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Preface to the Journal of Smart Cities and Society issue 1(3)

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1. Introduction

This third issue of our *Journal of Smart Cities and Society* offers four contributions to the field with reports of innovation in community engagement, smart buildings and smart transport:

"*Evaluation of communIT, a large-scale, cyber-physical artifact supporting diverse subgroups building community*" by C. de Aguiar, G. Leshed, T. Pinch and K. Green presents a system to encourage communities to have more participation in society, especially to provide options to less represented sections of society. Trials conducted with a significant number of prototypes including cyber-physical components and participants attracted good levels of engagement of citizens with the system and a positive perception from the participants on the initiative.

"*Interactive evacuation in intelligent buildings assisted by mixed reality*" by T. Wächter, J. Rexilius and M. König report on innovation relevant to the intelligent buildings concept, especially in evacuation guidance systems. This work presents two algorithms for active and passive modes, and their comparison, as well as the consideration for the use of mixed reality glasses to assist evacuees.

"*Auxiliary-LSTM based floor-level occupancy prediction using Wi-Fi access point logs*" by O. Ahmad and B. Farooq investigates the use of Wi-Fi data log entries to assess people mobility and other useful services such as building rooms occupancy. This research reports on the comparison of four different algorithms made based on almost half a million Wi-Fi data logs collected in a university campus building and provides a basis to rank the algorithms on efficiency and reliability.

"Detecting and learning city intersection traffic contexts for autonomous vehicles" by J. Gao, D. Wang, C. Lin, C. Luo, Y. Ruan and M. Yuan reports progress relevant to smart transportation in general and to autonomous vehicles in particular. A combination of CNN and decision trees is used in a two stages approach to recognize first the general surrounding context and then the specifics and subtleties of that context. This approach was trialed in well-known datasets and the experiments reported an encouraging level of accuracy.

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.

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