Preface to the Journal of Smart Cities and Society issue 2(4)

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1. Introduction

Welcome to the fourth and last issue of our second volume of the *Journal of Smart Cities and Society*. Here we consider three contributions to the field: energy harvesting, data analytics to support urban planning and the use of electrodermal activity to measure a person's well-being:

"*Harvesting energy overview for sustainable wireless sensor networks*", by F. Shokoor and W. Shafik, evaluates energy harvesting developments to minimize resource utilization in wireless sensor networks, examining key features, proposed frameworks, and models. It also reviews specific energy source productions utilized by wireless sensor networks, as well as the networks capabilities to store the energy produced.

"*Use of mobile digital footprint to understand how COVID-19 impacts the visitors to art places in Singapore*", by X. Zeng and B. Tuncer, focusses on data analytics and shows how this can provide an insight on people's preference shifts in relation to certain historical contexts. In this case the research is supported by data available through CityData.ai, a geospatial AI platform and registered data broker, and reflects citizens' visits to art places in Singapore before, during and after the COVID-19 pandemic. These findings can inform urban planners as well as inspire similar initiatives on the use of such tools for urban planning.

"*Electrodermal activity: A continuous monitor of well-being*" by A. L. Meijer, L. P.A. Arts, Randy Gomez and E. L. van den Broek, assesses the potential of electrodermal information as a real-time indicator of stress levels and the implications that has for health and well-being of citizens. The team conducted an analysis on three datasets containing both continuous electrodermal activity signals and continuous self-reported arousal. They calculated the correlation between EDA features, namely non-specific Skin Conductance Response (nsSCR) amplitude and frequency, and self-reported arousal. In two of the datasets their analysis revealed significant positive correlations. The team used extended time windows (lasting for several minutes) and instead of focusing on acute stress responses as more frequent in the literature, they focused on different psychological constructs such as moods, prolonged stress, and, ultimately, well-being.

The editorial team of this journal expects 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 inspire 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.