Editorial

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Biographical notes: Zheng Xu is currently a professor at Shanghai Polytechnic University, China. He has authored or co-authored more than 200 publications. He is with over 4100 citations (H-index 31). He is the Editors-in-Chief of Taylor & Francis *Cyber-Physical Systems* journal (EI and Scopus index). He is also the section editor of Springer *Discover Internet of Things* journal (EI and Scopus index). He won the Best Editor Award of the Year 2022 of Springer *Discover Internet of Things* journal. His paper entitled 'Ensemble-based multi-filter feature selection method for DDoS detection in cloud computing' obtained EURASIP Best Paper Awards 2019.

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the School of Computer Science and Engineering, The University of Aizu, Japan. His interests include human-centric computing, big data, and anticipatory computing.

The increasing development of renewable energies, together with the growing fleet of electric vehicles worldwide, confronts electricity grids with an extraordinary challenge: the management of numerous supply points in which consumers can also act as energy generators (prosumers). Increased urban electric loads driven by the electrification of the transport sector, cooling/heating technologies, various forms of distributed energy storage, advancements in distributed generations, demand side responses, etc., will fundamentally transform the operational paradigm of future urban energy infrastructure.

In this strongly decentralised context, intelligent control techniques, such as neural networks, machine learning, etc., can offer efficient solutions to maintain the quality of electricity supply. Distributed energy resources (DER) will constitute the cornerstone of the future inner-city smart grids, in which the security of supply will be delivered by local resources at the district level. To support such a paradigm shift, the large-scale integration of DERs through intelligent and sophisticated coordinative actions are required. In this context, it is important to fully understand the interactions between different DERs, find out how to intensify the synergies across different energy vectors, enable them to support one another, and investigate the mechanism based on how different energy vectors can co-support the operation of smart grids. Additionally, since smart control is the core used to arouse the synergies between various DERs, it is significant to explore effective control strategies to realize the optimal dispatch of DERs aimed at enhancing the efficiency of urban energy systems.

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