## Preface

Carles Gomez<sup>a</sup>, Andrea Prati<sup>b</sup>, Hamid Aghajan<sup>c</sup> and Juan Carlos Augusto<sup>d</sup>

- <sup>a</sup> Wireless Networks Group, Department of Network Engineering, Universitat Politecnica de Catalunya, Fundacio i2cat, Spain
- <sup>b</sup> Department of Information Engineering, University of Parma, Italy
- <sup>c</sup> iMinds, Gent University, Belgium Ambient Intelligence Research (AIR) Lab, Stanford University, USA
- <sup>d</sup> Department of Computer Science and Research Group on Development of Intelligent Environments, Middlesex University, UK

## 1. This issue

This issue of JAISE is composed of two Thematic Sections and two regular papers.

The Thematic Section on "Living and working in smart buildings: Past, present and future" aims to provide insights into how the inhabitation of smart buildings can be more richly sensed and how the sensed state of the building can be translated into richer contexts which can adapt to the location and to the inhabitants. The section includes 3 articles which address the challenges of smart buildings. These papers offer detailed versions of the work presented in the 12th International Conference on Intelligent Environments (IE 2016), which was held in London, UK. Stefan Poslad and Andrés Muñoz served as guest editors for this thematic section.

The Thematic Section on "Semantic Web technologies for mobile and pervasive environments" aims to demonstrate how Semantic Web technologies can be used to address some of the emerging challenges facing AmI applications such as the heterogeneity of communication protocols and interfaces, context-awareness in a scalable streaming manner, integration, and scalability in different application domains. The section includes three articles which approach these issues from different angles, including scalability and streaming sensor data, tools for domain experts, ontologies in mobile network analysis, wearable sensors and biomedical applications. The articles are extended versions of selected papers from the 1st international workshop on Semantic Web Technologies for Mobile and Pervasive Environments (SEM-PER) 2016, which took place in Heraklion, Greece. Antonis Bikakis, Thanos G. Stavropoulos, and Georgios Meditskos served as guest editors for this thematic section.

The regular paper section of this Issue includes two papers, for which the review process was supervised by our editors Wilfried Philips and Andrés Muñoz Ortega, whom we thank for their service.

The paper "Evaluating the recognition of bed postures using mutual capacitance sensing" by Silvia et al. investigates an approach to classify bed postures using mutual capacitance sensing. The goal is to develop a system that detects prolonged static lying postures in bed for a patient in order to prevent pressure on the skin and the resulting tissue injuries. The prototype system is composed of a wire electrode grid, in which the mutual capacitance between these electrodes is measured and the data is used to determine the pose of the user with machine learning methods.

The paper "A mobile and interactive multiobjective urban tourist route planning system" by Ayala et al. presents a multi-objective route planner for urban areas for mobile devices which incorporates a tourist's contextual information. The system allows the user to select pedestrian routes according to two criteria: minimizing overall distance and maximizing tourist interest by passing through interesting tourist areas. The locations of interest are determined through recent querying context.

## 2. Upcoming issues

The following is the list of upcoming issues of JAISE in 2017:

- Mar. 2017: Regular Issue.

- May 2017: Thematic Issue on *Intelligent Systems*, *Applications and Environments for the Industry of the Future*.
- July 2017: Regular Issue.
- September 2017: Thematic Issue on *Human-centred AmI: Cognitive Approaches, Reasoning and Learning.*
- November 2017: Regular Issue.

More information on the call for papers to the future thematic issues is available on the webpage of JAISE at: http://www.iospress.nl/journal/journal-of-ambient-intelligence-and-smart-environments/.