

2023 International Conference on Data Science and Network Security (ICDSNS 2023)

**Tiptur, India
28-29 July 2023**

Pages 1-567



**IEEE Catalog Number: CFP23DW6-POD
ISBN: 979-8-3503-0160-1**

**Copyright © 2023 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:	CFP23DW6-POD
ISBN (Print-On-Demand):	979-8-3503-0160-1
ISBN (Online):	979-8-3503-0159-5

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

Intelligent Agriculture Using Machine Learning and Internet of Things	1
<i>Sunil S Harakannanavar, Jositha T, Thejashree V, Dedipya</i>	
E-Commerce Inventory Management System Using Machine Learning Approach.....	6
<i>Pramodhini R, Sourav Kumar, Siddharth Bhardwaj, Naman Agrahari, Suyash Pandey, Sunil S. Harakannanavar</i>	
Application of Distributed Hybrid Recommendation Algorithm in the Design and System of News Communication Platform	13
<i>Xiao Zhang</i>	
Detection Model of Building Structure Seismic System Based on Optimization Algorithm	19
<i>Yating Liu</i>	
Architecture, Localization Techniques, Routing Protocols and Challenges for UWNS.....	24
<i>Layolin Benisto L C, Rajeev Sukumaran, Saravanan M</i>	
Wireless Sensor Network Location Based on Improved Distance Vector Algorithm.....	31
<i>Yao Chen, Dandan Xiao, Fang Liu</i>	
Face Detection Approaches Using AI.....	37
<i>A. Senthil Kumar, P. Sujith Sai, B. Parvathi, H. S. Manasa, Kanishka. S</i>	
Application of Artificial Intelligence Algorithms in Abnormal Data Recognition in Motion System Monitoring.....	43
<i>Ran Liu</i>	
System Analysis of International Trade Network Based on Difference-In-Difference Method	47
<i>Xueyan Cheng</i>	
Hybrid Model for Detecting Deepfake Videos	53
<i>Ramachandra A C, K P Nihal, Khushi Mishra, Mohana Sahithi P, Prajwal A V, H S Jagadeesh</i>	
Crop Recommendation Using Machine Learning	57
<i>Ramachandra A C, Garre Venkata Ankitha, Idupulapati Divya, Parimi Vandana, H S Jagadeesh</i>	
Wide-Deep Neural Networks with Randomized Sparse Backpropagation Simplify Demand-Side Load Event Detection	62
<i>Manasa Adusumilli, Ramesh G. P., Vijayrani Katkam, Bhargavi, Piyush Kumar Pareek</i>	
Embedded System for Chronic Disease Patient Monitoring Using Iot	68
<i>Kiran, Parameshachari B D, Sunil Kumar D S</i>	
Emergency Transportation and Structural Optimization Issues of E-Commerce Logistics Network Parcels	73
<i>Chenkai Yuan</i>	
A Comprehensive Analysis of Retail Sales Forecasting Using Machine Learning and Deep Learning Methods.....	80
<i>Suresh B S, M. Suresh</i>	

Configuration Optimization Design of Wind Solar Complementary PG(WSCPG) System Based on Grey Prediction PID	85
<i>Bo Gu</i>	
Analysis of Various Maximum Power Point Tracking Algorithms Using Hybrid Energy Systems	90
<i>M. A. Nabi, J. Surya Kumari</i>	
Analysis of Power Electronics Contribution to Electric Vehicles Using Renewable Energy	96
<i>S Ramanjaneyulu Korada, R. Brinda, I. D. Soubache</i>	
Energy Conservation in Wireless Body Area Network Using Optimal Route Selection and Node Configuration.....	102
<i>Sanchari Saha, Prabhavathi C. N., Narendra Kumar, Dinesh K. Anvekar</i>	
Research on Medical Image Segmentation and Encryption Using GAN	108
<i>Mahalakshmi Ayyavoo, Velmathi Guruviah</i>	
A Comprehensive Research of Breast Cancer Detection Using Machine Learning, Clustering and Optimization Techniques	116
<i>Bhuvaneswari S, Karthikeyan S</i>	
Intelligent Resume Scrutiny Using Named Entity Recognition with BERT	122
<i>Girish L, Raviprakash M L, Gurushankar H B, Kotramma Mathada, Merlin B</i>	
Smart Modular Few-Shot Learning Framework Changes Classification of Signal Modulation	130
<i>Spoorthi T, Husna Tabassum, S. V. Devika, K. B. V. Brahma Rao, Ramachandra A C</i>	
Evaluation on Integrated Multi-Target Tracking and Trajectory Prediction Based on Multiscale Feature Fusion	136
<i>Wei Wu, Jingwen Li</i>	
Application of Classification Regression Tree Algorithm in Accounting Information System.....	140
<i>Manjing Yi</i>	
Design of a New Energy Intelligent Operation and Supervision Model Based on Data Analysis Algorithms.....	146
<i>Hong Li, Tao Wang, Jiangtao Guo, Bowen Sun, Lidong Yang</i>	
An Investigation of Inbound Process Optimization Using Flexsim: A Case Study of J E-Commerce Platform	153
<i>Wenfeng Hu, Hong Deng</i>	
Analysis of Express Delivery Demand Based on Time Series	160
<i>Jinzi Zheng, Yuan Tian</i>	
Financial Technology Security Risk Management and Control Based on Big Data and Blockchain Technology	168
<i>Yang Gu, S. Meenakshi Sundaram</i>	
Application of Big Data Technology in Digital Campus Construction	173
<i>Mengxiao Liu</i>	
Power Line Detection Method by Deep Learning for Safe Landing of UAVs	180
<i>Jatin Khurana</i>	

Design and Evaluation of an English Virtual Teaching Effectiveness Evaluation System Based on Improved GLR Algorithm	186
<i>Xuan Du</i>	
Geolocation Based Optimal Load Balanced Clustering and Hybrid Routing in Large Scale Flying Ad Hoc Network	192
<i>Ashu Katyal</i>	
Early Diagnosis and Prevention of Alzheimer's Disease Based on Regression Prediction Model	201
<i>Xue Zhou, Zhengtao Lei, Tongxuan Zhao, Guoyong Shi, Mengyun Chen, Qihong Yang, Jiexiu Ming</i>	
Facial Expression Recognition System with Local Binary Features of Neural Network	207
<i>Anju Das, Neelima N</i>	
Online Automatic Evaluation System of English Pronunciation Based on Computer Network.....	212
<i>Xiaodan Chang</i>	
Construction and Practice of Online Collaborative Learning Environment Based on Cloud Platform.....	219
<i>Yu Mei, Jiachao Yao, Pradeep Kumar S</i>	
YOLO-CNN – Deep Learning Approach for Vehicle Speed Detection	224
<i>Sakshi Pandey</i>	
Construction of Video Resources Data Warehouse System Based on Hive	230
<i>Aixue You</i>	
An Improved Genetic Algorithm Analysis Based on UAV Route Planning	235
<i>Fu Mo, Zhengkuan Zhang, Liang Yu</i>	
Disease Detection in Potato Leaves Using an Efficient Deep Learning Model.....	240
<i>Bhanu Goyal, Anil Kumar Pandey, Rakesh Kumar, Meenu Gupta</i>	
Evaluation of International Import and Export Complexity Based on Trade Gravity Model.....	245
<i>Wenwen Yang</i>	
Construction of an Intelligent Student Management and Evaluation Information Platform Based on Data Evaluation Algorithms	252
<i>Yue Liu, Tiannan Ren</i>	
Improved Cloud Storage System Using IPFS for Decentralised Data Storage	258
<i>Pratham Kumar, Meenu Gupta, Rakesh Kumar</i>	
Analysis of Upgrading Application of Neural Network Algorithm in Economic Sustainable Development	264
<i>Yiwen Zhu</i>	
Design and Application of Cultural Digital Display System Based on Interactive Technology.....	269
<i>Yuanyuan Peng</i>	
Construction of Computer Mathematical Model Based on Improved Algorithm.....	278
<i>Zhen Li</i>	
Federated Recommendation Algorithm Based on Model Comparison	284
<i>Rui Huang, Weibin Guo</i>	

A Low Power and Reduced Delay SRAM Cell for Biomedical Applications.....	290
<i>Aylapogu Pramod Kumar, M. Vamsi Krishna, N. Srilatha, Mohammed Mohsin, Hirald Dwaraka Praveena, U Yedukondalu</i>	
Unsupervised Learning Based Heart Failure Detection Using ECG Signal	295
<i>Yang Li, Xuan Wang, Qi Tang, Zhaoxin Qian</i>	
Adaptive Multi-UAV Control Algorithm by Using Deep Learning.....	300
<i>Prateek Garg</i>	
CAD Design for CNC Equipments and Industrial Manufacturing Using CNN	307
<i>Ashmeet Kaur</i>	
Optimization Design of Architectural Landscape Space Environment Based on Grid Collaborative Optimization Algorithm.....	314
<i>Lu Liu, Qingnan Ji</i>	
Revolution System of Spatial-Temporal Pattern of Marine Resources Development and Management Based on Deep Learning Algorithms.....	320
<i>Ziwei Yan</i>	
Improving Smart Grid Cybersecurity by Addressing the Risk of Incorrect Data Injection	326
<i>Muskan Yadav, Bhavesh Vyas, Paresh Pathak, Rahul Bhatt, Vaidehi Pareek, Ritika Dhabliya</i>	
Comparative Analysis and QoS Enhancement Through Novel Feedback Architecture	333
<i>Ravishankar H, Deepa K R, Savitha B. Hosur, Manjunatha B, Ashwini Kumari P, Nanditha Varshini E</i>	
A Novel Approach for Monitoring the Freshness of Vegetables Under Storage Using Internet of Things and Machine Learning in Varying Temperature Conditions	339
<i>Varun G, Dheeraj N Kashyap, Sameer Phaniraj Kumble, Ramya B N</i>	
Design and Application of Artificial Intelligence GIS Algorithm Based on Deep Learning Technology	345
<i>Tianrun Cai, Junxu Ge</i>	
Countermeasures for the Development of AI in the Field of Protection and Utilization of Architectural Cultural Heritage	350
<i>Xiang Chi, Jiakun Yan, Huiyuan Liu</i>	
Development of Rakshak - A Risk Free App for People's Safety Using Map Embedded API	357
<i>Venkata Murari L. M. A, Marneni Mani Shashank, Sripathi Ravi Kumar, Parimi Saketh Kumar; Ashwini K</i>	
Privacy Data Measurement and Classification Model Based on Shannon Information Entropy and BP Neural Network	363
<i>Chengsi Wang</i>	
Loss Characteristics of Magnetic Resonant WPT System with S-S Topology	368
<i>Xiao Hong, Weifeng Zhang, Lin Xia, Zhengjun Jin, Chengyao Gong, Xueying Zhang</i>	
A Multi-Party Collaborative Privacy-Preserving Method for Power Defect Detection.....	374
<i>Zepan Li, Caixia Lu, Zhitao Tang, Ye Du, Yuanyuan Zhao, Tian Gao, Xingda Sun</i>	
Research and Applications of RBF Big Data Processing Technology Based on Artificial Intelligence Algorithms	382
<i>Xueying Duan, Meng Wang</i>	

Intelligent Recognition Algorithm for Network Public Opinion Based on Deep Learning.....	387
<i>Yingce Guo</i>	
Enhancing Cyber-Physical System Security with CGAN in Fog Environment	393
<i>Pares Pathak, Digvijay Singh, Abhishek Saxena, Kaushal Kumar, Sukhvinder Singh Dari, Dharmesh Dhablya</i>	
Detection and Prevention of UDP Protocol Exploiting and Smurf Attack in WSN Using Sequential Probability Ratio Test Algorithm.....	401
<i>Navneet Kumar Singh, Santhosh Kumar B J</i>	
Application of CNN Architecture for Insect Identification and Labeling in Peanut Crops	407
<i>Sudhanshu Dev</i>	
Construction of an Intelligent Service Platform for Sports Venues Based on Machine Learning Algorithms.....	415
<i>Yingyue Hu</i>	
Multilevel Electricity Text Named Entity Classification Based on Enhanced XLNet Algorithm	420
<i>Zhihua Cheng, Chunlei Zhou, Ye Du, Wensi Liu, Donghai Xuan, Jingjing Zeng</i>	
The Improved Needleman-Wunsch Algorithm Based on the Genetic Process of Sequences.....	427
<i>Wencheng Zou, Hongfu Guo, Ran Cheng</i>	
Unconstrained Handwritten Kannada Word Recognition Using ESDCW Method	434
<i>Shakunthala B S, Ullas H S, Pillai C S</i>	
Diabetic Retinopathy Fundus Image Classification Using MSCSO Based Optimization with Fuzzy Support Vector Machine	439
<i>G N Keshava Murthy, Piyush Kumar Pareek, Rekha H, Sandhya M, Deepak H A</i>	
Detection of Abnormal Behavioral States in Student Learning Based on Video Surveillance	447
<i>Yong Cui, Hua Zou</i>	
An Optimized RPL Protocol for Energy Efficient IoT Networks.....	453
<i>Darleen Grover</i>	
Plant Disease Detection and Classification Using Transfer Learning Inception Technique	458
<i>Kiran, Parameshachari B D, Sunil Kumar D S, Naveenkumar H N, Deepak R, Sudheesh K V</i>	
Telugu News Article Classification Using Deep Learning Models	464
<i>Mora Sai Nitish Reddy, Sulakunta Aravind, Haripavan Reddy Bojam</i>	
Research on Key Technologies of Enterprise Business Portrait Based on Knowledge Mapping	470
<i>Chenhong Zheng, Shiming Zhang, Li Huang, Lijian Zheng</i>	
CNN-Based Topic Modeling and Semantic Sentiment Analysis Using Machine Learning	476
<i>Avni Garg</i>	
Tomato Plant Leaf Disease Detection Using Transfer Learning-Based ResNet110	484
<i>Parimisetty Harinadha, C Krishna Mohan</i>	
A New Feature-Centered Method for Classifying Emotions Based on Context.....	492
<i>Bhavuk Samrat</i>	

Research on Tourist Attraction Recommendation Method Based on Weibo Big Data and Machine Learning Algorithm	499
<i>Jin Zongjing</i>	
Design and Implementation of Music Database System Based on Data Mining Algorithm	505
<i>Wendi Xu, Mei Ning</i>	
An Assistant Recognition Method Based on Multi-Scale Feature Algorithm	511
<i>Yawei Han</i>	
Application of Collaborative Filtering Algorithm in Computer Network Security Technology Evaluation.....	517
<i>Hui Wang</i>	
Evaluation of Economic Development Data Management System Based on Particle Swarm Optimization Algorithm.....	523
<i>Zhengwei Xu, Da Kuang</i>	
Image Annotation Optimization Method of Civil Engineering Supervision Based on Association Rule Mining Algorithm	528
<i>Ou Kai</i>	
Research on Collaborative Filtering Optimization Algorithm Based on Smart Library Control System	533
<i>Shuanglin Zou</i>	
Engineering Measurement and Quantitative Evaluation of Accuracy Based on Improved Canny Algorithm	538
<i>Rui Zhang</i>	
Research on Authentication Method of Satellite Navigation Signal Based on Digital Wireless Communication System.....	543
<i>Yi Xie</i>	
A Powerful Algorithm for e-Commerce Credit Risk Analysis	550
<i>Dayanand Lal N, Sandhya Guruswamy, Vuyyuru Lalitha, Mohan Awasthy, Piyush Kumar Pareek</i>	
Smartphone Positioning Student Security Crisis Management System Based on GNSS Algorithm	557
<i>Zhiyan He</i>	
Optimization of Steam Power System Operation Based on Improved Particle Swarm Optimization Algorithm	563
<i>Bei Li</i>	
Design and Application of English Machine Translation System Based on Clustering Analysis Algorithm	568
<i>Ruomu Wang</i>	
The Application of Intelligent Classification Algorithms in Exploring the Trends of Wordle Game Patterns	573
<i>Bowen Li, Shu Chen, Zifeng Wang</i>	
Design and Implementation of Sports Fitness Testing Equipment Based on Knowledge Graph Structure Optimization Algorithm	581
<i>Fanrong Kong, Guangpeng Li, Hengchao Zhou</i>	

MRI Brain Tumor Detection and Classification Using U-NET CNN	586
<i>C. Krishna Mohan, Suresh Samudrala</i>	
Application of GRA-RF Combination Algorithm in Early Warning Mechanism of Financial Business Cycle	591
<i>Lei Feng</i>	
Development of Healthcare Model Using AR-DVAE with Mayfly-MLP-BPN for Parkinson's Disease Detection	596
<i>G N Keshava Murthy, Piyush Kumar Pareek, Manjunath T N, Shwetha N, Deepak R, Rashmi P</i>	
Semantic Representation is Superior to Syntactic Representation for Emotion Classification Using Graph Neural Networks.....	603
<i>Nitish Vashisht</i>	
Emotion Detection Using Speech and Text Recognition: An Overview	611
<i>Saurav Singh Rauthan, Nigam Rathore, Yogesh Kumar, Yashkrit Kumar Singh, Dipika Birari</i>	
Bearing Fault Diagnosis with Envelope Analysis and Machine Learning Approaches Using CWRU Dataset.....	616
<i>Lovish Dhingra</i>	
Visual Monitoring Technology for Electrical Equipment Based on Fuzzy PID Algorithm.....	623
<i>Litao Yang</i>	
Optimal Feature Learning for Speech Emotion Recognition – A DeepNet Approach.....	628
<i>Bharat Bhushan</i>	
A Smart Governance Architecture for Integrating Heterogeneous IoT Solutions Within the Framework of Smart Cities	634
<i>Madhurya J A, Manoj Kumar Padhi, Kondala Rao P, Mohan Awasthy, Piyush Kumar Pareek</i>	
Different Cryptographic Hash Functions for Security in the Blockchain.....	640
<i>Dhramendra Sharma, Monika Saxena</i>	
A Multi-Layered Representation for Intrusion Detection System in Cyber Systems Using CNN Deep Learning Algorithm.....	646
<i>Ritika Mehra, Asha Sohal, Shikha Shrotriya, Varun Kumar Gupta, Nuvita Kalra, Ritika Dhabllya</i>	
Real Time Control System for Installation and Maintenance of Refrigeration Equipment Based on Adaptive PID Algorithm.....	653
<i>Qinhua Xu, Guangpeng Li, Yuchao Yang</i>	
Image Enhancement Utilizing Generative Adversarial Networks for Improving the Accuracy of Pest Insect Classification	659
<i>Shivam Khurana</i>	
Revolutionizing Crop Management: An Emphasis on Ginger Leaf Disease Detection Techniques Using Machine Learning and IoT.....	666
<i>Shreelakshmi C M, Channakrishna Raju</i>	
Water Use Analysis for Irrigation Management Using NDLI Measures	671
<i>Manish Nagpal</i>	

Application of Data Mining Technology in Financial Data Analysis Methods Under the Background of Big Data.....	679
<i>Zhengyin Wang, Yan Wang, Aruna T M</i>	
Research on WeChat Applet Intelligent Assistant Based on Intelligent Recommendation Algorithm	684
<i>Yujing Guo</i>	
Advanced Sports Performance Analysis Using Deep Learning for Posture and Movement Identification	689
<i>S. Arvind, Hemalatha K. L., Upendra Roy B. P., Kasturi Sai Sandeep, Piyush Kumar Pareek</i>	
GPS Spoofing Attacks Detection Using Defensive Schemes in FANETs	695
<i>Deepak Minhas</i>	
Breast Cancer Identification and Classification Using Contextual Deep Learning Technique in Histopathological Images	703
<i>G N Keshava Murthy, Piyush Kumar Pareek, Nayana C P, Ramya I M, Keerthi Kumar M, Rashmi P</i>	
Multimedia Teaching Resource Sharing Platform Based on SOAP	710
<i>Yiqian Wang</i>	
Recognition of Criminal Faces from Wild VideosSurveillance System Using VGG-16 Architecture	717
<i>Rahul Bhatt, Suraj Malik, Rishabh Arora, Gaurav Agarwal, Shilpa Sharma, Anishkumar Dhablia</i>	
Optimization of Petrochemical Port Safety Monitoring Network Layout Based on Particle Swarm Optimization Algorithm.....	725
<i>Di Cui, Guoqing Sun, Yun Li</i>	
Risk - Return Analysis of Portfolio Management Based on Marchowitz Model	731
<i>Mallela Durga Lakshmi, Ch Murali Krishna, Mallela Mamatha</i>	
Forecasting of Traffic Flow Using Feature Selection with ML Model.....	737
<i>Piyush Kumar Pareek, Vidyalakshmi K, Nayana S, Gangambika G, Deepak H A</i>	
Demand Forecasting in Retail for Diabetes Medicine	743
<i>Khushi Shah, Neha Rasal, Sneha Mhatre</i>	
Application of Energy-Saving Technology for Carbon Dioxide Transcritical Wide Temperature Range Based on EMD Algorithm.....	749
<i>Qinhua Xu, Guangpeng Li, Yuchao Yang</i>	
A Lightweight Secure Authentication and Key Exchange Algorithm for Smart Agriculture Monitoring Systems	756
<i>Rajat Saini</i>	
Intelligent Construction Management System of Prefabricated Buildings Based on BIM.....	763
<i>Chenbo Li, Qiangqiang Guo</i>	
Design and Implementation of Human Resource Optimization and Decision System for Universities Based on Artificial Intelligence Algorithms	769
<i>Qing Zhu</i>	
Design of an Automatic Quality Evaluation System for English Pronunciation Machines Based on SVM	775
<i>Qian Li</i>	

TruceNet: A CNN-Based Model for Accurate Classification of DeepFake Images	781
<i>Darshan Rao, Kaustubh Utturwar, Tejas Shelke, Anuj Patil, Ekta Sarda</i>	
Water Quality Analysis from Satellite Images.....	789
<i>Sejal Pardeshi, Paritosh Gandre, Nireeksha Poojari, Shreya Pansare, Bhavana Alte</i>	
Exploring the Role of Blockchain in Enhancing Supply Chain Traceability and Transparency	795
<i>Chirag Aparadh, Nihal Barhaiyya, Haridarshan Chaudhary, Pranav Kokate, Bhavana Alte</i>	
Construction of Three-Dimensional Indoor Environment Design System Based on Artificial Intelligence Algorithm.....	802
<i>Jing Wen</i>	
Classification of Ambient Noises in Signals Using 2D Fully Convolutional Neural Network	807
<i>Rahul Mishra</i>	
An Improved Cascade R-CNN Method for Meter Box Defect Detection	814
<i>Jingchen Bian, Zhenyu Chen, Siyu Chen</i>	
Integration of Big Data and Artificial Intelligence in Constructing Learners' Individualized Feedback System	819
<i>Jingchun Chen, Parameshachari B. D.</i>	
Detection of Skin Cancer Using SFLA Based Apex Component Analysis Network.....	825
<i>G N Keshava Murthy, Piyush Kumar Pareek, Jagadeesh B N, Nalini B M, Keerthi Kumar M, Rashmi P</i>	
Deep Learning Approaches for Document Summarization: An Insight	831
<i>Deepti Aggarwal, Arun Sharma</i>	
Performance Comparison of Recurrent Neural Networks for Metamorphic Malware.....	837
<i>Shubh Mittal, Tisha Chawla, Jay Jajoo, Muskan Bansal, Harsha Parashar, Ruby D</i>	
Hybrid Model for Analysis of Social Media Posts for Identification of Depression and Measuring Its Severity.....	843
<i>Jay Nanavati, Unnati Patel</i>	
Algorithm Analysis of 3D Visualization Image Fusion Based on Intelligent Digital Media Technology	848
<i>Xinyu Zhang</i>	
Maximizing Customer Base by Forecasting the Most Profitable Customers Using Logistic Regression	853
<i>Tapaja Das, Bhavesh Krishna Agarwal, V. M. Gayathri</i>	
The Application of Internet Artificial Intelligence Algorithms in Civil Engineering Monitoring	859
<i>Honghong Wang</i>	
Application of Computer Data Algorithms in Enterprise Intelligent Manufacturing Operation Management System	864
<i>Jingyan Yuan, Feng Yuan</i>	
Research on Image Compression Algorithm Based on Deflate.....	869
<i>Yanchun Liu, Lishuang Zhao</i>	
Application of Internet and BIM Technique in Smart City Construction Projects	874
<i>Yu Liu</i>	

Lossless Video Compression Using Reinforcement Learning in UAV Applications..... <i>A Suresh Kumar, J V Muruga Lal Jeyan, Jyothi N T, S Annamalai, N. V. Kousik</i>	880
Exploration of 3D Image Virtual Reconstruction System Based on Visual Communication Technology <i>Qiuyu Chen</i>	886
Sep: A New Nonlinear Activation Function for Biomedical Applications and Image Classification <i>Debasish Saha, Ravi Kumar Jatoth, Y. N. Reddy</i>	891
Membership Information Leakage in Well-Generalized Auto Speech Recognition Systems..... <i>Honglei Li, Xinlong Zhao</i>	898
Promising Semi-Supervised Semantic Segmentation Using CNN Based Pseudo-Labels <i>Shubham Trean</i>	905
Ensuring the Security of Cloud Based Information Using Blockchain <i>K S Ananda Kumar, Jyoti Metan, Shilpa S Mali, Sirisha S, TR Sahana</i>	912
Long Tail Issue Analysis Using Deep Feature Space Representation..... <i>Jagtej Singh</i>	917
Sensitive Word Recognition Scheme Based on Text-RCNN Model <i>Shoulei Lu, Yu Jiang, Shaoxiong Xie, Jun Ye, Zhengqi Zhang, Yan Zhao</i>	925
Application of Virtual Reality Technology in Indoor Ecological Environment Design <i>Linyan Wang</i>	931
Performance Evaluation of Convolutional Neural Networks for Stellar Image Classification: A Comparative Study <i>Navneeth Premanand, Tarun Vg, Sahil Pawar, Jawakar Dn, Utsav, Deepa S, Jayapriya J, Vinay M</i>	939
Design and Implementation of Mathematical Medical Model to Detect Benign and Malignant Lung Tumors..... <i>Shao Liming</i>	945
LSTM Based Feature Learning and CNN Based Classification for Speech Emotion Recognition..... <i>Hitesh Kalra</i>	951
Construction of Embedded Platform Real-Time Target Tracking System Based on Changing Ant Colony Algorithm..... <i>Ran Liu</i>	957
Enhancing Segmentation of Abdominal Aortic Aneurysms in CT Images..... <i>Abdul Saleem Javeed, Veeresh K M, Ganesh V N, Chunduri Lavanya, Parameshachari B D</i>	963
Leveraging Scalable Classifier Mining for Improved Heart Disease Diagnosis <i>K R Swetha, Linginedi Ushasree, K. Satish Reddy, R. Shariff Nisha, Parameshachari B D</i>	969
Application of CART Algorithm in the Risk Correlation Evaluation Method of Economic and Trade Settlement..... <i>Xiangqin Ni</i>	975
Brain Tumor Classification: A Comparison Study CNN, VGG 16 and ResNet50 Model..... <i>Abhishek Sharma, Ariza Zehra, Arko Das, Kapish Rastogi, Muskan Agarwal, Sharel Mascarenhas, Jayapriya J, Vinay M, Deepa S</i>	981

The Development of Sequential Recommendation Systems Using Deep Learning.....	988
<i>Madhur Grover</i>	
Hybrid Deep Learning Model for Automatic Intrusion Detection System.....	995
<i>Piyul Patel, Vedant Pimple, Ashutosh Pol, Swastik Chaudhary, Siddhi Kadu</i>	
Construction of Rural Distribution Network Reliability Management Computer System Based on Simulated Annealing Algorithm	1003
<i>Xiqiao Lin, Huijing Qin</i>	
Power and Delay Analysis of a CMOS Inverter	1009
<i>Narayan A. Badiger, Sridhar Iyer, Sujay Gejji</i>	
Application of Artificial Intelligence Algorithms in Wearable Device Signal Processing Systems	1015
<i>Xiaojing Qi, Ying Xiong</i>	
Design and Application of an English Collaborative Translation System Based on WEB Technology	1021
<i>Ang Li</i>	
Financial Intelligence Decision Analysis System Based on Decision Tree Algorithm.....	1028
<i>Tingting Li, Meiqi Liu, Ying Cao, Juanjuan An</i>	
Secure Encryption Scheme for Medical Data Based on Homomorphic Encryption	1033
<i>Liaoran Xu, Chenyang Zhao, Weili Jiang, Jun Ye, Yan Zhao, Zhengqi Zhang</i>	
Cost Effective Generic Machine Learning Operation: A Case Study	1042
<i>Samridhi Jain, Puneet Kumar</i>	
Novel Ultrasonic Image Reconstruction and Deep Learning Model-Based Categorization for Accurate Liver Disease Diagnosis.....	1048
<i>Nijaguna G S, Sneha Sureddy, Bindumadhavi, Dayanidhi Mohapatra, Parameshachari B D</i>	
Deep Optimization Based Routing Protocol for Energy Efficient Routing in MANET-IoT	1054
<i>Ayaan Faiz</i>	
Artificial Intelligence-Based Models for Prediction of Major League Baseball Matches Outcome – a Systematic Mapping.....	1062
<i>Deepak Pandey, Rajeev Gupta</i>	
Evaluation of High-Precision Bridge Monitoring System Based on Improved Particle Swarm Optimization Algorithm.....	1069
<i>Shiwen Wang</i>	
Design and Implementations of Management System of Satellite Remote Sensing Data.....	1075
<i>Maohua Zhao, Zhaoyu Zhong, Kun He, Hai Ren, Hao Zhou</i>	
Application of Apriori Algorithm in Digital Financial Risk Information Management System.....	1081
<i>Qisheng Guo</i>	
Design and Fabrication of Piezoelectric Sensor	1086
<i>Doreen Belinta A, Kavipriya M, Kavya T, Deepa Jose</i>	
Design of Indoor Layout Visualization System Based on BIM Technology and Intelligent Algorithms.....	1092
<i>Dalin Sun</i>	

Deep Learning for Multi-Labeled Cyberbully Detection: Enhancing Online Safety	1097
<i>Naimul Islam, Rezaul Haque, Piyush Kumar Pareek, Md Babul Islam, Imam Hossain Sajeeb, Mahedi Hassan Ratul</i>	
U-Tiny: U-Net Model for Tiny Objects Detection in UAV-Images.....	1103
<i>Sahil Suri</i>	
Object Detection on Traffic Data Using Yolo.....	1109
<i>D. Balakrishnan, S. Manideep Kumar Reddy, R Lakshmi Venkatesh, K. Aadith, R. Jebi Nalatharaj, M. Arshath</i>	
A New Hybrid Model for Classifying Cardiac Arrhythmias Using Convolutional Neural Networks and Particle Swarm Optimization.....	1114
<i>Saniya Khurana</i>	
U-Architecture for Face Recognition to Prevent Cyber and Spoofing Attacks in IoT	1121
<i>Vaibhav Sharma, Sachin Sharma, Vandana Batra, Anu Singh, Himanshi Bhatia, Sharyu Ikhari</i>	
Design of Public Management Security Risk Assessment System Based on Rao Stirling Algorithm	1129
<i>Yulu Miao</i>	
Design and Realization of Efficiency Evaluation of Enterprise Operation Based on Data Mining.....	1135
<i>Lijian Zheng, Meihua Zou, Chenhong Zheng, Jing Yu</i>	
The Application of Clustering Algorithm in College Student Information Management.....	1140
<i>Hui Ma</i>	
Prediction and Analysis of Soil Moisture Based on Simpel Model.....	1150
<i>Yuan Zhiguo, Yang Chunyang, Lv Pin</i>	
A Study on Application Techniques of Strong Electromagnetic Environment for Wireless Ad Hoc Network Devices	1156
<i>Haiyan Chen, Peng Zhang, Sijin Xiong, Jiachen Shen, Haibo Zhang</i>	
Cold Chain Logistics Transportation Management Strategy Based on ABC-ACO Algorithm and Intelligent Digital	1162
<i>Xiaoman Guan, Guangpeng Li, Hengchao Zhou</i>	
Application of Improved Ant Colony Algorithm in Automatic Recognition of Abnormal Signals in Wireless Communication Networks	1167
<i>Ying Xiong, Jianghan Wang</i>	
3D Visualization Design for Digital Media Film and Television Based on 5G Intelligent Technology	1172
<i>Yan Du</i>	
Improved Algorithm for Edge Detection of Building Structures and Cracks Based on IFC	1177
<i>Na Huang, Guo Cao</i>	
Application of Modified Genetic Algorithm in Modal Parameter Identification of Bridge Structures	1183
<i>Keying Han</i>	
Deep Learning and Sentiment Analysis Improve E-Commerce Sales Prediction	1189
<i>Geetha K, Swarnalatha K., Ananda Babu. J, Poranki V L R N Sai Sudha, Ramachandra A C</i>	

Design of Temperature and Humidity System in Traditional Chinese Medicine Warehouse Based on STM32.....	1196
<i>Lifen Wang, Mingtao Ma</i>	
The Application of Improved K-Means Clustering Algorithm in Chinese Language Education in Vocational Colleges	1201
<i>Min Xu, Youli Ao, Chaoying Chang, Yunmin Wu</i>	
Multi-Objective Spectrum Allocation Scheme for Multi-User mmWave-assisted CRN-5G Networks	1207
<i>Pratik Mahajan</i>	
Study on Evolutionary Characteristics of Global Commodity Trade Network Based on Social Network Analysis Algorithms	1213
<i>Haoye Yan, Yaozhi Xu, Liling Xu, Jiakang Fan</i>	
BP Neural Network Algorithm Based Analysis of Structural Sensor Optimisation in Civil Engineering	1220
<i>Bing Liu</i>	
Design and Implementation of English Simultaneous Typing System Based on KMP Algorithm.....	1225
<i>Zhenhen Wang</i>	
Speech Recognition Network Design of Standard Mandarin Intelligent Test System Based on Particle Swarm Optimization Algorithm	1231
<i>Xiuzhi Fan, Yongtao Xian</i>	
Application of Computer Intelligent Proofreading System in English Phrase Translation.....	1238
<i>Jing Li</i>	
Automatic Network Slicing for Underwater Acoustic Communication Systems Admission Control, Routing, and Resource Allocation.....	1243
<i>Gunveen Ahluwalia</i>	
Smart Contract Based Sensitive Data Hashing for Security in Healthcare Environment	1251
<i>Vaibhav Sharma, Prakhar Saxena, Surendra Kumar Yadav, Digvijay Singh, Siddharth Ranka, Ritika Dhabliya</i>	
Human Activity Classification Using G-XGB.....	1258
<i>Aman Kataria, Vikram Puri, Piyush Kumar Pareek, Sita Rani</i>	
Q-Learning Based Emergency Event Detection in Secure Internet of Things	1263
<i>Dhiraj Singh</i>	
GPS Data for Behaviour Style Prediction in Driving Using Optimized AI Model	1269
<i>Parameshachari B D, Chetana Srinivas, Leena Shruthi H M, Manasa D S, Keerthi Kumar, Rashmi P</i>	
Application of Artificial Intelligence Technology in the Identification of Technological Security Risks	1277
<i>Fei Liu, Hongliang Xu</i>	
Energy Consumption and Fault Analysis of Data Center Power System	1282
<i>Shu Yuan, Jun Ye</i>	
Design and Application of English Multimedia Teaching System Based Web.....	1290
<i>Nini Zhang</i>	

Research on Short Video Propagation Mode Based on Deep Learning Algorithm	1299
<i>Jing Liu</i>	
Design and Process of Interior Decoration Materials Based on GA-GRNN Evaluation Model	1305
<i>Fengai Xu</i>	
Research and Application of Grid Cloud Service Security Access Control Technology Based on Zero Trust Model.....	1310
<i>Pang Lv, Changhua Sun, Qinyuan Li</i>	
An Exploration of the Potential of Day-Ahead Photovoltaic Power Forecasting Models Using Deep Learning Neural Networks	1317
<i>Prateek Aggarwal</i>	
Crowd Counting and Density Estimation Algorithm Based on Deep Learning	1325
<i>Junsui Fang</i>	
Intelligent Design and Modeling of Landscape Architecture Image Based on Big Data	1331
<i>Juan Ding</i>	
Cluster Evaluation of Accounting COMET Professional Ability Training Based on Apriori Algorithm	1338
<i>Ning Lei, Sha Fei</i>	
Application of Multi-Objective Optimization Routing Algorithm in Machine Automatic Translation Quality Evaluation Model	1343
<i>Bo Wang</i>	
Research on Colour Correlation in Urban Space Design Based on Remote Sensing Image Fusion Algorithm	1348
<i>Run Zeng</i>	
Mobile Deployment Method for Defect Recognition Algorithms in Power Transmission Scenarios	1353
<i>Heyan Huang, Baobin Zhang, Cheng Jiang, Liwei Wang</i>	
A Time-Sensitive Protocol for Wireless Sensor Networks' Communication.....	1359
<i>Romil Jain</i>	
Application of Big Data Technology in the Process of Communication Transformation.....	1366
<i>Qiangyin Wu, Ashitha V Naik</i>	
Construction of Information Technology Comprehensive Training Platform Based on Artificial Intelligence	1371
<i>Miaomiao Zhao</i>	
Application of Deep Learning for Intrusion Detection and Cyber-Attack Detection Using Internet of Things Networks	1376
<i>Anjali Gautam, Saloni Rathare, Gunjan Bhatnagar, Sharyu Ikhari, Sukhvinder Singh Dari, Varun Kumar Gupta</i>	
Leaf Based Tomato Plant Disease Detection Using Generated Images from WGP-ESR GAN	1383
<i>Parimisetty Harinadha, C Krishna Mohan</i>	
Mold Flow Melting and Crystallization Based on Image Extraction Technology.....	1389
<i>Xuemei Peng, Xiankang Liu, Cheng Wang, Sifan Liu, Yong He</i>	

Design and Implementation of Petrochemical Port Safety Monitoring and Early Warning System Based on Deep Learning Algorithm	1395
<i>Di Cui, Guoqing Sun, Yun Li</i>	
Intelligent English Translation Evaluation System Based on Internet Automation Technology	1400
<i>Shengbo Yang</i>	
Design a Corner Notched Single Patch at SHF of 5ghz and 8ghz for Extended Sierpinski Fractal Antenna	1407
<i>Metti Vinodh Kumar, G. P. Ramesh, G. Gurumita Naidu</i>	
A Machine Learning Based System to Detect Driver Drowsiness	1412
<i>Rahul Chauhan, Vishal Ansari, Ashish Singh Negi, Chandradeep Bhatt, Anirudh Prabhu B P</i>	
DDoS and Cyber Attacks Detection and Mitigation in SDN: A Comprehensive Research of Moving Target Defense Systems.....	1418
<i>Neetu Gupta, Rupanshi Agarwal, Sukhvinder Singh Dari, Suraj Malik, Rahul Bhatt, Dharmesh Dhablya</i>	
Neural Network Architecture Optimization Method for Defect Recognition.....	1426
<i>Liwei Wang, Jingwen Cheng, Heyan Huang, Cheng Jiang</i>	
3D Internet of Things Accurately Localizes RFID Devices Using RSSI for Optimal Routing	1434
<i>Manpreet Singh</i>	
Intelligent Recommendation Platform for Film and Television Based on Machine Learning Algorithms.....	1442
<i>Yue Liu, Tiannan Ren</i>	
AI in Healthcare: Navigating the Ethical, Legal, and Social Implications for Improved Patient Outcomes.....	1448
<i>Ashok Kumar Saini, Rajesh Yadav, Sayar Singh Shekhawat, Prashant Vats, Saneh Lata Yadav, Anirudh Pratap Singh, Siddhartha Sankar Biswas</i>	
Future Industrial Production Work Designusing Clustering Approach: Transitioning to Cyber Physical Systems	1456
<i>Kanika Gupta, Saloni Rathare, Sachin Sharma, Vineet Dahiya, Pushpa Negi, Anishkumar Dhable</i>	
ECC with DH Based Secure Data Transmission with BAT Routing in WSN	1464
<i>Amritpal Sidhu</i>	
Management and Application of Computer Software Engineering Based on Improved Manta Rays Optimization Algorithm.....	1472
<i>Fen Li</i>	
Real Time Vehicle Tracking System for Smart Cities	1476
<i>M. S. Rudramurthy, Nitin Hegde, K Tanmay, Santosh M, Md. Sufian Jawaid, Sushma S A, Keerthan Kumar T G</i>	
ECG Denoising Using Multiple Approaches.....	1482
<i>Manjula Bm, Vivek R, Nishant R, N Sriramkumar Raja, Mohammed Zuhair H N, Goutham M A</i>	
Securing the Digital Devices Through System on Chip Control and External Attack Detection Using FPGA	1488
<i>T. Thomas Leonid, Naveen Kumar Sai T, Praveen Sharma, Roopan B</i>	

Optimal Feature Learning-Enabled VGG-16 Model for UAV-Based Small Object Detection	1493
<i>Abhishek Singla</i>	
Evaluation Algorithm of International Trade Economic Target Suppliers Based on Electronic.....	1500
<i>Kong Xue</i>	
ANN-Based Scalable Video Encoding Method for Crime Surveillance-Intelligence of Things Applications.....	1507
<i>Rupanshi Agarwal, Paresh Pathak, Rupesh Kumar Tipu, Digvijay Singh, Aarti Kalnawat, Dharmesh Dhablya</i>	
Application of Digital Media Art Design in Urban Cultural and Creative Industries Based on Deep Learning Algorithms.....	1514
<i>Xiaohu Wang</i>	
Exploration of Logistic Transportation Problems Based on CNN BILSTM RF Prediction Model.....	1521
<i>Xiwen Zhang, Wenlin Cheng, Yiheng Lan, Li Chen, Wenjie Xia</i>	
Design of Mobile Query System for Health Standard Based on J2ME Technology	1528
<i>Shikai Qi</i>	
Intelligent Transportation System Based on IoT Technology and Big Data Distributed Storage Algorithm	1533
<i>Chunyu Liu, Weilie Chen</i>	
Improving Drug Review Categorization Using Sentiment Analysis and Machine Learning	1537
<i>Rezaul Haque, Piyush Kumar Pareek, Md Babul Islam, Ferdaus Ibne Aziz, Swakshar Das Amarth, Katura Gania Khushbu</i>	
AHFD: A Framework for Deployment and Management of Hyperledger Fabric Enterprise Blockchain.....	1543
<i>Rupsingh Mathwale</i>	
Cloud-Edge Collaboration Generation and Sharing Method of Dispatching and Control Sample Data	1547
<i>Dapeng Li, Jie Zhang, Yunhao Huang, Ling Yu, Jian Chen, Lei Tao, Jiaqi Wang, Jingan Shang, Cong Fu</i>	
Design and Development of Fitness Test Standard Query Software Based on Angular Architecture	1553
<i>Weiqiang Jiang</i>	
Design and Implementation of Library and Information Management System Under the Background of Big Data.....	1558
<i>Qu Long</i>	
A Research and Construction of Automatic Classification System for Environmental Art Renderings Based on Computer Vision	1563
<i>Yan Chen</i>	
University Education Information Management System Based on Cloud Platform	1569
<i>Huilian Zhang</i>	
Research on Nuclear Weapons Development Trend Prediction Based on LSTM and GM(1,1) Models.....	1576
<i>Zixv Cheng, Yingjun Guan, Qiude Du, Yiran Li</i>	

Design of English Learning Resource Query System Based on GLR Algorithm.....	1582
<i>Qiuying Hou</i>	
Multi-Feature Embedding and Deep Classification for Elderly Activity Recognition	1587
<i>B Reddy</i>	
Deep Learning and MRI Improve Carotid Arterial Tree Reconstruction	1594
<i>Narasimha Murthy M S, Gunti Spandan, Inakollu Aswani, Shankar Nayak Bhukya, Ramachandra A C</i>	
Bi-LSTM Model for Speech Recognition	1601
<i>Jagmeet Sohal</i>	
An IoT-Based CNN Model for Patients in ICU Beds During the COVID-19 Outburst.....	1607
<i>Parameshachari B D, Chetana Srinivas, Rekha H, Harshitha P, Deepak R</i>	
Communication and Monitoring of Construction Machinery Under the Framework of Wireless Sensor Network	1613
<i>Xinyang Ji, Gaoshan Hu, Bin Meng</i>	
Real-Time Attention Monitoring Using Smart Wearable for ADHD Patients.....	1619
<i>Smitha G Prabhu, Joydeep Das, Lavina Moncy, P S Lalith Kumar, Chaitra M</i>	
Yoga Pose Estimation Using Artificial Intelligence	1624
<i>Janardhana D R, Shashwatha P H, Manasa V, Kavya H R, Pruthvi R</i>	
Design of a Mental Health Assessment System Based on Fuzzy Evaluation.....	1630
<i>Lu Bai, Xue Han</i>	
Seepage Reconstruction of Large Civil Engineering Structures Based on Depth Learning	1636
<i>Hua Li</i>	
Design a Multiband Frequency of Partial Defected Ground for Hexagonal Fractal Antenna	1642
<i>R. Koniammal, G. P. Ramesh, G. Gurumita Naidu</i>	
Construction of Computer AI Virtual Network Effectiveness Evaluation System Based on Intelligent Big Data	1649
<i>Peiyuan Li</i>	
Machine Learning-Assisted Cluster-based Routing Protocol for Wireless Smart Grids	1654
<i>Sourav Rampal</i>	
An Effective Cluster Based Routing Using Multi-Objective Prairie Dog Optimization in Vehicular Ad-hoc Network	1660
<i>Shaeista Begum, Nagaraj B. Patil</i>	
Classification for Jaundice Symptoms Using Improved Dragonfly with XGBoost Model	1667
<i>Piyush Kumar Pareek, Vidyalakshmi K, Anoop N Prasad, Padmavathi Diggi, Deepak H A</i>	
Evaluation of Bridge Wind Barrier Parameter Optimization System Based on Ant Colony Algorithm	1674
<i>Shiwen Wang</i>	
Application of Genetic Algorithm in Emergency Logistics Optimization in the 5G Network Environment	1680
<i>Hehong Huang, Zilei Ji, Yiwen Lin, Yunshuai Yin, Xize Li, Shibo Wang</i>	

Interactive Genetic Algorithm for Fractal Design 1688
Cui Wang

Design and Implementation of English Multimedia Corpus 1694
Meng Liang

A Mountaineering Algorithm for Urban Area Planning Model 1703
Chunkai Ding

Author Index