

PREFACE TO THE EDITION

It gives us great pleasure to present the latest issue of the **International Journal of Information Technology Research Studies (IJITRS)**, featuring a diverse collection of research and scholarly contributions that reflect the rapidly evolving landscape of information technology. The articles in this issue collectively explore emerging technologies, intelligent computing approaches, cybersecurity challenges, digital transformation, online education, and technology-driven applications across different domains.

The issue opens with an exploration of digital intelligence among youth, examining multiple dimensions including digital literacy, digital use, digital identity, digital safety, digital security, digital communication, digital emotional intelligence, and digital rights. The findings highlight that technological proficiency must be complemented by ethical awareness, emotional intelligence, and an understanding of responsibilities in digital environments. This contribution reinforces the importance of developing not merely capable technology users, but responsible and digitally intelligent citizens.

Cybersecurity and intelligent threat detection receive significant attention in this issue. One contribution presents a deep-learning-based intrusion detection approach for connected and autonomous vehicles, addressing vulnerabilities in Controller Area Network (CAN) communication. By combining convolutional neural networks, bidirectional LSTM networks, and temporal attention mechanisms, the study demonstrates the potential of deep learning for detecting sophisticated attacks in vehicle networks and highlights the growing importance of cybersecurity in connected transportation systems.

The issue also addresses the rapidly expanding field of online and technology-enhanced education through a survey of personalized course recommendation systems for MOOC platforms. The study reviews collaborative, content-based, knowledge-based, sequential, deep-learning, reinforcement-learning, and hybrid recommendation approaches while identifying continuing challenges such as cold-start problems, scalability, explainability, fairness, privacy, and alignment with learner knowledge. The discussion points toward increasingly learner-centred and intelligent educational systems.

Another important contribution examines post-quantum cryptography migration for enterprise security. With advances in quantum computing posing potential risks to conventional public-key cryptographic systems, the study discusses emerging post-quantum standards and proposes a practical migration framework based on crypto-agility, risk prioritization, hybrid deployment, and validation. It provides a timely perspective on the need for organizations to prepare their information-security infrastructure for future technological developments.

The growing use of large language models in enterprise environments is explored through a study of Retrieval-Augmented Generation (RAG) for trustworthy enterprise assistants. The contribution examines retrieval, embedding, re-ranking, grounded generation, and citation-supported responses, while also considering security, access control, latency, and cost. It highlights the continuing movement toward AI systems that are not only capable of generating information but are also expected to provide reliable, verifiable, and contextually grounded responses.

Digital transformation and organizational analytics are further represented through a study of self-service business intelligence and analytics. The contribution examines the transition from traditional centralized reporting toward governed self-service analytics, cloud data platforms, augmented analytics, and natural-language querying. It emphasizes the importance of combining analytical freedom with appropriate governance, semantic consistency, security, and data management.

The issue also demonstrates the application of artificial intelligence and computer vision to agriculture through research on multi-crop pretraining for black pepper leaf disease classification. By examining leaf-grouped evaluation and the transferability of models trained across multiple crops, the study draws attention to the limitations of conventional image benchmarks and the importance of addressing dataset duplication and acquisition shortcuts when assessing machine-learning performance in agricultural applications.

Taken together, the contributions in this issue illustrate the breadth of contemporary information technology research. From digitally intelligent citizens and secure autonomous vehicles to quantum-resistant cryptography, intelligent educational recommendation, trustworthy enterprise AI, business analytics, and agricultural computer vision, the studies demonstrate how information technology is increasingly intersecting with diverse sectors of society and industry.

The International Journal of Information Technology Research Studies (IJITRS) remains committed to providing a platform for research that contributes to the understanding, development, and responsible application of emerging information technologies. We hope that the articles presented in this issue will stimulate further research, encourage interdisciplinary collaboration, and contribute meaningfully to the continuing advancement of information technology.

We sincerely thank the authors, reviewers, editorial contributors, and all those who have supported the development of this issue. We invite researchers, academicians, practitioners, and technology professionals to continue contributing innovative research to future issues of IJITRS.

Dr. R. Pugazhenth
Chief Editor

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