

## Green Computing and ICT Sustainability

### Introduction and Topics

Green computing and ICT sustainability are essential part in the evolution of smart cities and the advancement of green energy. As the digital infrastructure becomes increasingly integral to urban development, addressing the environmental impact of ICT systems is critical to achieving sustainable growth. This session will explore cutting-edge topics such as green data center energy management, data-driven approaches, and machine learning applications for improved energy efficiency, and the integration of green cyber-physical-social systems. Green data center energy management is a crucial area of focus, given that data centers are substantial energy consumers due to their role in powering cloud services and big data analytics. Data-driven approaches and machine learning represent the next frontier in enhancing energy efficiency. By analyzing vast datasets generated by ICT systems, machine learning algorithms can identify patterns and optimize energy usage in real time. This session will highlight case studies and research demonstrating the significant energy savings and operational improvements achievable through these technologies. The green cyber-physical-social system (CPSS) concept integrates cyber-physical systems with social networks to create intelligent, sustainable environments. By leveraging interconnected devices, real-time data, and human interactions, green CPSS aims to reduce energy consumption, improve resource management, and encourage sustainable behaviors among users. This session will provide a comprehensive overview of the latest advancements and research in green computing and ICT sustainability, offering insights into practical solutions for addressing the environmental challenges posed by modern technology.

### Special Session Chairs



**Dr. Yuechuan Tao**

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Singapore



**Dr. Shuying Lai**

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## IMPORTANT DATES

Submission Deadline  
September 10, 2024

Notification Deadline  
October 10, 2024

Camera-Ready Deadline  
November 30, 2024

### Publication

Submissions will be reviewed by the conference technical committees, and accepted papers will be published in ICSCGE 2024 International Conference Proceedings, which will be submitted for inclusion in the **IEEE Xplore Digital Library**, and submitted for indexing by EI compendex and Scopus.

### PAPER SUBMISSION

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