

Guest Editorial Preface

Prof. Ardavan Amini, Cognitive Digital Systems Engineering Centre,
Birmingham City University, Birmingham United Kingdom

Dr. Luis Hernandez-Munoz, Cognitive Digital Systems Engineering Centre, Birmingham City University, Birmingham
United Kingdom

We present with great pleasure the International Journal of Conceptual Structures and Smart Applications special issue on Smart Applications in Smart Cities.

The knowledge economy, digital transformation, cognitive engineering, social physics and innovation are driving forward the social and economic agenda of many Cities. Cities are the living base of urban society and City local authorities across the world are adopting smart applications. Such applications enable the Cities to be adaptive and creative in their delivery of services, enterprise collaborations and citizen engagement. In addition, Conceptual Structures are being used as the platform to create semantic web and intelligent applications that underpin new Smart City solutions. This special issue demonstrates smart applications from Cities in the Malta, United Kingdom (UK), Taiwan, Spain and Morocco. The papers reveal how Cities can work with the public and the private sectors to enhance citizens' engagement, foster enterprise agility and promote innovation and intelligence in their service delivery.

There are five papers presented in this special issues covering:

1. **VaTIS a Travel Information Service for the CITY of Valletta, Malta:** This paper highlights the concept behind intelligent information systems capabilities such as automated number plate recognition and sensor and camera technology to manage the travel demand and effective use of limited infrastructure. The ability to create opportunity for developing citizen engagement for potential behaviour change was integral to this work.
2. **Transforming Birmingham City with Smart Applications:** The productivity of computers offers means to address the growing social, urbanisation, regulatory and environmental challenges that Cities face and to do more with less. In this paper, two Smart City projects are presented involving Birmingham City in the UK: The use of Conceptual Graphs to create open innovation models, and results of the pilot evaluation of the Digital Log Book, respectively. They show how smart applications could increase productivity across public and private sectors services.
3. **Providing an Attractive Environment for People to Engage in Health Activities. Serving with Landscape:** People living in Cities have less opportunity to engage in activities in the natural environment. The purpose of this study was to investigate how to enhance proactively the attraction of green space to improve people's health. The experience of Daan Forest Park located in Taipei City in Northern Taiwan was adopted in this study.
4. **A Novel Wireless Mobility Monitoring and Tracking System. Applications for Smart Traffic:** This paper presents an intelligent mobility monitoring system based on detection of Bluetooth and Wi-Fi signals emitted by personal portable devices in Spain. The work uses tracking within the City of Granada and between the cities of Granada and Malaga.

5. **A Semantic Meta-Modelling Approach for Smart Government. Service Discovery Based on Conceptual Structures:** The paper demonstrates a semantic modelling approach of data and public services discovery for building smart government applications. Semantic web and conceptual structures technology were used to drive user oriented integration and interoperability, over the existing traditional and limited public service discovery approach.

We anticipate that the content of this special edition will provide a valuable resource for researchers, practitioners, and government authorities in addressing the challenges described. The special edition will also stimulate further research into the vibrant area of Smart Cities and Smart Applications.