Editorial

Antonio Coronato² · Juan Carlos Augusto¹

© Springer International Publishing AG 2017

This third issue of the third volume of the Journal of Reliable Intelligent Environments consists of four papers. Three of them concern different dependability attributes for Intelligent Environments. The fourth paper deals with the verification of quality characteristics of software-defined networks.

Reliability and human factors in Ambient Assisted Living environments—The DOREMI case study, by Filippo Palumbo et al., presents the results of the analysis of the impact on the daily life of users (elderly and cognitive impaired people) of the intelligent environment technologies developed within the DOREMI project, an EU funded project experimented in 32 test sites across UK and Italy. This paper concentrates on the activities conducted during the pilot site studies, the users' experience of the entire system, and how human factors influenced its overall reliability.

Self-Adaptive Smart Spaces by Proactive Means-End Reasoning, by Luca Sabatucci and Massimo Cossentino, deals with the ability of an intelligent environment to change its behavior at run-time. This paper presents a theoretical framework and a general architecture for engineering self-adaptive smart spaces by breaking out some design-time constraints between goals and tasks. The architecture supports software evolution; indeed, goals may evolve during the application lifecycle. The architecture itself is responsible for configuring its components by means of a decision-making process supported by an ad hoc algorithm.

A secure remote user authentication scheme for smart cities E-governance applications, by Geeta Sharma and Sheetal Kalra, proposes a lightweight, robust remote user authentication and key agreement protocol for e-governance applications in the smart cities. The protocol is based on XOR and hash operations and includes a password and smart card, user anonymity, mutual authentication, shared session key and key freshness. It has formally proved to be resistant against many well-known security attacks.

A Characterisation of Verification Tools for Software Defined Networks, by Leticia Lavado et al., provides a preliminary study of the current verification tools used to analyze different quality properties of software defined networks either before deployment or during the service. A classification of the tools against certain characteristics is provided to ease the selection for potential users, and promising research areas are also reviewed.

We hope these articles stimulate the community to further improvements in this area and perhaps to collaborations between the participating teams so that complementary solutions can be used in a combined way to tackle more complex problems.

✉ Juan Carlos Augusto
j.augusto@mdx.ac.uk

Antonio Coronato
antonio.coronato@icar.cnr.it

¹ Department of Computer Science, Middlesex University, London, UK

² Institute for High Performance Computing and Networking National Research Council, Arcavacata, Italy