

## Managing Editor's Column

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Dear Readers,

It gives me great pleasure to announce the third regular issue of 2026. I would like to thank all the authors for their sound research and the editorial board for the extremely valuable reviews and suggestions for improvement. These contributions together with the support of the community and the generous support of the KOALA initiative enable us to run our journal and maintain its quality.

I would still like to expand our editorial board: If you are a tenured associate professor or above with a good publication record, please apply to join our editorial board. We are also interested in high-quality proposals for special issues on new topics and emerging trends.

In this regular issue, I am very pleased to present 6 accepted papers by 27 authors from 6 countries: Brazil, India, Kingdom of Saudi Arabia, Morocco, Spain and Sri Lanka.

In a collaborative effort between researchers from Morocco and Spain, Chaimae Moumouh, José A. García-Berná, Begoña Moros, Juan M. Carrillo de Gea, Mohamed Y. Chkouri, and José L. Fernández-Alemán address in their paper the critical challenges of privacy and security in Electronic Health Records (EHRs) by presenting a comprehensive bibliometric analysis of academic research in this field based on 3,077 publications indexed in Scopus over a 24-year period. The findings identify major publication trends, leading institutions, dominant languages, and the year with the highest research output, highlighting the growing academic relevance of EHR privacy and security and providing a structured overview of the field's development.

Jorge Arthur Schneider Aranda, Ricardo dos Santos Costa, Vitor Werner de Vargas, Paulo Ricardo da Silva Pereira, Jorge Luis Victória Barbosa, Marcelo Pinto Vianna, and Eleandro Luis Marques da Silva from Brazil research in their work the challenge of efficiently classifying electrical metrics in power distribution networks by proposing OntoFreyra, an ontology-based model that applies semantic reasoning to interpret voltage, current, and contextual data. The results demonstrate that OntoFreyra enables precise and scalable automatic classification, reducing specialist analysis effort while supporting context-aware inference across large datasets.

Ayodhya Liyanage and Anuradha Mahasinghe from Sri Lanka investigate in their paper the lack of well-posed state transition diagrams for basic quantum gates in the standard Quantum Turing Machine model by constructing rigorous diagrams for a universal quantum gate set. The results demonstrate that these diagrams satisfy the postulates of quantum mechanics, thereby providing a universal, fault-tolerant basis for simulating quantum computations within the QTM framework.

Moulay Youssef Ichahane, Nouredine Assad, and Hassan Ouahmane from Morocco present in their work a multimodal diagnostic framework that combines case-based reasoning with deep learning to address the complexity and heterogeneity of rheumatoid arthritis diagnosis, integrating electronic health record data with deep learning-based analysis of chest X-ray images. Experimental evaluations show that the proposed approach significantly improves diagnostic accuracy and robustness compared to conventional CNN- and KNN-based methods, highlighting the framework's relevance for advanced computer-aided medical diagnosis.

Abdelhady Naguib and Abdulaziz Shehab from Saudi Arabia tackle in their article the problem of robust and energy-efficient localization in obstacle-rich wireless sensor networks by introducing a deterministic mobile anchor trajectory model, that integrates square spiral coverage with lightweight obstacle avoidance. A range of simulations demonstrate that the proposed approach achieves superior localization accuracy, higher node coverage, and reduced trajectory length compared to state-of-the-art path planning schemes.

In a collaborative research between Saudi Arabia and India, Abdulhadi Altherwi, Md. Mottahir Alam, Mastoor M. Abushaega, Abdulmajeed Azyabi, Ahmed Hamzi, Shabbir Hassan and Asif Irshad Khan research the challenge of accurate and computationally efficient forecasting in Hybrid Renewable Energy Systems by proposing a hybrid Grey Wolf Optimization-Deep Belief Network (GWO-DBN) framework that integrates metaheuristic feature selection with deep learning. Validation on two real-world datasets demonstrates reduced prediction error and computational time, achieving high forecasting accuracy and improved energy efficiency for smart grid applications.

Enjoy Reading!

Warm regards,



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