PREFACE

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While no one agreed definition of a Smart City exists – indeed, it is the nature of a Smart City to be many things to many people – in general it can be seen as the combination of digital technologies (software, data, sensors) that overlay the city and provide information and services to both those involved in its governance and to citizens. A Smart City brings together data from disparate sources such as sensors, demographics, topographic, satellites and 3D mapping, Building Information Models and many more and address key challenges related to transportation, communications, air quality, noise, well-being of the citizens, decision making relating to education and health and urban planning, as well as in relation to initiatives such as startups and fostering economic growth and employment within the city. In order to integrate this data, location – knowing where on the Earth's surface the data relates to – is key, and as yet this is an often under-rated factor in Smart Cities Technology.

This increasing interest in Smart Cities world-wide, along with a growing understanding of the importance of integrating "Smart" data with other data and wider applications for the benefit of citizens, made the choice of hosting the fourth Smart Data, Smart Cities conference in Kuala Lumpur, Malaysia – in conjunction with two other conferences – a very natural one. Together the conferences were held during the week of 1st – 3th October 2019, and alongside SDSC, participants were invited to attend the 6th Geomatics and Geospatial Technology Conference, and the 8th FIG Workshop on the Land Administration Domain Model. Participant interaction – and the ability to attend sessions across the three events – was particularly encouraged. SDSC 2019 itself was organised by the Urban Data Management Society (UDMS www.udms.net), ISPRS and UTM (Universiti Teknologi Malaysia), and Professor Volker Coors Chaired the SDSC committee.

As in previous years, three key conference themes were proposed to represent the Smart Cities: **Smart Data** (sensor network databases, on-the-fly data mining, urban analytics and big data, knowledge based systems, big databases and data management, artificial intelligence, deep learning, city analytics), **Smart People** (volunteered information, citizen engagement and participation, privacy challenges in smart cities) and **Smart Cities** (digital twins, 3D modelling, Internet of Things, Social Networks, monitoring systems, mobility and transportation, telecommunications infrastructure, decision, making, disaster management). In addition, this year saw a specific call for papers related to **Smart Visualisation**, reflecting the increasing importance of dashboards and other interactive visualisation approaches as a way to deal with the complex information generated by Smart City technology.

This volume consists of 16 papers, selected on the basis of blind peer review from a total of 34 submissions. These papers present research concerning the use of data in Smart Cities, addressing different aspects relating to buildings and spaces, Smart Cities and 3D and 4D data, Smart City Processes and Frameworks and with particular emergence of papers relating to machine learning, deep learning and big data – in relative contrast to previous editions of this conference.

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