



Editorial

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This last issue of our eighth volume of the *Journal of Reliable Intelligent Environments* brings seven articles in a diversity of research communication formats as well as on the technical areas they cover.

We include here reports which tackle interoperability issues such as

Definition of an FHIR-based multiprotocol IoT home gateway to support the dynamic plug of new devices within instrumented environments by P. Zampognaro et al., which proposes an alternative multi-protocol IoT Home Gateway, implemented through an Android mobile app which collects sensors data received within a Health Information System over different protocols and providing a seamless integration of such data.

Innovative feature selection and classification model for heart disease prediction by S. Nagarajan et al., presents an effective hybrid methodology to diagnose heart disease from databases with a diversity of lifestyle data.

Other contributions aiming at improving efficiency:

Optimal motion sensor placement in smart homes and intelligent environments using a hybrid WOA-PSO algorithm by S. Nasrollahzadeh et al. considers a hybrid algorithm between Particle Swarm Optimization and Whale Optimization Algorithm, combining the advantages of both methods, to advice on optimal motion sensor placement in Smart Environments.

Improved data-driven root cause analysis in fog computing environment by C. Bulla and M. Birje, presents an anomaly detection model and a root cause analysis

model in the context of edge, using these models to direct the behaviour of a multi-agent system which is shown to produce good results on simulations.

Work focused on security:

A private Ethereum blockchain implementation for secure data handling in Internet of Medical Things by D. Mohan et al., presents a mechanism to create blockchain inspired strategies that can be adapted to the limited resources of smaller by vital interconnected medical devices.

Review and analysis of classical algorithms and hash-based post-quantum algorithm by M. Noel et al., presents a comparative analysis of strengths and weaknesses of security-related algorithms in the context of quantum computing, highlighting the Merkle signature scheme as the best candidate to withstand quantum computer related attacks.

And finally a report emphasizing sustainability:

A novel energy-efficient clustering protocol in wireless sensor network: multi-objective analysis based on hybrid meta-heuristic algorithm by Y. A. Rani and E. Reddy, considers a hybrid meta-heuristic algorithm for optimal cluster head selection with the aim of optimizing the energy-efficiency of the nodes cluster.

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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