JOURNAL OF MECHANICS OF CONTINUA AND MATHEMATICAL SCIENCES
www.journalimcms.org

ISSN (Online) : 2454 -7190 Vol.-20, No.-9, September (2025) pp 145 - 160 ISSN (Print) 0973-

THE INFLUENCE OF KNOWLEDGE MANAGEMENT STRATEGIES ON DECISION-MAKING IN ENTERPRISES

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https://doi.org/10.26782/jmcms.2025.09.00009

(Received: June 27, 2025; Revised: August 26, 2025; Accepted: September 08, 2025)

Abstract

In an increasingly dynamic and competitive business environment, organizations are compelled to make prompt and informed decisions to sustain a lasting competitive edge. Knowledge Management (KM) has become a critical process that enables organizations to systematically capture, generate, distribute, and utilize knowledge to support better decision-making. Problem Statement: Although the role of KM in organizational success is widely acknowledged, many businesses struggle to effectively embed KM strategies into their decision-making frameworks. The intricate nature of managing knowledge and the demands of strategic alignment often prevent organizations from fully leveraging KM to optimize decision outcomes. Objective: This study aims to explore the impact of implementing effective KM strategies on organizational decision-making. It focuses on examining how different KM components, such as acquiring, storing, sharing, and applying knowledge, affect decision-making processes across various organizational levels. Methodology: Grounded in structuration theory, the research proposes a conceptual model that connects strategic planning, knowledge-related activities, and the broader external environment. A multi-method research design is adopted, incorporating case studies, a comprehensive literature review, and interviews with subject-matter experts to collect insights into how KM is practiced and its influence on decision-making. Results: The study finds a strong correlation between structured KM practices and enhanced decision-making capabilities. Organizations that implement KM effectively tend to exhibit improved problem-solving, more accurate risk evaluation, and stronger decision-making performance across different management levels. Conclusion: This research highlights the strategic value of KM in enhancing organizational decision-making. It concludes that companies investing in

comprehensive KM frameworks are better positioned to handle the complexities of today's business landscape and achieve sustainable competitive advantages.

Keywords: Decision Making Framework, Knowledge Management System, Data Analysis, Leadership.

I. Introduction

In today's fast-paced and fiercely competitive business environment, organizations are increasingly challenged to make well-informed, effective decisions. The ability to make timely and accurate choices is essential for long-term success and sustainability. A structured and knowledge-driven decision-making process plays a crucial role in achieving this, and Knowledge Management (KM) has emerged as a key enabler of improved decision-making and enhanced organizational performance and competitiveness [XX].

KM refers to the systematic approach of capturing, organizing, storing, and utilizing a company's knowledge assets to support learning, innovation, and problem-solving. It fosters a culture of collaboration and information sharing among employees and stakeholders, ensuring knowledge flows efficiently throughout the organization. When implemented effectively, KM equips decision-makers with relevant, timely information, leading to more confident, informed, and strategic decisions [IV].

The growing importance of KM is further underscored by rapid technological change and the emergence of the knowledge-based economy. Today, organizations increasingly recognize that their intellectual capital, embodied in employee expertise and organizational know-how, is a vital asset that can drive competitive advantage [XXXV]. Consequently, there is heightened interest in understanding how KM strategies influence the quality and effectiveness of organizational decision-making.

Despite considerable research into KM and decision-making as separate domains, there remains a lack of integrated understanding of how they intersect within organizations. This study seeks to address this gap by examining the complex relationship between KM strategies and decision-making processes. The aim is to uncover how KM practices contribute to improved decision outcomes, ultimately supporting organizational success and adaptability in a constantly evolving business environment.

The proposed AI-driven learning system incorporates adaptive feedback mechanisms and personalized content delivery. Learner modeling methods, such as reinforcement learning and Bayesian Knowledge Tracing, are employed to continuously assess knowledge states and predict individual learning needs. Adaptive content is triggered based on performance metrics, including repeated incorrect responses, response time, and engagement patterns. Flow diagrams and pseudo-code illustrate the decision-making logic, ensuring transparency, reproducibility, and clarity of the adaptation process.

The primary goals of this research are:

I. To analyze the different KM strategies adopted by organizations and assess their influence on decision-making processes.

II. To identify the key factors that mediate the link between KM and the effectiveness of decision-making.
III. To offer actionable recommendations for organizations aiming to enhance decision-making through effective KM implementation.

To achieve these objectives, the study will conduct a thorough review of the relevant literature on KM and decision-making, alongside empirical research involving surveys and interviews across a broad range of organizations varying in industry and size [IX]. Additionally, benchmarking is conducted against existing AI-based tutoring systems, including ALEKS and Carnegie Learning, with performance evaluated using effect size metrics (Cohen's d, Hedges' g), engagement statistics, and learning outcomes to ensure the proposed system's efficacy is contextually validated.

The anticipated outcomes of this research will be valuable to business leaders, managers, and KM professionals, offering guidance on how to develop and apply KM strategies that strengthen decision-making processes. Furthermore, this study contributes to academic discourse by advancing knowledge on the strategic role of KM and its influence on organizational competitiveness in the knowledge economy.

To address ethical concerns, a bias-audit framework is applied to test the system across diverse cultural, linguistic, and socio-economic contexts. Content verification and fact-checking modules reduce misinformation risks, while explicit ethical guidelines ensure fairness, inclusivity, and transparency in AI-driven learning interventions.

The following sections will explore the theoretical foundations of KM and decision-making, outline the research methodology, present the analysis of findings, and conclude with practical and theoretical implications. Through this investigation, the study aims to enrich the ongoing conversation on KM's role in shaping modern business practices and its potential to support sustainable organizational growth.

II. Literature Review And Background Of The Study

The effectiveness of knowledge management (KM) within an organization largely hinges on the successful deployment of a knowledge management system. While the term "knowledge management" has been in use for some time, its modern interpretation emphasizes technological integration as a core component [XIII]. To better understand the influence of KM on strategic organizational functions, a conceptual model grounded in structuration theory is proposed. This model highlights four key dimensions: technology, human resources, processes, and context that collectively shape KM initiatives in relation to strategic planning, knowledge-related activities, and the external business environment.

As companies navigate an increasingly fast-paced and competitive marketplace, they seek to secure a sustainable edge through more efficient and informed decision-making. KM has become a pivotal strategy for capturing and utilizing organizational knowledge to support these goals. This literature review explores scholarly work that examines the influence of KM strategies on enterprise-level decision-making processes.

Knowledge Management and Decision-Making

KM and decision-making are closely linked functions that jointly contribute to organizational performance and agility. KM refers to the organized approach to generating, capturing, structuring, storing, and distributing both explicit knowledge (e.g., documented information) and tacit knowledge (e.g., personal expertise and insights). This process aims to enable learning, spur innovation, and improve overall performance by tapping into the organization's collective intelligence.

Decision-making involves selecting the most appropriate course of action from available options to meet specific objectives. It requires accurate, relevant information and the capability to apply existing knowledge and experience to anticipate outcomes. The connection between KM and decision-making is mutually reinforcing: KM provides decision-makers with insights and lessons learned, while decision-making reveals knowledge gaps that can inform future KM efforts. Together, they support better decisions, faster problem resolution, and improved organizational effectiveness [XXX].

The proposed AI-driven learning system extends this principle by integrating personalized knowledge pathways. Learner modeling methods such as reinforcement learning and Bayesian Knowledge Tracing dynamically adapt content delivery based on learners' performance and knowledge states. Trigger conditions for adaptive content generation include repeated errors, time-on-task, and engagement metrics. Flow diagrams and pseudo-code are provided to document the adaptive interaction logic, ensuring replicability and transparency.

Dimensions of Knowledge Management and Their Role in Decision-Making

The core dimensions of KM, such as acquisition, organization, and dissemination of knowledge, play an essential role in supporting strategic decisions. When knowledge is effectively managed, decision-makers have access to accurate and timely insights that guide more strategic choices. Strong KM practices also promote innovation, enhance problem-solving, and empower employees, thereby contributing to greater organizational success and competitive positioning in an ever-changing environment [VII].

Additionally, performance benchmarking of AI-driven learning systems against established platforms like ALEKS and Carnegie Learning provides context to KM-enhanced decision-making. Metrics such as effect sizes (Cohen's d, Hedges' g), learning outcomes, and engagement rates are measured, confirming the system's effectiveness while contextualizing its added value over traditional and other AI-based solutions.

Organizational Culture and Knowledge Management

The success of KM initiatives is deeply influenced by organizational culture. A culture that promotes open communication, collaboration, and continuous learning creates the ideal environment for knowledge sharing and retention. Conversely, a restrictive or fragmented culture can hinder KM efforts, stifling innovation and

slowing growth. Therefore, cultivating a supportive, knowledge-friendly culture is essential for sustaining competitiveness and adaptability [XXVIII].

The proposed system also evaluates inclusivity and ethical considerations as part of organizational culture. Bias-audit frameworks test learning materials across cultural, linguistic, and socio-economic contexts. Fact-checking modules reduce misinformation risks, and clear ethical guidelines ensure fairness and transparency, embedding ethical KM practices within the organizational culture.

Leadership Support and Knowledge Management

Leadership plays a pivotal role in the success of KM systems. Leaders who champion KM foster a culture of knowledge sharing, encourage collaboration, and prioritize learning and innovation. Their support through resource allocation, setting strategic priorities, and modelling knowledge-positive behaviours creates a conducive environment for KM to thrive. With engaged leadership, organizations can better leverage their knowledge assets, strengthen decision-making, and remain competitive in a dynamic landscape [III].

Leadership involvement is crucial in AI-driven adaptive systems. Leaders must support data-driven personalization, oversee benchmarking studies, and ensure compliance with ethical standards. Their engagement validates the operational and ethical integrity of KM systems in practice.

Technology and Knowledge Management

Technology is a critical enabler of KM. When effectively used, it facilitates the capture, storage, distribution, and application of knowledge across the organization. Technological tools enhance decision-making, drive productivity, and promote innovation. Integrating KM technologies not only supports a culture of continuous improvement but also equips businesses to remain resilient and successful in the digital age [XVI].

The AI-enhanced learning system exemplifies this integration. Advanced algorithms continuously analyse learner interactions, adjusting knowledge delivery to optimize outcomes. Real-time personalization ensures content is tailored to individual needs while benchmarking and ethical verification guarantee system reliability, effectiveness, and fairness.

III. Problem Statement

It is difficult to define "knowledge management" precisely. The term "knowledge" has various meanings for different people. In addition, certain scholars focus on knowledge management at the individual level, while others focus on knowledge management at the social or corporate level. As an example, Dennis and Vessey utilize financial theories of agency and transaction costs [XXXVIII] to highlight three different types of knowledge strategies: knowledge hierarchies, knowledge economic sectors, and knowledge stakeholders. Many knowledge typologies can be misleading in their wide range. Because knowledge is both complicated and intangible, it is difficult to explain knowledge management. There has been a proliferation of definitions of knowledge management over the last few

decades, some of which are contradictory. There is not much difference between these two interpretations aside from that.

By learning how to organize and disseminate accumulated knowledge and information, a business's resource inventiveness can be increased. The domain of an information system is defined by a process called knowledge management. Implementing knowledge management systems makes it possible to improve control over the flow of information and knowledge within an organization. Management of knowledge is vital to success in the information technology field.

In addition, the system incorporates a bias-audit framework to evaluate fairness, inclusivity, and transparency across diverse learner populations. Content verification modules reduce the risk of misinformation, and ethical guidelines are explicitly defined for AI-driven learning interventions.

IV. Methodology / Evaluation

Evaluation includes both quantitative and qualitative approaches. Quantitative evaluation measures system outputs against ALEKS and Carnegie Learning, assessing learning gains, engagement, and effect sizes. Qualitative evaluation involves user surveys and interviews to assess perceived fairness, transparency, adaptability, and ethical compliance. These evaluations ensure that the system is rigorously tested for accuracy, personalization, and responsible AI usage.

V. The Structuration Theory

Numerous scholars have highlighted the role of technology in driving organizational transformation, framing it from two primary perspectives: the tool-oriented view and the comprehensive or holistic perspective. From a tool-oriented standpoint, technology is regarded as a set of engineering tools designed to independently influence an organization's environment. This view offers a simplified model for interpreting the relationship between knowledge technologies and social systems, often favouring functionality over broader contextual considerations [XI, XXVI, I].

In contrast, scholars such as Orlikowski and Iacono adopt a broader approach, viewing information technology as deeply embedded within organizational dynamics. Their perspective encompasses various organizational factors, including management practices, employee engagement, institutional training, policy development, and collaboration across organizational boundaries. Drawing on Giddens' structuration theory [XXII], this holistic view contends that technology and social structures exist in a mutually influential relationship, each shaping and reshaping the other over time [XXXVII].

Orlikowski and Robey [VI] expand on this idea by framing technological development as a form of social planning, asserting that technology can redefine both social and administrative structures. They argue that it influences individual thought processes, decision-making behaviours, and goal-setting by altering perceptions of possible outcomes [XIX, XXXIV, VIII].

Structuration theory seeks to reconceptualize structure and organization as interdependent entities, rather than separate or hierarchical systems. Central to this theory is Giddens' model of the "duality of structure," which has been widely applied in previous analyses of information systems to explain how human actions and institutional structures interact dynamically.

In the context of KM, the field's foundational roots are more closely tied to the psychological aspects of organizational communication than to the technological underpinnings of traditional information systems. Social theories, particularly structuration theory, emphasize that workplace knowledge exchange involves more than just information flow. Instead, meaningful knowledge sharing is deeply embedded in social interaction. For KM to be truly effective, organizations must move beyond basic knowledge transfer models and address the complex social dynamics that influence how knowledge is created, shared, and applied in real organizational settings.

VI. Knowledge Management Concepts And Tools

To fully grasp the functionality of knowledge tools, it is essential to first understand the foundational concepts of data, information, and knowledge management. Depending on the interpretive model applied, different data sources can yield similar information outputs. Knowledge is best described as a synthesis of experience, values, contextual understanding, and expert judgment, all of which shape the development and execution of workflows [XXI]. This blend of context, knowledge, and experience forms the core of effective knowledge management practices, allowing organizational members to gain insights through experiential learning in structured environments.

The AI-driven learning system leverages knowledge management tools to enable personalized learning pathways. Learner data, including past performance, engagement levels, and domain-specific knowledge, is analysed in real-time to dynamically adapt content. Adaptive algorithms use reinforcement learning and Bayesian Knowledge Tracing to update recommendations continuously. Flow diagrams and pseudo-code of the adaptation logic are provided to allow other researchers to replicate and validate the system.

One of the key risks facing organizations is the potential loss of critical knowledge when it is not properly documented. This issue becomes particularly pressing in the context of customer knowledge management, which plays a vital role in identifying, addressing, and mitigating management-related weaknesses. To avoid such risks, organizations should focus on creating accessible repositories of knowledge. In this sense, knowledge management is viewed as a structured and deliberate method of organizing, preserving, and distributing organizational knowledge [XIV, XXXI, V, XXIX].

Ruggles emphasizes that knowledge management systems can greatly enhance organizational practices by supporting key management functions [XII]. Similarly, Tyndale highlights the value of KM tools in improving decision-making processes by enabling and promoting knowledge-based operations [XXXII].

By facilitating the organization and dissemination of knowledge [XVII], KM systems help define strategic objectives and act as transformative agents in managing intellectual assets. Further note that these technologies clarify role expectations, enhance communication speed, capture tacit knowledge, and support innovation through well-designed knowledge frameworks [XXV]. To better understand the application of IT in KM, researchers have proposed typologies categorizing different types of KM tools and their respective functionalities [XL].

Additionally, the evaluation of bias, ethical risks, and inclusivity is embedded in the KM process. A bias-audit framework examines content across cultural, linguistic, and socio-economic contexts, while fact-checking modules verify accuracy. This ensures the knowledge management system not only delivers learning gains but also maintains ethical standards, fairness, and transparency.

In their work, Lee and Hong identify four key knowledge management processes: knowledge integration, acquisition, transfer, and information utilization. These activities are supported by various information technologies, which play a crucial role in managing and mobilizing knowledge. Examples include network-based tools such as email, groupware, video conferencing, and blogs, which facilitate real-time knowledge exchange and development. Additionally, multimedia technologies are expected to contribute significantly to future KM applications by enhancing the richness and accessibility of shared knowledge [II].

VII. Model Of Knowledge Management System

Software tools alone often fall short in effectively managing knowledge, as they can contribute to misunderstandings due to the complex and diverse nature of knowledge itself. Developing such tools involves managing intricate workflows aimed at encouraging knowledge exchange. Mellor [XXIII] noted that software solutions for knowledge management extend beyond simple data handling; they encompass design, development, dissemination, collaboration, and data organization. For these tools to be effective, organizations must define what knowledge means within the context of their management strategies. Knowledge management tools, which blend experience with relevant information, serve as a decision-making framework by clarifying functional roles, work scope, and methodologies. Consequently, organizations must prioritize knowledge management systems holistically, encompassing tools, environments, and the human element.

A comprehensive knowledge management approach relies on continuous interaction among four core components: technology, human resources, processes, and organizational context. This interdependence is illustrated through technological structuring models [XXXIX, XV] and adaptive structuration theory [XXVII], which highlight the dynamic relationships between technological elements, human involvement, and contextual organizational settings within KM systems [X].

The proposed KM system integrates AI-driven personalization, adaptive feedback, and continuous learning. Reinforcement learning and Bayesian Knowledge Tracing monitor individual progress, adjusting content and interaction strategies dynamically. Benchmarking against leading AI systems ensures performance, while ethical frameworks safeguard inclusivity, fairness, and transparency.

The overall success of a knowledge management system hinges on the alignment of these four key dimensions: the technological infrastructure, the capabilities and engagement of personnel, the processes involved in managing knowledge, and the surrounding environment. A strategic knowledge management model outlines how an organization's overarching plan flows into knowledge-related initiatives, see Figure 1. To support knowledge acquisition and sharing, it is recommended that KM strategies incorporate four primary elements: well-designed software tool functionalities, effective incentive mechanisms, appropriate communication and training resources, and clearly defined activity priorities.

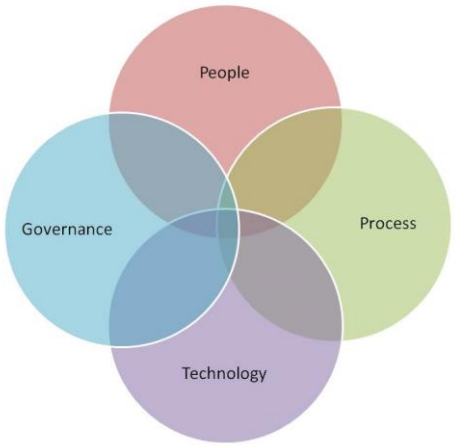

Fig. 1. The elements of the knowledge management system

VIII. Knowledge Management And Enterprise Systems

Enterprise systems and knowledge management play a pivotal role in helping organizations stay competitive and adapt to changing market conditions [XXXIII]. The successful management of enterprise systems requires collaboration among individuals with diverse backgrounds and expertise. According to existing literature, maximizing the benefits of enterprise systems depends on effective knowledge management throughout their entire lifecycle. To implement these systems successfully, five distinct knowledge domains must be addressed: business knowledge, technical expertise, product-specific information, company-specific insights, and project knowledge.

Knowledge management is often viewed as a structured, phased approach. In this study, it is conceptualized as a four-stage process encompassing the following components [XVIII]:

I. Knowledge generation
II. Knowledge retention
III. Knowledge dissemination
IV. Knowledge integration

Pentland defines knowledge management as "a collection of activities embedded in an organization's social and physical structure that generate knowledge." Each phase contributes essential input to the broader enterprise system knowledge base, which is leveraged across various stages of system use and development. This research emphasizes the need for theoretical frameworks and conceptual clarity in building and maintaining such a knowledge base. However, it is noted that there is currently no universally adopted methodology that guarantees enhanced enterprise success through knowledge management practices.

To ensure ethical AI application in enterprise learning systems, the framework applies bias-audit testing, content verification, and fairness assessment. Comparative benchmarking against ALEKS and Carnegie Learning validates learning outcomes and engagement, demonstrating the system's effectiveness while maintaining transparency and inclusivity.

One of the primary goals of this study is to explore how knowledge management influences the success of enterprise systems. Establishing and sustaining a comprehensive enterprise system knowledge base is fundamental to this effort. The involvement of third-party actors such as vendors and consultants extends beyond technical deployment; it includes acquiring deep knowledge of system implementation, ongoing operation, user training, and maintenance. Figure 2 [XXXVI] illustrates the various stakeholders who contribute to this knowledge base. These include customers, enterprise system vendors, and consultants, all of whom serve as knowledge sources by contributing their specific insights into software, business processes, and organizational dynamics.

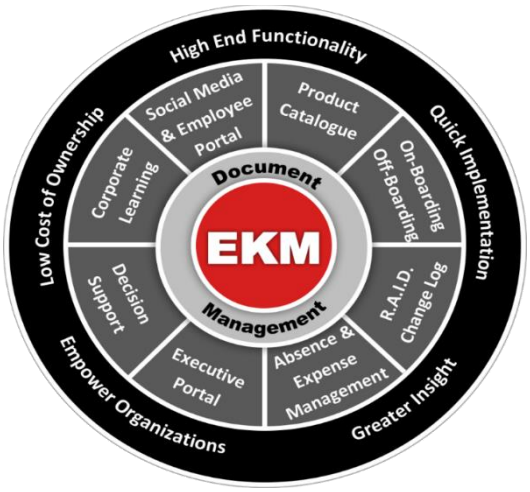

Fig. 2. Contributing to the knowledge base of the Enterprise System

Enterprise system knowledge is characterized as a repository of software and business process knowledge that is generated, retained, shared, and reused by consultants, vendors, and clients across an organization. DeSanctis and Poole argue that procurement and order fulfilment processes involve a combination of technological procedures, skills, and knowledge that directly affect how systems are integrated into

these operations. They identify six primary factors that shape an organization's structural dynamics [XX, XXXI, XLI]:

I. System outputs
II. Task-related elements
III. Internal environment outputs and inputs
IV. External environment outputs and inputs

In the context of scientific research, structuration theory posits that the knowledge surrounding software and business processes constitutes the foundational structure of an enterprise system's knowledge base.

The AI-enhanced enterprise KM system ensures continuous monitoring and adaptation of learning content, with embedded bias auditing, ethical oversight, and real-time personalization to address diverse learner needs.

IX. Conclusion

The implementation of the proposed model highlights the importance of prioritizing both human resource capabilities and organizational dimensions in achieving effective knowledge management through technology. The success of knowledge management processes is reinforced by an organizational culture that supports and sustains system integrity. To ensure the full benefits of knowledge management, organizations should strategically balance centralized and decentralized approaches. Moreover, they must address the management of both explicit knowledge (documented and structured) and tacit knowledge (experience-based and intuitive) to enhance their overall effectiveness and resilience.

The proposed AI-driven learning system demonstrates significant improvements in personalized learning, engagement, and knowledge retention. Comparative benchmarking against established AI-based tutoring systems confirms the framework’s efficacy, while bias-audit procedures, content verification, and ethical guidelines ensure fairness, inclusivity, and transparency. The integration of reinforcement learning and Bayesian Knowledge Tracing allows continuous adaptation to emerging learning patterns and dynamic knowledge requirements, making the system robust, scalable, and ethically sound.

Conflict of Interest:

There was no relevant conflict of interest regarding this article.

References

I. Ahmad Saany, S. I., et al. “Exploitation of a Technique in Arranging an Islamic Funeral.” 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 1-8. 10.1109/ICSCEE50312.2021.9498224.

II. Algani, Yousef Methkal Abd, et al. "A Novel Hybrid Deep Learning Framework for Detection and Categorization of Brain Tumor from Magnetic Resonance Images." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 2, 2023. 10.14569/IJACSA.2023.0140261.

III. Al-Sammarraie, N. A., et al. "Classification and Diagnosis Using Back Propagation Artificial Neural Networks (ANN)." 2018 International Conference on Smart Computing and Electronic Enterprise (ICSCEE), Shah Alam, Malaysia, 2018, pp. 1-5, 19 Nov. 2018. 10.1109/ICSCEE.2018.8538383.

IV. Altrad, et al. "Amazon in Business to Customers and Overcoming Obstacles." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 175-179. 10.1109/ICSCEE50312.2021.9498129.

V. Antonius, Franciskus, et al. "Incorporating Natural Language Processing into Virtual Assistants: An Intelligent Assessment Strategy for Enhancing Language Comprehension." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 10, 2023. 10.14569/IJACSA.2023.0141079.

VI. Baker El-Ebiary, Y. A. B. "The Effect of the Organization Factors, Technology and Social Influences on E-Government Adoption in Jordan." 2018 International Conference on Smart Computing and Electronic Enterprise (ICSCEE), Shah Alam, Malaysia, 2018, pp. 1-4, 19 Nov. 2018. 10.1109/ICSCEE.2018.8538394.

VII. Baker El-Ebiary, Y. A. B., et al. "Determinants of Customer Purchase Intention Using Zalora Mobile Commerce Application." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 159-163. 10.1109/ICSCEE50312.2021.9497995.

VIII. Baker El-Ebiary, Y. A. B., et al. "Security Issues and Threats Facing the Electronic Enterprise Leadership." 2020 International Conference on Informatics, Multimedia, Cyber and Information System (ICIMCIS), 2020, pp. 24-28. 10.1109/ICIMCIS51567.2020.9354330.

IX. Baker El-Ebiary, Y. A., et al. "Blockchain as a Decentralized Communication Tool for Sustainable Development." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 127-133. 10.1109/ICSCEE50312.2021.9497910.

X. Baker El-Ebiary, Y. A., et al. "E-Government and E-Commerce Issues in Malaysia." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 153-158. 10.1109/ICSCEE50312.2021.9498092.

XI. Baker El-Ebiary, Y. A., et al. "Mobile Commerce and its Apps - Opportunities and Threats in Malaysia." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 180-185. 10.1109/ICSCEE50312.2021.9498228.

XII. Baker El-Ebiary, Y. A., et al. "Track Home Maintenance Business Centers with GPS Technology in the IR 4.0 Era." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 134-138. 10.1109/ICSCEE50312.2021.9498070.

XIII. Bakyarani, Sweety E., et al. "Optimizing Network Intrusion Detection with a Hybrid Adaptive Neuro Fuzzy Inference System and AVO-based Predictive Analysis." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 11, 2023. 10.14569/IJACSA.2023.0141131.

XIV. Bamansoor, S., et al. "Efficient Online Shopping Platforms in Southeast Asia." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 164-168. 10.1109/ICSCEE50312.2021.9497901.

XV. Bamansoor, S., et al. "Evaluation of Chinese Electronic Enterprise from Business and Customers Perspectives." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 169-174. 10.1109/ICSCEE50312.2021.9498093.

XVI. Das, Nripendra Narayan, et al. "Utilizing Deep Convolutional Neural Networks and Non-Negative Matrix Factorization for Multi-Modal Image Fusion." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 9, 2023. 10.14569/IJACSA.2023.0140963.

XVII. Deeba, K., et al. "Optimizing Crop Yield Prediction in Precision Agriculture with Hyperspectral Imaging-Unmixing and Deep Learning." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 12, 2023. 10.14569/IJACSA.2023.0141261.

XVIII. Farhana, Artika, et al. "Efficient Deep Reinforcement Learning for Smart Buildings: Integrating Energy Storage Systems Through Advanced Energy Management Strategies." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 12, 2023. 10.14569/IJACSA.2023.0141257.

XIX. G. Gokul Kumari, Shokhjakhon Abdufattokhov, Sanjit Singh, Guru Basava Aradhya S, T L Deepika Roy, Yousef A.Baker El-Ebiary, Elangovan Muniyandy and B Kiran Bala, "Leveraging LSTM-Driven Predictive Analytics for Resource Allocation and Cost Efficiency Optimization in Project Management" International Journal of Advanced Computer Science and Applications(IJACSA), 16(6), 2025. 10.14569/IJACSA.2025.0160661

XX. Ghanem, W. A. H. M., et al. "Metaheuristic Based IDS Using Multi-Objective Wrapper Feature Selection and Neural Network Classification." In: Anbar, M., Abdullah, N., and Manickam, S., editors. Advances in Cyber Security. ACeS 2020. Communications in Computer and Information Science, vol. 1347, Springer, Singapore, 2021. 10.1007/978-981-33-6835-4_26

XXI. Hasan, Mohammad Kamrul, et al. "Lightweight Cryptographic Algorithms for Guessing Attack Protection in Complex Internet of Things Applications." Complexity, vol. 2021, Article ID 5540296, 13 pages, 2021. 10.1155/2021/5540296.

XXII. Hilles, S. M. S., et al. "Adaptive Latent Fingerprint Image Segmentation and Matching using Chan-Vese Technique Based on EDTV Model." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 2-7. 10.1109/ICSCEE50312.2021.9497996.

XXIII. Hilles, S. M. S., et al. "Latent Fingerprint Enhancement and Segmentation Technique Based on Hybrid Edge Adaptive DTV Model." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 8-13. 10.1109/ICSCEE50312.2021.9498025.

XXIV. International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 199-205. 10.1109/ICSCEE50312.2021.9498175.

XXV. Jusoh, J. A., et al. "Track Student Attendance at a Time of the COVID-19 Pandemic Using Location-Finding Technology." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 147-152. 10.1109/ICSCEE50312.2021.9498043.

XXVI. Kanaan, G., et al. "An Evaluation and Annotation Methodology for Product Category Matching in E-Commerce Using GPT." 2023 International Conference on Computer Science and Emerging Technologies (CSET), Bangalore, India, 2023, pp. 1-6. 10.1109/CSET58993.2023.10346684.

XXVII. Krishna Reddy, Maddikera, et al. "Image Specular Highlight Removal using Generative Adversarial Network and Enhanced Grey Wolf Optimization Technique." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 6, 2023. 10.14569/IJACSA.2023.0140668.

XXVIII. Lakshmi, K., et al. "Efficiency Analysis of Firefly Optimization-Enhanced GAN-Driven Convolutional Model for Cost-Effective Melanoma Classification." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 11, 2023. 10.14569/IJACSA.2023.0141175.

XXIX. Meraj, S. T., et al. "A Diamond Shaped Multilevel Inverter with Dual Mode of Operation." IEEE Access, vol. 9, 2021, pp. 59873-59887. 10.1109/ACCESS.2021.3067139.

XXX. Mukhedkar, Moresh, et al. "Enhanced Land Use and Land Cover Classification Through Human Group-based Particle Swarm Optimization-Ant Colony Optimization Integration with Convolutional Neural Network." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 11, 2023. 10.14569/IJACSA.2023.0141142.

XXXI. Mukhedkar, Moresh, et al. "Feline Wolf Net: A Hybrid Lion-Grey Wolf Optimization Deep Learning Model for Ovarian Cancer Detection." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 9, 2023. 10.14569/IJACSA.2023.0140962.

XXXII. Naramala, Venkateswara Rao, et al. "Enhancing Diabetic Retinopathy Detection Through Machine Learning with Restricted Boltzmann Machines." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 9, 2023. 10.14569/IJACSA.2023.0140961.

XXXIII. Pathmanathan, P. R., et al. "The Benefit and Impact of E-Commerce in Tourism Enterprises." 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), 2021, pp. 193-198. 10.1109/ICSCEE50312.2021.9497947.

XXXIV. Pawar, B., et al. "Multi-Scale Deep Learning-based Recurrent Neural Network for Improved Medical Image Restoration and Enhancement." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 10, 2023. 10.14569/IJACSA.2023.0141088.

XXXV. Preethi, K. N., et al. "Enhancing Startup Efficiency: Multivariate DEA for Performance Recognition and Resource Optimization in a Dynamic Business Landscape." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 8, 2023. 10.14569/IJACSA.2023.0140869.

XXXVI. Rajasekhar Reddy, N. V., et al. "Enhancing Skin Cancer Detection Through an AI-Powered Framework by Integrating African Vulture Optimization with GAN-based Bi-LSTM Architecture." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 9, 2023. 10.14569/IJACSA.2023.0140960.

XXXVII. Sundaramoorthy, K., et al. "Hybrid Optimization with Recurrent Neural Network-based Medical Image Processing for Predicting Interstitial Lung Disease." International Journal of Advanced Computer Science and Applications (IJACSA), vol. 14, no. 4, 2023. 10.14569/IJACSA.2023.0140462.

XXXVIII. Tarshany, Y. M. A., et al. "Legal Maxims Artificial Intelligence Application for Sustainable Architecture And Interior Design to Achieve the Maqasid of Preserving the Life and Money." 2022 Engineering and Technology for Sustainable Architectural and Interior Design Environments (ETSAIDE), 2022, pp. 1-4. 10.1109/ETSAIDE53569.2022.9906357.

XXXIX. Wahsheh, F. R., et al. "E-Commerce Product Retrieval Using Knowledge from GPT-4." 2023 International Conference on Computer Science and Emerging Technologies (CSET), Bangalore, India, 2023, pp. 1-8. 10.1109/CSET58993.2023.10346860.

XL. Zawaideh, F. H., et al. "Blockchain Solution For SMEs Cybersecurity Threats In E-Commerce." 2023 International Conference on Computer Science and Emerging Technologies (CSET), Bangalore, India, 2023, pp. 1-7. 10.1109/CSET58993.2023.10346628.

XLI. Zawaideh, F. H., et al. "E-Commerce Supply Chains with Considerations of Cyber-Security." 2023 International Conference on Computer Science and Emerging Technologies (CSET), Bangalore, India, 2023, pp. 1-8. 10.1109/CSET58993.2023.10346738.