

2025 International Conference on Intelligent Communication Networks and Computational Techniques (ICICNCT 2025)

**Bidar, India
5-6 September 2025**

Pages 1-598



**IEEE Catalog Number: CFP250K9-POD
ISBN: 979-8-3315-8624-9**

**Copyright © 2025 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP250K9-POD
ISBN (Print-On-Demand):	979-8-3315-8624-9
ISBN (Online):	979-8-3315-8623-2

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

Man-In-The-Middle Attacks Targeting Quantum Cryptography	1
<i>Abel C. H. Chen</i>	
Multimodule Legal Analytics Pipeline for Outcome Prediction and Transparent Justification in Commercial Cases	9
<i>Deepali Deshpande, Atharva Kulkarni, Tanaya Jadhav, Atharva Jadhav, Digvijay Jadhav, Shalvi Kshirsagar</i>	
Enhancing Emotion Detection Through the Integration of Generative AI and Transformer Architectures	15
<i>Gunjan Sethi, Vikrant Sharma</i>	
Innovative Explainable AI System for English Language Learning Applications Using Interactive Feedback and Conceptual Visualization	20
<i>Thamarai Selvi M. D, Mandava Vijaya Lakshmi, Purnachandra Rao Alapati, Shagufta Parween, S. Suganthi, B. Kiran Bala</i>	
Securing Electric Vehicles: A Cybersecurity Framework for Threat Detection and Mitigation	26
<i>Kamlesh Kumar Gautam, Alekh Chaudhary, Tarun Kumar Vashishth, Puneet Chauhan, Vikas Sharma, Barkha Samania</i>	
CovidNet: Automated Detection of Covid-19 and Pneumonia from X-Ray and CT Scans Using Deep Learning	32
<i>Avronil Basu, Prithwijit Mukherjee, Anisha Halder Roy</i>	
Advanced Deep-Sea Robotics: Hybrid Graph Neural Networks and Reinforcement Learning for Enhanced Communication and Navigation	40
<i>M. Shailaja, Nimmati Satheesh, V. Thrimurthulu, Shamim Ahmad Khan, Sunita Pachar, M. K. Mohamed Faizal</i>	
Enhanced Performance of Bidirectional DC-DC Converters for EV Charging: Impact on Energy Efficiency and Grid Load	47
<i>K. Natarajan, Shamim Ahmad Khan, Vanitha Gurugubelli, Rajkumar Prabhakar Landage, Sajiv. G, A. Balakumar</i>	
Explainable AI Techniques for English Legal Document Summarization with Multi-Level Contextual and Causal Reasoning	53
<i>R. Mohana, Munawar Yusuf Sayed, Balaraju B. V, Yashwant Waykar, M. G. Abinaya, B. Kiran Bala</i>	
TalkGenie: Intent and Sentiment-Aware Multilingual Chatbot	59
<i>Dhulipala Saisubrahmanya Saranya, Dara Anirudh, Koppula Pooja Reddy, N S S S Girish Kumar, M A Jabbar</i>	
Computational Techniques for Detecting Figurative Language in English Prose Through Semantic Pattern Recognition Algorithms	65
<i>A. Venu Gopal Reddy, B Bairavi., Ajmeera Kiran, D. Sunitha Deva Kumari, D. Jyothi Preshiya, S Prema.</i>	
Addressing Annotation Scarcity in Cardiac Vessel Segmentation Using Edge-Conditioned Cgan	72
<i>Ramyashri Kulkarni, Shrinivas D. Desai, Vishwanath P Baligar</i>	

Exploring DeepLabV3+ for Accurate Animal Segmentation in Real-World Environments	79
<i>Natarajan B, Sarvepalli Megha Suhanth, Gadhamsetty Revanth</i>	
Deepfake Audio Detection: A Multi Model, Multi Dataset Performance Study Using Deep Learning Architectures	84
<i>Apoorva Bhardwaj</i>	
Intelligent Approach to Crime Detection and Alert Generation	90
<i>Karthik Sabareesh, Natarajan. B, Elakkiya. R</i>	
Generative Adversarial Networks for Single Image Super Resolution: Analysis on Recent Insights	96
<i>Prasant Kumar Dash, Jijin. K. V, Ajit Kumar Sahoo, Upendra Kumar Sahoo, Saswat Suvam Kumar</i>	
Advancing MRI Super-Resolution with Generative Adversarial Networks	104
<i>Gaurav D. Tivari, Satvik V. Khara</i>	
Segmentation-Guided Ensemble Learning for Chest X-Ray-Based COVID-19 Diagnosis	110
<i>Yuvraj Sharma, Ajith Kumar, Srirangam Vyshnavi, Manzoor Mohammad, M. A. Jabbar</i>	
Self-Adaptive Artificial Intelligence System for Context-Aware Problem Solving and Data-Driven Decision Optimization.....	117
<i>Nagendra Rao Madugula, Nader Mohammad Aljawarneh, Kaustubh G. Kulkarni, Namita Kalita, Sajiv. G, Ponni Valavan M</i>	
LSTM Based Workload Prediction Enhancement in Multi-Tenant Cloud Data Center Environment.....	123
<i>Spandana Chalkapur, Shivani Chidurala, Sai Kumar Vallepu, Karthikeyan Ramamoorthy, M. A. Jabbar</i>	
Automated Fake News Classification with NLP and Deep Learning Techniques	130
<i>Abhishek Tripathi, Achyutesh Dixit, Vanam Narsimha, Madhan Punati, Sree Lakshmi Shashank, Kathem Venkata Maha Siva, Subhashish Tiwari</i>	
Segmenting Customers with K-Means, Hierarchical, and Density-Based Clustering Techniques	135
<i>Abhishek Tripathi, K. Nikhil, K. V. S. Sai Ram Santosh Babu, C. Sai Prathap Reddy, D. Haritejaswar Reddy, D. Venkata Poorna Suresh, R. C. Gurjar, Gireesh G. Soni</i>	
Hybrid Deep Learning Pipeline with BiLSTM-Attention Autoencoder for Malware Detection.....	141
<i>Nareddy Koushik Reddy, Depalle Sandhya Rani, Swati Sucharita, Ch Amarendar Reddy</i>	
Multi-Modal Approach for Fetal Health Monitoring Using Deep Learning.....	147
<i>Shrushti S Gunjal, Vidya S Handur, Vishwanath P Baligar</i>	
Brain Tumor Detection from MRI Scans Using Deep Residual Learning and Morphological Segmentation	155
<i>Shivamma. D, Aurobind. G</i>	
Hybrid Transformer-CNN-LSTM Architecture for Improved Cardiovascular Risk Stratification.....	162
<i>A Madhumathi, S Mahalakshmi, P Vigneshwaran, B Mohan, S P Santhoshkumar, E P Thiruvengadam</i>	
Automated IC Footprint Recognition and Classification Using Deep Learning and Dimensional Similarity Metrics	169
<i>Tushar Shrivastava</i>	

Multimodal Machine Intelligent Techniques for Cognitive Behavior Monitoring and Feedback System	174
<i>Dhanraj, Arun Biradar</i>	
Real-Time Vital Sign Monitoring and Health Anomaly Detection on Edge Devices Using Lightweight Machine Learning Models	179
<i>S. Saraswathi</i>	
Contrastive Hypergraph Networks with Adaptive Negative Sampling for Accurate Discovery and Risk Calibration of Low-Frequency Drug-Drug Interactions.....	185
<i>Md. Jisan Mashrafi, Hasan Ahamed Alif, Minhaj Uddin, Sebatat Selim, Urmi Haldar, Mirza Bushra Tabassum</i>	
Autonomous Skin Cancer Categorisation Using Modern Deep Learning Techniques: An Analysis.....	193
<i>Rajendran Sivakumar</i>	
Artificial Intelligence in Smart Cities Enhancing Public Services Infrastructure and Real Time Citizen Engagement Tools.....	198
<i>K. Sathish</i>	
Deep Multiscale Fusion and Feature Enhancement for Underwater Image Dehazing in Turbid Environments.....	203
<i>K. Sathish</i>	
Smart Farming System for Plant Disease Detection Using Optimized Spectral Domain Reconstruction Graph Neural Network	208
<i>L. Febin Rani, Devi. T, N. Deepa</i>	
Early Detection of Alzheimer's and Parkinson's Diseases Using MRI-Based Convolutional Neural Networks	215
<i>Saranya. E, Dharshini. N, Vethanarrthana. S, Sri Geethani. R, Adrianna Anand</i>	
Rose Leaves Disease Detection Using a Customized Convolutional Neural Network	221
<i>Lakshmi K, Sneha Bharti, Vani Harave</i>	
Adaptive Fashion Recommendation Using Retrieval-Augmented Generation and Real-Time Vector Search	227
<i>Saranya. E, Sabarinathan. B, Mohaideen Arsath. M, Shri Khishore. J C, Sri Gurusankar. R</i>	
FakeBuster: Multilingual LLM-Based System for Real-Time Automated Verification of News Claims.....	233
<i>Shivani Toorpu, Vinusha Vusirikapelly, Sirivennela Nathi, N S S S Girish Kumar, M A Jabbar</i>	
Optimizing Treatment Matching with Causal Learning	240
<i>Shreya G. Tendulkar</i>	
Enhancing Bus Performance Analysis Using GPS Data: Insights and Recommendations.....	246
<i>Shreya G. Tendulkar</i>	
BERT Based Forensic Information Extraction and Visualization.....	252
<i>Parimalla Abhijith, S Likhil Kumar, E Sai Shrujana, N S S S Girish Kumar, M. A. Jabbar</i>	
Detecting Hate and Offensive Speech in Dravidian Code-Mix Text Using Transformers	259
<i>Sreeman Macha, Sai Dinesh, Abu Zaid, N S S S Girish Kumar, M. A. Jabbar</i>	

Content-Based VSBD Technique Using DWT-HOG Features and Particle Swarm Optimization for Thresholding.....	267
<i>Asha. D, Madhavee Latha. Y</i>	
Anomaly Detection Frameworks and Trends in Vehicular Ad-Hoc Networks (VANETs)	272
<i>K. Nikhil Reddy, K. Hosmitha, K. Srividya, M. A. Jabbar</i>	
Hardware Efficient Implementation of Image Enhancement Algorithms Using Xilinx System Generator.....	279
<i>Neelima. K, P. Rajyalakshmi, Attar Farooq Hussain, T. Suguna, Venkata Syamala Raju Talari, C. Padma</i>	
Enhancing Polyp Segmentation Via Encoder Attention and Dynamic Kernel Update.....	285
<i>Fatemeh Salah Chashmi, Roya Sotoudeh</i>	
Quantum-Enhanced Reflection Equivariant Neural Networks for Predicting Rutting in Pet Bituminous Layers Under Load and Temperature Variations.....	290
<i>P. Senthil Pandian, J. Jean Justus, Rudresh Shah, Suwarna Gothane, D. Revathi, K. E. Eswari</i>	
Medical Insurance Cost Forecasting Using Machine Learning Techniques	296
<i>D. G. Jaishree, R. Kokila, Deekshith Hegde</i>	
Stacked Ensemble Learning for Neuroblastoma Prediction Using Gene Expression Profiles	301
<i>Sekar K, Sanjay S, Devendar Rao B, Sanjayan S, Sharath Kandhan B A, Dheepa T</i>	
Advancements in Image Denoising Using Deep Learning: Models, Challenges, and Future Directions	307
<i>M Kristappa, Krishnanaik Vankdoth</i>	
InsightDefense: Explainable AI for Intrusion Prevention.....	313
<i>S Chitra., M Preethiga., V Nivetha., S Silambarasan., A Santhoshprabhu.</i>	
Deep Ensemble Approach for Alzheimer's Disease Monitoring Using Microwave Radar Data	319
<i>A. Sriram Chowdary, A. Srihitha, G. Pavan Kumar, M. A. Jabbar</i>	
Index Modulated Delay-Doppler Multiple Access Framework Based on QSM-OTFS System.....	327
<i>R. Jayashri, G. Ramkumar</i>	
Blockchain Based on Encryption Scheme for Internet of Things Environment.....	333
<i>Kumar M P, Akila A</i>	
Optimizing SDN Controller Placement for Enhanced Performance and Scalability in Large-Scale Networks	338
<i>Vishwanath Hiremath</i>	
Novel Deep Learning Based Technique for Paddy Leaf Disease Detection.....	344
<i>Prithwijit Mukherjee, Anisha Halder Roy</i>	
Development of Acoustic Levitation Methods for Particle Stability and Positioning in Underwater Applications.....	350
<i>K. Sathish</i>	
Design and Development of a Privacy-Preserving Health Record Exchange Framework Using Blockchain for Smart Healthcare	355
<i>Shankar Gadve, Goldi Soni</i>	

Multimodal Fusion of Physiological and Psychosocial Parameters for Intelligent Pain Intensity Assessment in Sickle Cell Disease Using Ensemble Learning and Lstm Framework.....	362
<i>Chanchal Dahat, Goldi Soni</i>	
Energy Efficient Compact Approximate Multiplier for Error-Resilient Applications	369
<i>Charan Kumar G, Naga Jyothi Grande, Vijetha Kura, Sai Sandeep Boksam, Bharath Kumar Gooty</i>	
AI-Based Approaches for Early Detection of Major Depressive Disorder: Technical Roadmap and Future Directions.....	374
<i>Sanket Shah, Tripti Dodiya, Nisha Prajapati</i>	
Comparative Analysis of Interpolation Based Single Image Super Resolution Techniques.....	380
<i>K V Jijin., Prasant Kumar Dash, Ajit Kumar Sahoo, Upendra Kumar Sahoo</i>	
Synchronization in Hybrid Feedforward-Recurrent Neural Networks with Stochastic Temporal Modulation	386
<i>Rakesh Sengupta</i>	
Calibrating Uncertainty in Generative Language Interfaces: A Behavioral Economics Framework for Engagement and Conversion	394
<i>Raghu Para, Durga Krishnamoorthy</i>	
Hybrid Semantic Evaluation of Student Answers Using Rule Matching and BERT Embeddings	400
<i>Nimisha Beri, J Jeelan Basha, M Thilagam, Suganthi J, C Santhiya, Hemaswathi S</i>	
Internet of Ai Things (Ioat): A Novel Paradigm for the Edge-Iot Ecosystem.....	406
<i>Partha Pratim Ray</i>	
Optimized Energy Management in PV-Wind Hybrid Systems Using Quadratic Boost Converter and Electric Eel Foraging-Based Control.....	414
<i>C. Ebbie Selva Kumar, R. Brindha, R. Eveline Pregitha</i>	
High-Efficiency Zeta Converter with Intelligent RBFNN - MPPT for Photovoltaic Based Grid Tied System	420
<i>S. Marisargunam, M. Manjusha, S. Sree Dharinya, Parthiban. B, Chelumala Nirosha, R. Venkateshwaran</i>	
Resilient Cloud Native Architecture for Predictive Anomaly Detection in Industrial IoT with a Case Study on Securing Operational Technology Pipelines.....	427
<i>Sruthi Erra Hareram</i>	
Comprehensive Analysis of Machine and Deep Learning Approaches for Fine-Grained Classification in Optical Remote Sensing Imagery	434
<i>Geetha. P V, R. Kumar</i>	
Graph-Based Alert Prioritization System for Urban Flooding Using Multi-Criteria Decision Theory	439
<i>Sathiyamoorthy. M</i>	
Wearable Health Monitoring System Using Embedded Sensors and Edge Computing	446
<i>Jami Venkata Suman, Omprakash Gurrapu, K. Swaroopa</i>	
Hybrid ARIMA and Deep Learning Model to Forecast Operational Efficiency in Supply Chain Management	452
<i>Prakash Borah, Maria Boaler, Ramya U, Nagaraju L G</i>	

CardioLogicX: An Explainable High-Performance Model for Heart Failure Prediction	458
<i>Saravanan Parthasarathy, Vaishnavi Jayaraman, Suhani Jain. A, Kapilesh. D A, O. S. Jannath Nisha</i>	
Automated Detection of Glaucoma Using OCT RNFLT Maps and Supervised Deep Learning Models: A Comparative Study of CNN, MobileNet, ResNet50, and VGG16 Architectures.....	465
<i>Khasim Syed, Shaik Kareemulla, Unnam Sudha Rani, Shantanu Maity</i>	
Robust Watermarking Approach for Full HD Videos: Adaptive DE with $\$13 / 7-\mathrm{T}\$$ and $\$6 / 14\$$ ITI Wavelet Transforms.....	473
<i>Sujatha. G, Arun Kumar</i>	
Enabling Resilient and Secure 5G Architectures: An Evaluation of Deep Learning and Metaheuristic Optimization Solutions	481
<i>Reshma. P, R. Kumar</i>	
Deep Learning Based Multi-Label Classification of Lumbar Spine Degenerative Diseases Using Efficientnet	487
<i>Umesh Gupta Pedomallu, Surendra Varma Pothuri, Jai Satya Gudiwaka</i>	
Cyber Alerter: Automated Vulnerability Monitoring System Integrating NVD and OEM APIs.....	493
<i>Chandan. L, Vani Harave, Sneha Bharti, Lakshmi. K</i>	
Smart EV Charging Architecture Using Predictive Machine Learning and Hybrid Renewable Energy Integration.....	499
<i>S. Lakshmi, S. Srinivasan, R. Tamilamuthan, S. L. Sreedevi, B. Pandyselvi, A. Antonycharles</i>	
Multimodal Ensemble Deep Learning for Skin Cancer Detection	505
<i>G. Madhuri, M. A. Jabbar, Vijaylaxmi</i>	
Improving Priority Arbitration in RISC-V PLIC Using FCFS Logic.....	512
<i>Deepesh Shenoy, Ravi H. K.</i>	
Real-Time Intrusion Detection Using Bi-Directional LSTM and GRU Networks.....	518
<i>D. Sai Charan, G. Praneeth, P. Arshad Khan, M. A. Jabbar</i>	
Intelligent Traffic Sign Detection Using an Enhanced Attention-Driven Convolutional Network Architecture for Smart Vehicle Applications	524
<i>Jalasutram Nava Nishith, Kanraj Sai Charan, Komma Sandeep Sai, Majjari Sudhakar, R. Karthikeyan, M. A. Jabbar</i>	
Satellite Image to Map Conversion Using Conditional Adversarial Networks (cGANs).....	529
<i>Srikanth Indrole, L. Navadeeth, P. Koushik Narayan Reddy, Shaista Farhat, M. A. Jabbar</i>	
Deep Learning-Based Age and Gender Recognition Using CNNs.....	536
<i>H Shihabudeen, A Adil, G Melbin, R Robin, B R Aravind, V K Deepak</i>	
Towards Early Flood Detection: A Comparative Study of Machine Learning Classifiers on Kerala Rainfall Data.....	542
<i>B V Justin, H Shihabudeen, N Nikhila, M S Vishnu, Ayisha, P Aswin</i>	
Reliable and Intelligent SMS Spam Detection System Using Ensembled Machine Learning Approaches.....	548
<i>S K Sandeep, H Shihabudeen, S Joseph, R Rohan, U Sneha, V K Deepak</i>	
Deep Learning Based Disease Detection for Potato Leaves Using MobileNetV2 Architecture.....	554
<i>R Alwin, S Keerthana, S G Preethi, H Shihabudeen, V K Deepak, B Jaseela</i>	

Java Platform Security: A Behavioral Model for Speculative Execution Vulnerabilities.....	560
<i>Shikha Parekh</i>	
Zero-Shot Flood Forecasting Using Vision-Language Models (VLMs) and CLIP on Satellite and Social Media Data	567
<i>Sathiyamoorthy. M</i>	
Foot Length Measuring System Using OpenCV and ResNet50.....	574
<i>Archa Satheish, Sania Jimmy, Sanjana, Shinto Thomas, Renjith Thomas</i>	
Tap-Intel: A Threat Alerting and Profiling Intelligence Framework Based on Natural Language Processing.....	580
<i>S. H. Sanjeevini, Kvnsk Thasya Sri, Siddani Srivalli, Siriyala Sowjanya</i>	
Image-Based Brain Tumor Classification Using Deep Learning Techniques.....	586
<i>K. Sathvika, Abdul Ahad, P. Akshaya, Swati Sucharita, M. A. Jabbar</i>	
Sensitive Data Protection Using AI: An Evaluation of Deep Learning and Metaheuristic-Based Leakage Prevention Techniques	593
<i>P S Saritha., R. Kumar</i>	
Autoencoder-Driven Framework for Zero-Day Vulnerability Detection in Ethereum Contracts.....	599
<i>Moosa Uday Kumar, Pathlavath Pooja, Abhishek Dixit, M. A. Jabbar</i>	
Deep Learning and Reinforcement Learning Framework for Predicting Kidney Disease from CT Scan Images.....	605
<i>Bandi Ashok, Bashiri Shiva Krishna, Durgam Eashwar, Anudeep Meda, M. A. Jabbar</i>	
Deep Learning for Mental Health: Attention-Driven Multilayer CNN for Audio Depression Detection	612
<i>Salna Joy, B. V. Santhosh Krishna, Siddharth Rajesh, Neethu. P S</i>	
Dynamic Cost-Aware SQL Rewriting Algorithm for Multi-Cloud Query Optimization.....	618
<i>Sibaram Prasad Panda</i>	
A Multi-Component AI-NLP Driven Platform for Intelligent Student Placement Prediction and Personalized Career Development.....	624
<i>Gali Ramesh Kumar, Adina Karunasri</i>	
Remote Sensing Change Detection on Land Using HRNet.....	630
<i>Nagasri Vandanapu, Ruthika Ramya Kota, Sunny Nalluri</i>	
Enhancing Farming with Predictive Analytics and Artificial Intelligence.....	636
<i>R. Sri Bhargava, R. Sidhartha, R. Srinivas, Alakuntala Raja Shekar, M. A. Jabbar</i>	
Leveraging Natural Language Processing and Machine Learning for Stress Identification in Social Interactions	642
<i>M. Chandu, Md. Sajeed, L. Sai Nikhil, Prakash Kumar Sarangi, M. A. Jabbar</i>	
Design and Financial Risk Control Application of Credit Scoring Card Model Based on XGBoost and CatBoost	648
<i>Yunpeng Zhao</i>	
Digital Illustration Color Visualization Enhancement Algorithm Based on Deep Convolutional Neural Network	653
<i>Qia Guo</i>	

Application of Computer Virtual Reality Technology in Smart Wearable Interactive Experience.....	659
<i>Yufan Wen, Qinyu Bai, Jiaji Zhou</i>	
A Hybrid Blockchain and Convolutional Neural Network for Secure Cloud-Assisted Medical Image Analysis	663
<i>Raed Hameed, Mohan Kumar. T G, Narendra Chennupati, Preethi Varthini. S, Vinny Kuriakose</i>	
Research on the Spatial Durbin Model Based on Big Data and Machine Learning for Predicting and Evaluating the Carbon Reduction Potential of Clean Energy.....	669
<i>Bin Li</i>	
Optimization of Medical X-Ray Image Disease Classification Algorithm Integrating Computer Vision Features	674
<i>Lei Cheng</i>	
Interactivity of Virtual Reality Landscape Design Based on Computer Real Time Rendering Technology	679
<i>Jiaji Zhou, Jiabai Jin, Dongdong Jia</i>	
Mining and Modeling Methods of Psychological Behavior Patterns Based on Evolutionary Computation	685
<i>Nian Yang</i>	
Edge-Deployed Convolutional Neural Network with Adaptive Resource Allocation for Human Activity Recognition	691
<i>Suma Srinath, Baker Karim, Leeladhar Gudala, G. Malathi, M. Pushpavalli</i>	
Using Spark Streaming Technology to Drive the Real-Time Construction and Improvement of the Credit Rating System for Financial Customers	697
<i>Wenxi Han</i>	
Research on Joint Optimization Algorithm for Image Enhancement and Denoising Based on the Combination of Deep Learning and Variational Models	703
<i>Minkang Zhang</i>	
Cross-Platform Data Synchronization Mechanism of SSM Campus Transaction System Under Hybrid Cloud Architecture	708
<i>Hao Teng, Nan Li, Yao Li, Jing Pan</i>	
Adaptive Energy-Aware Scheduling in Green Grid Networks Through Carbon-And Quality of Service-Based Reinforcement Learning	713
<i>Dhruv Shah, Shalini. G, Ahmad Alzaidi, Senthil Kumar. P, M. Pushpavalli</i>	
Strawberry Disease Detection Based on an Improved YOLOv8 Model	720
<i>Dongru Li, Qi Ye, Fashuai Chen, Chuanke Zuo, Yiming Zhang, Tianshuo Zhu, Mingtao Ma, Lifen Wang</i>	
Performance Evaluation Index System and Engineering Best Practice of Production-Level Time Series Machine Learning System	726
<i>Jiaying Huang</i>	
Method for Constructing Digital Media Virtual Reality Scenes by Integrating Neural Networks	733
<i>Yuheng Tao</i>	

Adapter-Enhanced XLM-RoBERTa for Cognitive Natural Language Understanding in Low-Resource Languages	740
<i>Veeranna Kotagi, Saef Thallal, Narendra Chennupati, S Abhinaya., B. Rajesh Kumar</i>	
Architecture and Algorithm Optimization of Realtime User Behavior Analysis System for Ecommerce Based on Distributed Stream Computing	746
<i>Fuzheng Liu</i>	
Correlation Between Abnormal Carbon Emission Data and Business Economic Growth Based on Artificial Intelligence.....	754
<i>Mingyi Xiao, Fanghao Xiao</i>	
Large-Scale Optimal Allocation of Psychological Education Resources Based on Quantum Annealing Algorithm	761
<i>Li Li, Han Mo</i>	
Design and Practice of Digital Learning Path Optimization Algorithm Based on Reinforcement Learning	767
<i>Jiajun Chen, Jie Yang</i>	
Privacy-Preserving IoT Stream Analytics Using Homomorphic Encryption and Autoencoder-Based Anomaly Detection.....	772
<i>Mohan Sankaran, Zahrah Sataar, Prateeksha Siddhanti, Subhojit Ghosh, S Narendran.</i>	
Comprehensive Evaluation of Economic Efficiency and Environmental Impact of Airport Water Surface Photovoltaic System Based on Particle Swarm Algorithm.....	778
<i>Gang Li, Hui Zhang, Hailong Li, Zhonglin Wu</i>	
Complex Pattern Recognition and Clinical Application of Artificial Intelligence in Medical Imaging Diagnosis.....	784
<i>Danyating Shen</i>	
Design and Implementation of a Quantitative Trading System Based on Intelligent Learning Methods.....	792
<i>Yuhong Xiao, Haoyang He, Meiyue Lu, Wan Ching Dai, Haowen Wei, Tsz Ho Lan</i>	
Fault Monitoring of Key Business Continuity in Data Centers.....	799
<i>Lei Han, Jing Zhang, Xiaoting Qi, Gang Chen</i>	
Federated Learning Framework with Prototype Clustering for Personalized Healthcare in IoT Wearables	805
<i>Heba Alasady, Chennaiah Madduri, Hari Suresh Babu Gummadi, Shweta Dhareshwar</i>	
Network Sensor Abnormal Data Monitoring Application Based on Deep Learning Model	811
<i>Feng Zhang, Jinzhong Yang, Dong Zhang, Xiaohui Kang, Baojing Han</i>	
Semantics-Aware Adversarial Training Using Convolutional Neural Networks for Cybersecurity Intrusion Detection	817
<i>Kavitha Thiyagarajan, Ali Alkwzahy, Shruthi. B S, S. Gayathri, Kiruthuka S</i>	
Anomaly Detection Model for Data-Driven Systems Based on Generative Adversarial Networks (GANs).....	823
<i>Xiujuan Xing, Wei Chen, Hanwei Wu, Xiaohuan Wei, Shuai Li</i>	
Computer Network Switch Decision Algorithms Based on Artificial Intelligence	829
<i>Zhipeng Zhou</i>	

Design of Personalized Digital Media Content Recommendation System Based on Deep Learning	835
<i>Zhaohui Yao</i>	
Plant Pest Target Detection Algorithm Based on Cross-Scale Feature Fusion	841
<i>Mengjie Li</i>	
Dynamic Multi-Task Spatio-Temporal Gated Graph Attention Network for Comprehensive Traffic Forecasting	846
<i>K. M. Monica, Manjunath. H N, Zahraa Alkhafajy, Rajavadhani Kuppan, Sanitha. P C</i>	
Application of Improved NSGA-II Algorithm in Low-Carbon Tourism Path Planning.....	853
<i>Ting Bu</i>	
Real-Time Risk Prediction of Cross-Border E-Commerce Supply Chain Based on Hybrid Graph Neural Network	859
<i>Weilin Li</i>	
Multiple Transmission Method for Wide-Area Unmanned Aerial Vehicle Cluster Inspection Data of Transmission Lines in Hybrid Network.....	865
<i>Xu Yuan, Yujun Yang, Yuqi Yang</i>	
Cloud Platform Automated Data Acquisition System Based on Artificial Intelligence.....	872
<i>Haihua Lv</i>	
Domain-Invariant Representation Learning for Cross-Subject Biomedical Signal Analysis	877
<i>Rana Veer Samara Sihman Bharattej. R, Rehaam Abdohwr, Keerthi Kumar. M, Manosri. T, P. Devika</i>	
AI-Driven Optimization of Computer Network Data Classification Algorithms and System Design.....	883
<i>Min Wei</i>	
Sports Digital Video Conversion and Detection Analysis Based on Improved Multi-Objective Optimization.....	889
<i>Si Wu</i>	
English Grammar and Semantic Relationship Modeling and Automatic Translation Optimization Combined with Deep Learning.....	895
<i>Xuefei Meng</i>	
Edge-Optimized LSTM Framework for Blockchain-Enabled Supply Chain Monitoring.....	901
<i>Rana Veer Samara Sihman Bharattej. R, Mrinmoy Aich, Ahmad Alzaidi, Raghu. G, Krunal Patel</i>	
Dual-Stream ConvNeXt-Swin Transformer with Cross-Attention Fusion for Robust Skin Cancer Classification	907
<i>Usha Thiruganam, Nalini Joseph</i>	
Tourism Economic Development Trend Prediction Algorithm Based on XGBOOST	914
<i>Hong Yang</i>	
Multi-Objective Optimization of Route Planning Based on Distributed Breadth Convolutional Neural Network and Markov Decision Processes	919
<i>Rundong Gao</i>	
Analysis of Machine Learning-Based Personalized Film and Television Recommendation System and Propagation Path.....	926
<i>Yueyao Liao, Qian Guo</i>	

Research on Multi Source Data Game Animation Intelligent Publicity and Protection Platform Based on 5G Network	932
<i>Lingqing Zhong</i>	
Multimodal Emotion Recognition Using Speech and Facial Dynamics Transformer-Based Architecture	937
<i>Suresh Kurapati, Samanvita. N, Abdolwadwd Alzubaidy, K. Rajkumar, Kanimozhi. M</i>	
Application of Machine Learning Algorithms in Financial Forecasting and Risk Analysis.....	944
<i>Hui Deng</i>	
Artificial Intelligence Algorithms in Intelligent Physical Fitness Training Platforms.....	950
<i>Lihong Zheng, Jianghao Chen, Aimei Xu</i>	
Precision Marketing Strategies Driven by Intelligent Technology	955
<i>Huijuan Zhao</i>	
Blockchain Transaction Anonymity and Identity Authentication Security Based on Zero- Knowledge Proof Algorithm	961
<i>Shuo Xu</i>	
Secure Authentication in IoT Devices Using Lightweight Multi-Factor Cryptographic Schemes	967
<i>Muhamed Ihsan, Chennaiah Madduri, Hari Suresh Babu Gummadi, Sudhakar. K, Muthulakshmi. D</i>	
Customer Flow Prediction and Resource Optimization Scheduling of Communication Business Halls Based on Artificial Intelligence.....	973
<i>Xiaoming Gao, Shu Xu, Jing Wan, Yanping Sun</i>	
Research on Migration Learning MPC Strategy for HDT Devices Under Sparse Data	978
<i>Jianfeng Chen, Jiamin Lei, Zhenye Chen, Yingxiang Wu</i>	
Optimization Design of Iot Sensor Front-End Circuit Based on Low Power Adaptive Algorithm	983
<i>Qin Hong</i>	
A Novel Graduation Design System Based on Personalized Recommendation Algorithm.....	990
<i>Yinhong Xiong, Xin Wang</i>	
An Enhanced Dual Autoencoder GAN with Temporal Modelling for Reliable Anomaly Detection in ICS and IoT	995
<i>Kevin Patel, Shreyas. A V, Taqy Aleobahaey, Krunal Patel, J. Velumani</i>	
Application of Artificial Intelligence Prediction Technology in Intelligent Film and Television Recommendation Algorithms.....	1001
<i>Zhiming Yang</i>	
Using the Transformer Model to Optimize the Graphic Element Combination and Creative Generation Process in Cultural and Creative Design.....	1006
<i>Nazi Xu</i>	
Question Answering System Based on Bridge Accident Hidden Danger Knowledge Graph.....	1011
<i>Yanfei Song, Qiang Xu, Yingsheng Ni</i>	
Privacy-Preserving Federated Learning with Secure Aggregation and Homomorphic Encryption for Brain Tumor Segmentation.....	1018
<i>T. Aditya Sai Srinivas, Ladly Patel, Zahraa Alkhafajy, N. Sasirekha, P. Umaeswari</i>	

Secure Sharing of Cross-Border Trade Data Based on Fuzzy Neural Network Mode	1025
<i>Xiaorui Huang</i>	
Optimizing Semantic Similarity Calculation to Improve Defect Matching Efficiency in Small Batch Production Mode	1030
<i>Bowen Yuan, Liqin Guo</i>	
Intelligent Indoor Temperature Control Strategy of Intelligent Buildings Based on Deep Learning Algorithm	1036
<i>Rui Wu</i>	
Natural Language Processing-Driven Document Summarization Using Attention-Guided Memory- Augmented Transformer	1041
<i>Suresh Kurapati, K Mohan Kumar, Rehaam Abdohwr, Subhojit Ghosh, V Lekha.</i>	
Prediction and Optimization of Fire Protection Performance of Bridge Cables Based on Machine Learning	1047
<i>Yuwen Ning</i>	
Large Model Scheduling Method in Collaborative Decision Making of Intelligent Agents	1053
<i>Xianya Chen, Quanzhi Yang, Guolong Dang, Jinchao Wu</i>	
Design of Automatic Summarization and Translation System for English Language Documents Using Long Short-Term Memory Network	1059
<i>Hua Li, Jianfeng Wang</i>	
Session-Invariant EEG Biometric Identification Using an Enhanced Siamese Convolutional Neural Network	1065
<i>Qassem Alattabi, K Mythili., M N Harshavardhana., K G Parthiban., G Aarthy.</i>	
Application of Multimodal Data Fusion Algorithm in Early Screening of Fundus Diseases	1071
<i>Jia Yao</i>	
Aircraft Resource Allocation Based on Deep Reinforcement Learning	1077
<i>Xiaona Zhang, Haifeng Yan, Yawei He, Wei Yan, Zhao Wang, Yajing Deng</i>	
An Adaptive Multilingual and Morphology-Aware Framework for Low-Resource Indian Language Translation	1083
<i>Kavitha Thiyagarajan, Zahrah Sataar, Srinivasan, Vanitha. E, Ponmurugan Panneer Selvam</i>	
Deep Reinforcement Learning Optimizes Personalized Push and Effect Analysis of Film and Television Advertisements	1089
<i>Yu Xi, Qianqian Su</i>	
Real-Time Music Signal Denoising System Based on Improved Variable Step-Size LMS Algorithm	1093
<i>Meng Lu, Honglei Xu, Dong Wu</i>	
Digital Application of Virtual Reality Technology Based on Cloud Computing in Film and Television Art	1098
<i>Tao Zhang, Yiyang Liu</i>	
Bayesian-Optimized Support Vector Regression for UAV-Based Multistage Wheat Yield Prediction	1106
<i>S. Prince Chelladurai, Ali Alkwzahy, Megha Kulkarni, K. Rajkumar, Sivaranjini. T</i>	
Multimodal Brain-Computer Interfaces Using Cross-Modal Transformer Fusion Framework	1112
<i>Supriya Lenka, Sateesh Kumar Pradhan, Zabiha Khan, Priyabrata Sahu, Suvendu Kumar Jena</i>	

Subway Passenger Flow Prediction Algorithm Based on Computer Vision.....	1118
<i>Ning Guo, Xiaochen Hu, Decun Dong</i>	
Human-Machine Collaborative Music Creation Algorithm Based on Multimodal Emotion Fusion.....	1123
<i>Hetian Chen</i>	
Copyright Protection Mechanism for Generative AI Works Based on Blockchain and Big Data Analysis.....	1129
<i>Yanhua Gao, Sai Zhang, Lu Li</i>	
Enhancing Decentralized Traffic Signal Control Via Multi-Agent Graph Reinforcement Learning with Neighbor State Prediction.....	1135
<i>Ramesh Babu. N, Chennaiah Madduri, Ali Alkwezahy, K. Hemalatha, Priyadharshini. G</i>	
Research on the Application of Multi Modal Sentiment Computing in Dynamic Visual Communication	1141
<i>Chang Li, Jiayi Lin, Yaqi Wu, Xiao Shao, Zihui Xu, Wanqi Zhou, Zihui Xu</i>	
Efficient Solution Method for Generalized Linear Models Using Variational Inference in Large Sample Statistical Estimation	1147
<i>Qingjun Li</i>	
Optimization Strategy of Multi-Objective Genetic Algorithm in Dynamic Scheduling of Cloud Computing Resources.....	1153
<i>A-Fang Li</i>	
Deepfake Detection Using Multi-Stream Convolutional Neural Networks with Attention-Based Fusion.....	1160
<i>Mohan Sankaran, Mostafha Alwbaidy, Lathakumari. K R, S. D. Govardhan, Ponnurugan Panneer Selvam</i>	
Secure Vehicular Ad-Hoc Networks Using Directed Acyclic Graph-Based Sharded Blockchain with Edge-Assisted Consensus.....	1166
<i>Subhra Chakraborty, Saef Thallal, G. Srinivasalu, Uma. S, K. Sangeetha</i>	
Accuracy Analysis of Building Carbon Emission Prediction Based on Neural Network Algorithm	1172
<i>Xiaoqing Xu</i>	
Visual-Inertial Localization Method Based on Semantic and Geometric Fusion in Dynamic Scenes	1177
<i>Bogen Xie</i>	
Automatic Post-Editing (APE) Algorithm for Machine Translation Based on Deep Learning	1182
<i>Chunlan Jiang</i>	
Human-Computer Interaction with Gesture Recognition Using Multi-User Spatio-Temporal Attention with 3D Separable Convolutional Neural Network	1188
<i>Ahmed K. Shakir, Ramya Srikanteswara, Leeladhar Gudala, Nadhiya. S, Janaki. R</i>	
Spatiotemporal Transformer Optimization Algorithm for Extracting Spatiotemporal Features of Lesions in Dynamic Contrast Enhanced Images	1194
<i>Longfei Xu</i>	
Design and Embedded Implementation of Adaptive Fuzzy PID Control Algorithm for Servo System.....	1200
<i>Jihuan Zheng</i>	

Improving Multilingual Speech Recognition for Cognitive Voice Interfaces Using Real Code-Switching Data	1206
<i>Suresh Kurapati, Muhamed Ihsan, Monika Rani. H G, Srinju. M, Lakshmi Priya. N</i>	
HHO-Based Energy-Efficient Routing Protocol with Neural Network Clustering for IoT Sensor Networks	1212
<i>P. Nagarathna, Chennaiah Madduri, Raed Hameed, Ramesh. K, E. Shalini</i>	
Multimodal Hybrid Summarization for Multi-Class Fake News Detection in Low-Resource Languages.....	1218
<i>Laith Hussein Jasim, Mohan Kumar. A V, S. Trisheela, Mrinmoy Aich, Ranjitha. R</i>	
Authentication with Adaptive Fusion and Liveness Detection.....	1224
<i>Vidyadevi G. Biradar, Mohan Sankaran, Taqy Aleobahaey, Senbagam K., Pommurugan Panneer Selvam</i>	
Speech Emotion Recognition Using Cross-Corpus Domain Adaptive Fusion Framework.....	1231
<i>Rana Veer Samara Sihman Bharattej. R, Ali Alkwezahy, Aruna. M, Rajaram. K, P. Abinaya</i>	
A Multi-Scale Lightweight GAN with Attention Model for Real-Time Low-Light Image Enhancement	1237
<i>Heba Alasady, Prashanth. V, Ashok Kumar Pamidi Venkata, Praveena. S, Kuzhaloli. S</i>	
Multimodal Image Fusion for Remote Sensing Applications Using Domain-Adaptive Attention Fusion Residual Framework.....	1243
<i>B. Buvaneswari, Baker Karim, Ashok Kumar Pamidi Venkata, Sunil Kumar. V, N. Sasirekha</i>	
Implementing Blockchain Technology in Intelligent Sensor Networks for Enhanced Data Integrity.....	1249
<i>Shubhi Srivastava, Prabhakar. M, Sudheendra Mouli. H. C, Abdul Latif Saleem, Swapnil. M. Parikh, Karuna Pandit</i>	
Integrating Differential Privacy Techniques in Data Mining for Healthcare Applications.....	1255
<i>Reny Jose, Manasa Sandeep, Varsha. D. Jadhav, Arun Kumar. K. N, Yassir Farooqui, Karuna Pandit</i>	
Employing Federated Learning in Satellite Communication Networks for Global Connectivity	1261
<i>Vijaya Kumbhar, Panchami S. V, Varsha. D. Jadhav, S. K. Poongodi, Sumitra Menaria, Jyoti. D. Shendage</i>	
Integrating Explainable AI with Human-In-The-Loop Systems for Transparent Decision-Making in Autonomous Robots	1267
<i>Vijaya Kumbhar, G. Sireesha, Varsha. D. Jadhav, Amit Barve, Rahul Sharma, Manzoore Elahi. M. Soudagar</i>	
Digital Transformation in the Supply Chain: Leveraging AI and Blockchain for Operational Efficiency	1273
<i>Devidas Bhat, Ninad Thorat, Sudheendra Mouli. H. C, Ganesh. B. B, Kamal Sutaria, Sathish Kannan</i>	
The Role of Predictive Analytics in Enhancing Customer Lifetime Value: A Data-Driven Marketing Approach.....	1279
<i>Mamatha. Y. P, Kapil Kumar Sharma, Varsha. D. Jadhav, Jyoti. D. Shendage, Ramji Gupta, Sathish Kannan</i>	

Employee Well-Being and Remote Work: Assessing the Impact of Work-Life Integration on Productivity and Retention	1284
<i>Syed Muddassir, Ninad Thorat, Jyoti. D. Shendage, Arun Kumar. K. N, K. Sheik Fareeth, Manzoore Elahi. M. Soudagar</i>	
Ai-Driven Healthcare: Enhancing Diagnosis and Treatment Via Fuzzy Convolutional Neural Networks	1291
<i>Venkata Kiran Kumar Ravi, Udutha Rajender, Sama Mineesha, Mandadi Bhagyalaxmi, Nisarg Gandhewar, Mohammad Habeeb</i>	
Application of AI and Generative AI for Understanding Student Behavior and Performance in Higher Education.....	1297
<i>Rani Venkata Satya Praveen, Satya Subrahmanya Sai Ram Gopal Peri, Harikrishna Vemuri, Sriharsha Sista, Srinikhil Saisatya Vemuri, Raviteja Aida</i>	
Enhancing Sales Forecasting in Sustainable Supply Chain Management Using a Hybrid Random Forest–Support Vector Regression Model.....	1303
<i>Sabina A. Nair, Erugu Krishna, Neelam Bharathi, Kumaran Thayumanavan, S. Vinayagam, S. Kaliappan</i>	
Analyzing the Strategic Use of English in Business Communication Using Hybrid Deep Learning and Ensemble Techniques	1309
<i>Sabina A. Nair, Erugu Krishna, Neelam Bharathi, Kumaran Thayumanavan, S. Vinayagam, S. Kaliappan</i>	
Stress Level Classification and Well-Being Analysis Among Employees Using K-Means-SVM Approach.....	1315
<i>Jenifer Arokia Selvi A, M. Karthikeyan, P. Kasi Viswanathan, Vaibhavkumar Laldas Patel, G. Suganthi, S. Kailasavalli</i>	
Enhancing Employee Engagement in Logistics Organizations Using a Hybrid Genetic Algorithm Based Approach Mediated by Progressive Work Practices	1321
<i>L. Vijayakumar, Geetha Manoharan, S. Baby, Waode Nurmuhaemin, G. Sivakumar, Sarah D'Souza</i>	
Optimized Charging Management for Electric Vehicles Using Neural Networks Considering Fast Charging and Vehicle-To-Grid Operations	1327
<i>A. V. V. Sudhakar, Rajesh. G, Sandeep. C S, Aswani. K, Sivaganesan Sivanantham, Anvesh Perada</i>	
A Hybrid Deep Learning and Machine Learning Approach for Optimizing Electricity Theft Detection	1333
<i>Ravindra Mukund Malkar, R Umanesan., Aruna Thotapalli, G. Pavan Kumar, P. Mano Paul, S Thangamani</i>	
Real-Time Natural Disaster Prediction and Early Warning Using IoT and Graph Neural Networks	1339
<i>Venkata Kiran Kumar Ravi, Sneha Gangwar, D. Sudheer Reddy, Love Kumar, Komali Lenka, R. Venkatesh</i>	
TransLSTM-Based Approach for Predicting Perceived Stress Among Working Employees.....	1344
<i>Nazreen Banu. M, K. Kiran Kumar Varma, Saumya Sharma, Rohit Kar, Ravi Kant, Anvesh Perada</i>	

AI-Based Pedagogical Framework for Improving Engagement of EFL Learners in Higher Education.....	1350
<i>Aparna Gullapelly, Abdyrakman Eshiev, Dina Antar, Udhayakumar, R. Naganathan, Ratan Sarkar</i>	
Hybrid Rule-Based and Machine Learning Framework for Embedding Anti-Discrimination Law in Automated Decision Systems.....	1356
<i>A. V. V. Sudhakar, Ramesh Inala, Abhishek Kumar Verma, Kuber Nag, Vivekanand Pandey, Praneta S. Anand</i>	
Segmentation of Brain Tumors in MRI Images Utilizing the Modified U-Net Model.....	1362
<i>Harsha. S, Dhananjaya. V</i>	
Design and Development of College Counsellors Job Management System of College Counsellors Based on LLM.....	1369
<i>Lingxue Luan, Yi Li, Xi Xia Guo, Zhimin Zhang</i>	
Design and Development of Optimized Machine Learning Framework for Accessing Vocational College Students' Innovation and Entrepreneurship Ability.....	1376
<i>Xiangtao Li, Mengmeng Zhang</i>	
Style-Conditioned Dance Action Generation Using Spatio-Temporal Graph Convolution and Transformer Decoder.....	1384
<i>Xi Yang</i>	
MTQE: Multi-Dimensional Teaching Quality Evaluation for English Intelligent Classrooms	1389
<i>Lei Geng</i>	
Design and Evaluation of a Gamified Chat Generative Pre-Trained Transformer-Assisted English Course Learning System with Selfregulation Support	1395
<i>Wenxing Huang, Yousan Chen</i>	
MHPAG: A Multi-Modal Hierarchical Pairwise Attention Graph for Personalized Clothing Recommendation.....	1401
<i>Yousan Chen, Yanhong Ma</i>	
Intelligent Clothing Design Using a CNN-Swin Transformer Hybrid with Pose-Adaptive 3D Garment Modeling	1406
<i>Guanglin Chen</i>	
Evaluation and Prediction Industrial Development Level in Sports Character Towns Using Hybrid Attention LSTM Networks.....	1412
<i>Wenta Chen, Mugen Zhong</i>	
An XGBoost-Softmax Framework for Multi-Class DDoS Network Attack Detection.....	1418
<i>Yanbo Sun</i>	
Intelligent Automatic Weighing and Recognition System for Electric Power Materials Using YOLOv8 and Regression-Based Sensor Fusion.....	1423
<i>Chunhua Xu, Jixiang Zhu, Shangdong Lai, Xiaowei Sun</i>	
Perceptual-Semantic Adaptive Rendering Model-Based Digital Display System for Excellent Traditional Chinese Culture.....	1428
<i>Yan Zhou</i>	

Enhanced Financial Risk Management Based on Hybrid Slime Mould–Particle Swarm Optimization Framework.....	1434
<i>Qiang Wu</i>	
Ideological and Political Education Teaching System for University Courses Based on You Only Look Once Version-7 with Virtual Reality Technology.....	1440
<i>Xiaochen Chen</i>	
AIP-LEAP: Adaptive and Multimedia-Enhanced Teaching for University Ideological and Political Education.....	1446
<i>Xiaochen Chen</i>	
Hybrid Semantic-Aware Ensemble Classification Framework for Ideological and Political Education Resources	1451
<i>Xiaochen Chen</i>	
A Hierarchical Reinforcement Learning Framework for Motion Trajectory Optimization in Five-Axis CNC Machining	1456
<i>Wenhui Li</i>	
A Hybrid Cloud-Enabled Bi-LSTM and Graph Neural Network Framework for Intelligent Network Marketing	1462
<i>Wenfang Liao</i>	
Federated Multi-Agent Deep Reinforcement Learning for Cooperative Optimization Communication Resource in Heterogeneous Wireless Networks.....	1467
<i>Yarang Yang</i>	
Decision Support System Based on Association Rule Mining for Student Career Planning.....	1474
<i>Miao Yu</i>	
Multimodal Enhanced Clustering Framework for Quality Monitoring and Management of Ideological and Political Education in Universities.....	1480
<i>Yuwang Zhao</i>	
An Adaptive Cluster-Based Personalized English Blended Learning System.....	1486
<i>Hangtian Zheng</i>	
Intelligent Adaptive Digital Twin-Based Early Warning System for Construction	1492
<i>Yufei Jiang, Xin Xu, Yue Tong</i>	
Optimized University Human Resource Compensation Management Based on Boosted Machine Learning Algorithms.....	1498
<i>Yao Lu</i>	
Design and Development of an Optimized Stacked Algorithm for an Effective Classification and Mining of Financial Data.....	1505
<i>Jingyu Huo</i>	
A Personalized English Test Questions Resource Recommendation System Based on Deep Learning	1511
<i>Yanru Li, Kemei Zhang</i>	
A Novel Online Teaching Platform for Chinese Courses Based on Hybrid Learning Approaches	1518
<i>Chengyan Yang</i>	

A Design and Development of IoT Based Physical Fitness Analysis Model for College Students	1525
<i>Jiacheng Feng, Qimeng Niu</i>	
Optimizing Translation Quality Using Cognitive English Machine Translation System Based on Transformer Architectures	1531
<i>Chaoqun Bu, Mi Zhong</i>	
Intelligent Prediction of Bearing Capacity of Reinforced Concrete Beams Using Beluga Whale Optimized Bi-LSTM Network.....	1536
<i>Xiangyu Xu, Yinan Guo, Xiong Zhou, Shuai Xu, Heng Xu</i>	
Hybrid Deep Learning Algorithms for an Efficient Career Guidance Systems for College Students	1544
<i>Bailu Ren</i>	
Design and Development of an English Cultural Literacy Assessment System Based on Ensemble Learning Algorithm	1551
<i>Ying Lei, Nanchang Zeng</i>	
Design and Application of a Learning and Exhibition System for Chinese Excellent Traditional Culture Based on VR Based Intelligent Algorithms	1558
<i>Jing Liu</i>	
Measurement of the Digital Economy Development Level Using Hybrid Random Forest and ELM Methods.....	1564
<i>Dengyin Kang</i>	
A Novel Intelligent and Effective Teaching Platform for the Clothing Designs.....	1570
<i>Rubin Hou, Yan Ma</i>	
An Enhanced Ensemble Optimized Machine Learning Framework for the Prediction and Assessment of Students' Mental Stress.....	1577
<i>Guang Du</i>	
Design and Development of Siamese Bert Model for Business English Course Learning and Sharing Platform.....	1583
<i>Yan Yang</i>	
Structural Design of Sportswear Based on Transformer Neural Networks and 3D Virtual Technology	1590
<i>Yachi Lv, Gaojie Zheng, Shuxia Zhu, Jianjun Liu</i>	
Intelligent Classification and Recognition of Ethnic Music Styles Using Siamese Learning Algorithms.....	1596
<i>Xingxing Li</i>	
An Ensemble Framework for an Effective Feature Extraction and Classification of Chinese Ethnic Music Styles	1603
<i>Xingxing Li</i>	
Development of Management Accounting Systems for Based on Improved Machine Learning Model	1609
<i>Sijin Li, Tingting Li</i>	
Evaluating on the Emergency Logistic System Capacity in the Greater Bay Area Urban Agglomeration Based on Neural Network	1615
<i>Feng Gao, Chaoqun Deng</i>	

Personalized Curriculum Recommendation System for Vocational Education Using Generative Ai Models.....	1621
<i>Yulong Hu, Qiwen Mo</i>	
Quality Evaluation and Improvement of Ideological and Political Classroom Teaching in Colleges and Universities Using Multi-Modal Transformer Models	1628
<i>Tao Pan</i>	
Meta-Heuristic Optimization for an Automated Desulfurization System in Thermal Power Plants	1634
<i>Xuewen Zeng, Qi Zhang, Ming Fang</i>	
Intelligent Innovation Performance Prediction for Enterprises Based on Hybrid Learning Models	1639
<i>Anfeng Xu, Xiaoxiong Li</i>	
Quality Evaluation of Ideological and Political Teaching in Colleges and Universities Based on Neural Network and Bi-Long Short Term Memory	1645
<i>Weiwei Guo</i>	
An Enhanced Quality Evaluation Model English Classroom Teaching Based on Ensemble BP Neural Network	1652
<i>Xiao Yu, Jian Xi</i>	
Federated Learning Model for Ensuring Privacy and Security Protection	1658
<i>Meixue Hong</i>	
Quality Evaluation of Labor Education for College Students Based on CATBoost Neural Networks.....	1663
<i>Jinyu Zhang</i>	
Design and Application of a Smart Sports Training Assistant System Based on Reservoir Learning Algorithms.....	1669
<i>Jinmao Tong, Huang Fugui, Qiuping He</i>	
Design and Development of Hybrid Artificial Intelligence-Enabled Virtual Reality for Digital Inheritance and Protection of Intangible Cultural Heritage.....	1675
<i>Zhe Chen, Suxian He</i>	
Research on Complex Face Recognition Technologies Based on Deep Learning Algorithms.....	1682
<i>Shijie Jia</i>	
An IoT and Deep Learning Model for Prediction and Training Systems of Throwing Action.....	1688
<i>Nan Li</i>	
Siamese NETS: A Novel Dynamic Siamese Networks for Intelligent Meter Data Detection in Smart Meter Environment.....	1694
<i>Ye Ma, Fangjing Shao, Gang Sun, Liang Sun, Mengjiao Xu</i>	
The Application of Computer Software and Hybrid Learning Framework in Chemical and Chemical Engineering Data Processing.....	1703
<i>Zong Han</i>	
Hybrid Transformer Architecture for an Effective Teaching and Resource Sharing Platform for Higher Vocational English Teaching	1708
<i>Yalian Shu, Jiajia Lu</i>	
Design and Development of Automatic Machine Translation System for Medical and Pharmaceutical Specialties Based on Hybrid Nmt Techniques	1714
<i>Yalin Zhai, Ruichen Feng, Bairu Zhao</i>	

Intelligent and Boosted Learning Framework for Precise Marketing in E - Commerce	1721
<i>Jiaqi Dong</i>	
Engineering Experiments Based on Enhanced Genetic Algorithm Based Feed Forward Networks	1727
<i>Pengpeng Liu</i>	
Comprehensive Online Vocational Education System Based Multi-Modal Deep Learning Algorithm	1733
<i>Can Yang</i>	
Evaluation of the Current Situation of Local Culture Dissemination Based on Neural Network.....	1739
<i>Xiaotang Zhao, Haihan Zhou</i>	
Design and Development of Engineering Cost Training System Based on Fuzzy Deep Learning Algorithm	1745
<i>Wei Yang, Qin Dong, Min Dou, Yanan Tang, Zhongliang Zhang</i>	
Hybrid Recurrent Neural Network Framework for the Deformation Prediction of Deep Foundation Pit Support.....	1752
<i>Yanan Tang, Zhongliang Zhang, Qinyuan Xu, Wei Yang, Min Dou</i>	
Prediction of Biopharmaceutical Production Quality Using Residual LSTM with Optimized Feature Selection	1757
<i>Qin Dong, Min Dou, Wei Yang</i>	
Hybrid Lstm and Manta Ray Optimised Deep Belief Networks for Evaluate Ideological and Political Teaching	1762
<i>Min Dou, Wei Yang, Qin Dong, Yanan Tang, Zhongliang Zhang</i>	
A Novel Deep Learning Algorithm Along with Firefly Optimized Long Short Term Memory Model for Big Data Analytics and Processing	1769
<i>Yao Yue, Hua Deng, Chao Wang, Ling Zhou</i>	
Intelligent Evaluation of English Teaching Based on Multi-Modal Framework	1776
<i>Jianfang Shao</i>	
Error Detection in English Machine Translation Using Fine Tuned NMT with Decision Trees Mechanism	1783
<i>Jinglin Ma</i>	
A Novel Ensemble Meta-Heuristic Feature Selector and Machine Learning Models for an Effective Diagnosis and Prediction of Mental Health of Students.....	1788
<i>Dan Cheng, Xiaojun Li</i>	

Author Index