Welcome Message From The SCUCA 2013 Chairs

Foreword

It is our great pleasure to welcome all of you to the *1st IEEE International Workshop on Smart City and Ubiquitous Computing Applications – IEEE SCUCA 2013* held in conjunction with the IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (WoWMoM), Madrid Spain 3-7 June 2013. The mission of this workshop is to present recent achievements of ubiquitous computing as regards smart cities, urban planning and geo-informatics. In particular, this workshop addresses all the aforementioned issues by incorporating new technologies in the area of mobile communications, multimedia services, data storage and handling and ubiquitous computing. As more and more people leave villages and farms to live in cities, urban growth results. According to the UN State of the World Population 2007 report, sometime in the middle of 2007, the number of people living in cities and towns has overtook the number of people living in the rural areas and this event was recorded in the history as the arrival of the "Urban Millennium" or the 'tipping point'. In regard to future trends, it is estimated 93% of urban growth will occur in developing nations, with 80% of urban growth occurring in Asia and Africa. Urged by these observations, city halls and political decision makers have become very alert, calling for urgent solutions to the growing problems. However, the recent advances in information and communication technologies may stimulate new solutions towards the urbanization problems. This is verified as a target research and innovation area in Horizon 2020 of European Union Policy under the challenge 'Secure Clean and Efficient Energy' with the main goal of jointly Smart Sustainable Cities. The aim is to integrate and validate ICT technologies and services in neighborhoods to make progress towards intelligent cities by exploiting ubiquitous technologies. In addition to technical developments, attention is given to innovative service business models which include security, safety and privacy issues.

The call for papers attracted submissions from all over the world (Asia, Europe, America). In total, 12 papers were submitted and 8 were accepted (acceptance ratio 66%). All papers were reviewed by at least two independent reviewers at a blind review basis.

The accepted papers are organized into two Oral Sessions:
Morning Session 1: *Smart urban contexts*.
Evening Session 2: *Energy and data management.*

The Smart urban contexts Session contains four papers all dealing with smart urban context. The first article entitled "Toward a Context-Aware and Automatic Evaluation of Elderly Dependency in Smart Homes and Cities," by Tayeb Lemlouma et. al coming from IRISA Labs & Univ. of Rennes in France and describes a framework for automatic dependency evaluation that can notify the changes of the elderly dependency, hence providing persons with required services in time. The second article with the title "A Perceptual Study into the Behaviour of Autonomous Agents within a Virtual Urban Environment" by Fotis Liarookapis et al, coming from Coventry University in United Kingdom. The article simulates vast crowds of autonomous agents within a procedurally generated virtual environment. The third article targets personalized 3D navigation of a user under a virtual touring urban environment. In this case navigation does not only minimize kilometric distance of the physical objects but also the perceptual distance as a user comprehends it. This articles is entitled "A Perceptual Study into the Behaviour of Autonomous Agents within a Virtual Urban Environment," written by Nikolaos Doulamis et al. and coming from National Technical Univ. of Athens in Greece. Finally, the session is concluded by the article "Smart parking solutions for urban areas," by Lambros Lambrinos et. al from Cyprus Technical University in Cyprus. This article proposes smart parking methods to improve mobility within urban environments.

The Energy and data management session also contains four papers. The first with the title "Sustainable smart city IoT applications: Heat and electricity management & Eco-conscious cruise control for public transportation," by Joshua Cooper, Hildebrand in UK proposes new smart cities infrastructures on exploiting Internet of Things applications regarding home devices. The second paper proposes a new interoperable architectire for mobile smart services over the Internet of Energy. The title of this work is "An Interoperable Architecture for Mobile Smart Services over the Internet of Energy" and the authors (Marco Di Felice et al.) coming from, University of Bologna in Italy. The third article "ANN-based Appliance Recognition from Low-frequency Energy Monitoring Data" applies a artificial neural network to recognize appliances form energy monitoring data. This article is written by Francesca Paradiso coming from Univ. of Florence, Italy. Finally, the last paper of the workshop is entitled "Safe Urban Growth: An Integrated ICT Solution for Unstandardized and Distributed Information Handling," by Konstantinos Makantasis et al. from Technical University of Crete, Greece.

The article proposes new ICT tools to about underground gas pipeline networks, in order to provide a safe way for urban growth.

All these sessions are presented in a single track one day workshop. The heart of this effort is the researchers who have provided the content of this event. The role of the Program Committee and of the external reviewers was prominent since they worked hard in organizing the workshop, reviewing the papers and providing suggestions for their improvements.

The IEEE SCUCA General Chairs,

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Technical University of Crete   *Cyprus Technical University*