

TIME	
8:00	
8:30 AM	Opening Ceremony Chair: Prof. Jiyuan Tu
9:00-10:00	Keynote Presentation Chair: Prof. Qingyan Chen
Prof. Peter Coloe (Pro Vice Chancellor and Vice President of RMIT University) Prof. Reinhard RADERMACHER (University of Maryland, Editor-in-Chief, HVAC&R) Title: Outlook on Emerging Heat Pump Technology Trends	

10:00-10:30 MORNING TEA

Parallel Sessions (10:30-12:30)	Paper No.	AUDITORIUM	RED ROOM	YELLOW ROOM	BLUE ROOM	ORANGE ROOM
		Heat Exchange Systems (1) Chair: Dr. Liangzhu Wang	Advanced Modelling & CFD (1) Chair: Dr. Zhaofeng Tian	Building Energy (1) Chair: Prof. Marco Perino	Indoor Air Quality & Health (1) Chair: Prof. Kazuhide Ito	Urban & Environmental (1) Prof. Christian Heschl
10:30 AM	131	C. Liu, Qingpeng Wei* (Tsinghua University), J Deng and E. Tian <i>Development of A Multiple Index Assessment Model of Domestic Hot Water System with A Case Study of Star Hotels in Shanghai</i>	330 Yao Tao* (RMIT University), K. Inthavong, P. Petersen, K. Mohanarangam, W. Yan, J.Y. Tu <i>Numerical Simulation and experimental verification of wake flows induced by moving manikins</i>	120 A. Luo, J. Xia, Yi Jiang* (Tsinghua University) <i>Standard for district heating systems consumption in northern China: guide for thermal companies and policy-makers</i>	121 Hualing Zhang* (Chongqing University), S.Y. Hong, Z.L. Fang, H.H. Feng, B.D. Wang, D. Li <i>Microbial level assessment of indoor air quality in hospital wards</i>	280 Yongxin Xie* (Hong Kong Polytechnic University), T. Huang, J. Li, J. Niu, C.M. MAK <i>The sensitivity of wind speed and solar radiation in determining outdoor thermal sensation and comparison with UC-Berkeley model</i>
	205	Guang Zhou* (Guangzhou University), Y.Y. Ye, W.D. Zuo, X.Q. Zhou <i>Modelling Air-to-Air Plate-fin Heat Exchanger without Condensation</i>	132 X. Sun, J. Park, Jung-Il Choi* (Yonsei University), G.H. Rhee <i>Uncertainty Quantification Analysis of Single-sided Natural Ventilation in a Building</i>	172 Naoya Watanabe* (Graduate of Marine Science and Technology), S. Kametani <i>Estimation of Detailed Building Energy Consumption Using Building Energy Database and Simulation tool</i>	95 R. Chen, J. Liu, Jingjing Pei* (Tianjin University) <i>A Composite Purification Material Research of Indoor Purification for Particulate Matter and Gas Pollutants</i>	288 Xuefan Zhou* (HUST), H. Chen <i>Impact of upwind urbanization on the downwind urban heat island effect</i>
11:10 AM	316	Rikito Nishioka* (Graduate School of Tokyo University of Marine Science & Technology), S.Kametani <i>Performance Evaluation of Newest Model GHP Air Conditioning System Under Actual Operation</i>	6 Yihuan Yan* (RMIT University), X.D. Li, J.Y. Tu <i>Numerical study of the contaminants transport and distribution in the airliner cabin environment</i>	260 M. H. Hassan* (American University of Beirut), H. Khoury <i>Energy Modeling and Sustainability: A Review on Current Theories, Practices, and Challenges</i>	215 Haiguo Yin * (Xi'an University of Architecture and Technology), C. Liu, X. Zhu, Y. Fan, A. Li <i>Measurement for Indoor Pollutants Concentration Distribution of Natural Ventilation Residential Buildings in Northwest China during Heating Season</i>	16 Koorosh Gharebaghi* (Rmit University), C. Scott-Young <i>Green Structures in High Rise Construction: Application and Functionality</i>

Tuesday 6th February Parallel Sessions

11:30 AM	10	C.Y. Tso*(Hong Kong Uni. of Sci. and Tech.), Y.M. Wong, K.C. Chan, C.L. Wu, C. Chao <i>Numerical Simulation of an Adsorption Cooling and Desalination System employing a Novel Composite Adsorbent</i>	82	Xingwang Zhao* (Tianjin University), W. Liu, Q. Chen <i>Selection of Air Supply Diffusers and Parameters for Optimal Indoor Environment Design by the CFD-based Adjoint Method</i>	42	I-Ting Lai* (National Taiwan University), K.T. Huang, R.L. Hwang <i>Projection and mitigation of greenhouse gas emissions of residential building sector under climate change in Taiwan</i>	246	Qiwen Jiang* (Xi'an Jiaotong University), X.Z. Meng, Y.H. Liu, J.B. Chen and M. Zhao <i>Measurement and Evaluation on Air Quality of the University Library with HVAC System</i>	135	L. Li, Mingfang Tang* (Chongqing University) <i>The micro-climate environment of urban public transport platform in hot summer and cold winter region of china</i>
	11:50 AM	80	Hansol Lim* (Hanyang University), H. S. Lim, S. Y. Li, W. J. Kim, B. J. Kim, J. W. Jeong <i>Empirical model for predicting the heat exchange efficiency of a thermoelectric cooling and heating unit</i>	152	H. Chen, Borong Lin* (Tsinghua University), Z. Li, H. Zhou <i>Efficient Daylight Factor Rendering in Sketch Up Based on High Performance Computing of Radiance</i>	46	V.M. Barthelmes* (Politecnico Di Torino), R. Li, R.K. Andersen, W. Bahnfleth, S.P. Corgnati, C. Rode <i>Profiling Occupant Behaviour in Danish Dwellings using Time Use Survey Data - Part I: Data Description and Activity Profiling</i>	281	Huibo Zhang* (Shanghai Jiao Tong University), X. Wu, H. Yoshino, U Yanagi, K. Hasegawa, N. Kagi, T. Goto <i>Investigation on Old People's Cardio-cerebrovascular Disease and living environment in rural areas of Northeast China in Winter</i>	22
12:10 PM	81	Hye-Won Dong* (Hanyang University), H.J. Cho, E.J. Choi, B.J. Kim, J.W. Jeong <i>Energy saving potentials of solar organic Rankine cycle in a liquid desiccant and evaporative cooling-assisted air conditioning system</i>	262	F. Wenig* (Fachhochschule Burgenland GmbH), P. Klanatsky, M. Pichler, B. Derler, C. Heschl <i>Validation of a dynamic model for thermally activated building systems</i>	47	V.M. Barthelmes* (Politecnico Di Torino), R. Li, R.K. Andersen, W. Bahnfleth, S.P. Corgnati, C. Rode <i>Profiling Occupant Behaviour in Danish Dwellings using Time Use Survey Data - Part II: Time-related Factors and Occupancy</i>	30	S. Sadrizadeh* (KTH Royal Institute of Technology), S. Stensson, I. Walker, S. Marashian, S. Holmberg <i>Airborne bacteria inactivation in a hospital ward by ultraviolet irradiation</i>	24	Yu-Hsuan Juan* (National Taipei University of Technology), C.Y. Wen, Y.M. Su, A.S. Yang <i>A Preliminary Assessment of Potential Wind Power Utilization in the Leeward Side of High-Rise Buildings</i>
12:30-1:30 LUNCH & POSTER SESSION A										

Tuesday 6th February Parallel Sessions

1:30-2:30		Keynote Presentation Prof. NIU Jian-Lei (Hong Kong Polytechnic University, Sydney University, Editor-in-Chief, Energy and Building) <i>Chair: A/Prof. Sherman Cheung</i> Title: Capturing thermal convection inside and around buildings with different levels of turbulence modeling								
Parallel Sessions (2:30-3:30)	Paper No.	AUDITORIUM	Paper No.	RED ROOM	Paper No.	YELLOW ROOM	Paper No.	BLUE ROOM	Paper No.	ORANGE ROOM
		Ventilation (1)		Thermal Comfort (1)		Experimental Measurements		Energy & Policy		Acoustic & Noise
		<i>Chair: A/Prof. Wei Liu</i>		<i>Chair: Dr. Dong Chen</i>		<i>Chair: Dr. Krishna Mohanarangam</i>		<i>Chair: Prof Vahid Nik</i>		<i>Chair: Prof. Cheuk Ming Mak</i>
2:30 PM	59	A. Zendejboudi, Xianting Li* (Tsinghua University), P. Song <i>A Dimensionless Model for Estimating the Dehumidification Effectiveness of Liquid Desiccant Dehumidifiers: Application of Least Square Support Vector Machine</i>	51	Y. Wang, Lei Zhao* (Xi'an University of Architecture and Technology) <i>Indoor Thermal Comfort Analyses Based on Human Body Exergy Exchange and Consumption Rates</i>	72	Jakob Dzedzic* (Norwegian University of Science and Technology), D. Yan, V. Novakovic <i>Measurement of Dynamic Clothing Factor (D-CLO)</i>	91	Somin Park, Sowoo Park* (Sungkyunkwan University), D. Song <i>Why the Balance Point Temperature in Degree-days should be changed?</i>	124	T. Sevilla, W Tian, Y Fu, Wangda Zuo* (University of Miami) <i>Low-Cost Acoustic Sensor Array for Building Geometry Mapping using Echolocation for Real-Time Building Model Creation</i>
	2:50 PM	142 Mei Liang, Q.P. Wei* (Tsinghua University), J.W. Deng <i>A method to measure natural air infiltration in the airport based on CO2 mass balance and energy balance</i>	222	Asako Hasegawa* (Kumamoto University) <i>Lessons from a Non-uniform Thermal Environment in a PC Seminar Room.</i>	112	H. Wang, Y. Lin, X. Li* (Tsinghua University), Y. Liu, S. Nan <i>Flow visualization and test in scale model tunnel with purification station</i>	145	Yeji Lee* (Sungkyunkwan University), J. Kim, D. Song <i>Limitation of building code in terms of building energy saving</i>	29	K.W. Ma, C.M. Mak* (The University of Hong Kong), H.M. Wong, Z.T. Ai <i>Effects of noise on dental professionals in a dental hospital in Hong Kong</i>
3:10 PM	155 Wenhui Ji* (Chongqing University), Q. Luo, Z.L. Zhang, H.H. Wang <i>Cooling Effect of Mechanical Night Ventilation over Internal Wall Surface: A Parametric Analysis</i>	133	Suyeon Kim, Jowook Kim* (Sungkyunkwan University), D. Song <i>Thermal comfort and energy consumption according to the control logic</i>	157	Thibault Péan* (Irec), E. Fuentes, J. Ortiz, J. Salom <i>Performance of a gas boiler under dynamic operation conditions: experimental studies in semi-virtual environment</i>	315	Xiang Zhang* (Harbin Institute of Technology), C.H. Zhan, G.H. Li <i>Comparison of Terminal Indicators Scoring Methods between ESGB and EEWH</i>	48	Joel Lee* (Arup/Rmit), J. Davy, N. Boulter, K. Domicich <i>Performance of Rectangular Duct Attenuators under Non-ideal Configurations with an Unlined 90 Degree Bend</i>	
3:30-4:00	AFTERNOON TEA & POSTER SESSION A									

Tuesday 6th February Parallel Sessions

Parallel Sessions (4:00-6:00)	AUDITORIUM	RED ROOM	YELLOW ROOM	BLUE ROOM	ORANGE ROOM
	Paper No.	Paper No.	Paper No.	Paper No.	Paper No.
	Heat Exchange Systems (2) <i>Chair: Prof. Jae-Weon Jeong</i>	Thermal Comfort (2) <i>Chair: Prof Tengfei Zhang</i>	Cooling & Air Conditioning <i>Chair: Prof. Fu-Jen Wang</i>	Passive Building Design (1) <i>Chair: Prof. Quan Zhang</i>	Building Envelope & Materials (1) <i>Chair: Prof. Yanhua Liu</i>
4:00 PM	340 Guanping Jian* (Xi'an Jiaotong University), L. Sun, J. Wen, S. Wang <i>Numerical analysis of spiral wound heat exchanger based on fluid-structure interaction</i>	188 I. Nastase, Cristiana Croitoru* (Technical University of Civil Engineering Bucharest), I. Ursu, D. Guță, P. Danca <i>Advanced thermal manikin prototype with neuro-fuzzy control system</i>	202 C. Duarte* (Center For The Built Environment), P. Raftery, S. Schiavon, F. Bauman <i>How High Can You Go? Determining the Highest Supply Water Temperature for High Thermal Mass Radiant Cooling Systems in California</i>	229 Peter Klanatsky* (Fachhochschule Burgenland Gmbh), Franz Inschlag, Franz Hengel, Christian Heschl <i>Investigations of Solar Energy Systems for thermal self-sufficient Residential Buildings</i>	244 J.Y. Qiu, J.L. Liu, Y.X. Lu and Yanhua Liu* (Xi'an Jiaotong University) <i>A New Mathematical Model for Particle Penetration Factor Through Cracks of Building Envelope</i>
4:20 PM	96 Lukas Zechner* (Forschung Burgenland), T. Schoberer, S. Schuh, J. Weyr, W. Stutterecker <i>Analysis of Thermoelectric Heat Pumps for Applications in Buildings</i>	208 A. Casalegno, E. Monticelli, Marco Perino* (Denerg - Politecnico Di Torino), F. Prospero <i>New methodology and perspective for the air flow and thermal comfort characterization of personalized devices</i>	243 J.H. Chen, Jing Song* (Chongqing University), Z.L. Wu <i>An Application Study of Ground Source Direct Cooling Complex System</i>	118 Hongli Sun* (Tsinghua University), B. Lin <i>The Simulation Study on the Adaptability of Passive House in China</i>	18 Yaolin Lin* (Wuhan University of Technology), Wei Yang, S.Q. Zhou, C.Q. Li <i>A Study on the Effect of Building Shape on Thermal Load</i>
4:40 PM	228 Nannan Dai* (Southeast University), S.H. Li <i>Coupling Model of Heat Pump System and Water Tank with Immersed Condenser Coil in HPWH</i>	33 Dayi Lai, Xiaojie Zhou, Qingyan Chen* (Purdue University) <i>Developing A Dynamic Thermal Sensation Model for Outdoor Spaces</i>	89 S.Y. Li* (Hanyang University), H. S. Lim, J. H. Shin, M. S. Jo, J. W. Jeong <i>Energy Performance of a Desiccant and Evaporative Cooling-Assisted Air Conditioning System in Various Climatic in China</i>	190 A. Bejan, C. Croitoru, Florin Bode* (Technical University of Cluj-Napoca), I. Nastase, M. Sandu, A. Labihi <i>Inertial elements integration on thermal solar collectors</i>	34 Dmitrii Zheldakov* (Research Institute of Building Physics of Raacs), V.G. Gagarin <i>The development of method of determining climatic loads on the enclosing structures taking into account global climate change</i>

Tuesday 6th February Parallel Sessions

5:00 PM	52	Shuyang Zhang* (Southeast University), L. Zhang, X. Zhang <i>Comprehensive evaluation of Ground Source Heat Pump system using statistical method</i>	230	Hossein Bakhtiari* (The University of Gävle), M. Cehlin and J. Akander <i>Thermal Comfort in Office Rooms in a Historic Building with Modernized HVAC Systems</i>	92	Chong Shen* (Tsinghua University), X. Li, A. Melikov <i>Experimental investigation on the performance of a window cooling system compared with a chilled ceiling system</i>	26	Shin Young Jeong* (Hkust), Chi Yan Tso, Yuk Ming Wong, Christopher Chao <i>FDTD simulations on Sahara silver ant inspired biomimetic thermal selective passive daytime radiative cooling</i>	43	Robert Dylewski* (University of Zielona Góra), J. Adamczyk <i>Optimum Thickness of the Thermal Insulation Layer from the Economic and Ecological Perspective</i>
	213	Qing Cao* (Tianjin University), Q. Xu, C-H Lin, Z. Wei, Q.Chen <i>Modeling Particle Deposition on a Plate-Fin Heat Exchanger</i>	209	D.H. Qi, W.G. Li, J. Cheng, Lianzhu Wang* (Concordia University) <i>Scale Modelling of Thermal Airflows in Buildings</i>	204	K.P. Lee* (National Taipei University of Technology), K.T. Lin, B.H. Wu <i>A Case Study of Energy and Condensation Analysis for Chilled Beam Systems in the Office Building Located in Hot and Humid Climate Zone</i>	64	Alexander Floss* (University of Applied Sciences Biberach), M. Schaub <i>Sizing of Energy Storages for Zero Energy Buildings</i>	138	Xiandong Su* (Chongqing University), Z.J. Yang <i>The Influence of Energy Usage Modes and Envelope on Energy Consumption of Buildings</i>
5:40 PM			270	Hari Dalal* (Taep) <i>Evaluation of air conditioning system design of swimming pool complex</i>	170	Chuanbin Dong* (Tianjin University), Jingjing Pei <i>Performance Evaluation of Air Cleaner in Real Residential Environments</i>				
6:00 PM	END OF DAY									

POSTER SESSION A

41	Dachuan Shi* (Chongqing University), Yafeng Gao	65	Junsong Wang* (South China University of Technology), Lei Zhang, Qinglin Meng	149	Yigang Li* (Guangxi University)	150	Ruey-Lung Hwang* (National Kaohsiung Normal University), Feng-Yi Lin, Tzu-Ping Lin				
	<i>Energy Savings and Thermal Performance of Containered Planting Roof: A Case Study in Chongqing of China</i>		<i>Study on Hygric Properties of Porous Pavement Bricks</i>		<i>Development of a sun-shading louver unit with evaporative cooling effect —Numerical analysis of the improvement effect on the thermal environment</i>		<i>Effect of Urban Micro-climate on Home Energy Consumption</i>				
	78		Lingling Li* (South China University of Technology)		79		Joon-Young Park* (Hanyang University), HW. Dong, SY. Cheon, YS. Byon, JW. Jeong	151	Aymeric Delmas* (Piment Laboratory)	159	Sumei Lu ,Q.L. Meng,Q. Li
	<i>CFD Study on the Characteristics of Temperature and Velocity in a Environmental Wind Tunnel</i>		<i>Impact of Multi-Stage Liquid Desiccant Dehumidification in a Desiccant and Evaporative Cooling-Assisted Air Conditioning System</i>		<i>Towards Context & Climate Sensitive Urban Design: An integrated simulation and parametric design approach</i>		<i>Effects of the emissivity of inner wall of the building envelope on the thermal comfort of human body</i>				
119	Junhui Yan* (Southeast University)	181	Di Mu* (Tongji University), Naiping Gao	292	Xiong Shen* (Tianjin University), Tingxuan Deng	226	Hejiang Sun* (Tianjin University), Z. Yi, Y. Zhang				
	<i>Analysis of the Non-uniform Temperature Distribution and Performance Optimization of a Nanofluid-based Direct Absorption Solar Collector</i>		<i>Evaluation of k-epsilon models for simulating wind-induced mean airflow field and dispersion around a rectangular multi-storey building</i>		<i>Indoor Air Quality and Ventilation Performance in Residential Buildings in Kunming, China</i>		<i>The Status of Indoor Formaldehyde in Residential Buildings in North China</i>				
137	Xiao Juan* (Xi'an Jiaotong University), Wang Jiarui, Jian Guanping, Wang Simin, Wen Jian	148	Yuting He* (Guangxi University)								
	<i>Performance investigation on shell-and-tube heat exchangers with different baffles based on fluid-structure intersection</i>		<i>Development of a sun-shading louver unit with evaporative cooling effect -- Design concept and unit components</i>								

TIME		Wednesday, February 7, 2018						
8:30 AM	Doors Open		Late registrations					
9:00-10:00	Keynote Presentation		Prof. Bert BLOCKEN (Eindhoven Uni.of Tech, Built Env & KU Leuven, Chair of Urban & Bldg Physics)					
	<i>Chair: Prof. Guan Yeoh</i>		Title: Advances in Computational Fluid Dynamics for Building Energy and Environment					
10:00-10:30		MORNING TEA						
Parallel Sessions (10:30-12:30)	Paper No.	AUDITORIUM	RED ROOM	YELLOW ROOM	BLUE ROOM			
		Ventilation (2)	Advanced Modelling & CFD (2)	Sensors, Controls & Monitoring (1)	Indoor Air Quality & Health (2)			
		<i>Chair: Dr. Xiangdong Li</i>	<i>Chair: A/Prof. Sherman Chipok Cheung</i>	<i>Chair: Prof. Junjie Liu</i>	<i>Chair: Dr. Lin Tian</i>			
10:30 AM	199	Cristina Croitoru* (Technical University of Civil Engineering Bucharest), M. Sandu, I. Nastase, F. Bode, L Tacutu <i>Scale Model Study for a Ventilation System Optimization inside a Sludge Dewatering Area</i>	11	Wei Liu* (Purdue University), Q. Chen <i>Inverse Design of Indoor Environments by a Fast Fluid Dynamics-based Adjoint Method</i>	196	Laura Burneau* (Cstb), P. Michel, B. Vinot <i>System dynamics modeling of building-scaled refurbishment: a resource-based analysis for BIM adoption</i>	50	J. Zemitis, Janis Lulis* (Riga Technical University), A. Borodinecs, A. Prozumants <i>Preliminary Study on IAQ in Indoor Shooting Ranges</i>
10:50 AM	13	Wei Ye* (Tongji University), H. Wang, X. Zhang <i>A preliminary discussions on base levels of ventilation rates for public buildings in China</i>	55	Y. Wei, W. Liu, Y. Xue, Z. Zhai, Q. Chen, Tengfei Zhang* (Dalian University of Technology) <i>Inverse Design of Enclosed Air Environment by Integrating Three Methods</i>	69	J. K. K. Petersen, J. K. Kristensen, H. Elarga, R. K. Andersen* (Technical University of Denmark), A. Midtstraum <i>Accuracy and air temperature dependency of commercial low-cost NDIR CO2 sensors: An experimental investigation</i>	146	Sung-Jun Yoo* (Kyushu University), K. Ito <i>Quantitative risk assessment of transient inhalation exposure using PBPK-CFD hybrid model with computer simulated person</i>
11:10 AM	38	K. Vachaparambil, Mathias Cehlin* (The University of Gävle), T. Karimipannah <i>Comparative Numerical Study of the Indoor Climate for Mixing and Confluent Jet Ventilation Systems in an Open-plan Office</i>	61	Zhenjun Ma* (University of Wollongong), K. Li, D. Robinson, J. Ma <i>A Two-level Clustering Strategy for Energy Performance Evaluation of University Buildings</i>	122	T.Y. Zhao, Jiaming Wang* (Dalian University of Technology) and M. Xu <i>Study on Predictive Control for Chiller Plants Based on T-S Fuzzy Model</i>	156	D.C. Zhang, J.J. Liu, R.Q. Chen, J.L. Ren, Jingjing Pei* (Tianjin University) <i>A Study on Decomposition of Cooking Oil Fume by UV, VUV and VUV/ O3</i>
11:30 AM	53	Z. Cao* (Xi'an University of Architecture and Technology), Y. Wang, M. Wang <i>A Comparison of Concentrated Contaminant Removal in enclosure by Using Mixing Ventilation and Vortex Ventilation</i>	136	Yunyang Ye* (University of Miami), G. Wang, W. Zuo <i>Creation of a Prototype Building Model of College and University Building</i>	128	Shohei Miyata* (The University of Tokyo), Y. Akashi, J. Lim and Y. Kuwahara <i>Energy Conservation by Optimization of Set Values in Heat Source Systems Considering Controllability</i>	169	Y. Yin* (Tianjin University), J. Pei, J. Cao, Y. Sun, J. Liu, Y. Zhang <i>Time dependence of characteristic parameter for semi-volatile organic compounds (SVOCs) emitted from indoor materials</i>

Wednesday 7th February Parallel Sessions

11:50 AM	57	Lei Zhao* (Xi'an University of Architecture and Technology)	104	J. Cheng, H. Wang* (University of Shanghai For Science and Technology), Z. Zhai	166	A.S. Lamano* (Eri@N), S. Yang, M. P. Wan, M. Zhou, J. Zhou, S. Babu, J. N. Sarvaiya, Z. Zhang, D.E.V.S. K. Kumar, K. Krishnasayee	171	Akemi Iwaki* (Shibaura Institute of Technology), Takashi Akimoto
		<i>Comparison of Cooling Performance of Rooms with Cooling Radiant Ceiling Panel and Constant Air Volume System</i>		<i>Inverse Modeling of Airborne Pollutant Based on Adjoint Probability Method under Unsteady Airflow Conditions with Multizone Model</i>		<i>Energy Performance of an Integrated Automated Blinds and Dimmable Lighting System with Model-Predictive Control (MPC)</i>		<i>Survey on the Effect of Sleep on Summer Using Personal Humidifier and on the Skin and Blood Pressure of Middle-Aged People</i>
12:10 PM	90	Younhee Choi* (Sungkyunkwan University), D. Song, W. Cho, J. Kim	127	Doyun Lee* (The University of Tokyo), R. Ooka, S. Ikeda and W. Choi	175	Ii inca Nastase* (Technical University of Civil Engineering of Bucharest), I. Ursu, D. Enciu, V. Iordache, S. Zaharia, M. Gustiuc, M. Sandu	217	J.L.Ren, Junjie Liu* (Tianjin University), W.D. Li
		<i>Effect of the fixed and variable heat exchange efficiency of room ventilation system on heating energy demand</i>		<i>Case Study of ANN Modeling of Stratified Thermal Energy Storage and Ground Source Heat Pump Systems for Model Predictive Control</i>		<i>Real Time Monitoring Network System for Urban Air Quality Management</i>		<i>Study on fine particle and volatile organic pollutants in the terminal building of Tianjin Airport, China</i>

12:30-1:30

LUNCH & POSTER SESSION B

1:30-2:30 **Keynote Presentation** Prof. Christian HESCHL (FH Burgenland, Forschung Burgenland: Director Center for Building Technology)
 Chair: Dr Kiao Inthavong Title: The European Way to Energy Efficient Buildings

Parallel Sessions (2:30-3:30)	Paper No.	AUDITORIUM	Paper No.	RED ROOM	Paper No.	YELLOW ROOM	Paper No.	BLUE ROOM
		Heat Exchange Systems (3) Chair: Prof. Lei Zhao		Thermal Comfort (3) Chair: Dr. Sara Vahaji		Building Energy (2) Chair: Prof. Jian-Lei Niu		Passive Building Design (2) Chair: Prof Ryozo Ooka
2:30 PM	201	Kuei-Peng Lee* (National Taipei University of Technology), C.K. Chuang, B.H. Wu	271	Yuxin Wu* (Chongqing University), H. Liu, B. Li	49	Rongling Li* (Technical University of Denmark), Y. Chen, C. Rode	144	Tetsuya Kawamura* (The University of Tokyo), R. Ooka, S. Ikeda
		<i>Applying Data Mining Technology in Diagnosis for the Operation of Chiller Plant</i>		<i>Impact of adaptive behaviours on evaluation of thermal comfort in aircraft cabins</i>		<i>Heat Flexibility as a Function of the Outdoor Climate: A Study of Danish Dwellings</i>		<i>Shape Optimization of a Detached House Considering Daylight Utilization Using Metaheuristics</i>

Wednesday 7th February Parallel Sessions

2:50 PM	306	Fan Zhang* (Southeast University), Y. Yin, X. Zhang <i>Performance analysis of a liquid desiccant evaporative cooling air-conditioning system powered by solar energy</i>	312	Moon Keun Kim* (Xian Jiaotong - Liverpool University), S. Cui <i>Evaluation of PMV and PPD Model of a Hybrid Radiant Cooling System</i>	68	Ying Zhu* (Xi'an University of Architecture and Technology), Y. Li, Y. Liu, B. Shao, Q. Tong <i>Development of A Distributed Energy Systems Optimization and Carbon Emission Management Model under Uncertainty: A Case Study of New Countryside Building in Guanzhong area, China</i>	235	Haoyu Wang* (The University of Sydney) and C. Lei <i>Combined Solar Chimney and Water Wall for Ventilation and Thermal Comfort</i>
	307	Li Ling* (Hunan University), Q. Zhang, Y. Yu, S. Liao <i>Energy saving analysis of the water cooled multi-split heat pipe system (MSHPS) in a data center</i>	347	Xinying Fan* (Dalian University of Technology), B. Chen, T. Zhao <i>An experimental and theoretical study on the indoor thermal environment of a new cave dwelling in the northwest of China</i>	84	Shunyong Yin* (Tsinghua University), J. Xia, H. Fang, Y. Li, Y. Jiang <i>Challenges for Clean Heating in Northern China</i>	126	Kwanho Lee* (Ulsan College), Geoffery Levermore <i>Estimation of surface solar irradiation using sky view factor, sunshine factor and solar irradiation models according to geometry and buildings</i>

3:30-4:00

AFTERNOON TEA & POSTER SESSION B

Parallel Sessions (4:00-5:20)	Paper No.	AUDITORIUM	RED ROOM	YELLOW ROOM	BLUE ROOM			
		Phase Change Materials <i>Chair: Prof. Yonggao Yin</i>	Building Envelope & Materials (2) <i>Chair: Prof. William Yang</i>	Urban & Environmental (2) <i>Chair: Prof. An-Shik Yang</i>	Indoor Air Quality & Health (3) <i>Chair: Prof. Lennart Larsson</i>			
4:00 PM	158	Ximing Chen* (Shenzhen Institute of Building Research Co. Ltd.), J. Ren, Y. Wang <i>Preparation and Characterization of BioPCM for Building Envelope applications</i>	56	Y. Xu, C.H. Lin, Z. Wei, Tengfei Zhang* (Dalian University of Technology), S. Wang <i>Measuring Moisture Content in a Porous Insulation Package with a Finite Geometric Domain</i>	63	Sumei Liu* (Tianjin University), W. Pan, X. Cheng, H. Zhang, Z. Long, Q. Chen <i>CFD Simulation of Urban Wind Flow in an Actual Urban Area with a Full-scale Geometrical Model</i>	344	Lumeng Liu* (University of Queensland), J. Liu, D. Do <i>Toward a better understanding of how functional groups and pore size affect formaldehyde adsorption in carbonaceous materials: A Monte Carlo simulation study</i>
4:20 PM	184	Xiaofeng Niu* (Nanjing Tech University), Y. Zhang, Y.F. Yan, T. Liu, J.J. Liu <i>Effect of Micro-Encapsulated Phase Change Materials on the Performance of Liquid Desiccant Dehumidification</i>	192	S. Fantucci, E. Fenoglio, F. Isaia, Valentina Serra* (Politecnico Di Torino), M. Perino, M. Dutto, V. Marino <i>Development of aerogel based internal thermal plasters for the energy retrofit of existing buildings: First results</i>	178	Fanxing Zeng* (Tongji University), N. Gao <i>Evaluation of urban thermal characteristics at microscale using energy balance models</i>	349	J. Zhang, C. Sun, R. Lu, W. Liu, C. Huang* (University of Shanghai For Science and Technology) <i>The Status of Exposure Level and Assessment of Phthalic Acid Esters in Household Dust</i>

Wednesday 7th February Parallel Sessions

4:40 PM	239	Yuan Zhang* (School of Energy and Power Engineering, Jiangsu University) and Q. Wang <i>Hollow block's structural impact on the thermal behaviour of PCM wall</i>	220	Z. Zhuang* (Tongji University), J.Y. Ying, H. Ye, Y. Yu <i>Thermal and energy analysis of an integrated building envelope with ventilated air layers for utilization surplus heat</i>	273	Pui Kwan Cheung* (The University of Hong Kong), C.Y. Jim <i>Thermal benefits of Chinese Banyan in subtropical Hong Kong</i>	351	Chao Chen* (Beijing University of Technology), C. Chen, Z. Chen, H. Qin, Y. Wu, Z. Hao <i>Determination on the key design parameters of indoor PM2.5 load under air infiltration</i>
	266	Xiangli Li* (Dalian University of Technology), C. Tong, L. Duanmu, Z. Zhai <i>Preparation and thermal energy storage properties of polyethylene glycol / silica /expanded graphite as shape-stabilized phase change material</i>	232	Peng Xue* (Beijing University of Technology), J.C. Xie, C.M. Mak and J.P. Liu <i>An index linked with luminous environment and energy saving for daylighting and shading design</i>	274	Jiawei Yao* (Tongji University), F. Yang, Z. Zhuang, Y. Shao, Q. Ban, J. Li, F. Yuan <i>Outdoor Natural Ventilation and Construction Sequence based Urban Planning Strategies in Extended District of Lujiazui CBD, Shanghai</i>	348	Bin Chen* (Dalian University of Technology), X. Fan, T. Zhao, Y. Chen, C. Zeng <i>Life style and Requirement on Indoor Environment</i>
5:20 PM	END OF DAY							

POSTER SESSION B	187	Hye Gi Kim (Ajou University, Korea), Sun Sook Kim, Min Ki Sung <i>Development of an ECM recommendation model considering the combined effect on the building energy performance</i>	227	Y-L Wu, K-S Yang, S-K Wu* (Industrial Technology Research Institute, Hsinchu), C-W Lin, S-X Liao <i>Experimental Analysis on Moisture Absorption and Desorption Properties by Enhancement Design</i>	265	Saadia Ansari (Reading University), L. Shao, G. Larsen <i>A warm welcome? You're out of Lux</i>	345	Pippa Boyd , (University of Reading) <i>The Performance Gap: the practicalities of integrating solar technologies into building projects</i>
	231	Tong-Bou Chang* (National Chiayi University), Jer-Jia Sheu, Zhong-Wei Huang, Yu-Sheng Lin, Che-Cheng Chang <i>Effects of outdoor air ventilation rate on vehicle cabin indoor air quality</i>	236	Kefeng Dong* (Southeast University), Shuhong Li <i>A Real-time Variable Capacity Control Strategy of a Photovoltaic Integrated Solar Heat Pump Water</i>	346	Annicka Chetty , (Rmit University), S. Safari Pour, L. Tian, and K. Inthavong <i>Feasibility of solar pond performance and efficiency for building energy consumption</i>	234	Yuwen You (Chengjian University), C. Guo, B. Tang, Z.F. Tian, H. Wang <i>Thermal Balance Analysis of Partitioned Large Scale Underground Heat Exchangers</i>
	253	Wei qiang Zhao* (Southeast University), Shuhong Li, Lei Fang, <i>Analysis on the Variable Frequency Control of Hybrid Heat Sources Heat Pump Water Heater</i>	189	Di Mu* (Tongji University), Naiping Gao <i>The Impact of solar radiation on inter-flat contaminants transmission characteristics in high-rise building</i>	303	Ruoyu Su, Xiong Shen* (Tianjin University) <i>Simulations of Indoor Airflow by Strong Heat Source using Lattice Boltzmann Method with LES Approaches</i>	320	Ye Seul Eom, Dong Hee Choi, Dong Hwa Kang* (University of Seoul) <i>Investigation on the impact of outdoor particles on indoor air in multi-unit residential buildings</i>
	177	Lujian Bai* (Xi'an University of Architecture and Technology) <i>The impacts of climate change on thermal climate zone and building energy efficiency in China</i>	255	Fu-Jen Wang* (National Chin-Yi University of Technology), Jing-Syong Huang <i>Performance Improvement Analysis for a Negative-pressured Biosafety Level Laboratory</i>				

TIME		Thursday, February 8, 2018					
8:30 AM		Doors Open					
9:00-10:00		Keynote Presentation Prof. Shin-Ichi TANABE (Waseda University, Director Tanabe Laboratory) Chair: Prof. Wangda Zuo Title: Indoor Climate and Energy after Fukushima – Toward Zero Energy Building					
10:00-10:30		MORNING TEA					
Parallel Sessions (10:30-12:30)	Paper No.	AUDITORIUM	RED ROOM	YELLOW ROOM	BLUE ROOM		
		Heat Exchange Systems (3) Chair: Prof. Jian Wen	Advanced Modelling & CFD (3) Chair: Prof. Guan Yeoh	Building Energy (3) Chair: Prof. Ivo Martinac	WORKSHOP: Design Methodologies in Urban Environment Chair: Prof. Mak and Prof. Niu		
10:30 AM	252	J. Lu, T. Long, R. Hu, J. Chen, Yongcai Li* (Chongqing University) <i>Effects of Various Parameters on Thermal Performance of a SWHS-LHS System: A Numerical Study</i>	197	Wei Tian* (University of Miami), Y. Fu, Q. Wang, T.A. Sevilla, W. Zuo <i>Optimization on Thermostat Location in An Office Room Using The Coupled Simulation Platform in Modelica Buildings Library: A Pilot Study</i>	99	Issa Jaffal* (Christian Inard), C. Inard <i>A Study of Building Energy Consumption for Cooling Using a Metamodel</i>	1. Professor Cheuk Ming MAK Hong Kong Polytechnic University Design methodologies for the improvement of wind comfort in the urban environment
10:50 AM	257	Jiang Weixue* (Southeast University), Kai Du, Xu Jianyong <i>Experimental Investigation on Convective Heat Transfer Characteristics of TiO2 Ammonia Water Nanofluids</i>	141	Jianlin Liu* (The Hong Kong Polytechnic University), J. Niu, Y. Du and C. Mak <i>Large Eddy Simulation of Pedestrian Level Wind around a building community: Evaluation of Influencing Factors</i>	129	P.L. Yuan, Lin Duanmu* (Dalian University of Technology) and Z.S.Wang <i>Predicting Daily Heating Energy Consumption of Rural Residences in Northern China Using Support Vector Machine</i>	2. Prof. Bert Blocken (Wendy Janssen, Twan van Hooff) Technische Universiteit Eindhoven CFD analysis for wind comfort improvement around a tower building in Eindhoven city center
11:10 AM	277	Wenke Fan* (University of Wollongong), G. Kokogiannakis, Z. Ma <i>Design optimisation of a double pass PV/T-solar air heater integrated with heat pipes</i>	154	Nguyen Phuong* (Kyushu University), N.D. Khoa, T.V. Quang, K. Ito <i>Comparative Computational Modeling of Airflow and Inhaled Particles Residence Times in the Human and Monkey Upper Respiratory Tracts</i>	143	Jisoo Shim* (Sungkyunkwan University), D. Song <i>Impact of typical weather data considering regional climate condition on building energy consumption</i>	3. Dr. Jianlin LIU University of Sydney Transient CFD simulation on pedestrian level wind around a building community
11:30 AM	278	Alison Subiantoro* (University of Auckland), A.N. Iman, K.T. Ooi <i>Improving the Efficiency of Portable Air Conditioners in Open-Air Shops and Cafes in the Tropics by Separation of Dehumidification and Cooling Processes</i>	160	Alicia Murga* (Kyushu University), K. Ito <i>Dynamical downscaling and hybrid CFD - transient network modelling analysis for estimating inhaled air quality</i>	256	Enrico Fabrizio* (Politecnico Di Torino), A. Costantino and L. Comba <i>A calculation model for the energy performance assessment of fattening pig houses</i>	4. Miss Sherry Yongxin XIE, Hong Kong Polytechnic University A trial of applying the UCB model in the outdoors-the evaluation of onsite application and the physiological parameters under thermally neutral outdoor environment
11:50 AM	285	N. Shan, Yonggao Yin* (Southeast University), F. Zhang <i>Study on Performance of A Novel Energy-Efficient Heat Pump System Using Liquid Desiccant</i>	212	M. Mortezaazadeh, Liangzhu Wang* (Concordia University) <i>Modelling Urban Airflow by a New Parallel High-Order Semi-Lagrangian 3D Fluid Flow Solver</i>	283	T. Du* (Delft University of Technology), M. Turrin, S. Jansen, A. Van Den Dobbelaert, N. Biloria <i>A Review on Automatic Generation of Architectural Space Layouts with Energy Performance Optimization</i>	5. Miss Jianong LI Hong Kong Polytechnic University Empirical Calibration of Universal Thermal Comfort Index—UTCI for assessing the outdoor thermal environments in Hong Kong

Thursday 8th February Parallel Sessions

12:10 PM	298 Wenxin Li* (RMIT University), X. Li, Y. Wang, J. Tu <i>Effect of material properties on the thermal performance of tubes in a layered subsurface</i>	268 K.P. Gokulraj* (Indian Institute of Technology), S. Tiwari, M.P. Maiya <i>Three-dimensional Numerical Study on Flow and Thermal characteristics of Wall jet Diffuser in an Enclosure</i>	248 Letizia Roccamena* (École Nationale Des Travaux Publics De L'état), Mohamed El Mankibi <i>Optimization of an innovative thermal energy storage technology at low temperatures.</i>	6. Dr. Cho Kwong Charlie Lam Associate Researcher School of Atmospheric Sciences Sun Yat-sen University Title: landscape variability and outdoor thermal comfort in the Melbourne botanic gardens
12:30-1:30 LUNCH & POSTER SESSION C				
1:30-2:30	Keynote Presentation Prof. Qingyan CHEN (Purdue University, Editor-in-Chief, Building and Environment) Chair: Prof. Jiyuan Tu Title: Indoor Air Quality Control Strategies for Residential Buildings in China			
Parallel Sessions (2:30-3:30)	Paper No. AUDITORIUM Ventilation (3) Chair: Prof. Yong Wang	Paper No. RED ROOM Advanced Modelling & CFD (4) Chair: Dr. Zhaofeng Tian	Paper No. YELLOW ROOM Urban & Environmental (3) Chair: Dr. Wei Yang	Paper No. BLUE ROOM Indoor Air Quality & Health (4) Chair: Dr. Yihuan Yan
2:30 PM	153 Y. Gao* (Shenzhen Institute of Building Research Co. Ltd.), S. Wang, B. Liu, X. Chen, J. Ren <i>The Investigation of Ventilation Performance and Indoor Air Quality of Residential Buildings in South China</i>	302 Lin Yang* (Rmit University), X. Li, J. Tu <i>Numerical study of cabin interior air environment response of high-speed trains passing each other</i>	276 Jia Nong Li* (The Hong Kong Polytechnic University) <i>Validation of the ability of outdoor thermal index on assessing the outdoor thermal comfort in hot-humid regions</i>	221 X. Feng* (China Academy of Building Research), H. Zhang, Y. Zhang, J. Bai <i>A long-term monitoring results and summary of airborne particle size distribution from 10nm to 10µm under different PM contamination level in Beijing</i>
2:50 PM	218 M. Cehlin* (University of Gävle), U. Larsson, H.J. Chen <i>Numerical Investigation of Air Change Effectiveness in an Office Room with Impinging Jet Ventilation</i>	350 Chen Huang* (University of Shanghai For Science and Technology), L. Yu, Y. Liu, Y. Xue, J. Liu and H. Liu <i>Comparison and analysis of vertical temperature distribution prediction models in large space buildings</i>	287 Hashem Akbari* (Concordia University) <i>Effects of Increasing Surface Reflectivity on Urban Climate and Air Quality over North America</i>	250 Pan Wang* (Tianjin University), S. Chen, Z. W. Zhang, S. Zhang, J. J. Pei, J. J. Liu <i>Study on the Test Method and Performance Evaluation of Particle Removal by Electrostatic air filter</i>
3:10 PM	314 P. Zhou, Haidong Wang* (University of Shanghai For Science and Technology) <i>Optimization of HVAC system in typical residential buildings in northern China</i>	211 A. Katal, Liangzhu Wang* (Concordia University), W. Stuart Dols, B.J. Polidoro <i>An investigation of different strategies for solving coupled thermal airflows by multi-zone network method</i>	293 Yi Xu* (Tianjin University), G. Liu, R. Dang, LX. Wang <i>Field Study and Energy Sensitivity Analysis of the High-Speed Railway Station in Cold Regions of China</i>	311 Lennart Larsson* (Lund University), Johan Mattsson <i>Improving the Indoor Air Quality in Damp Buildings by Using a Surface Emissions Trap</i>
3:30-4:00 CLOSING CEREMONY (Auditorium)				
4:00-4:30 AFTERNOON TEA - Social Networking Session				
4:30 PM END OF DAY				