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Editorial Comments Volume 4 Issue 6

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Volume 4, Issue 6 of the *Journal of Computers, Mechanical and Management (J. Comput. Mech. Manag)* presents a diverse and methodologically rigorous collection of interdisciplinary research contributions reflecting the growing convergence of artificial intelligence, big data analytics, secure digital infrastructures, and decision-support systems across engineering, healthcare, and management domains. This issue comprises **two review articles** and **four original research papers**, addressing both foundational methodologies and applied system-level innovations with strong relevance to real-world operational challenges.

Rexcharles Enyinna Donatus [1] presented a comprehensive review of artificial intelligence techniques for image- and signal-based non-destructive testing (NDT) in aerospace structures. The review systematically examined dominant inspection modalities, including radiography, thermography, ultrasonics, acoustic emission, and vibration analysis, and mapped them to appropriate deep learning architectures. By critically discussing limitations related to dataset scarcity, interpretability, and certification readiness, the study offered a structured roadmap toward trustworthy and deployable AI-enabled aerospace inspection systems. **Li Xu et al.** [2] conducted a PRISMA-guided systematic review of scalable blockchain-based digital signature frameworks for healthcare data security. Synthesizing evidence from 85 peer-reviewed studies, the review evaluated consensus mechanisms, smart contracts, hybrid blockchain architectures, and regulatory compliance challenges. The findings highlighted the scalability limitations of conventional Proof-of-Work systems and emphasized emerging solutions, such as Proof-of-Stake, Delegated Proof-of-Authority, Layer-2 scaling, and post-quantum cryptography, as promising directions for secure and compliant healthcare data infrastructures.

Parveen Kumari and Alpana Jijja [3] presented an original research study on detecting depression using Twitter data through hybrid feature representation and comparative machine learning analysis. Leveraging a large-scale dataset comprising over 205,000 social media posts, the authors systematically evaluated six supervised classifiers using a combination of textual and sentiment-based features. The results demonstrated the effectiveness of linear and ensemble models for high-dimensional text analytics, while also highlighting the challenges and limitations inherent in social-media-driven mental health monitoring. **Zhang Jian Gang and Hazirah Bee Yusof Ali** [4] contributed a review-oriented study examining predictive analytics models for AI-enhanced decision support in corporate management. Drawing from academic literature and industry case studies, the paper analyzed how predictive analytics supports strategic planning, resource allocation, risk mitigation, and operational efficiency. The study critically discussed trade-offs among accuracy, interpretability, scalability, and ethical considerations, providing guidance for the responsible deployment of AI-driven decision-support systems.

Samadhan Bundhe et al. [5] proposed a cloud-based framework for real-time big data analytics in healthcare systems, integrating distributed stream processing with blockchain validation and game-theoretic encryption mechanisms. Experimental results demonstrated improvements in processing latency, throughput, and resource utilization compared to conventional Hadoop and Spark-based pipelines, addressing a critical need for secure, scalable, and real-time healthcare analytics. Finally, **Baokui Liao et al.** [6] introduced a multidimensional evaluation framework for parallel frequent pattern mining algorithms on big data platforms. Validated through extensive experiments on a Hadoop cluster using the KVBFP algorithm, the study systematically evaluated resource adaptability, communication efficiency, and fault tolerance. The proposed framework extended beyond traditional runtime-focused evaluations, providing a reproducible engineering-level benchmarking methodology for distributed data mining systems.

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Announcement

We are pleased to announce that the *Journal of Computers, Mechanical and Management (J. Comput. Mech. Manag)* has been **successfully included in the Scopus database in December 2025**. This milestone reflects the journal's sustained commitment to editorial rigor, methodological transparency, ethical publishing practices, and interdisciplinary scholarly impact in alignment with international indexing standards. Scopus inclusion enhances the journal's global visibility and citation potential, affirming the collective efforts of the editorial board, reviewers, authors, and publishing partners. As Editor-in-Chief, I extend my sincere appreciation to all contributors who have supported the Journal's continued growth and quality advancement. We look forward to further strengthening the journal's academic impact and international reach in forthcoming issues.

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