

BAS2025 conference programme

Date/time	Wed. 02 July. 2025	
Venue	B101	
8:30	<i>Registration desk (lobby)</i>	
9:00	<i>Open and welcome</i> - Vice-Chancellor, Pro-vice Chancellor & Dean	
9:15	<i>Introduction of BAS2025 conference</i> - Xingxing Zhang	
9:30	<i>Sustainable energy research centre (SERC)</i> - André Augusto	
10:00	<i>Break and coffee/tea</i>	
	Keynote speech	
10:30	<i>High-Resolution Urban Building Energy Models: current progress and challenges</i> - Da Yan	
11:00	<i>Sustainable Smart Lighting systems for buildings, latest achievements and future challenges</i> - Georges Zissis	
11:30	<i>Harnessing AI for a Urban Energy Transition and Sector Coupling</i> - Jinyue (Jerry) Yan	
12:00	<i>Group photo and Lunch</i>	
13:30	Parallel session	
	Session 1 (Chair: Rosaria Volpe)	Session 2 (Chair: Jianli Chen)
Venue	B101	Kunskapstrappan (lobby stair)
13:30	<i>Low-Carbon Optimization of IES Based on Energy Forecasting and Stepwise Carbon Pricing (Peipei Gui)</i>	<i>Natural Ventilation Design and Control Strategy Based on Multi-objective Optimization for an Office Building (Zhi Zhuang)</i>
13:50	<i>Comparative study of the EFS-MTL model with machine learning models calculating design cooling load under different non-guarantee rate situations (Qiyi Li)</i>	<i>Heating temperature-setting behavior of VRF systems based on operation big data (Mingyang Qian)</i>
14:10	<i>Synergistic design optimization of waterfront building forms for enhanced outdoor thermal comfort: Evidence from 40 residential cases in Changsha (Rongpeng Zhang)</i>	<i>Long-Term Sustainability Comparison between Displacement Ventilation and Mixed Ventilation in a Swedish Landscape Office via Multi-Objective Analysis (Jingchun Shen)</i>
14:30	<i>The Short-Term Load Prediction Method for Parks Based on CNN-LSTM-SAO-MHA (Jianan Qian)</i>	<i>AI Agent for Smart Indoor Environment Management (Kan Xu)</i>
14:50	<i>Session 1 Summary (Chair: Rosaria Volpe)</i>	<i>Session 2 Summary (Chair: Jianli Chen)</i>
15:00	<i>Break and coffee/tea</i>	
15:30	Session 3 (Chair: Dujuan Yang)	Session 4 (Chair: Zhongming Shi)
Venue	B101	Kunskapstrappan (lobby stair)
15:30	<i>Urban form and urban building energy consumption at micro scale (Yanxia Li)</i>	<i>Improved Baseline Energy Models Based on Similarity Learning and Meta Learning (Ziwei Xiao)</i>
15:50	<i>Research On Two-Layer Optimization And Regulation Of Centralized-Decentralized Energy Storage System In Rural Areas With High Photovoltaic Penetration Considering Agricultural Batteries In P2P Trading Market (Mingyue Han)</i>	<i>Enhancing Usability of a Design-Decision Support Tool for Municipal Energy Transition Planning (Dujuan Yang)</i>
16:10	<i>Impact of Flexibility Strategies in Italian Renewable Energy Communities (Rosaria Volpe)</i>	<i>Predicting Future Occupant Behavior and HVAC Energy Use with a Natural Ventilation Meta-Model: Applications for Large-Scale Buildings in New York State (Bing Dong)</i>
16:30	<i>Impact of Multiple Large Renewable-Storage Systems on Day-Ahead Electricity Market Pricing (Zhisen Chen)</i>	<i>EPlus-LLMv2: Enabling Scalable and Efficient Automated Building Energy Modeling via Natural Language (Jianli Chen)</i>
16:50	<i>Session 3 Summary (Chair: Dujuan Yang)</i>	<i>Session 4 Summary (Chair: Zhongming Shi)</i>
18:00	<i>Gala dinner</i>	
21:00	<i>End of day 1</i>	





Date/time	Thu. 03 July. 2025	
Venue	B101	
8:30	Late registration (lobby)	
9:00	Keynote speech BESTOpt: A PINN-based control simulation, optimization, and implementation framework - Bing Dong	
9:30	Energy and resource-efficient construction for a sustainable future - Jonn Are Myhren	
10:00	Break and coffee/tea	
10:30	Renewable energy communities and positive energy districts: modelling and monitoring aspects - Rosaria Volpe	
11:00	Research on load optimization operation strategy of heat pump for grid collaborative interaction - Ji Li	
11:30	Optimal planning for microgrid based smart buildings considering climate change - Qianwen Xu	
12:00	Lunch	
13:30	Parallel session	
Venue	Session 5 (Chair: Shuqin Chen) B101	Session 6 (Chair: Zhiwen Luo) Kunskapsstrappan (lobby stair)
13:30	Coordinating Variable Refrigerant Flow System for Effective Demand Response (Siqi Li)	Dynamic simulation for multiple thermal storage units in building heating systems (Baoping Xu)
13:50	Progressive Online Learning Technology for AI-based Adaptive Control in Building Chiller Plants (Lingyun Xie)	Coordinated Optimization and Regulation of Rural Residential Flexible Loads and Agricultural Machinery Energy Storage Batteries Considering Battery Life Degradation (Yanning Zheng)
14:10	Definition of Standard Office Environments in China for Evaluating the Impact of Volatile Organic Emissions from Building Material (Weihui Liang)	Load scheduling for office building cooling systems with thermal energy storage: considering uncertainty in building thermal load, weather forecast and chilled water supply temperature (Xiaoyu Jia)
14:30	Fast and data-efficient urban wind and temperature prediction generalizable to unseen building geometries (Shaoxiang Qin)	A review of applications and implementation of phase change materials in cold storage facilities (Zhuoqun Xing)
14:50	Session 5 Summary (Chair: Shuqin Chen)	Session 6 Summary (Chair: Zhiwen Luo)
15:00	Break and coffee/tea	
15:30	Session 7 (Chair: Qianwen Xu) B101	Session 8 (Chair: Yiqun Pan) Kunskapsstrappan (lobby stair)
15:30	Quantifying Urban Morphological Characteristics and Pedestrian Thermal Comfort: Integrating Panoramic Image Segmentation with Microclimate Measurements in Shanghai (Xiangjun Zhao)	Research on Visual Comfort Performance Control of Smart Shading Blinds Based on Dynamic Programming Algorithm (Zhaoyang Luo)
15:50	Holistic Assessment of Urban Climate Impacts on Indoor Overheating Risk in Cities (Xiaoxiong Xie)	The Economic Evaluation of Vertical Building Applied Photovoltaics Façades (Ip Chen)
16:10	Human-in-the-loop HVAC control in open office: A D3QN approach for joint thermal comfort and energy optimization (Tianyou Ma)	A novel transfer learning-based methodology in energy predictions: office building case study (Yongbao Chen)
16:30		A refined classification of radiant time series for cooling load calculation of air-conditioning systems (Jing Ren)
16:50	Session 7 Summary (Chair: Qianwen Xu)	Session 8 Summary (Chair: Yiqun Pan)
17:00	Lab and facility visit End of day 2	
18:00		

Date/time	Fri. 04 July. 2025	
Venue	B101	
9:00	Keynote speech Advanced Solar Energy Research and Applications - Xudong Zhao (online)	
9:30	Innovative approaches upscaling Positive Clean Energy Districts - Paolo Civiero (online)	
10:00	Break and coffee/tea	
10:30	Supporting Energy Transition in Climate-neutral Cities Through Semantic Digital Twins and Digital Cousins - Dujuan Yang	
11:00	Multi-scale simulation promotes the development of new materials for building applications - Gang Tan	
11:30	Optimizing for Carbon Neutrality: Research Across Design, Retrofit, and Operations - Yiqun Pan	
12:00	Lunch	
13:30	Keynote speech AI for Urban Microclimate Engineering - Liangzhu (Leon) Wang (online)	
13:30	Optimization design and operation of low-carbon energy systems: methods, data and case studies - Shuqin Chen	
14:00	From Research to Teaching (to Design Practice): Decarbonising Cities through Urban Building Energy Modelling - Zhongming Shi	
14:30	Break and coffee/tea	
15:00	Poster session (Chair by Weihui Liang, Ilham Ihoume) Venue: Campus lobby	
15:00	Wrap up and Best Paper Awards End of day 3	
16:00		
16:30		

