

**Special Session on
Artificial Intelligence in Smart Cities and Urban Mobility (AI4SC&UM22)
at
13th International Conference on
Innovations in Bio-Inspired Computing and Applications
(IBICA 2022)
on
World Wide Web
December 15-17, 2021**

<http://www.mirlabs.net/ibica22/>

Objectives and Scope

Smart urban solutions enabled by artificial intelligence (AI) have a number of advantages, including more effective energy, water, and waste management, as well as reduced pollution, noise, and traffic congestion. Local governments face relevant technological, social, and regulatory challenges undermining the digital transformation, including (i) technology and data availability and reliability, reliance on third parties, and a lack of skills; (ii) ethical challenges for the unbiased use of AI; and (iii) the difficulty of regulating interdependent infrastructures and data, respectively.

By 2025, AI is predicted to power over 30% of smart city applications, including urban mobility solutions [1], which will contribute greatly to urban resilience, sustainability, social welfare, and vibrancy.

Through this special session the organizers intend to promote theoretical and empirical research, and invite researchers to contribute with original research articles as well as surveys and case study papers.

We invite high quality contributions from all research areas that address the emerging data challenges in these streams under the following seven dimensions that can be used to categorize AI applications in smart cities.

Subtopics

The topics include, but are not limited to:

- Artificial intelligence (AI) for governance, such as urban planning, personalized subsidy provision, and disaster prevention and management.
- Artificial intelligence (AI) for living and living ability, safety, security, and healthcare, such as smart police, customized healthcare, noise and

nuisance management, and improved cyber security.

- Artificial intelligence (AI) for education and public participation, such as locally accurate, validated, and actionable knowledge to aid decision-making.
- AI for the economy, such as enhanced resource (cost and time) efficiency and competitiveness via sharing services, efficient supply chains, and customer-tailored solutions.
- Artificial intelligence for transportation and logistics (autonomous and sustainable mobility, smart routing, and parking, for example), assistance, supply chain resiliency, and traffic

management are all issues that need to be addressed.

- Artificial intelligence (AI) for infrastructure, such as optimized infrastructure deployment, utilization, and maintenance, as well as Waste and water management, transportation, electricity networks, and urban lighting are all areas that need to be addressed.
- Artificial intelligence for environmental purposes, such as biodiversity preservation, urban farming, and air quality

Paper Publications

- Proceedings will be published in Lecture Notes in Networks and Systems, Springer (Indexed in SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago)
<https://www.springer.com/series/15179>
- Papers maximum length is 10 pages
- Papers must be formatted according to Springer format (Latex/word) available at: <https://www.springer.com/de/authors-editors/book-authors-editors/manuscript-preparation/5636#c3324>

Important Dates

Paper submission due: September 30, 2022

Notification of paper acceptance: October 31, 2022

Registration and Final manuscript due: November 15, 2022

Conference: December 15-17, 2022

Special Session Chairs

- João Carlos Ferreira ISTAR, ISCTE-IUL
- Ana Maria Madureira - Interdisciplinary Studies Research Center (ISRC) - Institute of Engineering of Porto – Polytechnic of Porto (ISEP/P.PORTO)
- Luis Nunes ISTAR, ISCTE-IUL
- Nuno Datia, ISEL

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