
Roundtable discussion,	EA.G.19	https://uws.zoom.us/j/84352379853?pwd=BRL0TV5MA08BZx9PgyLUcJz1DXDddp.1
Closing ceremony and Best		Meeting ID: 843 5237 9853 Password: 460141
paper awards		1 455 WOLU. 400141
Technical Sessions (TS):	EA.G.26	https://uws.zoom.us/j/89858500702?pwd=uaBcPkeQA26bcTrhJgJSZsJvrN6Ian.1
(TS1, TS4, TS7, TS10, TS13)		Meeting ID: 898 5850 0702 Password: 070927
Technical Sessions (TS):	EA.G.27	https://uws.zoom.us/j/89561347810?pwd=blviVuWZiTTHRK0H8NKP4ee6CXGJKj.1
(TS2, TS5, TS8, TS11, TS14)		Meeting ID: 895 6134 7810 Password: 507925
Technical Sessions (TS):	EA.G.32	https://uws.zoom.us/j/88410571264?pwd=YkCK2cAkvgLNv2iADX8zUz038ElwaA.1
(TS3, TS6, TS9, TS12, TS15)		Meeting ID: 884 1057 1264 Password: 235861



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Registration Day (Sunday 24 Nov 2024)

Time	Event	Remark
6:00-8:00 pm	Registration, Refreshments, and Networking (Hallway of EA.G.18)	Delegates will be welcomed by the conference chairs and the local organising committee members.
		Conference Chairs:
		Professor Zhong Tao
		Dr Md Kamrul Hassan
		Conference Secretaries: Dr Sameera Pathirana Dr Md Delwar Hossain Mr Alan Todhunter
		Conference Management Coordinator: Ms. Jenis Islam
		Conference Treasurer: Dr. Rezaul Bashar & Dr. Hasan Rahman



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Conference Day 1 – Monday 25 November 2024

Time	Session
	Registration
8:00–9:00 am	Parramatta South Campus, Building EA (Hallway of EA.G.18)
	Desk in charge: Ms Jenis Islam
	Conference Opening
	Room EA.G.18, Parramatta South Campus -Moderator: Professor Zhong Tao, Chair (iCFSERP-2024)
	Acknowledgment of Indigenous owners of the land
	-Speech: Dr Md Kamrul Hassan, Chair (iCFSERP-2024)
9:00–9:40 am	-Chief Guest Speech: Professor Freya MacMillan, Associate Pro Vice-Chancellor Research, Office of the DVC & VP, Research, Enterprise & Global
	-Special Guest Speech: Distinguished Professor Vivian Tam, Engineering, Associate Dean (Research and HDR), SoEDB
	-Speech: Professor Ataur Rahman, Chair (GCSTMR)
	Housekeeping: Dr Md Kamrul Hassan
Plenary Session	- Chair: Professor Zhong Tao (Room EA.G.18)
9:40-10:20 am	Plenary Speaker: Professor Guan Heng Yeoh (University of New South Wales, Sydney, Australia)
	Plenary title: New Fire Protection Technologies for Bushfire Condition.
	Gold Sponsor's talk by Fire Testing Technology (FTT)
10:25-10:30 am	Gold Sponsor's talk by NETZSCH Analyzing & Testing
	M • F (II II (FAC20)
10:30-11:00 am	Morning Tea (Hallway of EA.G.32)
Keynote Session	1 - Chair: Professor Guo-Qiang Li (Room EA.G.18)
11.00 11.20	Keynote Speaker-1: Professor Yong Wang (University of Manchester, UK)
11:00-11:30 am	Keynote title: Bridging Gaps of Research and Practice of Fire Resistance.
Keynote Session	2 - Chair: Professor Horng-Jang Liaw (Room EA.G.18)
11:30am-12:00	Keynote Speaker-2 (Online): Professor Asif Sohail Usmani (The Hong Kong Polytechnic University, Hong Kong)
pm	Keynote title: The SureFire Project on Smart Firefighting in Dense Urban Environments.
	Gold Sponsor's talk by Mitsubishi ALPOLIC and Network Architectural
12:05-12:10 pm	Gold Sponsor's talk by FIREFLY



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12:10-1:30 pm	12:10-1:30 pm Lunch (Hallway of EA.G.32)			
	Invited Talk and Technical Sessions			
	Technical Session-1: Composite columns in fire Room PS-EA.G.26 Session Chairs: Professor Yong Du & Associate Professor Lin-Xin Song	Technical Session-2: Developments in Fire modelling Room PS-EA.G.27 Session Chairs: Scientia Associate Professor Wengui Li & Dr Anthony Chun Yin Yuen	Technical Session-3: Fire retardant materials Room PS-EA.G.32 Session Chairs: Professor Pingan Song & Dr Wei Wang	
1:30-1:50 pm	Invited Speaker: Associate Professor Wei Li Authors: Associate Professor Wei Li Title: Structural performance of CFST structures after exposed to fire	Invited Speaker: Dr Maryam Ghodrat Authors: Dr Maryam Ghodrat Title: Effect of Terrian Characteristics on Wind Fire Interaction in Wildland Urban Interface	Paper ID: iCFSERP20230013 Authors: Wei Wang, Guan Heng Yeoh Title: MXene Networks based Flame Retardant Polymer Composites	
1:50-2:05 pm	Paper ID: iCFSERP20230012 Authors: Sun-Hang Ji, Wen-Da Wang, Yan-Li Shi Title: Numerical analysis on fire behaviour of concrete-filled steel tubular columns after lateral impact	Paper ID: iCFSERP20230130 Authors: Matthew Cox, Md Kamrul Hassan, Md Delwar Hossain Title: Accuracy of smoke detector models for predicting smoke alarm activation time using FDS modelling	Paper ID: iCFSERP20230026 Authors: Siqi Huo, Guofeng Ye Title: Synthesis of vanillin-based vitrimer with excellent flame retardant, toughened, antimicrobial and low dielectric properties	
2:05-2:20 pm	Paper ID: iCFSERP20230022 Authors: Tian-Yi Song, Cheng-Hao Wang, Kai Xiang Title: Experimental Study on Fire Performance of Multi-loaded Geopolymeric Recycled Concrete Filled Steel Tubular Columns	Paper ID: iCFSERP20230175 Authors: Maryam Amiraftab, Md Kamrul Hassan, Grace Huang, Alan Lorberg, Md Delwar Hossain, Swapan Saha Title: Fire Behaviour of Mass Timber Compartment: A Parametric Study Using FDS Modelling	Paper ID: iCFSERP20230103 Authors: Touha Nazrun, Md Kamrul Hassan, Md Rayhan Hasnat, Md Delwar Hossain, Payam Rahnamayiezekavat, Swapan Saha Title: Comparative Study on Fire Behaviour of Solid Aluminium and Composite Panels by Incorporating Intumescent Coatings	
2:20-2:35 pm	Paper ID: iCFSERP20230054 Authors: Binhui Jiang, Mengjie Wang, Guobiao Lou, Guoqiang Li Title: Preliminary analysis on behaviour of restrained high strength steel beams during heating and cooling of fire	Paper ID: iCFSERP20230042 Authors: Ivan Miguel De Cachinho Cordeiro, Anthony Chun Yin Yuen, Timothy Bo Yuan Chen, Guan Heng Yeoh Title: Flame Retardant Mechanism of Phosphorous- Based Polymer Composites: A Molecular Dynamics Study	Paper ID: iCFSERP20230116 Authors: Hong Yan, Qiang Sun Title: Fabrication of P/N/Si-Cointegrated Ammonium Polyphosphate with Highly Efficient Flame Retardancy for Epoxy	
2:35-2:50 pm	Paper ID: iCFSERP20230148 (Online) Authors: Mariyana Aida Abd Kadir, Mohd Zamri Ramli, Nurul Hafizah Ismail, M.Alel Title: Fire-Resistance Performance of A Sustainable Hollow Steel-Column Concrete: Experimental and FEM	Paper ID: iCFSERP20230041 (Online) Authors: Jasmine Innocent, Khalid Moinuddin, Duncan Sutherland Title: Field-Scale Physical Modelling of Grassfire Propagation on Sloped Terrain under Low-Speed Driving Wind, with varied ignition fire line widths	Paper ID: iCFSERP20230136 Authors: Hafeez Ahmadi, Aixiao Fu, Hao Wu, Kim Dam-Johansen Title: Alkali silicate particles as intumescing agents in fire protective coatings	



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	Paper ID: iCFSERP20230062	Paper ID: iCFSERP20230119 (Online)	Paper ID: iCFSERP20230155
	Authors: Lalita Lama, Thomas Gernay, Huu Tai	Authors: Ankit Sharma, Poomurugan C, Kirti	Authors: Enya Zhang, Tracy Bradford,
2.50 2.05 nm	Thai, Tuan Ngo, Brian Uy	Bhushan Mishra	Chandrashekhar V. Kulkarni, Sergey Zagorsky,
2:50-3:05 pm	Title: Comparative Study on the Fire Performance	Title: Fire Safety in Modern Urban Infrastructures: A	Simon Cox, Eleni Asimakopoulou
	of Concrete-Filled Steel Tubular and Steel Tube-	3D CFD Approach to Complex Fires using Fire	Title: Swedish pine weathered treated fire
	Confined Reinforced Concrete Columns	Dynamics Simulator (FDS)	performance: an experimental investigation
	Paper ID: iCFSERP20230070	Paper ID: iCFSERP20230138 (Online)	Paper ID: iCFSERP20230019
	Authors: Congying Chen , Wei Li	Authors: Pushpendra Kumar Vishwakarma, Kirti	Authors: Utsab Katwal, Zhong Tao, Tariq Aziz,
2.05.2.20	Title: Critical Temperature of Concentrically		Qingtao Huang, Maroun Rahme
3:05-3:20 pm	Compressed Square CFST Column Exposed to		Title: Fire performance of high strength reinforced
	Standard Fire	3D CFD Approach to Complex Fires using Fire	concrete columns protected by sprayed fire-resistive
			material
	Paper ID: iCFSERP20230055 (Online)	Paper ID: iCFSERP20230180	
	Authors: Mohamed Ghannam, Sameh Lotfy,	Authors: Bernabe Zaragoza	
2 20 2 25	A.H.A. Abdelrahman, Md Kamrul Hassan, and	Title: Travelling fire and its application on structural	
3:20-3:35 pm	Mohammad Al Hamaydeh	fire assessment	
	Title: Behaviour of ultra-high-strength concrete-		
	filled double-skin tubes under elevated temperature		
3:35-4:00 pm	Afternoon Tea break (Hallway of EA.G.32)		
	Technical Sessions		
	Technical Session-4: Fire Safety and Protection	Technical Session-5: Fire Protection (Bushfire)	Technical Session-6: Concrete Materials in Fire
	Systems	Room PS-EA.G.27	Room PS-EA.G.32
	Room PS-EA.G.26	Session Chairs: A/Professor Dongdong Yang &	Session Chairs: Professor Mitsuo Ozawa &
	Session Chairs: Professor Kuang-Chung Tsai &	Dr Md Delwar Hossain	Dr Utsab Katwal
	Dr Siqi Huo		
	Paper ID: iCFSERP20230047	Paper ID: iCFSERP20230061	Paper ID: iCFSERP20230174
	Authors: Zhaoyu Ye, Anthony Abu	Authors: Birunthan Perinpalingam, Anthony	Authors: Ira Banoth, Anil Agarwal
4:00-4:15 pm	Title: Effect of Installation Approach on	Ariyanayagam	Title: Bond behavior between reinforcing steel and
4.00-4.15 pm	Performance of Firestopping Systems	Title : Experimental Studies of Bushfire Resistant	concrete at elevated temperatures- beam test
		Window Shutters Exposed to Radiant Heat and Flame	
		Zone Conditions	
	Paper ID: iCFSERP20230176	Paper ID: iCFSERP20230016	Paper ID: iCFSERP20230044
	Authors: Alexander Christal, Md Kamrul Hassan	Authors: Greg Penney, Greg Baker, Andres	Authors: Zhu Pan, Hangyu Yang, Gong Zheng, Li
4:15-4:30 pm	Title: Performance-based analysis for	Valencia, Dan Gorham, Anthony Power	Wang, Yifang Cao
	determination of time to untenable conditions in	Title: Applying the Concept of Verification in Fire	Title: Compressive strength of 3D printable
	building fire	Engineering to the Wildland Urban Interface	geopolymers after exposure to elevated temperatures
4:30-4:45 pm	Paper ID: iCFSERP20230006	Paper ID: iCFSERP20230170	Paper ID: iCFSERP20230147



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	Authors: Tariq Nazir, Arslan Khalid, Guan Yeoh	Authors: Andres Valencia, Greg Penney, Greg	Authors: Junjie Huang, Jun Li, Chengqing Wu
		Baker, Daniel Gorham, Fearghal Gill, Dongqi Lin,	Title: Effect of temperature and cooling method on
	with Excellent Dielectric Performance	Marwan Katurji, Anthony Power	mechanical and fracture properties of ultra-high
		Title: Development of wildland fire exposure	performance geopolymer concrete
		indicator for Performance-Based Design applications	
		Paper ID: iCFSERP20230077 (Online)	Paper ID: iCFSERP20230124
	Paper ID: iCFSERP20230177	Authors: D.A.M. De Silva, M.A.E.K. Jayasinghe,	Authors: Khin Thandar Soe, Mark Pulham
	Authors: Lisa Chen, Md Kamrul Hassan, Md	A.M.S.M.R.S.G. Bandara, M.M.S.C. Senevirathne,	Title: Fire Resistance Level of Lightweight Fibre-
4:45-5:00 pm		Eleni Asimakopoulou, C.L. Liyanage, M. Esham,	reinforced Magnesia Composite Refractory Wall
•		Bob Walley	Systems
	ducts using fire dynamics simulator	Title: Bush fires of central highlands of Sri Lanka:	
		What is the triple bottom line?	
	Paper ID: iCFSERP20230181	1	Paper ID: iCFSERP20230137
	_	Paper ID: iCFSERP20230173	Authors: Panpan Cheng, Hehua Zhu, Dajun Yuan
	Rahnamayiezekavat, Md Kamrul Hassan and	Authors: Jesse Comino, Sameera Pathirana	Title: Influential Factors on the Hygrothermal
5:00-5:15 pm	Keivan Bamdad	Title: Wireless Fire Detection Systems: Benefits,	Behavior of Fire-Exposed Concrete
F	Title: Balancing Fire Safety and Thermal	Limitations and Applicability within the Built	
	· ·	Environment	
	Zinetonej in rugu rugo Zunumg rugues		
	Paper ID: iCFSERP20230171		
		Paper ID: iCFSERP20230102 (Online)	
	Salman Cheema, Rehmat Kareema, Usman Shahid	Authors: Xuelin Zhang, Paul Joseph, Maurice	
5:15-5:30 pm		Guerrieri, Khalid Moinuddin	
3.13-3.30 pm	a Fatal High-Rise Building Using Fire Modeling in	Title: Thermal characteristics of pinewood treated	
	Pakistan	with additives at varied temperatures	
	1 akistan	with additives at varied emperatures	



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Conference Day 2 – Tuesday 26 November 2024

Time	Session		
8:30 – 9:00 am	Registration Parramatta South Campus, Building EA (Hallway of EA.G.18) Desk in charge: Ms Jenis Islam		
Keynote Session	3 - Chair: Professor Yong Wang (Room EA.G.18)		
9:00 – 9:30 am	Keynote Speaker-3: Professor Guo-Qiang Li (Tongji University, China) Keynote title: Challenging Issues on Fire-Resistance of Steel Buildings.		
9:30-10:00 am	Keynote Speaker-4: Professor Jason J. Sharples (University of New South Wales, Canberra, Australia) Keynote title: Modelling ember storms at the wildland-urban interface.		
10:00-10:30 am	Keynote Speaker-5: Professor Lee Wai Ming (City University of Hong Kong, Hong Kong) Keynote title: Recent Developments in Building Evacuation Models for Fire Emergencies.		
10:30-11:00 am	Morning Tea (Hallway of EA.G.32)		
Keynote Session	4 - Chair: Professor Jason J. Sharples (Room EA.G.18)		
11:00-11:30 am	Keynote Speaker-6: Professor Pingan Song (University of Southern Queensland, Australia) Keynote title: Engineering bioinspired fire-retardant coatings for general fire protection.		
11:30 am-12:00 pm	Keynote Speaker-7: Associate Professor Kate Nguyen (RMIT, Australia) Keynote title: Risk mitigation for combustible cladding in residential buildings		
12:00-12:30 pm	Interaction with Industry partners and Academics before lunch		
12:30-1:30 pm	Lunch (Hallway of EA.G.32)		



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	Invited Talks and Technical Sessions		
	Technical Session-7: Developments in Fire Modelling	Technical Session-8: Steel Material and Structure under Fire	Technical Session-9: Concrete and FRP under Fire
	Room PS-EA.G.26 Session Chairs: Professor Richard Kwok Kit Yuen & Dr Maryam Ghodrat	Room PS-EA.G.27 Session Chairs: Professor Wen-Da Wang & Associate Professor Wei Li	Room PS-EA.G.32 Session Chairs: Associate Professor Anthony Abu and Dr Jason Jiang
1:30-1:50 pm	Invited Speaker: Professor Khalid Moinuddin Authors: Professor Khalid Moinuddin Title: Physical modelling of dynamic bushfire propagation leading to parameterization for operational modelling	Paper ID: iCFSERP20230029 Authors: Tiancheng Chen, Shenggang Fan, Qingfeng Xu, Kuiyuan Xu, Jinpeng Luo, Yuxian Tang Title: Research on Mechanical Properties of Duplex Stainless Steel S22053 at Elevated Temperature and after Fire	Paper ID: iCFSERP20230082 Authors: Yan Hong-Bao, Gang Wang, Chong Tang Title: Study on lateral impact performance of Steel Tube-Reinforced Concrete (ST-RC) column under fire
1:50-2:05 pm	Invited Speaker: Assistant Professor Dr Anthony Chun Yin Yuen Paper ID: iCFSERP20230052 Authors: Anthony Chun Yin Yuen, Chang Tian, Timothy Bo Yuan Chen, Qian Chen Title: Computational Material Synthesis Approach for Characterising Flame-Retardant Mechanisms of Composite Polymers	Paper ID: iCFSERP20230154 Authors: Tiangui Xu, Shenggang Fan, Meijing Liu, Ganping Shu, Laizhu Jiang Title: In-fire and post-fire mechanical properties of high nitrogen and low nickel stainless steel S35657	Paper ID: iCFSERP20230010 Authors: K.A.D.Y.T. Kahandawa Arachchi, Olivia Mirza, Fidelis Mashiri, Sameera Pathirana, Leonardo Dimeski, Jason Saouma Title: The Effect of Phase Change Material on the Mechanical Properties of Structural Concrete
2:05-2:20 pm	Paper ID: iCFSERP20230024 Authors: Kyle Farrell, Md Kamrul Hassan, Md Delwar Hossain, Swapan Saha Title: Numerical Investigation of Water Mist Fire Suppression Effectiveness at Various Nozzle Heights	Paper ID: iCFSERP20230043 Authors: Weiyong Wang, Ziqi Wang Title: Mechanical Properties and Creep Strain of High Strength Steel at Elevated Temperatures	Paper ID: iCFSERP20230120 Authors: S. Rawat, Farhan Ahmad, Khin Soe, Lihai Zhang, Y.X. Zhang Title: Magnesium Oxychloride Cement-Based Composites: Unveiling Fire Resistance for Structural and Non-structural Applications
2:20-2:35 pm	Paper ID: iCFSERP20230108 Authors: Horng-Jang Liaw, Chan-Cheng Chen Title: Model to Predict Pressure Effect on the Flash Point of Liquid Fuels at Sub-atmospheric Pressures	Paper ID: iCFSERP20230121 Authors: Fatemeh Azhari, Amin Heidarpour Title: Stress-strain-temperature response of Grade 1200 ultra-high strength steel (UHSS) tube under the creep and fire multi-phase loading scenario	Paper ID: iCFSERP20230025 Authors: Duc T. L. Pham, David Lange, Jose L. Torero, Vinh T. N. Dao Title: Methods of testing concrete spalling due to fire: A review



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2:35-2:50 pm	Paper ID: iCFSERP20230087 Authors: Qian Chen, Anthony Chun Yin YUEN, Timothy Bo Yuan CHEN, Richard Kwok Kit YUEN Title: Experimental and Molecular Dynamics Investigation on Thermal Safety and Oxidation Mechanism of Graphdiyne Type Materials	Paper ID: iCFSERP20230027 Authors: Tzu-Yan Tseng, Kuang-Chung Tsai Title: Vertical Seismic Effect on Fire Structure and Behaviour of Pool Fires	Paper ID: iCFSERP20230007 Authors: Mohamed Elshorbagi, Zhong Tao, Cheng Jiang Title: Existing and Potential Solutions for Fire- resistance of FRP-jacketed Concrete Columns
2:50-3:05 pm	Paper ID: iCFSERP20230011 Authors: Mingjun Xu, Kang Hai Tan, Man Pun Wan Title: Zonal and Sequential Extraction Design for Large Flat Space to Achieve Perpetual Tenability	Paper ID: iCFSERP20230097 (Online) Authors: Xuan Wei, Jiepeng Liu, Lei Xu, Title: Research on the Collapse Mechanism and Path of the Steel Frame Structure under Spreading Fire	Paper ID: iCFSERP20230009 Authors: Mohamed Elshorbagi, Zhong Tao, Cheng Jiang Title: Residual Capacity and Post-heating Response of Multiple Strengthening Approaches Using CFRP
3:05-3:20 pm	Paper ID: iCFSERP20230093 Authors: Timothy Bo Yuan Chen, Anthony Chun Yin Yuen , Ivan Miguel De Cachinho Cordeiro , Qian Chen Title: Numerical Study on The Fire Dynamics of Cross Laminated Timber Compartments		Paper ID: iCFSERP20230000 (Online) Authors: Long Shi Title: Multifunctional solar chimney for both fire safety and energy-saving
3:20-4:00 pm	Afternoon Tea break (Hallway of EA.G.32)		
		Technical Sessions	
	Technical Session-10: Fire Safety and Protection Systems Room PS-EA.G.26 Session Chairs: Dr Tariq Nazir & Dr Greg Penney	Technical Session-11: Cladding materials in fire Room PS-EA.G.27 Session Chairs: Professor Lee Wai Ming & Associate Professor Kate Nguyen	Technical Session-12: Steel and Concrete Structures in Fire Room PS-EA.G.32 Session Chairs: Dr Fatemeh Azhari & Dr Shan-Shan Huang
4:00-4:15 pm	Paper ID: iCFSERP20230151 Authors: W. Kathy Tannous, Nargess Ghassempour Title: Deaths from Residential Fires in New South Wales from 2005 to 2015 using linked administrative data sets	Paper ID: iCFSERP20230058 Authors: Md Delwar Hossain, Swapan Saha, Md Kamrul Hassan, Anthony Chun Yin Yuen, Cheng Wang Title: Influence of Experimental Conditions on the Thermal Decomposition and Char Formation of ACP Cladding Materials	Paper ID: iCFSERP20230023 Authors: Guangyong Wang, Zheng Li, Xingchen Cui and Jin-ru Zhong Title: Experimental study on fire resistance of steel reinforced concrete frame structures
4:15-4:30 pm	Paper ID: iCFSERP20230150	Paper ID: iCFSERP20230104	Paper ID: iCFSERP20230017 Authors: Yamin Wang, Zhong Tao, Utsab Katwal



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	Authors: Fahmida S. Rahman, W. Kathy Tannous, Gulay Avsar, Kingsley E. Agho, Lara A. Harvey Title: Economic costs of health service use associated with residential fire incidents in New South Wales, Australia	Authors: Jenothan Makeswaran, Mahen Mahendran Title: Investigation of Trapezoial Steel Claddings under Combined Wind and Bushfire Conditions	Title: Simplified Numerical Modelling of Thinwalled Steel Tubular Stub Columns Subjected to Fire
4:30-4:45 pm	Paper ID: iCFSERP20230099 Authors: Qichang Dong, Ye Song, Song Lu, Xudong Cheng, Heping Zhang, Long Shi Title: High-performance Silicon Carbide Aerogels via Multiscale Assembly for Enhanced Fire Resistance and Building Insulation	Paper ID: iCFSERP20230059 Authors: Md Delwar Hossain, Swapan Saha, Md Kamrul Hassan, Anthony Chun Yin Yuen, Cheng Wang Title: Evaluating the Fire Performance of Aluminium Composite Panel Cladding Materials through Cone Calorimetry	Paper ID: iCFSERP20230080 Authors: Mahesh Gaikwad, Suvir Singh, Pradeep Bhargava, N. Gopalakrishnan Title: Numerical Evaluation of the Impact of Steel Confinement on the Load Capacity of Fire Exposed Reinforced Concrete Sections
4:45-5:00 pm	Paper ID: iCFSERP20230134 Authors: Qi Tang, Fang Ding, Xuehong Ren, Federico Carosio Title: Flame Retardant Behavior and smoke/Heat Suppression of organic-inorganic Intumescent Polyelectrolyte Complexes on Fabric	Paper ID: iiCFSERP20230088 Authors: Md Rayhan Hasnat, Md Kamrul Hassan, Md Delwar Hossain, Swapan Saha Title: Experimental Study on Different Types of Non-combustible Cladding Panels Using Butane Torch	Paper ID: iCFSERP202301525 (Online) Authors: Mohd Dilawar Bhat, Umesh Kumar Sharma, P.C Ashwin Kumar Title: Fire Performance of structural steel tubular sections with passive fire-resistant mortar
5:00-5:15 pm	Paper ID: iCFSERP20230049 Authors: Kyle Farrell, Md Kamrul Hassan Title: Transitioning from PFAS Foam Concentrate to Fluorine Free Foams for Fire Suppression: Design Issues and Challenges	Paper ID: iCFSERP20230131 Authors: Neythra Weerakkody, Xuelin Zhang, Nathan White, Malavika Arun, Joe Abraham and Khalid Moinuddin Title: Pyrolysis and Combustion analysis of Common External Wall Insulations	Paper ID: iCFSERP20230165 (Online) Authors: Bin Cai, Wen-Li Hu, Feng Fu Title: Numerical simulation of Post-Fire Seismic Performances Scoria Aggregate Concrete Joints
5:15-5:30 pm	Paper ID: iCFSERP20230079 Authors: Hongwei Liu, Zimo Liu, Kee Chin Seng, Mei Ye Kho, Farid Wajdi Akashah Title: Towards Safer School Evacuations: An Investigation into the Role of Authority Figures on Secondary School Students' Fire Pre- evacuation Behaviours	Paper ID: iCFSERP20230110 Authors: Md Rayhan Hasnat, Md Kamrul Hassan, Md Delwar Hossain, Swapan Saha Title: Thermal characterization of Composite Cladding core materials using evolved gas analysis	

Conference Dinner: 7:00-10:00 pm

(Novotel Sydney Parramatta)

Address: 350 Church St, Parramatta NSW 2150



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Conference Day 3 – Wednesday 27 November 2024

Time	Time Session			
-	Keynote Session 4 - Chair: Professor Guan Heng Yeoh (Room EA.G.18)			
9:00 – 9:30 am	Keynote Speaker-8: Dr Linus Lim (Technical Director, Holmes Australia LP) Keynote title: The challenges of designing and building for fire resistance of structures in an ever-changing building environment.			
9:30-10:00 am	Keynote Speaker-9: Mark Whybro AFSM (Chair of Home Fire Sprinkler Coalition Australia) Keynote title: When Seconds Matter: Home and Residential Fire Sprinklers			
10:00-10:30 am	Morning Tea (Hallway of EA.G.32)			
		Technical Sessions		
	Technical Session-13: EV Fire Safety Room PS-EA.G.26 Session Chairs: Professor Hong Yan & Professor Guang-Yong Wang	Technical Session-14: Fire Behaviour of Concrete Structures Room PS-EA.G.27 Session Chairs: Dr Jiacheng Yang & Dr Andres Valencia	Technical Session-15: Structural Fire and Design Room PS-EA.G.32 Session Chairs: Dr Linus Lim & Dr Tian-Yi Song	
10:30-10:45 am	Paper ID: iCFSERP20230071 (Online) Authors: Liu Zimo, Liu Hongwei, Nur Farhana Azmi, Farid Wajdi Akashah Title: Numerical analysis of the impact of electric bicycle fire on the occupant evacuation in old residential building	Paper ID: iCFSERP20230048 Authors: Mitsuo Ozawa, Koki Asahizawa, Kentaro Fujimoto Title: Fire spalling behavior of Prestressed concrete beam with natural fiber	Paper ID: iCFSERP20230037 Authors: Dongdong Yang, Faqi Liu, Shan-Shan Huang, Hua Yang Title: Fire behaviour and design of square tubedreinforced-concrete columns: isolated columns to framed columns	
10:45-11:00 am	Paper ID: iCFSERP20230178 Authors: Sofie Sun, Md Kamrul Hassan, Bulbul Ahmed, Md Delwar Hossain, Swapan Saha Title: Numerical analysis of the impact of electric bicycle fire on the occupant evacuation in old residential building	Paper ID: iCFSERP20230004 Authors: Yipu Guo, Wengui Li Title: Piezoresistivity of Nano Carbon Black Coated Polypropylene Fiber Cement-based Sensor under High-Temperature Exposure	Paper ID: iCFSERP20230129 Authors: Lin-Xin Song, Guo-Qiang Li, Yong C. Wang Title: Investigation on post-fire overall stability of restrained Q690 high strength structural steel columns under eccentric compression	
11:00-11:15 am	Paper ID: iCFSERP20230089 Authors: Pan He, Yuelei Pan, Long Shi, Heping Zhang, Xudong Cheng Title: Scalable Fabrication of Monolithic, High- Performance Al2O3-SiO2 Aerogel Composites Base on Ambient Pressure Drying for Suppressing Thermal Runaway Propagation of Lithium Batteries	Paper ID: iCFSERP20230032 Authors: Kai Yan, Jiacheng Yang Title: Shear performance of ultra-high performance concrete beams after fire exposure	Paper ID: iCFSERP20230109 Authors: Jing-Xuan Wang, Yu-Feng Zhang, Wen-Da Wang Title: Numerical analysis on collapse resistance of concrete-filled square steel tubular column to H-beam connection with outer ring plate under exposure to high temperature	



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11:15-11:30 am	Paper ID: iCFSERP20230179	Paper ID: iCFSERP20230065	Paper ID: iCFSERP20230034
	Authors: Christopher Koch, Md Kamrul	Authors: Yuki Kobayashi, Shinji Sasaoka, Kazuki	Authors: Mingqian Wang, Yubing Leng, Fuwen
	Hassan, Md Delwar Hossain, Swapan Saha	Shimamura, Keiichi Nakamura, Mitsuo Ozawa	Zhang , Lingzhu Chen , Xi Chen , Qingfeng Xu
	Title: Evaluation of Fire Spread in Energy	Title: Evaluation of fire spalling behaviour of ultra-	Title: Experimental study on fire resistance of
	Storage Systems due to Thermal Runaway in	high-strength-PVA fiber-reinforced concrete by	CLT-concrete composite slabs under one-side fire
	Lithium-ion Batteries using CFD Modelling	ring-restrained heating test	exposure
	Roundtable discussion (Room EA.G.19)		
	Panel Chair- Mr Mark Whybro (Chair of Home Fire Sprinkler Coalition Australia)		
	Panel member-1: Professor Guan Heng Yeoh (UNSW Sydney)		
	Panel member-2: Professor Yong Wang (University of Manchester, UK)		
	Panel member-3: Dr Linus Lim (Technical Director, Holmes Australia LP)		
	Panel member-4: Dr Sean Gregory (Senior Business Consultant of Fire Testing Technology (FTT), UK)		
	Panel member-5: Mr Andrew Gillen (NETZSCH Analyzing & Testing, Australia)		
	Panel member-6: Mr Clint Gavin (Network Architectural/Mitsubishi ALPOLIC, Australia)		
11:30 am-12:40			
pm			
Pin	Topics for Roundtable discussion: (10 min for each topic discussion)		
	Fire safety of EV and Lithium-Ion batteries		
	Fire protection materials (cementitious based, flame-retardant polymer, intumescent coating)		
	• Fire resilient building materials (steel, concrete, timber, masonry, FRP)		
	 Performance-based analysis and solutions in fire engineering (FDS and FE analysis) 		
	• Fire risks on cladding systems (cladding panels, cavity barrier, and insulations)		
	Bushfire protection and systems		
	Fire safety engineering and net zero society		
	The safety engineering and net zero s	ocicty	
12:40-1:00 pm	Post namer asyands and clasing coromony (Doom EA C 10)		
12:10 1:00 pm	Best paper awards and closing ceremony (Room EA.G.18)		
1:00-2:00 pm	Lunch (Hallway of EA.G.32)		
2:30-3:30 pm	WSU Structure/Fire Lab Tour (available for confirmed participants only)		



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