



## Editorial

Juan C. Augusto<sup>1</sup> · Antonio Coronato<sup>2</sup>

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This second issue of our ninth volume of the Journal of Reliable Intelligent Environments brings six articles in a diversity of research communication formats as well as on the technical areas they cover.

We include an area survey:

*A review on quality of experience (QoE) in cloud computing* by A. Laghari et al., present an overview of Quality of Experience, including frameworks, and models, which have been proposed for different cloud computing environments, contrasting their advantages and limitations, as well as open issues for future research by the cloud computing community.

There are also five specific technical contributions:

*PECMS: modeling a personalized energy and comfort management system based on residents' behaviour anticipation in smart home* by H. Tahayori et al. presents a Personalized Energy and Comfort Management System (PECMS) that optimizes building energy consumption and meanwhile maintains residents' intended comfort levels by predicting their trajectories and provide evidence through simulations of effectiveness in achieving the desired trade-off between energy consumption and occupant comfort levels.

*Assessing the impact of battery charging and discharging times on the availability of mechanical ventilation service* by A. do Monte et al. the issues related to battery charging and discharging times and maintaining of devices in an Intensive Care Unit, healthcare facilities can enhance the availability and reliability of

respiratory support systems. The authors analyze the system behaviour in various scenarios show significant improvements in availability and reduced system downtime.

*HS-WOA-MANET: a hybrid meta-heuristic approach-based multi-objective constraints for energy efficient routing protocol in mobile ad hoc networks* by S. Goswami et al., explains the design of a routing protocol to select the optimal paths for enhancing navigation in MANETs whilst giving importance to energy efficiency are critical problems when changing the network topology. A performance analysis shows better energy efficiency achievement with the proposed design.

*Tsunami tide prediction in shallow water using recurrent neural networks: model implementation in the Indonesia Tsunami Early Warning System* by W. Dharmawan et al., evaluates variants of the RNN model (the vanilla RNN, LSTM and GRU models) in tides prediction and z-score analysis for tsunami identification showing the GRU model is superior to the other ones with the data used.

*Early fire danger monitoring system in smart cities using optimization-based deep learning techniques with artificial intelligence* by P. Reddy et al., explains a recurrent neural network with a whale optimization framework (AI-RNN-WO) introduced to estimate the risk of fire hazards based on a smart cities dataset including temperature, smoke, flame, relative humidity, fuel moisture, and duff moisture code, showing high accuracy of classification.

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.

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✉ Antonio Coronato  
a.coronato@unifortunato.eu

Juan C. Augusto  
j.augusto@mdx.ac.uk

<sup>1</sup> Research Group on Development of Intelligent Environments, Department of Computer Science, Middlesex University, London, UK

<sup>2</sup> Università Giustino Fortunato, Via Delcogliano, 12 Benevento, Italy