Editorial: Welcome to the second issue of Volume 7 of the EAI Endorsed Transactions on Smart Cities

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The Smart City paradigm evolves alongside upcoming communication technologies like 6G, Artificial Intelligence (AI), security and the Internet of Everything (IoE). Smart cities leverage these technologies to create intelligent and sustainable living environments, enhancing citizens' quality of life and optimizing resource management. We can identify two main foundations for supporting smart cities, but also some challenges.

One of the primary foundations for supporting Smart City applications is the network infrastructure, which will integrate connected devices regarding the Internet of Everything (IoE). This integration facilitates real-time data collection and analysis, enabling informed decision-making, such as monitoring environmental conditions for optimized energy consumption and waste management. In this regard, communications networks play an important role in Smart Cities, with promising high data rates when transitioning from 5G to 6G and more reliable connectivity for real-time data exchange between devices, sensors, and systems, enabling applications like autonomous vehicles, smart grids and robotics.

The second foundation is AI, which empowers systems to analyse vast data and optimize traffic flow, energy consumption, and personalized services. The AI also takes place in network management, contributing to optimizing power consumption and energy efficiency, which are crucial goals achieved through intelligent energy management and energy-efficient infrastructure, contributing to a greener and more sustainable urban environment and network resource management. Finally, AI has become an essential part of many services and applications regarding smart transportation and e-Health services, through digital technologies, telemedicine, wearable health devices and personalized care.

Alongside these previously presented foundations, there are other vital concerns for Smart Cities. As cities offer increasing connectivity, robust cybersecurity measures become paramount to protect sensitive data and infrastructure in an interconnected environment. There is also an increasing concern about data security and sharing. This is due to the increasing amount of generated data considering the vast network infrastructure and many data-oriented applications. In addition, environmental sustainability is also critical, requiring adopting practices to reduce their ecological footprint and promote cleaner environments through real-time monitoring and renewable energy use. Furthermore, AI can be combined with robotics to facilitate human-robot interaction, with robots, for example, participating in labour-intensive tasks in industries.

Another critical challenge for Smart Cities is the accelerating urbanization. Furthermore, there has been an increasing concern about sustainability in recent years, considering the population increase in urban areas. 70% of the world's population is expected to live in urban environments by 2050. This massive urbanization might present different characteristics in low-income countries compared to the high income, which requires other solutions to the upcoming issues. This difference also allows researchers to conduct their research focusing on different use cases while addressing concerns on sustainable development.

The rapid evolution in these domains, coupled with the growing number of variables to be managed and the constantly expanding demands of users and applications, presents attractive and challenging research prospects. Collaboration between experts from various domains is becoming ever more mandatory. In this regard, the EAI Endorsed Transactions on Smart Cities, in its second issue of Volume 7, brings high-quality papers with successful research and lessons learned in investigating architectures, techniques, technologies and applications for Smart Cities.

Therefore, throughout the different articles, the reader will recognize the effort of the researchers and the solid collaboration for the level of quality of this issue, where the authors dare to invite us to understand the challenges and the complexity of creating Smart cities and, above all, to present us their innovations in this area. I want to thank the EAI

Endorsed Transactions on Smart Cities team for giving me the honour of writing the preface for Volume 7 of Issue 2. I am honoured to encourage others to join me in reading the following pages. Congratulations to the authors who have made a unique collaborative effort in writing and sharing their analysis and results. Finally, for all readers, if you are familiar with all these issues, be ready to let your mind distinguish between what is usual and what is innovation.

For beginners, are you prepared to enter this world where we go a step further in the future and see what's coming next? Be welcome.