Preface

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PREFACE

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A Smart City is a complex concept, which has been given many definitions. It uses intelligent technology to enhance our quality of life in urban environments[1]. Public access to real time information enables people to make more informed choices. Cities can use the data in a variety of ways: to improve resources management, save time, minimize waste, manage transport routes, use water and energy efficiently and encourage citizens to be more involved in city management for the benefit of their communities.

Since the birth of the Smart City concept in 1997 to achieve the objectives of the Kyoto protocol, many smart initiatives and projects have been established all over the world to contribute to sustainable city development. For instance, the European Innovation Partnership on Smart Cities and Communities (EIP-SCC)[2] brings together cities, industry and citizens to improve urban life through more sustainable integrated solutions. This includes applied innovation, better planning, a more participatory approach, higher energy efficiency, better transport solutions, intelligent use of Information and Communication Technologies (ICT), etc.

In Latin America, Smart City initiatives are led and coordinated by local government authorities, which develop projects in partnership with solution providers. The growth of big urban centres is also on the rise, creating immense pressure on cities and their facilities and public services. The rapid evolution of big data, IoT (internet of things) and access technology is opening the door to create many more service offerings. According to IESE Business School's 2017 Cities in Motion Index[3], the top 5 cities in Latin America identified as "Smart Cities" are: Buenos Aires, Argentina; Santiago, Chile; Ciudad de México, México; Medellín, Colombia and Montevideo, Uruguay.

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1 https://www.gov.uk/government/news/new-initiative-to-support-40-billion-smart-cities-in-the-uk (Accessed: 4th September 2017)
2 http://ec.europa.eu/eip/smartcities/ (Accessed: 4th September 2017)
3 IESE Business School, 2017 Cities in Motion Index, pp 25, 37. URL:http://www.iese.edu/research/pdfs/ST-0442-E.pdf (Accessed: 5th September 2017)

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In Mexico, the Smart City concept is currently in its initial stages, offering a wide range of areas of opportunity for developing projects and achieving major results. Mexico is seizing the opportunity to become a leader in this area, with the first Smart City initiative starting in Ciudad Maderas in Querétaro in 2013, that includes smart intelligent urban planning and connectivity[4]. In Jalisco, efforts to make Tequila a Smart City started in 2014 and Guadalajara is set to host Ciudad Creativa Digital, a project focused on the region´s creative and digital industries. The Smart Puebla initiative – in the host city for this conference – is focussed on reducing social inequality, improving quality of life, promoting prosperity and economic development in a sustainable manner. Specific focus areas include education, health, tourism, transport, the environment and rural areas. Universities, the state government and the UN's HABITAT program are all working on this project [5] [6].

This increasing interest in Smart Cities made Mexico an attractive venue for the Second International Conference on Smart Data and Smart Cities, which was hosted in Puebla from October 4-6, 2017. Puebla belongs to the UNESCO Creative Cities Network[7] and the historic centre of Puebla was declared in 1987, a World Heritage Site by UNESCO. The organisers aimed to provide a forum of opportunities for senior researchers, students, developers, practitioners and citizens from Europe and Latin America, especially from Mexico, to further strengthen the communication and collaboration on new research topics.

The conference was organised as a collaboration between the Urban Data Management Society (UDMS, www.udms.net), ISPRS (WG IV/10), and a coordinated effort of top leading local organisations: Tecnológico de Monterrey, Campus Puebla, Universidad de las Américas Puebla, Benemérita Universidad Autónoma de Puebla, Instituto Nacional de Astrofísica, Óptica y Electrónica, T-Systems, Instituto Politécnico Nacional and IEEE Section Puebla.

Conference themes included the different components of Smart Cities: **Smart data** (sensor network databases, on-the-fly data mining, geographic and urban knowledge modelling and engineering, green computing, urban big data analytics), **Smart people (**volunteered information systems for public participation, social networks) and **Smart cities** (systems of territorial intelligence, systems for city intelligent management (building, transportation, energy, waste, etc.), 3D modelling of cities, Internet of Things, monitoring systems, smart-city-wide telecommunications infrastructure, urban knowledge engineering, urban dashboard design and implementation, new style of urban decision-making systems, geovisualization devoted to urban problems, disaster management systems, etc. .

[4] http://www.bnamericas.com/en/news/technology/mexico-moves-forward-with-smart-city-developments (Accessed 5th September 2017)
[5] http://www.bnamericas.com/en/news/technology/mexico-moves-forward-with-smart-city-developments (Accessed 5th September 2017)
[6] http://www.smartpuebla.org/ (Accessed 5th September 2017)
[7] http://en.unesco.org/creative-cities/home ((Accessed: 5th September 2017)

This volume consists of 14 papers, which were selected from 33 submissions on the basis of double blind review. These papers present novel research concerning the use of spatial information and communication technologies in Smart Cities, addressing discuss different aspects of Smart Data and Smart Citizens. Selected papers tackle different aspects of Smart Cities: data gathering and data modelling, using sensors as part of the infrastructure for surveillance, urban transport and traffic analysis as well as citizen participation in urban planning.

The editors are grateful to the members of the Scientific Committee for their time and valuable comments, which contributed to the high quality of the papers. Reviews were contributed by: Giorgio Agugiaro, Ken Arroyo Ohori, Martina Baucic, Michela Bertolotto, Filip Biljecki, Pawel Boguslawski, Omar Boucelma, Azedine Boulmakoul, Maria Antonia Brovelli, Ofelia Cervantes, Eliseo Clementini, Volker Coors, Vincenzo Del Fatto, Claire Ellul, Gesquiere Gilles, Gerhard Groeger, Thomas Hatzichristos, Jan-Henrik Haunert, Stephen Hirtle, Martin Kada, Snjezana Knezic, Mila Koeva, Robert Laurini, Marguerite Madden, Marco Minghini, Raul Monroy, Beniamino Murgante, Marco Painho, Dimos Pantazis, Dev Paudyal, Luis Pineda, Alenka Poplin, Ivana Racetin, Maribel Yasmina Santos, Sylvie Servigne, George Sithole, Wei Tu, Genoveva Vargas Solar, Kavita Vemuri, Edward Verbree, Mingshu Wang, Bev Wilson, Claudia Yamu, Sisi Zlatanova