

Preface to the Journal of Smart Cities and Society issue 2(2)

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1. Introduction

Welcome to the second issue of our second volume of the *Journal of Smart Cities and Society*. Here we consider three contributions to the field, two of them consider innovation in the technical infrastructure whilst another considers security and privacy guidelines:

“*Categorization of crowd-sensing streaming data for contextual characteristic detection*”, by P. Kisters, H. Schreiber and J. Edinger, explains a method for identifying contextual information based on the use of K-Means clustering on Dynamic Time Warping and illustrated this with an example based on temperature measurements in Germany. The assessment of the strategy used shows it is capable to detect an expressive number of clusters within a large number of time series data and it suggested the strategy can be successfully applied in relation to other contextual parameters.

“*Smart e-waste management system utilizing Internet of Thing and Deep Learning approaches*”, by D. Voskergian and I. Ishaq, proposes a comprehensive smart e-waste management system by integrating various sensors (e.g., ultrasonic sensor, IR sensor, flame sensor, temperature, and humidity sensor, load sensor) to monitor the current condition of the bin and e-waste object detection model that performs real-time e-waste detection and classification. The model is based on Yolov8s and TensorFlow Lite framework. The lightweight nature of the obtained model makes it the perfect match with Raspberry Pi 4. The model successfully identified e-waste objects and classified them according to their respective categories, such as keyboards, monitors, headphones, and mouse.

“*Security and privacy concerns in assisted living environments*”, by P.A. Condado and F.G. Lobo, addresses the increasingly growing concern of sensitive handling of personal data. It discusses the weaknesses of IoT devices and domotic technologies and presents research conducted by authors to mitigate these issues. This study shows that, despite hardware constraints, it is possible to design a relatively secure assisted living environment that prevents hacker attacks and data leaks. Additionally, it is essential to comprehend which information should be shared with external entities, such as health care services, and when to share it to ensure the inhabitants’ well-being.

The editorial team of this journal expects that the contributions included in this issue will provide new tools to address some of the many challenges ahead to realize this societal paradigm shift and inspires and guide other colleagues in this developing community to further innovate in this sector.

We encourage all sectors of society to engage in this technical conversation as our view of this area as a multidisciplinary one which will require the input of various different professions and different levels of involvement within urban environments to produce effective innovation.