Journal of Reliable Intelligent Environments (2021) 7:67
https://doi.org/10.1007/s40860-021-00142-5

EDITORIAL

# Editorial

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Published online: 8 May 2021


This second issue of the seventh volume of the *Journal of Reliable Intelligent Environments* includes three reviews and three research papers.

*Cybersecurity management in cloud computing: semantic literature review and conceptual framework proposal*, by Najat Tissir, Said El Kafhali, and Noureddine Aboutabit, focuses on reports a comprehensive study of Cloud Computing security, cybersecurity differences, ISO, and NIST standards. It focuses on identifying the policies and the guidelines included in these standards as well as it provides a Framework proposal to manage and prevent cyber risks in Cloud Computing taking into consideration the ISO 27,032, ISO 27,001, ISO 27,017 and NIST cybersecurity Framework CSF. In addition to that, the study pinpoints the criteria that concern measuring the maturity of organizations that implement the framework.

*Big data in cybersecurity: a survey of applications and future trends*, by Mohammed Alani, surveys state-of-the-art research in different areas of applications of big data in cybersecurity. The paper categorizes applications into areas of intrusion and anomaly detection, spamming and spoofing detection, malware and ransomware detection, code security, cloud security, along with another category surveying other directions of research in big data and cybersecurity. The paper concludes by pointing to possible future directions in research on big data applications in cybersecurity.

*Blockchain technology in IoT systems: current trends, methodology, problems, applications, and future directions*, by Abraham Ayegba Alfa, John Kolo Alhassan, Olayemi Mikail Olaniyi, and Morufu Olalere , investigated security and privacy concerns of IoT and the prospect of utilizing cryptographic and hashing schemes offered by Blockchain technology in IoT. High performance and scalable cryptographic schemes are also evaluated and suggested to deal with privacy and security of data in Blockchain-based IoT system.

*Optimization of parameters for improving the performance of EEG-based BCI system*, by Mandeep Kaur Ghumman, Satvir Singh, Navtej Singh, and Balkrishan Jindal, concerns the design a EEG-based human-computer interfaces. The authors propose a new approach that has been validated against a publicly available data set and it has shown higher classification accuracy and lower misclassification rate as compared to other methods executed on the same dataset.

*Apollo SignSound: an intelligent system applied to ubiquitous healthcare of deaf people*, by João Elison da Rosa Tavares and Jorge Luis Victória Barbosa, proposes the Apollo SignSound system, which promotes accessibility for people with hearing impairment in a smart home environment, especially regarding safety. Apollo SignSound is able to detect ambient risks using neural networks and generate notifications of risk sent to the user's smartphone.

*Reasoning and learning with context logic*, by Hedda Schmidtke, presents a probabilistic linear time algorithm for reasoning in a contexet-aware environment. The algorithm relies on Context logic, a logical language that integrates three-layers of languages: a relational base layer with the expressiveness of propositional logic, a quantifier-free decidable language, and an expressive language with full quantification.

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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