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Journal Abstracts

July 2025

Sl.No	Article	Author	Source	Year
1	Editorial Support for Data-Driven Publication Management System	*Hope Ngulube, Pempho Jimu*	I-Manager's Journal on Computer Science Vol: 12 No: 4	2025

Abstract: In this research an advanced web-based solution is designed to transform scholarly publishing by leveraging the computational power of modern computer systems. It automates submission, evaluation, and publication workflows, enabling contributors worldwide to submit articles seamlessly. Manuscripts are distributed electronically for evaluation, streamlining the assessment process and eliminating the need for physical handling. Contributors receive feedback and evaluation forms online, allowing for prompt revisions and corrections. The web-based structure ensures global access to published content while addressing usability enhancements based on user feedback, thereby improving the efficiency and accessibility of the online evaluation system.

Sl.No	Article	Author	Source	Year
2	Machine Learning for Fraud Detection in Financial Transactions	*Precious Ngulube*	I-Manager's Journal on Computer Science Vol: 12 No: 4	2025

Abstract: Misrepresentation identification in monetary exchanges, especially in Visa utilization, is a basic use of AI that plans to distinguish deceitful exercises from huge measures of exchange information. This paper investigates different AI strategies and techniques utilized in distinguishing charge card misrepresentation. Key methodologies include supervised learning models such as logistic regression, decision trees, random forests, gradient boosting, and neural networks, which are trained on labeled datasets to identify fraudulent and legitimate transactions. Unaided learning strategies, like grouping and peculiarity discovery, are utilized to recognize examples and abnormalities in unlabeled information. Feature engineering plays a crucial role in extracting meaningful attributes from raw transaction data to enhance model performance. Model evaluation is conducted using metrics such as precision, recall, F1-score, and ROC-AUC, with particular attention to the class imbalance problem common in fraud detection datasets. Challenges addressed include evolving fraud tactics, the need for continuous model updates, and balancing detection accuracy with customer satisfaction. The integration of these AI techniques into a robust detection pipeline is presented, offering a comprehensive solution for effective and efficient credit card fraud detection.

Sl.No	Article	Author	Source	Year
3	Sentiment Analysis for WhatsApp using NLP	*Charles Ngalawa*	I-Manager's Journal on Computer Science Vol: 12 No: 4	2025

Abstract: Sentiment analysis enables quick assessment of sentence content, allowing for easy identification of the emotional tone or polarity of text. Whether applied to social media comments, product reviews, or other forms of text data, it serves as a valuable tool. This paper focuses on developing a sentiment analysis system specifically tailored to the unique characteristics of WhatsApp data. The system employs machine learning and deep learning techniques to analyze the sentiment of text messages, detecting positive, negative, or neutral tones. The analysis helps in understanding user behavior, emotional patterns, and communication trends in various contexts, such as personal interactions, social groups, or customer service.

Sl.No	Article	Author	Source	Year
4	Intelligent Medical Chatbot for Early Detection of Infections	*Ch. Hemanth Kumar, Moulali Shaik, Syed Subhani, Shaik Najirun, Durga Chandra Shakar Yadav G*	I-Manager's Journal on Computer Science Vol: 12 No: 4	2025

Abstract: In the rapidly evolving digital landscape, chatbots play a vital role in enhancing human-computer interaction, automating customer support, and improving information accessibility. This paper presents a medical chatbot designed using Natural Language Processing (NLP) and Deep Learning techniques to respond to user queries related to medical information. Developed with the Django framework, the chatbot supports both text and voice interactions. It employs TF-IDF vectorization for query matching and an LSTM-based encoder-decoder model for dynamic response generation. The model is trained on a COVID-19 dataset comprising 88 records across 21 intents. Speech recognition is enabled through the Google Speech API, allowing voice-based communication, while multilingual capabilities are integrated using the Google Translate API. User data and chat history are managed through a MySQL database, and the platform supports user authentication. This web-based application aims to improve access to healthcare information by offering an intelligent, interactive, and user-friendly solution.

Sl.No	Article	Author	Source	Year
5	Herb Quest: Digital Vault of Medicinal Plants used in AYUSH	*Manoj Prabu M. , Sangamithra G. , Shanmugapriya S. , Shamna A. S. , Shanmugavalli S.*	I-Manager's Journal on Computer Science Vol: 12 No: 4	2025

Abstract: The fusion of traditional medicinal knowledge with modern technology opens new doors for preserving and making age- old practices more accessible. Herb Quest is a digital platform designed to serve as a comprehensive repository of medicinal plants used in AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy). The platform combines textual, visual, and interactive elements, providing an engaging and immersive experience. It features high- quality images of medicinal plants, complemented by audio and video descriptions to cater to a wide range of users. The use of 3D panoramic views, developed with WebGL, adds a unique interactive touch, allowing users to explore plants in a virtual environment. Built with HTML, CSS, and JavaScript, the platform offers a responsive and user-friendly interface. Modern sharing features make it easy to spread knowledge, further enhancing its utility. Beyond documenting medicinal plant resources, it acts as an educational bridge between traditional medicine and contemporary digital innovation. By leveraging advanced web technologies, Herb Quest plays a vital role in preserving and promoting AYUSH practices, making them accessible to audiences around the world.

Sl.No	Article	Author	Source	Year
1	Enhancing Renewable Energy Integration in Zimbabwe's Power Grid: Addressing Storage Challenges	*Ruvimbo Victoria Makuwaza*	I-Manager's Journal on Power Systems Engineering Vol: 12 No: 4	2025

Abstract: Zimbabwe currently battles a mirage of challenges chief among them being energy poverty which has seen the nation experiencing outrageous 8 – 12-hour power cuts. However, advances with research and technology in other countries has led to increased energy sufficiency, and reliable energy ecosystems which effectively support sustainable energy development including load balancing, seamless integration of renewables, and diverse energy mix adoption. The growing interest in energy storage fuelled by the growth of renewable energy technology has provided research with innovative solutions including improved adaptation of pumped hydro-storage, battery energy storage, thermal energy storage, and storage of electrical energy by utilizing off-peak power to produce hydrogen from waste or coal. This study therefore proposes adoption of the technologies as part of the solution towards sustainable energy supply in Zimbabwe. This not only directly improves power supply but also reduces carbon emissions, encourages the adoption of electric vehicles, advances rural electrification, and strengthens the economy. The

study is expected to contribute significantly to the nation's development strategy and support efforts toward affordable and clean energy as well as climate action.

Sl.No	Article	Author	Source	Year
2	Frequency Regulation of Multi Area Hybrid Power System with Electric Vehicle Integration	*Ch. Naga Sai Kalyan, Sri Maha Lakshmi D, Lavanya D, Praveena M, Kiran Paul B.*	I-Manager's Journal on Power Systems Engineering Vol: 12 No: 4	2025

Abstract: This study explores frequency regulation in large hybrid power systems by leveraging electric vehicles (EVs) to enhance grid stability. A novel control strategy, termed the Donkey and Smuggler Technique (DST), is proposed to optimize a Three- Degree-of-Freedom Proportional-Integral-Derivative (3DOFPID) controller. The system model incorporates real-world challenges such as communication delays and sudden variations in power demand. Extensive simulations were conducted to evaluate the system's performance under various scenarios, including controller effectiveness, the impact of communication latency, and the influence of EV integration. Results demonstrate that incorporating EVs significantly improves frequency stability. The proposed controller exhibited fast settling times and minimal frequency deviations. Overall, the approach shows strong potential for application in future smart grids, highlighting the valuable role of EVs in maintaining grid reliability.

Sl.No	Article	Author	Source	Year
3	Load Frequency Control of Contemporary Power System with Honey Badger Algorithm Tuned Regulator	*Ch. Naga Sai Kalyan, Mohana D, Gangadhar Y, Rahul Leo Sri Chaitanya N, Rushi P.*	I-Manager's Journal on Power Systems Engineering Vol: 12 No: 4	2025

Abstract: This study focuses on enhancing Load Frequency Control (LFC) in contemporary interconnected power systems using a novel optimization-based approach. A Two-Degree-of-Freedom Proportional-Integral-Derivative (2DOFPID) controller is proposed and its parameters are optimally tuned using the Honey Badger Optimization Algorithm (HBOA), a recent nature-inspired met heuristic known for its robust global search capability. The controller is evaluated on a Multi- Area Diversified Multi-Fuel (MADMF) system model subjected to various step load perturbations. To

increase operational realism, system nonlinearities such as generation rate constraints, communication delays, and governor dead-band effects are incorporated. The analysis is extended by integrating a High Voltage Direct Current (HVDC) tie-line to study its effect on frequency dynamics and inter-area oscillation damping. Comparative simulations demonstrate that the HBOA-tuned 2DOFPID controller significantly outperforms traditional PI, PID, and fuzzy PID controllers by minimizing frequency deviations, overshoot, and settling time. The system exhibits strong robustness even under varying load conditions. The findings confirm that the proposed controller, when combined with HVDC infrastructure, offers a reliable and efficient solution for maintaining frequency stability in modern power grids.

Sl.No	Article	Author	Source	Year
4	**Enhancing Grid Connectivity and Power Quality through Reactive Power Management in DC-AC Converters**	***Meenambikai P. S, Dharma Raj T, Anita Merlin I, Prem Kumar R.***	**I-Manager's Journal on Power Systems Engineering Vol: 12 No: 4**	**2025**

Abstract: Solar energy, contributing significantly to the global renewable capacity by 2019, has seen rapid adoption due to substantial cost reductions, including major drops in utility-scale PV LCOE and crystalline PV module prices. These advancements demand innovative technologies like multilevel converters and transformer less systems to overcome challenges in traditional inverter topologies, such as bulky transformers. PV systems, using semiconductor materials like silicon, are categorized as stand- alone or grid-linked, with grid-linked systems dominating due to their ability to exchange energy with the grid. Multilevel converters enhance power quality and reduce system issues like high- frequency switching damage, making them ideal for high-power applications. Widely used in grid and off-grid setups, PV systems continue to expand in applications such as rural electrification and water pumping, cementing their role in sustainable energy.

Sl.No	Article	Author	Source	Year
1	Survey on Enhancing Dialogue Agent Alignment through MiniLLM with Targeted Human Assessments	*Swapnil B. Mahajan, Chandu D. Vaidya, Bhojraj Lalit Narware, Divya Rameshwar Yemde, Harshal Sanju Meshram, Harsh Anil Sukhdeve, Harpreet Kaur Anoop Singh*	I-Manager's Journal on Artificial Intelligence & Machine Learning Vol: 3 No: 1	2025

Abstract: This paper presents the development of a compact and effective language model inspired by the LLaMA architecture. The model's design is based on the fundamental principles of LLaMA, which influenced the architectural decisions and training methods. This study explores innovative approaches and expands the possibilities achievable with limited resources. By leveraging open-source datasets and advanced training techniques, significant progress was made without relying on extensive computational power or proprietary data. However, due to resource constraints, the model remains a work in progress. Individuals with access to greater computational capabilities could build upon this foundation to enhance its performance. This investigation aims to promote further contributions to the advancement of more robust and accessible language models. Key training parameters include context window size, number of layers, batch size, and model dimensions. Model evaluation is based on epoch count, execution time, model parameters, and validation loss.

Sl.No	Article	Author	Source	Year
2	Coffee Leaf Disease Detection using Deep Learning	Sai Chandu Gedela	I-Manager's Journal on Artificial Intelligence & Machine Learning Vol: 3 No: 1	2025

Abstract: Coffee is one of the most widely consumed beverages globally, and its production is significantly threatened by various leaf diseases, leading to substantial economic losses for farmers. To reduce this a deep learning-based approach for the detection of coffee leaf diseases utilizing Convolutional Neural Networks (CNNs) and transfer learning techniques are used. A diverse dataset of coffee leaf images is collected, representing healthy leaves and those affected by common diseases, including coffee leaf rust, bacterial blight, and leaf spot. The dataset was augmented through techniques such as rotation, flipping, and scaling to enhance model robustness. Transfer learning with pre-trained models, specifically DenseNet and ResNet were fine-tuned on the dataset to leverage their powerful feature extraction capabilities. The suggested model was examined and achieving an 82.3% accuracy and primary objective is to enhance the model's accuracy in detecting leaf-based diseases by leveraging advanced deep learning techniques and this is crucial for agricultural practices.

Sl.No	Article	Author	Source	Year
3	The Impact of Artificial Intelligence in Education	Shajitha K., Jesintha P.	I-Manager's Journal on Artificial Intelligence & Machine Learning Vol: 3 No: 1	2025

Abstract: Artificial intelligence in education is one of the most promising areas of educational technology. Artificial intelligence (AI) has grown to unprecedented proportions in recent decades, infiltrating numerous fields, including education. The modern educational period is mostly focused on artificial intelligence and outcome-based education. The current educational era is focusing on Artificial Intelligence and outcome based education predominantly. Artificial intelligence and associated tools and technologies are becoming more widely available, allowing them to be used in a variety of fields. The application of AI in education is also on the rise; however, its extent and associated challenges are not fully understood. The aim of this study is to explore the impact of artificial intelligence in education. This paper also addresses the challenges of AI in education, as well as the potential risks of such an endeavor. Participants were selected for the study from the Kanyakumari district, ensuring an adequate sample size for statistical analysis. The responses were collected, coded, and analyzed. The Garrett Ranking technique was applied for the study. The results emphasize that cost and over-reliance on technology were identified as the major challenges of using artificial intelligence in education. Finally, the study proposed some recommendations for AI in education, with an emphasis on starting conversations about the opportunities and hazards of AI in education for sustainable development.

Sl.No	Article	Author	Source	Year
4	Non-Invasive Prediction of Bone Disorder using Machine Learning	Kevin Paul J. A, Mathimalar B, Prisha G, Sharmi Antonyammal L.	I-Manager's Journal on Artificial Intelligence & Machine Learning Vol: 3 No: 1	2025

Abstract: Osteoarthritis, a prevalent degenerative joint disease, significantly impairs quality of life, particularly among the elderly. Traditional diagnostic methods frequently involve invasive and expensive imaging techniques. This study aims to develop a non-invasive, real-time prediction system for osteoarthritis using the K-Nearest Neighbors (KNN) algorithm, a robust machine learning approach. The core of this system is its ability to accurately and comprehensively collect sensor data from the user's joints. The system integrates a variety of non-invasive sensors,

including flex sensors, MPU6050 sensors, and piezoelectric sensors, interfaced with a Node MCU microcontroller. The data from these sensors is transmitted to the cloud and analyzed using the KNN algorithm to predict the likelihood of osteoarthritis. The dataset, sourced from Kaggle, is split into 70% for training and 30% for testing. The KNN algorithm is applied to classify individuals into different osteoarthritis risk categories. This non-invasive, portable, and efficient solution offers a promising alternative to traditional diagnostic methods, making osteoarthritis prediction more accessible and cost-effective.

Sl.No	Article	Author	Source	Year
5	YouTube Transcript Summarizer: A Survey	*Mrudula Nimbarte, Megha Kalorey, Diksha Joshi, Imroza Ashrafi, Ayush Gaikwad, Adil Maladhari*	I-Manager's Journal on Artificial Intelligence & Machine Learning Vol: 3 No: 1	2025

Abstract: YouTube has increasingly become the preferred platform for consuming educational content. To learn complex and intricate concepts, students frequently need to watch several hours of YouTube videos, with an average video length of about 20 minutes. To help users quickly determine whether a video's content is relevant to their needs, the YouTube Video Summarizer was conceptualized. This Chrome extension efficiently generates a summary of a YouTube video using its English-language transcript. By automating this process, the tool enables users to obtain a concise synopsis without spending hours watching the video to assess its relevance.

Sl.No	Article	Author	Source	Year
1	The Nitrate Era: Exploring the Rise, Reign, and Retirement of a Cinematic Powerhouse	*Avik Mondal*	Journal of Multimedia Processing and Technologies Vol: 16 No: 1	2025

Abstract: The advent of nitrate film in the late 19th century marked a transformative moment in the history of cinema, ushering in a new era of visual storytelling and technological innovation. This research provides a comprehensive examination of the rise, reign, and eventual retirement of nitrate film as a pioneering cinematic medium. Through an extensive review of literature, archival materials, and historical analysis, the study

traces the origins of nitrate film and its rapid diffusion as the industry standard, facilitated by its perceived advantages, compatibility, and observability. The findings underscore nitrate film's profound impact on the artistic and cultural landscape of cinema, enabling ground-breaking storytelling techniques, cinematic expressions, and influential works that shaped the language and grammar of the art form. However, the inherent flammability of nitrate film posed significant challenges, necessitating adaptations in filmmaking practices, distribution models, and exhibition methods. As safer alternatives emerged, nitrate film's retirement marked a transition that influenced the evolution of cinema in the latter half of the 20th century. The research also highlights the ongoing preservation efforts undertaken by archives, museums, and cultural institutions to safeguard and sustain the legacy of this transformative medium, underscoring its enduring significance and influence on modern cinema practices. By synthesizing technical, cultural, and historical narratives, this study contributes to a holistic understanding of the "Nitrate Era" and its lasting impact on the art and industry of cinema.

Sl.No	Article	Author	Source	Year
2	**Research on Intelligent Algorithm Optimization for Three- Dimensional Pattern Design in Ceramic Art under 3D Technology**	***Xiaogang Sun***	**Journal of Multimedia Processing and Technologies Vol: 16 No: 1**	**2025**

Abstract: Ceramic art development is one of the long-standing cultural histories in China. With cultural heritage and artistic appreciation, this field enhances people's aesthetic qualities and opens the gateway to world cultural exchanges. In modern life, with the rapid development of technologies such as computers and big data, people have gained new insights and pursuits in ceramic art design innovation. Starting from the artistic characteristics of ceramic products, the shift from two-dimensional pattern design to three-dimensional pattern design has led to a series of outstanding works through bold attempts. This paper focuses on the intelligent optimization of algorithms for three-dimensional pattern design in ceramic art with the support of computer 3D printing technology. First, the big data analysis method is used to explore the evolution process of ceramic art pattern design and propose innovative ideas based on three-dimensional pattern design features. Using 3D printing technology and 3DMAX software overcomes problems such as single design and high cost in ceramic art design, establishing a three-dimensional pattern design system. Virtual reality technology optimises the 3D modeling process, improving the algorithm's intelligence, accuracy, and reliability. The research shows that the intelligent algorithm optimization for three-dimensional pattern design in ceramic art under 3D printing technology has improved productivity and contributed to the innovation of ceramic culture

Sl.No	Article	Author	Source	Year
3	Moving Object Detection and Tracking Technology Based on Hybrid Algorithm	*Cheng Zhou*	Journal of Multimedia Processing and Technologies Vol: 16 No: 1	2025

Abstract: Object tracking is a hot topic in visual technology and is widely applied in scenarios such as intelligent monitoring, autonomous driving, and robot visual perception. In recent years, with the sports industry's rapid development, tracking targets (balls and players) in complex sports scenes represented by basketball and football has attracted increasing attention. This paper focuses on tracking targets (balls as single targets and players as multiple targets) in competitive sports scenes like basketball and football. A small target detection network based on multi-scale features and a triangulation algorithm is employed to fuse the two-dimensional coordinates of the ball into three-dimensional coordinates. Additionally, a simplified motion model is proposed for the non-linear motion of the ball, and a Kalman filter is used to obtain accurate and smooth three-dimensional tracking trajectories. The proposed method achieves 2D and 3D tracking accuracies of 0.81 and 0.92 on the basketball public dataset, respectively.

Sl.No	Article	Author	Source	Year
4	Application of AI-based Visual Analysis Technology in Vocational College Electronic Technology Teaching Evaluation	*Sun Lifang, Liu Yuan*	Journal of Multimedia Processing and Technologies Vol: 16 No: 1	2025

Abstract: Using a sliding window combined with heterogeneous multi-column convolutional neural networks, we found that this new evaluation tool has higher accuracy than traditional evaluation tools and can provide more comprehensive evaluation information. This new evaluation tool can effectively improve teaching efficiency and provide more comprehensive evaluations. Advanced computer vision analysis technology can quickly collect and process valuable classroom information and convey it to teachers and peers in real-time, effectively motivating their participation and promoting their learning, ultimately achieving the best educational outcomes.

Sl.No	Article	Author	Source	Year
1	The Effect of Visual Merchandising Elements on Visitor Engagement and Sales in Art Galleries	*Glory S, Nelsonmandela S*	Journal of Multimedia Processing and Technologies Vol: 16 No:2	2025

Abstract: This research explores the impact of visual merchandising elements on visitor engagement, satisfaction, and purchasing behaviour in art galleries. Drawing upon the Servicescape Model and the Stimulus-Organism Response (S-O-R) Model, the study integrates findings from a comprehensive literature review and qualitative analysis of semi-structured interviews and focus groups. Key visual merchandising elements, including lighting, layout, colour schemes, signage, and interactive displays, are examined for their influence on visitor emotions and cognitive responses.

Sl.No	Article	Author	Source	Year
2	A Survey of Personalization in E-learning and Adaptive Content According to Learner Profile	*Sameh Azouzi, Zaki Brahmi, Sonia Ghannouchi*	Journal of Multimedia Processing and Technologies Vol: 16 No:2	2025

Abstract: With the proliferation of technology, the field of adaptive e-learning has garnered significant attention in recent years. This is because it has allowed users to learn at their own pace and to define personal learning paths based on their individual interests and needs. Using several different devices and sensors around the world can provide to generate massive amounts of data. The analysis of this collected data will provide a basic solid information to ensure adaptive e-learning. Machine learning and data analytics are today very common techniques that can help extract information and find valuable patterns within the collected data. In this work, the field of adaptive e-learning is investigated in terms of definitions and characteristics. Moreover, a taxonomy of various challenges, used machine learning algorithms, the data used in this process are discussed. Also, some of the works proposed in the literature, which tackle these challenges are presented. Our study shows that, despite attempts made by these works to improve the adaptive e-learning. Data processing is generally performed in deferred time, which does not reflect the current state and needs of learners. Likewise, the learner's behavior is often unpredictable, it can be influenced by several mental and environmental factors and it changes rapidly over time. Data stream mining is very important in adaptive e-learning which originated many main research directions for this area that merit further exploration and investigation.

Sl.No	Article	Author	Source	Year
3	An Empirical Study on Bidirectional Recurrent Neural Networks for Human Motion Recognition	*Pattreeya Tanisaro, Gunther Heidemann*	Journal of Multimedia Processing and Technologies Vol: 16 No:2	2025

Abstract: The deep recurrent neural networks (RNNs) and their associated gated neurons, such as Long Short-Term Memory (LSTM) have demonstrated a continued and growing success rates with researches in various sequential data processing applications, especially when applied to speech recognition and language modeling. Despite this, amongst current researches, there are limited studies on the deep RNNs architectures and their effects being applied to other application domains. In this paper, we evaluated the different strategies available to construct bidirectional recurrent neural networks (BRNNs) applying Gated Recurrent Units (GRUs), as well as investigating a reservoir computing RNNs, i.e., Echo state networks (ESN) and a few other conventional machine learning techniques for skeleton-based human motion recognition. The evaluation of tasks focuses on the generalization of different approaches by employing arbitrary untrained viewpoints, combined together with previously unseen subjects. Moreover, we extended the test by lowering the subsampling frame rates to examine the robustness of the algorithms being employed against the varying of movement speed.

Sl.No	Article	Author	Source	Year
1	Intelligent Algorithms for Athlete Training in Higher Education Using Big Data Technology	*Liu Han, Dong Liang, Jun Zhang, Xiaodong Zhang, Dan Li*	Journal of Information Technology Review Vol: 16 No:2	2025

Abstract: In the computer age, data is the most valuable resource. Based on big data analysis technology, we have developed an intelligent physical training model for college students to control their training pace better. Simulation technology was also utilized to study and evaluate the operability of this technology, with the goal of developing more effective training programs for college students. The research found that in the field of big data analysis, it is essential to utilize intelligent training methods to manage and adjust the competition time and intensity among college students. This method not only helps us to formulate and implement competition plans more swiftly but also aids in better understanding and handling a large amount of information, thereby improving the efficiency and quality of competitions. Hence, this method is worth our effort and promotion.

Sl.No	Article	Author	Source	Year
2	The Learning Platform System of Marxist Theory and Education based on Association Rule Learning Algorithm	*Xiaojuan Chen*	Journal of Information Technology Review Vol: 16 No:2	2025

Abstract: The integration of traditional advantages, such as promoting Marxist theory and educational courses, with information technology is necessary for academic development. Achieving true "teaching based on individual differences" requires the scientific application of educational big data. This paper utilizes association rule mining technology to address the demand for student task point learning management in the current personalized learning platform system. It analyzes the current status and research trends of personalized learning and association rules. Then, it discusses the principles, advantages, and disadvantages of the classic Apriori algorithm and proposes an improved algorithm. Finally, the feasibility and actual effects of the algorithm are verified through simulations on the learning platform system, providing certain assistance for future research on Marxist theory and educational courses.

Sl.No	Article	Author	Source	Year
3	Personalized Recommendation of Educational Resources Based on K-Means Clustering	*Jiang Jing*	Journal of Information Technology Review Vol: 16 No:2	2025

Abstract: In today's society, the moral development of college students is crucial for maintaining social stability and growth, making it an urgent issue to address. To provide more practical information on moral development, we utilize K-Means clustering technology to group users based on their preferences, enabling the provision of more precise and valuable information. Firstly, the data is classified through a collaborative filtering algorithm to ensure data comparability and determine user preferences. Based on this, an effective model for recommending educational resources is created. Subsequently, the K-Means clustering algorithm is employed to develop a targeted recommendation process based on the specified objective function, yielding an effective recommendation of educational resources. Through experiments, we have found that this approach not only aligns well with the content of moral courses but also ensures that students are more engaged and achieve good results in reality.

Sl.No	Article	Author	Source	Year
1	**Best Practices for Cyber Security in Academic Libraries**	***Ms. Pooja, Rekha D Pai***	**Information Security Education Journal Vol: 12 No:1**	**2025**

Abstract: Information and Communication Technology (ICT) has helped libraries make all their electronic resources accessible to their users. Securing library-subscribed resources from scammers or unauthorised users is a big challenge in the present era. Cyber security is an area that needs to be studied in the present scenario, and the library is no exception. Institutions, including libraries, are one of the targeted areas of ransom ware attacks. Library computers, library patrons' data, and library subscribed resources are the target of cybercriminals. To overcome this, there is a need for cyber security in academic libraries. Manipal Academy of Higher Education (MAHE) has implemented IT policies to secure computer systems, networks, information, and digital assets and control cybercrimes in its various institutions. Librarian plays a significant role in protecting library resources be having cyber security.

Sl.No	Article	Author	Source	Year
2	**A Brief Review of the Awareness of Blockchain Technology and Cryptocurrency**	***Prathima D***	**Information Security Education Journal Vol: 12 No:1**	**2025**

Abstract: The technology through which records are kept will complicate hacking systems and even forging data stored in the blockchain, which is connectible to safety. It is known as distributed ledger technology or public ledger: distributed digital recording devices which record transactions and supplementary data appearing in various locations simultaneously. A digital currency transacts business in which a decentralised network does receipt and verification through a public ledger and cryptographic methods instead of a bank or other central authority. Decentralised cryptocurrencies such as Bitcoin now provide an outlet for personal wealth beyond restriction and confiscation. "As Bitcoin gains ground, more companies have started accepting the cryptocurrency.

Sl.No	Article	Author	Source	Year
3	Application and Mechanism of Blockchain Technology in Libraries	*Meeramani N, Anthoniraj S, Beemkumar, Shreyas*	Information Security Education Journal Vol: 12 No:1	2025

Abstract: This paper presents an overview of the current state of block chain technology and explores its potential applications in libraries. In the digital era, block chain technology has emerged as a key area of interest, with numerous studies highlighting its potential benefits. However, further investigation is needed to fully understand the potential of block chain in library settings and determine the best implementation strategies.