Call for Papers

Smart and Cognitive Cities and Communities (SCCC) Symposium

The 19th International Conference on Wireless Communications and Mobile Computing

Website: http://iwcmc.org/2023/

Submission Link: https://edas.info/newPaper.php?c=30217

June 19-23, 2023, Marrakesh, Morocco

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Scope

Sustainable development of urban areas towards better life quality of communities is a key challenge of key importance. Smart cities are designed to provide comfort and cost efficiency to communities by providing adjustable features such as smart lighting, thermal comfort, and easy access to services.

The development of such cities requires innovative, efficient, and user-friendly platforms and services, specifically in the areas of energy, transport, health, environment, and ICT infrastructure. However, these solutions need integrated platforms that consider not only their efficiency in terms of computation power and resources but also the security and safety of communities.

Cognitive cities are designed to be ecologically friendly by using resources efficiently through internal recycling as well as using renewable energy sources, and recyclable or biodegradable construction materials. The aims are to reduce the environmental impact to a minimum and to consider human health factors. Recent technological advances have prompted the call to balance new buildings to be environmentally friendly. Buildings can ensure a low environmental impact while providing convenience to their customers using distinct integrated technologies, such as numerous sensors/IoT devices to collect data. The collected data is then sent to the cloud or edge devices for analysis. To reduce the delay in response time, data is computed locally at the edge using federated learning. Challenges include designing a system model for the sustainable smart building of advanced communication while enhancing privacy and security, computation efficiency, and energy usage, to name a few. In addition, it is important to implement AI-based communications, security and privacy to reach the ultimate objective of having a cognitive city.

Several research attempts are taking place on the development of sustainable smart homes, buildings, and cities with respect to the economic, social, and environmental aspects. These attempts consider attributes such as usage of security and safety of communities, renewable energy sources, energy conservation and efficiency, reduction in environmental impact, optimized technological resources, responsiveness to the users, ease of usage, affordability and reaching zero emission soon. In this Symposium, authors are invited to submit original papers that address any of these challenges.

Topics

Accepted papers will be published in the IEEE IWCMC 2023 proceedings and will be submitted to the IEEE digital library (IEEE Xplore). Authors are welcome to submit original contributions (not published before and/or simultaneously submitted to another venue) with topics include but are not limited to:

- Smart homes/buildings/cities security/privacy and safety
- Semantic communications in Smart and Cognitive Cities
- AI-based smart building systems
- AI and ML towards security and privacy of communities
- Explainable AI for Smart Cities
- Edge AI/edge computing
- Energy efficiency
- Innovative systems for renewable energy sources, recyclable or biodegradable construction materials
- Wireless communications (B5G and 6G) in smart cities
- Sensors adapted to smart buildings and cities: Data collection and AI applications
- IoT Architectures in Cognitive Cities
- New IoT Communication Technologies
- IoT Energy Efficiency and Sustainability in Smart Cities
- Distributed Ledger Technologies for IoT
- Human Interaction with systems deployed in Smart Cities
- Internet of Behaviors in Smart Cities
- IoT-enhanced AR/VR/MR, Metaverse, and Games in Smart Cities
- Industrial Internet of Things/Industry 5.0/Internet-Enabled Quality
- Transient and Large-Scale Networks in Cognitive Cities
- IoT systems Deployments, and Testbeds
- Novel Applications of IoT in Smart Homes, Buildings, and Cities
- Societal Impacts and Ethical Implications of smart and Cognitive Cities.

Submitted papers are encouraged to address novel technical challenges or industrial and standard aspects of the key technologies for sustainable and secure cognitive buildings/cities.

Important Dates

Submission:	January 10, 2023
Acceptance notification:	March 30, 2023
Camera-ready paper submissions:	April 30, 2023

Note: Within this Symposium, there will be one Best Paper Award.