



# PROGRAM SCHEDULE | DAY 2 - MONDAY, AUGUST 25 - ALL ROOMS

Registration (arrival tea and coffee)																			
Live Stream Room																			
Plenary - Plaza Terrace Room			Mezzanine M1			Mezzanine M2			Plaza P1		Plaza P2		Plaza P3		Plaza P4		Plaza P5		SI
Opening Ceremony - Welcome to Country Welcome & IBPSA address Keynote address: Science isn't finished until it's communicated Sponsor Address: Better Building Keynote address: Occupant-centric approaches to improve energy performance																			
Morning tea 0830-1100																			
Theme	BIM to BEM		Climate Change Mitigation & Adaptation CCMA			Climate Change Mitigation & Adaptation CCMA			Indoor Environment Quality IEQ		Energy Efficiency and Sustainability EES		Energy Efficiency and Sustainability EES		Energy Efficiency and Sustainability EES		Urban Planning & Smart Cities UPSC		Innovative Design Exploration & Industry Transformation IDEIT
Session Chair: Pieter de Wilde Session Chair: Noni Nurian Session Chair: Manasa Marasani Session Chair: Matt Werner Session Chair: Hanjia Javed Session Chair: Erica Chan Session Chair: Wangda Zuo Session Chair: Naveen Hamza Facilitator: Pamela Fennel																			
1100-1115	IC-based semi-automated building energy model creation and simplification for Building Energy Simulations	Sayegh, Hasan	Future Overheating Risks in Buildings complying with current Codes	Petersen, Steffen	How to combine direct and indirect adiabatic cooling into an air handling unit for resilient tertiary buildings	Breteau, Antoine	Workflow for designing VR experiments for daylight and view-out studies using real-time stereoscopic videos	Cho, Yumil	Beyond correlation: A causality-driven model for indoor temperature control	Mun, Jeeye	Probabilistic Anchorage-based Urban Building Energy Modeling under Data Scarcity: Building Age and Refurbishment State as Case Variables	Geiske, Mara	Quantifying the compound impact of urban heat island and climate change on cooling energy consumption in Nanjing's traditional urban center	Linzi, Zhao	Development and comparison of urban morphological solar energy and building energy consumption models using ANN and linear regression	Poon, Kin Ho	Implementing Dynamic in-CAD/Modification frameworks for enhanced parametrization	Azzide, Abdella	
1115-1130	IC-based setup of interior spaces for thermal comfort simulations using CFD	Richter, Veronika Elisabeth	Urban heat resilience evaluation and climate-responsive urban design for climate change adaptation	Deng, Linzi	The influence of vegetation structure on urban microclimate: A CFD analysis of urban block and vegetation densities	Rotho, Chinmay Shashank	Exploring the consistency of UGR calculations, measurements, and evaluations	Mahdavi, Ardeshir	Identification of simplified control strategies in multi-source optimization for electric demand flexibility in building energy	Benali, Fatima Zahra	Urban form and energy demand: Impact of height and density height and density for low-energy design in tropical climate	Deh, Chirag	Empowering urban building energy modeling with city information models: A critical review on the benefits and urban center	Zhang, Xiang	The impact of irregular days on machine learning predictions of office building load and corresponding optimization	Wang, Jingrong	Innovative Miscanthus-based materials	El Khoueiry, Dolly	
1130-1145	Building performance analysis at the design stage: A study into the challenges of BIM and BEM integration in the Swedish AEC	de Wilde, Pieter	Assessing the impact of future climate on building energy performance with downscaled weather data in Korea	Lim, Eunkyung	Evaluating green roof performance in Korea heating and cooling load impacts under future climate scenarios	Lee, Semin	Exploring on evaluation of human response to indoor daylighting environment using UES virtual reality modeling: a pilot study	Lang, Runqi	A decision-making method based on economic and environmental life cycle analysis for sustainable controlled	Wang, Liping	Urban building energy simulation for performance analysis of an energy community model in the Italian context	Zhu, Yunli	Developing building shape indexes at the city scale for understanding building energy consumption	Hwang, Jeongyeon	Quantum approximate optimization algorithm (QAOA) for surplus energy distribution in urban microgrids	Han, Jung Min	Optimization of HVAC planning of large high ceiling room for spacecrafts and satellites using CFD and optimization algorithm	Yumino, Saori	
1145-1200	Information Requirements for Natural Ventilation in an IC-based BIM-BEES workflow	Garlet, Lúge	Energy-efficient building spatial layout strategies under future climate change scenarios	Shen, Pengyuan	Examining the effect of heat mitigating strategies on outdoor air temperatures in educational facility under the hot humid	Mohamed, Maryam Mohamed Jaffer	Data-driven assessment of daylight metrics for building visual environmental quality	Duyang, Fion Yang	Machine learning-driven optimal control method for subway station VAC systems	Wang, Li	Constructing three-dimensional urban models for Urban Building Energy Modeling using UAV oblique imagery	Su, Fengmin	Shanghai multi peak load by overestimating future load in microgrid model predictive control	Li, Longlong	A knowledge graph-based performance evaluation framework for sustainable residential block design	Zhao, Rui	Evaluating the Practical Energy Saving Potential of a Personal Cooling System in the Tropics	Tseno, Enea Dimitris	
1200-1215	Using Large Multimodal Models (LLM) to digitalize scanned HVAC Schematics into Metadata Schemas for Buildings	Hivid, Christian Anker	Bio-retrofit: Potential of mycelium-based composites to future-proof India and Australia's residential buildings against divergent Passive buildings provide thermal resilience in a dystopian warming climate.	Debnath, Kumar Biswajit	Geometric model, thermal environment of bus shelters and cooling behaviors of pedestrians in hot-humid areas—a case	Mao, Huijun	Validation of multispectral simulation tools for predicting non-visual lighting metrics across diverse daylight scenarios	Amin, Gontar	A novel occupant-centric control framework for building to urban scale hybrid-energy simulation	Anand, Prashant	Sensitivity analysis of albedo input settings for vertical facades in community-scale solar irradiance simulation	Yoon, Daemin	A knowledge graph-based performance evaluation framework for sustainable residential block design	Wu, Zhaoji	Development of convolutional neural network-based turbulence modelling framework for outdoor wind field simulation	Zhan, Sicheng	Evaluating the Practical Energy Saving Potential of a Personal Cooling System in the Tropics	Hong, Wontae	
1215-1230	Building Information Model (BIM) and Life Cycle Analysis tools: A comparative study with specialized software for environmental performance of buildings.	Gulzar Dena, Andrés Jonathan		Thounajom, Amanda	The impact of Chinese wellness habits on cooling-related behaviors of urban residents	Li, Jiahui	Comparative Analysis of Glare Indices in Indoor Environments Affected by Reflected Sunlight	Lee, Jisoo	Generation of synthetic load profiles for different typologies of residential users through metadata-driven generative AI models	Piscitelli, Marco Savino	Urban spatial microclimate prediction with morphological map-based ensemble deep learning method	Hu, Maomao	Characterization of the building stock in the mountain environment: correlations between natural context, building geometry and energy performance	Borelli, Gregorio	Fast prediction of urban wind distribution with deep learning-based surrogate models	Wang, Houzhi	Energy performance assessment of climate adaptive building envelopes using shading masks		
Lunch 1230-1330																			
Theme	Climate Change Mitigation & Adaptation CCMA		Climate Change Mitigation & Adaptation CCMA			Indoor Environment Quality IEQ		Energy Efficiency and Sustainability EES		Energy Efficiency and Sustainability EES		Energy Efficiency and Sustainability EES		Urban Planning & Smart Cities UPSC		Innovative Design Exploration & Industry Transformation IDEIT			
Session Chair: Martina Ferrando Session Chair: Daniella Montiel Session Chair: Andrea Gasparella Session Chair: Nathaniel Jones Session Chair: Massimo Palma Session Chair: Du Yan Session Chair: Veronica Harada Hansen Session Chair: Erik Koldrup Session Chair: Mikah Fenu																			
1330-1345	Urban microclimate simulation as a tool for social cohesion and improvement in deprived areas: a case study	Diz-Mellado, Eduardo	Embodied carbon emissions of the residential building stock in the United States and the effectiveness of mitigation strategies	Hu, Ming	Optimization of ventilation corridor design parameters based on ventilation simulation: A New York City case study	Shen, Xiaohan	Comparative analysis of daylight, view, and visual privacy: A New York City case study	Kim, Jaeha	Using timber-based panels to retrofit old university buildings in Korea for carbon emission reduction: A comparative study using IAQ and energy performance	Park, Junsang	Single family residence energy efficiency impacts on emissions reduction and energy usage: A comparative study using IAQ and energy performance	Li, Qionbo	Practically feasible and novel approach for predicting electrical power demand of multiple dwellings using a digital tool in building services industry	Mustafa, Murat	Shaping digital twins: exploring uav and web-based 3d modeling technologies for sustainable building simulation	Hu, Dingtun	Simple Tool to Evaluate the Performance of Model Predictive Control of Space Heating in the Early Stages of Building Design	Petersen, Steffen	
1345-1400	Modeling resilient multi-energy systems for rural, remote, and disadvantaged communities: A review	Zuo, Wangda	Towards a low-carbon countryside: Lifecycle embedded carbon emission analysis and reduction recommendations for farmhouses	Ye, Yihang	Evaluating the effectiveness of building retrofit strategies for reducing indoor overheating risks in elderly apartments	Gallardo, Andres	Including households' comfort elasticities in model predictive controllers	Willems, Sara	Operational carbon impact of integrating alternative cooling systems and renewables in air homes	Mezaen, Ahmed A.	Estimating life-cycle carbon mitigation potential of building integrated photovoltaics (BIPV) facade at the city scale	Zhang, Shihong	A Li-Lattice and EnergyPlus coupled modelling approach to estimate HVAC energy consumption and natural ventilation	Pandey, Pratik Raj	Predicting urban air temperature using UVA infrared thermography and an artificial neural network	Hyun, Youha	Building design approach in stack effect calculation for complex cases: Multi-instrumental solution	Sultanov, Emil	
1400-1415	Helium-based modelling approach for studying thermal-induced airflow in street canyon	Qi, Dahai	Predicting Energy Demand discrepancies in French residential buildings on IAQ and regulation on assessing residential health care	Hamza, Naveen	Implications of window opening in French residential buildings on IAQ and regulation on assessing residential health care	Cui, Cheng	BuildSysPro-IAQ: Impact of Energy systems in French residential buildings on IAQ and Energy Consumption	Wall-Robot, Benedicte	Clarifying carbon reduction claims and pathways to their achievement using real-world buildings	Goldsworthy, Mark	How optimal building decarbonization pathways differ when considering energy burden and job creation	Workneh, Birik	Adaptation of the heating curve for heating systems	Le, Huu Thoi	ArcheType generation for the district-scale Life Cycle Assessment of buildings	Schlidt, Maximilian	Thermo-bimetal responsive building skins: comparative analysis of full-scaled geometric patterning and user override on	Sinha, Anikta	
1415-1430	Comparative analysis of cost-benefit quantification methods for equitable resource allocation in building stock	Tseng, Hung Ming	Nationwide longitudinal study on summertime overheating risk in English care homes	Gupta, Rajat	How much will future climate change affect building retrofits for energy equity?	De Silva, Hashan	Assessing inter-sensor variability and calibration of low-cost IAQ sensors through co-location with reference devices	Mathur, Vanisha	Renewable energy communities in Sweden: a techno-economic analysis of single-owner multiple-consumer building-level energy	Al-Tai, Ziad Amer	How optimal building decarbonization pathways differ when considering energy burden and job creation	Dubois, Ryan	Review of a dynamic simulation approach for heating system sizing	Maton, Luca	Urbanform: An AI-driven platform for collaborative, multidisciplinary building-level and urban-scale analysis	Ang, Yu Qian	Surrogate modeling of heat transfer in 3D-printed facades with active learning	Bittencourt, Gustavo	
1430-1445	Dynamic factors in life cycle assessment: systematic review and categorization	Zong, Chujun	Urban climate control strategies and buildings' retrofitting: a simulation study in the UNESCO heritage site of Valparaiso, Chile	Palme, Massimo	Evaluating occupant behavior model performance considering long-term time use change	Yin, Rumeng	Depressurization risk assessments in multi-unit residential buildings using pressurized corridor ventilation systems	Fyjak, Natalie	Design guidance for net zero energy medium-rise buildings in Seoul	Chen, Jingyi	Steering Building Design in India towards net zero with a Whole-Building Carbon Protocol	Jayaram, Sreethi	Development of a simulation tool to assess heat pump integration in Canadian homes	Lachance, Alex	Enhancing microclimate modeling in tropical climates: validation of Envi-Met with experimental data from Reunion island	Lefevre, Alexandre	A stable geometry transformation module from 3D geometry data to building energy model	Xiao, Jun	
1445-1500	Carbon emissions during the design and construction phases of public works: a case study of council housing in Taiwan	Lin, Han-Fei	Long-term analysis of felt-based living green walls: microclimate monitoring and simulation calibration	Gocer, Oguz	Integrating CitySense with building performance simulation: A case study of summer indoor overheating in Antwerp	Morales, Richard Dean	Experimental and simulated study on thermal environment of large-scale indoor spaces using radiant panel heating-cooling system	Jing, Wei	RapidRet's role in helping Australia move towards zero carbon homes	James, Melissa	Optimizing a latent heat energy storage tank for a solar collector system: moving towards zero carbon.	Nasir, Alaa	Optimization of cold climate air-air heat pump sizing using simulation data	Lachance, Alex	Innovative approach to enhancing the reliability of urban microclimate simulations	Ordenes Miglier, Martin Gabriel	A cross-sectional normative encoding regression method for 3D building models suitable for graph neural networks	Li, Yihui	
Afternoon tea 1500-1530																			
Theme	Innovative Design Exploration & Industry Transformation IDEIT		Climate Change Mitigation & Adaptation CCMA			Indoor Environment Quality IEQ		Energy Efficiency and Sustainability EES		Energy Efficiency and Sustainability EES		Energy Efficiency and Sustainability EES		Urban Planning & Smart Cities UPSC		Innovative Design Exploration & Industry Transformation IDEIT			
Session Chair: Quentin Jackson Session Chair: Preeti Chandak Session Chair: Jonno Vogt Session Chair: Yao Xiao Session Chair: Xiao Wang Session Chair: Runmng Yin Session Chair: Zhe Zhang Session Chair: Sarah Nazari																			
1530-1545	Evaluating optical distortion in high performance glazing	Jones, Nathaniel L	Heat Where It Hurts: Spatiotemporal weighting for efficient heat impact assessment in Vienna	khalili Nasr, Behrooz	Viability of free-running buildings in the Nordic region	de Wilde, Pieter	WITHDRAWAL	WITHDRAWAL	Activation strategies for decentralized booster heat pumps based on dynamic pricing modes	Jacob, Stef Gino R	The Cornwall: Improving wellbeing for rural older population in cold climates using locally available agriculture waste	Yang, Di	Alternative pathway for a nearly zero energy building stock in 2050	Séjine, Héloïse	Integrating UHI mitigation measures in the urban planning process	Rawal, Rajan	Building Performance Simulation of a semi-transparent Trombe wall Coupled with a Latent Thermal Energy Storage	Cekin, Miroslav	
1545-1600	Behaviour and light: A human-centric study on how choice and shared spaces influence light exposure and wellbeing	Ganjehadeh, Nazanin	Integrating spatial proximity analysis and explainable machine learning to evaluate building energy retrofit potential under urban heat island effects	Li, Zhen	A novel BIM-to-UHI workflow for integrating IAQ analysis as a key driver in BIM retrofit projects	Campos-Rosa, Lucia	Evaluating front yard greenery for enhanced indoor environmental quality and energy efficiency	Shishobori, Vaitu	Sustainable heating and cooling in museums: evaluation of micro-encapsulated phase change slurry as a thermal storage medium for multi-purpose heat pumps	Schito, Eva	Socio-techno-economic optimization of energy systems with seasonal thermal storage: a study on a Swiss single-family house	Florentini, Massimo	2E retrofit planning methodology for existing office buildings using building energy simulation	Myata, Masato	Integrated optimization of urban open space morphology for mitigating heat island effects and enhancing ventilation performance	Fu, Hanxun	Advanced parametric and machine learning techniques for reducing embodied carbon in concrete structures	Yeo, Yiwei	
1600-1615	Multi-objective optimization design of windows combining granular aereol glazing and double glazing systems	Zheng, Dongmei	High-resolution downscaling simulation of urban wind-thermal environments: An interpretable machine learning analysis of urban morphology	He, Pengyu	Scaling impact of urban green infrastructure on urban climate and energy: A critical review	Chen, Wenqi	Performance comparison of lighting design objectives parameters based on calculation and simulation: case study of a pool hall and cafe	Hermawan, Khwan Mutiagar	Modeling and integration of photovoltaic thermal hybrid solar collectors in a fifth-generation district heating and cooling network	Li Guowen	From Poverty to Power- Investigating essential energy services in low-income households in developing nations	Jana, Amab	Energy consumption pattern analysis of housing in warm-humid climate	Ranavavirah, Deepal	Reducing the gap between predicted and measured urban microclimate through handling parameter uncertainty and model form uncertainty	Setyantho, Gighi Rahmandhandi	Simplifying decision-making in model-based design of building energy systems through automatically generated optimal controls	Louis, Hermans	
1615-1630	Building for the Future - Considering future weather extremes in assessing building energy efficiency	Dr Ramona Dalla Pozza	Machine Learning-based thermal environment classification and prediction for historical neighborhoods	Li, Jingru	Analysis of dehumidification performance evaluation of a novel window-type liquid desiccant ventilation system based on CFD	Goo, Jabn In	Investigating the built-environment and behavioural prerequisites for occupant satisfaction within the low-income	Sarkar, Ahana	Verification of the accuracy of the Degree Day method using building simulation	Sako, Haruki Rose	Rebuilding in conflict-affected nations environments: a simulation-based framework	Render, Elaine	Developing practical approaches and tools for optimizing lab designs	Ota, Nozomu	The influence of ancient city wall on cooling effect of water: A case study of Nanjing Ming City Wall	Song, Dan	Prediction of internal pressure and door operation risk in high-rise buildings under time-varying external conditions	Itou, Shogo	
1630-1645	Using EPHY scripts to enable automated building electrification modeling with flexibility and scalability	Sheng, Maggie	Revealing integration effects of the built and operating environment of suburban infrastructure from a multi-scale perspective	Wan, Qi	Lighting quality evaluation in underground public spaces - An integrated field and simulation study	Sui, Gerui		A shadow-cool-based long-term model predictive controller for a solar-based district heating system with tank thermal energy storage	Tjallingii, Jlynn	An integrated EnergyPlus simulation framework for Building Information Modeling based building envelope generative design	Jansen, Jelger	Coupling of multi: zone dynamic energy simulations with life cycle assessment for residential building renovation	Schepers, Hannelore	Impact of refrigerant undercharge and overcharge loads on building indoor conditions and HVAC system performance during cooling seasons: Field measurements	Im, Piljae	Clustering-based framework for large urban districts: A case study in Taipei City	Pichetkarnwong, Non	Integrating artificial intelligence in urban design: A neural network-driven approach for noise mitigation optimization	Gao, Mengdi
1645-1700	Student Competition Presentation 1: Niyati Jogi et al (CEPT University)		Data acquisition on building systems and operations in Urban Building Energy Modeling	Okawa, Nana	The influence of vegetation on the thermal comfort of open transitional spaces	Galán Marin, Carmen	Exploring energy implications in a mixed-mode building by linking air quality and occupant behaviour	Garg, Vishal	A shadow-cool-based long-term model predictive controller for a solar-based district heating system with tank thermal energy storage	Jansen, Jelger	Coupling of multi: zone dynamic energy simulations with life cycle assessment for residential building renovation	Schepers, Hannelore	Impact of refrigerant undercharge and overcharge loads on building indoor conditions and HVAC system performance during cooling seasons: Field measurements	Im, Piljae	Clustering-based framework for large urban districts: A case study in Taipei City	Pichetkarnwong, Non	Integrating artificial intelligence in urban design: A neural network-driven approach for noise mitigation optimization	Gao, Mengdi	
1700-1715	Student Competition Presentation 2: Leo Ma et al (Carnegie Mellon University)		Deep learning based surrogate modeling for optimal control of climate-responsive adaptive facade systems	Zhang, Chengshen	Modeling the impact of diverse extreme climate scenarios on residential buildings with renewable energy and storage in cold regions: A techno-economic analysis	Rehman, Hassan ur	Personal Comfort Models in shared spaces: a review of trends, challenges, and future directions	Alamirah, Nansen Nader	Advanced solar radiation decomposition model: Utilizing Random Forest Symbolic Regression across diverse climatic zones	Gevorgian, Aleksandr	Exploring the energy and CO2 emissions potential of climate-responsive design strategies applied to residential dwellings in Latin America	Chi Pool, Doris Abigail	Radiant floors as a feasible solution for residential heating and cooling: a simulation based performance analysis	Buzzati, Marco	Identification of simple dynamic Building Stock Energy Models for the heat dynamics in residential buildings	Van Nov, Matthias	Transfer learning of surrogate models for building energy prediction	Evins, Ralph	
1715-1730	Day Recap and Close: IBPSAA President - Quentin Jackson																		
1730-1930	Conference poster and exhibitor cocktail function																		





# PROGRAM SCHEDULE | DAY 3 - TUESDAY, AUGUST 26 - ALL ROOMS

0820-0900	Registration (arrival tea and coffee)																	
	Live Stream Room																	
	Plenary - Plaza Terrace Room		Mezzanine M1		Mezzanine M2		Plaza P1		Plaza P2		Plaza P3		Plaza P4		Plaza P5		SI	
0845-0900	Welcome & IBPSA address (incl acknowledge of country) IBPSA Treasurer - Nicki Parker PC thanks																	
0900-0940	Keynote address: AI in Building Performance Simulation Professor Pieter de Wilde																	
0940-0950	Sponsor Address: AIRAH (Mikaila Ganado)																	
0950-1030	Keynote address: How NABERS is reducing measured emissions and improving building simulation practice PC Thomas																	

Morning Tea 1030-1100																									
Poster sessions - in foyer																									
Theme	Indoor Environment Quality IEQ			Climate Change Mitigation & Adaptation CCMA			Energy Efficiency and Sustainability EES			Indoor Environment Quality IEQ			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES			Urban Planning & Smart Cities USPC		Innovative Design Exploration & Industry Transformation IDEIT	
	Session Chair: Wu Zhaoji			Session Chair: Jungmin Han			Session Chair: Melissa James			Session Chair: Hung Ming Teong			Session Chair: Francesca Cappelletti			Session Chair: Dru Crawley			Session Chair: Mohamed Mahgoub			Session Chair: Hongwen Dou		Session Chair: Dipakshreya Sur	
1100-1115	Aleatoric and epistemic uncertainties in occupant behavior models for residential buildings: real-life cases	Kim, Sunghyun	Estimating indoor mortality and heat risk in residential dwellings in extreme weather scenarios	Nagy, Zoltan	Modeling the impact of occupant behaviour on direct load control of HVAC Systems	Gunay, Burak	An IoT Scheme for Energy Efficiency, IAQ with Noise Characterization and Measurement in the Smart Building	Debra, Himanshu	Multi-objective optimization method to mitigate ground temperature variations in energy and cost saving for existing houses in Australia	Zhang, Zhe	Building renovation level requirements for a Job Generation District Heating and Cooling Network	Dell'Isola, Anna	A RAG-based Framework for material matching in LCA: Integrating semantic and character similarity with AI-driven explanations	Chen, Hongrui	Impact of local weather in urban building simulation studies	Rajput, Mayuri	Variations in Operational Performance of an Occupant-Centric Design due to Uncertainties in Occupants and Building Operation	Ono, Eikichi							
1115-1130	Estimating the number of occupants using machine learning based on carbon dioxide concentration data from IoT sensors in two Feasibility study on predicting personal thermal comfort using EEG in dynamically changing thermal environments	Kim, Jehyun	Evaluation of active mitigation measures in improving residential district cooling resilience	Wu, Yi	Application of an Adaptive Gaussian Mixture Regression for Fault Detection and Diagnosis across various HVAC Systems	Dahal, Sujit	Fast prediction model for indoor temperature distribution based on adaptive spatio-temporal graph convolutional analysis of long-range airborne infection analysis of a classroom under different occupancy scenarios	Xiao, Yao	A hybrid GSHP operation strategy to optimize ground temperature variations in ground heat exchangers	Park, Young-soon	Model-based co-design of LowEx heat supply and active thermal insulation systems	Weiß, Dirk	Multi-agent reinforcement learning approach for large cooling water system control	Wang, Xiao	Modelling the error structure in Urban Building Energy Models with a Gaussian Process-based approach	Wang, Chunxiao	Decarbonizing existing buildings using high-temperature ground-source heat pumps	Faucher, Jasmin							
1130-1145	Modelling and predicting classroom indoor air quality using machine learning algorithms	Dong, Jierui	A digital platform for heatwave vulnerability assessment in non-air-conditioned residential buildings: Lyon Metropolis case	Maratier, Julien	IBPSA Project 2 Building Optimization Testing Framework (BOPTEST): Overview, new software features, and example use	Wang, Zhe	Price-aware RL for HVAC control: maintaining comfort and enhancing flexibility validated across dual open-source	Wang, Xinlin	Predicting health risk due to Legionella pneumophila bacteria while showering	De Jonge, Laura	A TRNYS modeling approach to optimize the design and operation of heat pump systems in district energy networks	Gallant, Mathilde	Integrated optimal control and biofield sizing for (small) hybrid heating and cooling systems	Hermans, Louis	Analyzing the energy efficiency benefits of advanced controls strategies in district cooling systems: a real-world case study	Ho, Julia Lien	Estimation of occupant behavior by GMM-HMM with data measured by HEMS	Yasua, Masataka	Optimizing energy predictions: a generalized surrogate modeling approach for diverse building designs and climates	Ehly, Ibrahim					
1145-1200	A comprehensive review of machine learning techniques for optimizing daylight in high-performance buildings	Heidarli Matin, Negar	How much active cooling is needed in Estiman multi-family apartment buildings to comply with Category II thermal comfort?	Oemar, Kátrín	Enhancing indoor air quality and energy efficiency through life cycle cost analysis	Schluter, Philipp	Coupling health impact and building performance: a virtual testbed for health-centric building system operation	Fung, Siu-Fung	Fast model for air source heat pump frosting and defrosting behavior	Scoccia, Rossano	Transitioning to low-temperature district heating: A large-scale feasibility mapping of multi-family apartment buildings in Greater	Sheikh Khan, Donya	Synergies in comfort, energy and cost by removing the exhaust air between geoblast and interior roller blind	Maurer, Christoph	A novel approach to generate occupancy schedules based on human mobility and 15min gran	Yang, Yiting	Paving the path to sustainability: Laterite quarry reclamation	Rangaswamy, Deepa Rani							
1200-1215	Improving indoor environment quality through digital twin integration for office spaces	Itō, Sei	Analysis of multifactorial drivers of the Urban Heat Island effect in Vienna: A scalable method for urban settings using open data sources.	Khalili Nars, Behrooz	Experimental analysis of an innovative RC-Mapping model for flexibility quantification of building air conditioning systems	Wang, Hulong	Indoor thermo-photometric occupant perception: what lies beneath perception, discomfort and preferences?	Rakotoarivo, Toky	Hybrid Heat Pumps: the answer for the future electric grids?	Videau, Jean-Baptiste	Development of a fast, dynamic tank thermal energy storage model for system simulations.	Degelin, Alke													
1215-1230																									
1230-1330	Lunch																								
Poster sessions - in foyer																									
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	Facilitator: Ian Beauséjoul-Morrison			Session Chair: Ferdyous Loufpoor			Session Chair: Vincenzo Corrado			Session Chair: Cheng Cai			Session Chair: Rossano Scoccia			Session Chair: You-Jeong Kim			Session Chair: Mohammed Ouf			Session Chair: Dimitrios Rowas			
1330-1345	Bounding long-term building energy performance with single-year extreme weather files	Crawley, Druy	Lessons learned from a Field Study on Deep Learning-Based Model Predictive Control for Optimizing the Operation of Façade Ventilation Units	Lorenzo, Clara-Larisa	Using neural networks for the classification of activities in an office: An application for better prediction of CO2 concentration in tertiary buildings	Sayegh, Hasan	Electrochemical Modelling of a Sodium Metal-based Desalination Battery for Electrolysis and Trigenation using Direct-Coupled Generator in Ships	Debra, Himanshu	Optimizing retrofit strategies for terraced dwellings: ConstructTher case study	Ritosa, Kaita	Toward multi-domain occupant-centric indoor-environmental quality indicators	Mahdavi, Adeshir	Effective Retrofitting: Energy Efficiency measures for viable buildings in Boston	Deng, Bianca	A comparative study on photovoltaic vacuum glazing (PVVG) for office buildings in Shanghai	Bi, Qianru	Performance analysis of simple grey-box RC models for simulating strategic heating reductions	Declercy, Merel	Improving building stock energy models: a Bayesian calibration approach with multi-resolution data	Zhang, Xukang	A Data-Driven analysis of electrical energy use in Lombardy: Clustering and Statistical Analysis	Ferrando, Martina			
1345-1400	Optimization of heating and cooling energy demand and indoor thermal comfort under oceanic climate conditions using machine learning	Salehipour Bavasad, Fatemeh	Effects of the types of double-skin facades on sunlight availability and potential food self-sufficiency for agri-facades in temperate	Zhang, Xi	Predicting sea-based thermal sensation difference: a multilevel ordinal regression approach	Favero, Matteo	Enhancing thermal comfort in public spaces through agent-based and performance-based modeling	Wang, Xiaoteng	Evaluating the impact of remodeling and purpose change on the performance and energy efficiency of modern educational buildings	Park, Haedun	Disentangling rebound effects and construction errors in building retrofits using integrated energy signature analysis	Lee, Doyeon	Towards an evaluation framework to enhance building energy independence and flexibility by means of transparent responsive building envelope elements	Li Castrì, Geneva	Quantifying the Simulation-Reality Gap in Building Simulations	Zech, Philipp	Are hourly building energy simulations underestimating peak demand? A case for finer time resolutions.	Rush, Megan	Developing early design stage tools for windows considering sky conditions, solar radiation, and shading control	Xiao, Luming	Assessing pedestrian level barriers using mobile robot to achieve 15-minute city concept	Zong, Chujun			
1400-1415	Panel: Educating the next generation of BPS professionals—What are the gaps?		Assessing solar performance in advanced facades: Comparative analysis of control strategies using a dynamic key performance	Gazzin, Riccardo	Enhancing thermal comfort in public spaces through agent-based and performance-based modeling	Wang, Xiaoteng	Spatio-temporal prediction of indoor thermal environment based on Graph Neural Networks and Recurrent Neural Networks	Wang, Yinghan	Towards an evaluation framework to enhance building energy independence and flexibility by means of transparent responsive building envelope elements	Zhang, Haotian															
1415-1430			Enhancing U-value accuracy: A simulation-based approach to building envelope assessment	Song, Ahnyun																					
1430-1445			A study on the shielding effect of neck fan on air pollutants at the mouth and nose area	Ren, Zhengen																					
1445-1500																									
1500-1530	Afternoon Tea																								
Poster sessions - in foyer																									
Theme	Climate Change Mitigation & Adaptation CCMA			UBEM			Indoor Environment Quality IEQ			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES			Urban Planning & Smart Cities USPC						
	Session Chair: Pengyuan Shen			Facilitator: Martina Ferrando			Session Chair: Yu Qian Ang			Session Chair: Bianca Howard			Session Chair: Shihong Zhang			Session Chair: Shallex Gowami			Session Chair: Julia Ho		Session Chair: Juan Diego Flores Garcia				
1530-1545	Thermal mitigation strategies based on the study of facades and roofs at an urban scale	Gallán Marin, Carmen	FDI-based simulation and optimization of open plan offices involving novel acoustic lattices and retroreflectors	Zeng, Tiancheng	Bridging methodological gaps in building life cycle assessment: a case study in the Indian context	Saini, Himanshu	Dealing with corner cases in occupant-centric control: do physics-informed models help?	Zhan, Sicheng	Merit order of energy efficiency actions in tertiary buildings	Houssou, Meleika	Validation of a meso-scale peak heating Load Energy Model of domestic peak heating Load and annual heat demand in England and Scotland	Sandoval Bustamante, Javier	Impact of Environmental Noise Transition From Internal Combustion Engine to Electric Vehicles On Building	Monty, Annisa Zafrah											
1545-1600	Research on the influence of traditional street morphology on outdoor thermal comfort in dry and hot regions: A case study of Kashgar Terraced Households	Abuduwaiyt, Abudurehman	A library of fits for daylight and visual comfort simulation: recommendations and testing in Canadian climates	Jakubiec, J. Aban	Energy saving potential analysis of indoor aquaculture through optimal control strategies based on building energy simulation	Go, Jabin	PI-DON: Physics-Informed Deep Operator Network for Control-Oriented Modeling of Thermal Systems in Cluster of Buildings	Saeed, Muhammad Hafeez	Multi-objective optimization of energy, thermal comfort and daylighting for exhibition building design based on a spatial archetype	Yan, Xiaoyue	Development and validation of a generic evaporator model of chillers	Dou, Hongwen	Analysis of the applicability of fifth-generation district heating and cooling systems for community zero energy renovation	Choi, Won-Jong											
1600-1615	Numerical Simulation of the Effect of Indirect Green Facades on the Wind Environment	Su, Mefang	A CFD-based corrected model approach to better assess people exposure to pollutants in a room	Carnec, Nicolas	Dynamic integrated modelling for controlled environment agriculture: methodology and experiment	Wang, Liping	Open box room model for thermal MPC control in classrooms: a virtual experiment	Van Nove, Matthias	Marginal Emission Factors (MEFs)-based building type optimization for various building types	Kang, Seungyun	Sufficiency-Risk: Combining sufficiency measures with optimal retrofitting to reach net-zero residential buildings in Switzerland	Sommer, Til	Impact of window views on occupant's well-being and readiness to pay in residential buildings: A case from Mumbai Metropolitan Region, India	Parmar, Vipul											
1615-1630	Distributed model-based predictive control for peak load management using Audio-based LoRa communication	Choi, Kwangwon	A CFD Study on the Impact of User-Adjusted HVAC System Controls in Open-Plan Offices	Oeser, Brenda	Quantifying time delays in environmental, behavioral, and energy consumption data to understand occupant space usage patterns	Kim, Jiwon	Optimal control of building integrated rooftop greenhouse for energy efficiency	Lee, Doyun	Enhancing transfer learning for building energy data time series using pattern-based hidden Markov models	Liguori, Antonio	Educational building retrofit: in data-driven modeling approach for optimized energy efficiency	Carnietto, Lara	Rugani, Roberto												
1630-1645	A unified approach to modeling modern heat pump technologies	Kruis, Neal	Assessing energy savings potential of Personalized Environmental Comfort Systems (PECS) in air-conditioned	Bilardo, Matteo	IBPSA Project 2 BOPTEST: An update on the test cases available in the framework for testing advanced control strategies in	Zanetti, Ettore	Open set domain adaptation and universal domain adaptation for enhancing activity recognition in smart buildings	Bougoula, Nizar	Evaluation and optimization of the thermal and energy performance of a university classroom in Medina, Saudi Arabia	Alaboud, Mouab	Easier, faster and better planning of glazing using a product data network with methods as a service	Maurer, Christoph	Stochastic occupancy profiles for Urban Building Energy Modelling (UBEM): a case study in northwestern Italy	Bianfi, Alessia											
1645-1700	Scalability of multi-agent control for buildings: automated setup from BACnet to control	Sievers, Felix	Simulating the impact of air purifiers on indoor PM2.5 concentration and optimization of natural ventilation	Pernigotto, Giovanni	Role of control strategies in unlocking energy flexibility using building thermal mass	Afroz, Zakia	Improving daylight performance on the thermal comfort and energy consumption in the building equipped with external	Seo, Rosa	Adaptive hydronic balancing for heating systems	Le, Huu Thoi	Virtual Horizon Method: Fast shading calculations for UBEM using lidar data integration	Gu, Jingwen													
1800-1845	Poster sessions - in foyer																								
1900-2300	Conference Gala Dinner																								





# PROGRAM SCHEDULE | DAY 4 - WEDNESDAY, AUGUST 27 - ALL ROOMS

0820-0900	Registration (arrival tea and coffee)																	
	Plenary - Plaza Terrace Room		Mezzanine M1		Mezzanine M2		Plaza P1		Plaza P2		Plaza P3		Plaza P4		Plaza P5		S1	
0845-0900	Welcome & IBPSA address (incl acknowledge of country)		IBPSAA President - Quentin Jackson		PC thanks													
0900-0940	AGM, IBPSA Awards & Student Competition Award																	
0940-0950	Sponsor Address: Design Builder - PC Thomas																	
0945-1030	Keynote address: The useful lie: QA in BPS and the quest for code compliance		Dr Mike Donn															

Morning tea 1030-1100																								
Poster sessions - in foyer																								
Theme	Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES			Indoor Environment Quality IEQ			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES					
	Session Chair: Alstan Jakubiec			Facilitator: Priya Gandhi			Session Chair: Lucas Verleyen			Session Chair: Michael Kim			Session Chair: Parastoo Mohebi			Session Chair: Marco Bizzarri			Session Chair: Sara Willem			Session Chair: Nassam ur Rehman		
1100-1115	Using CFD as an energy efficiency design tool for an auditorium and airport baggage hall	Vogt, Jonathan William		Energy Performance Gap in a Net-Zero Building: Taxonomy of Noise and Entropy Indices for Power, Energy and Energy Availability	Dehra, Himanshu		Determining the optimal specifications of cooling systems in highly glazed buildings using design of experiments method	Merabine, Abdelatif		Research on energy influence factors and operational optimization strategies of subway station HVAC systems: A case study of Suzhou	Ji, Ying		Harnessing digital twin for simulation performance analysis, using a hemcrete building	Bana, Ataliya Paterson		Simplified energetic assessment of complex properties through single-zone modeling	Langner, Norman		A case study approach to understanding decision-making supported by emerging digital technologies in achieving net-zero carbon buildings	Shen, Kaining				
1115-1130	Green walls for solar shading: a novel thermal performance model applied to a case study	Rugari, Roberto		Explaining transfer learning for activity recognition in smart buildings	Amayri, Manar		The impact of virtual reality-simulated learning space design on high school students' attention and stress levels: An	Lin, Hanfei		Evaluating local energy sharing potential for enabling net zero energy communities	Ben, Hui		AI-Driven multi-objective optimization of pavement and roofing strategies for enhanced thermal comfort in urban Indian	Rangaswamy, Deepa Rani		Operational energy-saving rate prediction of one office building renovated to comply with GB 55015-2021 under three different	Meng, Xiangnan		Encouraging optimal occupant behaviours through a real-time measuring and messaging system	Almeida, Laura				
1130-1145	Simulating cooling loads for personal environment control systems	Rawal, Rajan		Innovative design of adjustable multi-slat photovoltaic shading devices for energy-efficient office spaces in Sydney	Nazari, Sarah		Topological optimization of 3DP plasters for indoor moisture buffering	Gentile, Vincenzo		Impact of occupancy patterns on buildings performances gaps: how the gap is sensitive to stochastic occupancy behavior?	Hamdy, Mohamed		Toward urban decarbonization: environmental and financial evaluation of neighborhood-scale multifamily retrofit	Felkner, Juliana		Comparative evaluation of ANN and NARX models for localized air temperature prediction in Al Ain, UAE	Elnabawi, Mohamed Hussein		Energy simulation-driven approach to energy efficiency: case study on liquid immersion cooling in a hyperscale data	Yumarti, Erika				
1145-1200	Comparison of a "model of the model" approach with directly measured reference values for assessing the energy efficiency of IBPSA Modestia Working Group: Open-source model development based on open standards to accelerate decarbonization	Hudjetz, Stefan		Contribution of CFD simulation on the design and characterization of a wind tunnel for air leakage measurements	Barone, Flavia		A Simulation-Based Approach to Assess and Support Acoustic Characterization and Design in Classrooms	Cappelletti, Francesca		Towards a digital shadow: Methodology development for continuous commissioning of domestic hot water systems	Wilffeuer, Johannes Nicolás		Adaptive energy management of Swedish residential buildings using artificial intelligence and reinforcement learning for	Mashari, Amirhosein		ETNA empirical validation: initial steady-state cases and simulation trials	Neymark, Joel		PV optimization using solar radiation prediction based on multi-region dataset	Lee, Doheon				
1200-1215	Design guidelines based on the impact of indoor living walls on building cooling energy consumption	Wetter, Michael		Evaluating the descriptive and predictive ability of the grey-box modelling technique during summertime in a Passivhaus office	Azad Gilani, Hooman		Bayesian optimization of supply air direction in existing aircraft for cabin air quality improvement	Chen, Chun		Strengthening the effectiveness of building energy efficiency labels for existing office buildings in Taiwan	Chiu, Hung-Chi		Finding the root cause of a control issue, does an artificial intelligence optimise a building more effectively than automated	Marston, Annie		Correlation analysis between energy conservation potential and spatial form of existing buildings in hot summer and cold	Lin, Deqing		A modelling-based parametric assessment of STES design and operation within a thermal source network	Abbar, Shariq				
1215-1230		Iddo, Emmanuel		Sensitivity analysis of US housing stock building characteristics using ResStock	Pudtfeiner, David		Thickness-dependent coupled thermo-optical model of translucent material: a case study of glazing unit filled with granular silica aerogel	Zhou, Yangkang		Perfect Matching: Comparison of methods for deriving energy-optimized occupancy schemes	Hammes, Sascha		Summer thermal control through window-integrated ventilation systems in a real laboratory	Weger, Regina		The influence of Spatial Volume on building performance in Sports Arenas	Guo, Riayi		A holistic framework for optimizing building decision metrics via advanced parametric modeling: The ECO-Matrix Protocol	Rathi, Anup G				

Lunch 1230-1330																					
Poster sessions - in foyer																					
Theme	Urban Planning & Smart Cities UPSC			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES			Energy Efficiency and Sustainability EES		
	Session Chair: Ivan Pagan			Facilitator: Pieter de Witte			Session Chair: Lumeng Li			Session Chair: Muhammad Hifzur Saad			Session Chair: Alan Shu-fung Fung			Session Chair: Rajat Singh Grewal			Session Chair: Zhe Wang		
1330-1345	Deriving high-fidelity residential building archetypes and typical usage patterns from national energy use surveys to enhance "critical queries" for Urban Building Energy	Li, Chengquan		Inverse Physics-Informed Neural Networks for thermal parameter estimation of existing buildings	Kim, You-Jeong		Thermal environment analysis of a radiant floor cooling and under-floor air-conditioning system based on detailed building physics using coupled BPS-CFD	Yang, Xianhe		On the use of latent thermal energy storage to cut the energy costs in space cooling: from lab to home	Slavero, Gianluca		Validation of CIE sky models using luminance data from Gurgaon and Chennai, India	Bhalla, Ankit		Case study on Analysing Whole-Carbon Emissions based on Actual Energy Consumption in Existing Buildings	Choi, Suhyun				
1345-1400	Integrating TRNSYS and CityGML in urban district simulations: A comprehensive case study in urban energy systems	Pérez, Cecilia		Case study of residential energy management systems with solar PV, wind and battery energy storage	Kadir, Nourin		Optimizing indoor environment and energy consumption in a museum building using specialised data-driven software	Zygmunt, Marcin		Urban building energy modeling challenges: Evaluating zoning approaches and window impacts on energy consumption	Kim, Yeun		Enhancing BIPV performance through fin integration: A co-simulation approach	Alzade, Abdella		The influence of cement addition on moisture variation in the restoration of lime base brick walls	Tsai, Cheng Yen				
1400-1415	Thermal Synergy (TS) for fRH-generation district heating and cooling (SDHC) networks early-stage design and feasibility	Bilardo, Matteo		Predictive and transactive controls for EBE park net-zero community with AI/ML models	Kadir, Nourin		Occupancy profile of residential buildings with remote workers	André, Maïra		Multi-dimensional level of detail (LoD) specification for urban energy models	Gunay, Burak		Battery storage potential in meeting NZEB energy performance requirements in Estonia	Võsa, Karl-Villem		Developing a calibrated in-situ hygrothermal model of a community center to assess panelized exterior retrofit design suitability.	McNally, Jordan				
1415-1430	Solar potential in the extension of old residential communities based on inter-building effects: a case study of Nanjing	Tian, Yuqi		Optimizing solar energy collection potential in high-rise residential buildings in urban areas	Löffler, Perdoos		Quantifying the influence of the Pool Cover on the Water Evaporation Rate in Indoor Swimming Halls	Snedegård, Ole Bjørne		A co-simulation workflow to evaluate the building level performance of Vertical Greenery Wall systems in climate change scenario for office buildings in temperate climate	Raad, Aseel		A multi-year stochastic optimization model for battery system design and operation: addressing uncertainties alongside degradation effects	Mohabi, Parastoo		Synergistic effects of Phase Change Material and Hygroscopic Materials on heat and moisture transfer in building envelopes	Chen, Lufang				
1430-1445	Synergistic effects of uncertain parameters on the stability of urban building energy modeling	Wang, Chao		Simulation-based benchmarking of VSMART for fault detection in heat interface units	Van Minnebruggen, Senne		WITHDRAWAL	WITHDRAWAL		Unravelling the energy performance gap: Understanding user-related factors affecting lighting energy consumption in office buildings	Hammes, Sascha		Energy savings potential in domestic hot water supply in Germany	Schmitz, Daniel		Thermal and energy performance assessment of multi-layer façade systems with latent heat storage materials: an analysis of climatic conditions in Montreal	Arafeh, Hossein				
1445-1500	Spatial autocorrelation analysis for shading effect of buildings in gyeonggi province using local indicators of spatial association	Yi, Donghyuk		Applicability analysis of compressors in subway stations based on load characteristics	Luan, Chenghui		Development of a low energy building using an integrated system of bio-phase change materials and roof-top greenery system.	Devkota, Kushal		Quantitative analysis of landscape interventions for microclimate improvement in low-rise residential areas of Tiruchirappalli, India	S, Amalan Sigmund Kaushik		Comparison of machine learning algorithms for building performance evaluation	Rachman, Arinda P.		Differentiable predictive control unlocks latent energy storage in bio-based phase change material enhanced buildings	Jin, Yongyun				

Afternoon Tea 1500-1530																				
Facilitator: Priya Gandhi/Quentin Jackson																				
Closing Keynote: Back yourself - how to take your spot in the world																				
Next Conference Announcement																				
Conference Close																				
Conference farewell cocktail function																				
1530-1600	IBPSA Women Launch		Noni Nuriani																	
1600-1700	Closing Keynote: Back yourself - how to take your spot in the world		Winitha Bonney OAM																	
1700-1730	Next Conference Announcement																			
1715-1730	Conference Close		IBPSAA President - Quentin Jackson																	
1730-1900																				