

2022 IEEE 2nd International Conference on Mobile Networks and Wireless Communications (ICMNWC 2022)

**Tumkur, Karnataka, India
2-3 December 2022**

Pages 1-569



**IEEE Catalog Number: CFP22AF9-POD
ISBN: 978-1-6654-9112-9**

**Copyright © 2022 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:	CFP22AF9-POD
ISBN (Print-On-Demand):	978-1-6654-9112-9
ISBN (Online):	978-1-6654-9111-2

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

TABLE OF CONTENTS

Construction of Smart City Application Areas Research System Under Big Data Network Technology	1
<i>Jinfeng Wu</i>	
Software Defect Prediction Technology Based on Fuzzy Support Vector Machine	6
<i>Yingyu Li</i>	
Smart Application Based Circuit Breaker with Secure Passcode	10
<i>V. Anand Kumar, V. Nandalal, K Sheikdavood, S Joshua Kumaresan</i>	
Educational Integrated Management System Based on Artificial Intelligence and Multimedia	15
<i>Lin Wu</i>	
Wushu Sports Target Tracking Algorithm Based on BP Neural Network	21
<i>Xiaoyuan Li</i>	
Intelligent Recognition English Translation Model Based on ID3 Algorithm.....	25
<i>Lixia Pan</i>	
Enhancement in Load Frequency Control of Multi Area Hydro Thermal System with HVDC Tie-Line Incorporation Under WCA Based TIDN Controller.....	30
<i>Kambhapati Venkata Govardhan Rao, Malligunnta Kiran Kumar, B. Srikanth Goud, Ch. Naga Sai Kalyan, Harish Pulluri, M. Venkatesh</i>	
Modular Design of English Pronunciation Proficiency Evaluation System Based on Speech Recognition Technology	36
<i>Ding Li</i>	
Optimization Scheduling of Electric Vehicle Charging Load Based on Improved PSO	40
<i>Kang Zhang, Bing Gao, Yicen Han, Zeyuan Dong</i>	
Instruction Ability Intelligent Evaluation System(ES) on Account of Neural Network Algorithm (NNA).....	46
<i>Yongjun Qi, Hailin Tang</i>	
IOT Based Milk Analyzer Using Arduino with Wi-Fi Module	50
<i>G. Kalaiarasi, A. Anandkumar, M. Kathirvelu, K. Dinakaran, J. Ashok</i>	
Selective Analogy of Mechanisms and Tools in Kubernetes Lifecycle for Disaster Recovery	55
<i>Sameer, Suman De, R Prashant Singh</i>	
Key Technology of Bronze Restoration Based on Neural Network Algorithm – Taking He Zun of Baoji Bronze as an Example.....	61
<i>Jing Meng, Weihua Pu, Lulu Chen</i>	
A Multifunctional Automatic Dog-Feeder with Bluetooth and Wi-Fi Connectivity.....	65
<i>Michael Ampofo Boateng, Awingot Richard Akparibo</i>	
Immersive VR is Based on Virtual Reality Technology	71
<i>Luting Ye</i>	
Big Data Mining and Analysis of English Teaching Evaluation Based on Deep Learning Algorithm.....	77
<i>Nan Lu, Lei Liu</i>	

Performance Comparison of Various Wireless Sensor Network Dataset Using Deep Learning Classifications	81
<i>S. Manikandan, N. Poongavanam, V. Vivekanandhan, T. A. Mohanaprabakar</i>	
Power Network Event Detection Method Based on SDT Algorithm	85
<i>Longhai Xiao, Haifeng Shi, Xin Zhu, Ying Wang, Xiantao Yang</i>	
Cervical Spine Fracture Detection Using Pytorch.....	90
<i>M. Bhargavi Sri Bhavya, M. Vani Pujitha, G. Lakshmi Supraja</i>	
Informatization Under Internet Big Data on Improving the Management Level of Civil Aviation Transportation.....	97
<i>Lei Xing, Xiaxin Xu</i>	
Evaluation of Core Point Descriptors Enforced in the Pedestrian Identification in Lower Quality Images	102
<i>Aswathy RH, Dinesh Arjun, Hari Prasath, Jaichiddharth</i>	
Analysis of PAPR and BER in MIMO OFDM 5G Systems with Different Modulation and Transform Techniques	109
<i>Puneeth Kumar D N, M N Eshwarappa</i>	
An Analysis of Insider Attack Detection Using Machine Learning Algorithms.....	114
<i>B Nagabhushana Babu, M Gunasekaran</i>	
Triple Band U-Shaped Slot UWB Antenna as a Wireless Sensor for Communication.....	121
<i>K. Sugapriya, S. Omkumar</i>	
A Methodology for Crop Price Prediction Using Machine Learning	125
<i>G Thapaswini, M. Gunasekaran</i>	
3D Image Visual Communication Optimization System on Account of Image Processing Technology	132
<i>Hongbo Sun</i>	
Application of Data Mining in Human Resource Management in Colleges and Universities.....	136
<i>Zhang Yutian, Wang Lu</i>	
Visual Analytics for Market Research: A Case Study of F&B Industry	141
<i>Choong Kah Mann, Preethi Subramanian</i>	
CyberGeeksMY: Public Awareness on Website Vulnerability and Proposed Idea of ‘Smuggy’ Prototype	146
<i>Kua Wee Seng, Yusnita Yusof, Nor Azlina Abd Rahman, Yogeswaran Nathan</i>	
Standardization in Interface Design to Increase Higher Ui/Ux in Game Levels Setup	151
<i>Muhammad Anshari Ramadhan, Tet-Khuan Chen, Wee Ann Poh, Leo Gertrude David</i>	
A Raspberry Pie Security Device Using VPN and Adblocker.....	156
<i>Aaron Stephen Visvanathan, Yogeswaran Nathan, Mohamed Abdulkadir</i>	
Cross-Site Scripting (XSS).....	161
<i>Voo Teck En, Vinesha Selvarajah</i>	
Design and Implementation of Web Application Penetration Testing with Cross-Site Scripting (XSS).....	166
<i>Hitomi Goto, Vinesha Selvarajah</i>	

Mobile Application System for chargEV Charging Stations	171
<i>Yap Ming Qian, Tham Hoong Ching, Zety Marlia Binti Zainal Abidin</i>	
EHLS: Beginner to Advanced Ethical Hacking Learning Platform	176
<i>Ahmed Ali Ahmed Gubran, Vinesha Selvarajah, Julia Juremi, Vinothini Kasinathan</i>	
A Strategy for System Management Complexity: Availability on Data Backup and Recovery	181
<i>Chew Ruey Yeh, Fatemeh Meskaran</i>	
The Important and Relevance of Strategy in Role-Playing Games	186
<i>Russell Lim Jun Kit, Wong Chung Wei, Tet-Khuan Chen, Leo Gertrude David</i>	
Measuring the End-Users' Intention and Expectancy of Use of Upcoming Technology During the System Development Life Cycle: The Three by Three Method	191
<i>Rawan Mowaffaq Ayed Madarmeh, Vinesha Thiruchelvam, Behrang Samadi</i>	
A Technical Analysis on the Current Implementation of Online Examination System and the Factors Influencing the Issue.....	196
<i>Siti Nurkhairunnisa Mohamad Zaihirain, Vinesha Selvarajah</i>	
Application of BP Algorithm in Cost Estimation of Water Conservancy Project.....	201
<i>Bing Liu</i>	
Cybercrime Incident Reporting System.....	205
<i>Eric Sun, Noor Hafizah Hassan</i>	
Security Assurance Through Penetration Testing	210
<i>Lim Yi Siang, Vinesha Selvarajah</i>	
Restaurant Enterprise Resource Planning System.....	215
<i>Aldy Wijaya, Nur Khairunnisha Binti Zainal, Khalida Shajaratuddur Binti Harun</i>	
Analysis of a Network Forensic Investigation Technique	220
<i>Shaina Ferdous, Vinesha Selvarajah</i>	
Task Designation Framework for Micro Sourcing in Malaysia.....	225
<i>Siti Sarah Maidin, Liza Azizun Rahman</i>	
Recommendations for Implementing a Blockchain Based Educational Certificate Distribution System	230
<i>Kum Cheok Seng, Muhammad Ehsan Rana</i>	
Implementation of the First E-Commerce Website for Convenience Products in Yemen	236
<i>Muheeb Mohammed Qasem, Hairul Aysa Abdul Halim Sithiq, Nor Azlina Abd Rahman</i>	
Recommendations for Developing a Sign Language Recognition Application for Malaysia	241
<i>Liya Dayana, Muhammad Ehsan Rana</i>	
Construction of English Resource Database Based on Virtual Reality Technology	249
<i>You Chen</i>	
Solfeggio Training System Based on CAT Technology.....	254
<i>Lin Dai</i>	
Smart Helmet and Tracking System for Coal Miners Using IoT.....	259
<i>S Venkatesh Kumar, C Kathirvel, M Dharani, K Devi, G Janani</i>	

The Situation Perception of Pilots is Evaluated and Predicted Based on Neural Network.....	264
<i>Hui Wang, Yangtao Yu, Shihong Li, Qi Wang</i>	
Commercial Bank Credit Information Disclosure and Financial Crisis Early Warning Based on Artificial Neural Network.....	268
<i>Yuanzhang Wen</i>	
Intelligent Outlier Detection for Smart Farming Application Using Deep Neural Network	273
<i>N. Murali, A. Sasi Kumar, A. Karunamurthy, R. Suseendra, S. Manikandan</i>	
Stress & Emotion Recognition Using Sentiment Analysis with Brain Signal.....	278
<i>Ashvini A Bamanikar, Ritesh V Patil, Lalit V Patil</i>	
Design and Research of Agent-Based Personalized Recommendation System.....	282
<i>Mingxiao Dan</i>	
Load Frequency Control of Wind Power Plant Integrated Multi Area Interconnected Power System with Practical Constraints.....	286
<i>Ch. Naga Sai Kalyan, Narisetty Ashok Kumar, B. Srikanth Goud, M. Kiran Kumar, Harish Pulluri, Chintalapudi V Suresh</i>	
Mobile Ad-Hoc Networks Topic Modelling and Dataset Querying	292
<i>Jedidiah Aqui, Michael Hosein</i>	
Multi-Objective Optimization Design System for Rural Style Reconstruction Based on Pareto Evolutionary Algorithm.....	298
<i>Jing Bao</i>	
Intelligent City Landscape Management System Based on Machine Learning Algorithm	303
<i>Xudong Xing, Feifei Pei, Hong Zhang, Fakuan Guo, Yan Su</i>	
Application of Improved Deep Learning Algorithm in Modern Education Data Analysis System.....	308
<i>Hongyan Zeng</i>	
Research on Data Sharing and Privacy Protection System of Power “One Network Office”	312
<i>Xiaomin Zhang, Wei, Rui Su, Runzhen Yan</i>	
A Novel Approach for Newspaper Block Segmentation Using Run-Length Smoothing Algorithm.....	320
<i>Shridevi Soma, Shilpa</i>	
Visualization Analysis of English Think Tank Data Based on Genetic Algorithm.....	326
<i>Mei Yang</i>	
A Big Data Methodology for Analyzing Machine Energy Consumption Based on IIoT Technology Under ESG Concept	331
<i>Lifeng Chen, Jiangzhuang Zheng, Lianqin Zhu, Yao Liu</i>	
Channel Estimation of OFDM – MIMO	339
<i>S. Sharmila Devi, B. Sathish Kumar, S. Surya Narayanan, G. Vimal</i>	
Neuroscience Model Based on Computer Recognition Technology (CRT)	345
<i>Hui Fang, Lili Song, Yong Wang</i>	
Single-Phase Single Source Eleven Level Boost Inverter Topology	350
<i>Iqra Jabeen, Chandrasekhara Seregara</i>	

Application of Wireless Sensor Network Data High Speed Acquisition Technology in Environmental Monitoring	357
<i>Qing Tan</i>	
Aging Light Environment Based on Wireless Sensor Network.....	364
<i>Jingdong Liu, Shan Jiang</i>	
Explainable AI Method for Cyber Bullying Detection.....	369
<i>Varsha Pawar, Deepa V Jose, Ashwini Patil</i>	
Chemical Drying Classification Model Based on Knowledge-Improved Cultural Algorithm	373
<i>Penglong Zhu, Yuhua Ding</i>	
A Security Protection Technology Based on Multi-Factor Authentication.....	377
<i>Yue Guo, Yuan Liang, Yan Zhuang, Rongtao Liao, Liang Dong, Fen Liu, Jie Xu, Xian Luo, Xiang Li, Wangsong Ke, Guoru Deng</i>	
DCEP Payment Risk Evaluation Method Based on LVC Method.....	382
<i>Yimeng Li, Jinghe Zhao, Peiran Li, Yongquan Chen, Wanjia Yang E, Dewei Wu</i>	
Intelligent Water-Saving Control System Under Artificial Intelligence Technology.....	387
<i>Guangjian Ma</i>	
A GBDT Algorithm Based Approach to Power Equipment Defect Data Mining and Analysis	392
<i>Chengwei Huang, Yubin Feng, Yubo Zhang, Wei Zhang</i>	
A Monitoring Technology Based on Intelligent Perception of IoT Terminal Security Status.....	397
<i>Yue Guo, Yan Zhuang, Rongtao Liao, Liang Dong, Wangsong Ke, Yixi Wang, Xiang Li, Chao Huang, Yuan Liang, Jingjing Wang, Guoru Deng</i>	
Information Visualization Design Based on Smart City Application Acenarios	401
<i>Peiyun Cheng, Jiajing Mi, Yanlong Liu</i>	
Malicious Data Injection Detection and Prediction in Wireless Sensor Network Using Optimized Swarm Intelligence.....	405
<i>V. Kesava Kumar, P. Suresh Varma</i>	
Dynamic Measurement Algorithm of Electrical Equipment Parameters Based on BP Neural Network	410
<i>Shuilong Zhang, Wanhan Zhang, Zebin Lai, Shaobin Lin, Yang Li</i>	
Multiclass Classification of Brain Tumor for MR Images Using Shallow Autoencoder Based Neural Network	417
<i>Parvathy Jyothi, S Dhanasekaran, Robert A Singh</i>	
English Machine Translation System Based on Human-Computer Interaction Algorithm	422
<i>Xiaoxue Fu</i>	
Optimal Analysis of Body Material Based on Adaptive Genetic Algorithm	426
<i>Junnan Ren, Jun Zhang, Meng Zha</i>	
Forest Fire Detection Using Convolution Neural Networks.....	431
<i>K. Gayathri, J. V. D Prasad, T. Divya Kiran, V. Mythili</i>	
Application of ARIMA and ETS Model in Fund Index Prediction	436
<i>Minjun Shen</i>	

Research of Land Surface Segmentation Based on Convolutional Network and Transformer Network.....	440
<i>Qian Zhang</i>	
Computer Technology and RBF Algorithm English Online Test System Design.....	448
<i>Qin Guo</i>	
General Design of Automatic Correction System for English Pronunciation Errors Based on DTW Algorithm	452
<i>Shuping Li</i>	
The New Principles of Aspheric Surface Type Accuracy Detection.....	457
<i>Bo Yu, Guilong Wang, Lei Yu, Litao Wang, Manjula Bm</i>	
Prognosis of Dementia Using Convolutional Neural Networks	462
<i>Kilaru Hindu, S. Rajeswari, Palacharla Shirisha Bhavani, Nukala Girishma</i>	
Research on the Sales Volume of New Energy Heavy Trucks in Various Usage Scenarios	468
<i>Chen Bai, Wenbin Wang, Heling Mao, Subhra Chakraborty</i>	
Construction Project Management System Based on Improved Artificial Bee Colony Algorithm	473
<i>Dongying Pan, Chunhua Wang, Haoxue Ju</i>	
Comparative Analysis of Autonomous Vehicle in Computer Vision	477
<i>P Ranjitha, Saira Banu, N Manohar</i>	
A Solar-Electric Maize Dryer for Small-Holder Farmers in Ghana	484
<i>Michael Ampofo Boateng, David Asante-Asare, Evelyn Emefia Amu, Nana Akwasi Frimpong</i>	
Digital Painting Art Design Based on Computer Aided Technology.....	489
<i>Lei Guo</i>	
Online Learning Process Tracking System of Distance Education Based on Network Environment	494
<i>Yuehong Shi</i>	
Visual Cost System and Intelligent Analysis Method of Power Grid Operation and Maintenance Project for Enterprise Precision Control.....	499
<i>Jing Yu, Mengzhe Liu, Jiawei Lin, Wensi Ou</i>	
Construction of English Translation System Based on Computer Software Technology.....	503
<i>Lu Zhou</i>	
Inclusive Financial Information System Based on Big Data	507
<i>Zongchao Cai</i>	
Segment Based Distributed Routing Protocol with QoS in Cognitive Radio Ad Hoc Networks	512
<i>G Vipin Kumar, B Lethakumary</i>	
The Application of E-Learning in Chinese Education and Teaching.....	519
<i>Jiling Cai, Tapas Guha</i>	
The Early Warning of Enterprise Accounting Based on Big Data.....	524
<i>Yuan Xiao, Rui Huang, G K Madhura</i>	
Research on Stock Market Forecasting Model Based on Data Mining and Markov Chain	528
<i>Yujie Zhou, Jun Zheng</i>	

Smart Urban and Rural Spatial Planning Methods Based on the Era of Big Data	533
<i>Yahui Zhang, Binqing Zhai, Haoxuan Tang, Qing Cao, Zhitao Feng, Xiaofei Wang</i>	
Design of IoT Based Smart Coin Classifier Using OpenCV and Arduino	537
<i>T. Kavitha, Sweety Kumari, Sheetal Arjun Kamble, D N Rachana, C K Dhruvakuma</i>	
Image Recognition Study on Leaf Characteristics of Medicinal Plants Based on Otsu Dynamic Threshold Segmentation Algorithm.....	542
<i>Zihang Yuan, Yanxin Xie, Wengiang Wu, Xingyu Guo, Yuxiang Wang, Xin Zhao, Yidan Bi, S Pradeep Kumar</i>	
Capacity Optimization Configuration of Wind-Solar IES Considering Hydrogen Energy Storage	549
<i>Guiping Zhou, Zihong Wang, Shitao Wang, Wenjia Jiang, Jie Cai</i>	
Interactive Architectural Design Model Based on Particle Swarm Optimization Algorithm	555
<i>Jiaqi Chi, Zihan Zhang</i>	
Alternet - Monetizing Computing Resources for an Ad-Free Web Experience.....	560
<i>Prasanna B. T, Pranav Bedre G H, Vijeth Vaishnav D, Pruthvi H P, Praharshitha Abhay Kulkarni</i>	
Implementation of Business English(BE) Teaching Assistant System(TAS) Based on B / S Mode	566
<i>Dan Gao</i>	
Multidimensional Detection and Evaluation System of Computer Network Security Based on Machine Learning Algorithm	570
<i>Honghao Bai, Yuru Weng, Qi Zhao, Jiabin Guan</i>	
Detection of Anomalous Behaviour of a Student in Examination Hall Using Deep Learning Techniques.....	574
<i>P. Subbarayudu, B. Surya Mohan, G. Pavan Kumar, D. S. John Deva Prasanna</i>	
Literary Language System on Account of Dynamic Programming Algorithm.....	580
<i>Dongna Zhang</i>	
Human-Computer Interactive Oral Translation Methods and Related Issues.....	585
<i>Meiyi Zou</i>	
Human Resource Intelligent Scheduling Algorithm Based on Decision Tree Algorithm.....	590
<i>Na Feng</i>	
Identification of Motion and Prediction of Time Series for Mobile Robot Sensors Based ANFIS and Neural Networks Using LSTM.....	594
<i>Shymaa Mohammed Jameel, Bahaulddin Nabhan Adday, Refed Adnan Jaleel, Sarah Jalal Mosa</i>	
The Dynamic Mode Construction of Mixed English Learning Based on Reinforcement Learning.....	599
<i>Yongfen Liu, Weihua Tang, Piyush Kumar Pareek</i>	
Application of Big Data Technology in Ecological Environment Quality Evaluation System	604
<i>Xiaopeng Hao</i>	
Application Research of Similarity Algorithm in the Design of English Intelligent Question Answering System.....	609
<i>Jing Zhang</i>	

Deep Learning and Improved K-Means Clustering Algorithm in Electrical Faults	613
<i>Mingyang Chen, Yan Tang</i>	
FLC Based Solar Fed Micro Grid for Inertia and Damping Analysis with Droop Control	617
<i>D. Raja Reddy, G. Swathi, M. Kondalu, Ch. Rami Reddy, B. Srikanth Goud, A. Pandian</i>	
The Key Technologies to Realize the Profiling and Positioning of Key Personnel Based on Public Information Such as Social Accounts and IP	624
<i>Kai Cheng, Qiang Wang, Zhan Wu, Lintao Tan, Dongling Xiao, Chengcheng Zou</i>	
The Application of Big Data Based Statistical Technology to Improve the User Experience of Products.....	628
<i>Can Zhao, Chong Chen, Ramachandra Ac</i>	
A Methodology for Early Prediction and Classification of Heart Diseases in Diabetic Patients with Machine Learning Techniques.....	632
<i>Punganuru Swathi, M. Gunasekaran</i>	
Mobile Adhoc Networks - An Overview of Risk Identification, Intrusion Detection and Machine Learning Techniques Used	639
<i>Hosein Michael, Aqui Jeddiah</i>	
Data Mining Method in Enterprise Financial Early Warning and Risk Control.....	644
<i>Yuxin Xie</i>	
Data Mining Algorithm Data Model Data Analysis Based on Artificial Intelligence Technology	648
<i>Dongmei Yang</i>	
Design and Modal Analysis of Optical Fibers with Multiple Cores and Multiple Cladding Fiber.....	652
<i>Ankit Kumar</i>	
Personalized Music Recommendation System Using Hybrid Deep Birch Data Analytics Method	657
<i>V. Vijayashanthi, L. Jenitha Mary, M. Navaneethakrishnan, Ramya M, T. A. Mohanaprakash, S. Diviyasri</i>	
A Comparative Study of Phase Shifted Full Bridge and High-Frequency Resonant Transistor DC-DC Converters for EV Charging Application.....	663
<i>Pedada Bhargavi, Pavan Chandra Vishal Chaganti, Vommi Sowmya, P. V. Manitha, S. Lekshmi</i>	
Multi-Scale Convolution for Sound Event Detection Technology	669
<i>Shuozhen Yang, Long Zhang, Yuhua Wei, Hengyuan Zhang</i>	
Design of Underground Transportation Manipulator Based on Ant Colony Optimization Algorithm	674
<i>Zenghui Liu</i>	
A Compact, Flexible and Multiband Antenna for Sub-6 GHz Wearable Applications	678
<i>Ravikumar Palla, Badisa Anil Babu, Kambapu Durga Prasad Reddy, Karinki Hemanth, Matla Abhishek, Pitta Pavan Kumar, Malipeddi Manoj Kumar</i>	
Behavioral Recognition Based on Representation Learning in Video Scenes.....	683
<i>Dongjun Zhu, B D Parameshachari</i>	
Performance Analysis of Pentagon Shaped Microstrip Antenna for Biomedical Applications	689
<i>D. Sathish Kumar, B. Elizabeth Caroline, P. Ajitha, A. Sivasangari, S. Lalithakumari, S. Mohanraj</i>	

House Prices Prediction Using Machine Learning Regression Models.....	693
<i>Amit Gupta, Shashi Kant Dargar, Abha Dargar</i>	
Inter Numerology Interference Minimization Using Windowing and Precoding Techniques for 5G NOMA Based OFDM Numerologies	698
<i>P Kumar, K. R. Usha Rani</i>	
Material Removal Model of Chemical Mechanical Polishing Based on Genetic Algorithm and Neural Network Optimization	704
<i>Chenghao Feng, Xiaopeng Lan</i>	
Design of Deep Learning Mixed Language Short Text Sentiment Classification System Based on CNN Algorithm	709
<i>Wang Wang, Guangze Wen, Zikun Zheng</i>	
Prediction of Early Stage Breast Cancer by Injection of Gold Nano Particles and Analyzing Images Using Data Analytics.....	714
<i>Sreevidya Nelli, Kezia Rani B</i>	
College English Score Analysis Based on Data Mining Algorithm.....	719
<i>Yuanyuan Zhao</i>	
Mobile Adhoc Networks - Establishing Initial Risk Profiles Utilizing ML Techniques.....	723
<i>Aqui Jediahia, Hosein Michael</i>	
An Automatic Recognition Method for Digital Instruments Based on Machine Vision.....	728
<i>Jianwei Miao, Jinghe Zhao, Bo Jiang, Cuicui Zhang, Jing Hu</i>	
Modern Dance Virtual Person Tracking Technology Based on AdaBoost Algorithm	733
<i>Yanxin Zhang</i>	
Product Price Optimization Using Least Square Method	737
<i>Mandava Jaswanth, Namburi K L Narayana, Sreedharreddy Rahul, R Subramani., K Murali.</i>	
Effective Deep Learning Technique for Weapon Detection in CCTV Footage	742
<i>Naresh Yeddula, B. Eswara Reddy</i>	
Realization of Intelligent Greenhouse Visualization System Based on Wireless Sensor Network.....	748
<i>Shaowei Sun, Dan Li, A Sthuthi.</i>	
Application of Sensing Technology in Electrical Automatic Control System	753
<i>Zhongbo Du</i>	
Soccer Curveball Trajectory Optimized by Adaptive Fuzzy Algorithm	759
<i>Kun Qian</i>	
High-Proportion Distributed Energy Grid-Connected Massive Monitoring Data Cloud Processing and Intelligent Decision-Making Technology	764
<i>Haidong Yu, Yang Liu, Lisheng Li, Shidong Zhang, Guoqiang Su, Pengping Zhang, Ming Su, Xin Li</i>	
Predicting Stock Price with LSTM Networks	770
<i>Anantha Murthy, N Balaji, B R Puneeth, N Megha, P Sunil Kumar, A Shikha Rai</i>	
Energy Efficient Coyote Optimizer-Based Multipath Routing in MANET.....	777
<i>S. Venkatasubramanian, S. Hariprasath</i>	

Art Design Based on Computer Vision Communication	784
<i>Xiaohu Wang</i>	
Design and Analysis of CMOS Analog Circuit in Systematic Method on 130nm	788
<i>Appala Raju Vadaboyina, Indira Devi Gedela, V Rama Gowri Bobbili, Soundarya Guduri, Arshini Gubbala</i>	
Classification and Management of Accounting Management Data Based on Big Data Technology	793
<i>Ruijia Zhang</i>	
Design of Combline Cavity Diplexer for Two Channel Ultra High Frequency Bands.....	798
<i>P Manjunath, P Shanthi</i>	
A Bayesian Financial Panel Data Model Based on Neural Network Algorithm.....	804
<i>Zourui Su, Zhenkun Zhao</i>	
Art Design Based on Computer Vision Communication	809
<i>Xiaohu Wang</i>	
Investigation of the Patch Antenna Characteristics with the Impact of Metamaterial	813
<i>D. Sathish Kumar, E. Kalaiarasi, B. Elizabeth Caroline, P. Ajitha, A. Sivasangari, S. Lalithakumari</i>	
Energy Efficient Ad-Hoc Network with Multicast Tree Topology for Wireless Sensor Applications.....	817
<i>Prudhvi Kondapalli, Vamsi Krishna, Gita Alekhya Paul, Mettina Varghese</i>	
Web Prefetching Based on Data Mining Technology (DMT).....	822
<i>Qiurong Jiang, Haiyin Ou</i>	
A Broadband Absorption of Graphene-Based Random-Layered Photonic Crystals for Terahertz Applications.....	826
<i>Pulimi Mahesh, Damodar Panigrahy, Chittaranjan Nayak</i>	
Secured Authentication Schemes of 6G Driven Vehicular Communication Network in Industry 5.0 Internet-Of-Everything (IoE) Applications: Challenges and Opportunities	830
<i>Priya Kohli, Sachin Sharma, Priya Matta</i>	
Product Design Optimization System Based on Genetic Algorithm	835
<i>Nan Sun</i>	
Gender Detection Using Facial Features with Support Vector Machine	839
<i>Jayaprada S. Hiremath, Shantala S. Hiremath, Sujith Kumar, Manjunath S. Chincholi, Shantakumar B. Patil, Mrutyunjaya S. Hiremath</i>	
Internet of Aquatic Powered by an Efficient Cross-Layer Technique in Underwater Wireless Sensor Networks	845
<i>Umarani Bodakunta, A. R. Naseer</i>	
The Application of Ethernet and Its Network Software in a Computer Control System.....	851
<i>Dongying Pan, Chunhua Wang, Haoxue Ju, Piyush Kumar Pareek</i>	
Construction and Application of Radiologic Interpretation Knowledge Graph Based on Three-Layer Structure Model.....	855
<i>Shibo Zhao, Zongyun Gu, Xiao Han, Yuxuan Zhang, Wenhao Lu, Chuanfu Li</i>	

Convolutional Neural Networks Based on Improved SSD Algorithm for Recognition of Financial Bills	861
<i>Xiangling Yu, Shixin Zhang, Shaojun Zhang, Shiqi Xu, Tianxiang Niu</i>	
Integrity Auditing for Secure Cloud Storage on Sensitive Data Protection.....	867
<i>Janaki Sivakumar, Mazhar Malik, Arun Sekar Rajasekaran</i>	
6TiSCH Scheduling for IIoT by Slotframe Fragmentation.....	873
<i>Nilam Pradhan, Bharat S. Chaudhari</i>	
Information Sharing Security Protection System Based on Artificial Intelligence.....	878
<i>Yawen Mi, Enduo Gao</i>	
Performance Analysis of Image Data Analysis Using Machine Learning Algorithms	883
<i>T Jayapratha, P Jaisurya, A Jeyasri, K Ramya, A Vasanthakumar</i>	
Neural Network Algorithm in Regional Macroeconomic Forecast	889
<i>Mancai Wu</i>	
Intelligent Pneumonia Detection Model of Focal Transformer and Multi-Scale-Input SPD.....	893
<i>Fangfang Li, Ma Chun, Jin Li, Yunxia Yin, Jianhua Shu</i>	
Crop Yield Prediction to Achieve Precision Agriculture Using Machine Learning.....	898
<i>Anusha Ashok Deshmukh, Anushka Srivatsa, Ashwitha A, Arpith Monteiro, Chaitanya Gajakosh</i>	
Study on the Adsorption Mechanism of CrO ₄ ²⁻ On Ni/ TiO ₂ (101) Surface	904
<i>Zhiqing Yu, Xiaotao Li, Zhenning Ma, Xun Wang, Xing Li</i>	
Development of Assistant System Based on Mixed Reality Technology for Permanent-Way Maintenance in Rail Transit.....	909
<i>Yongjie Ruan, Feilong Huang, Yuxuan Ye, Dong Xiao, Guoliang Wu, Ping Feng</i>	
Machine Learning Based Text Classification Technology.....	914
<i>Bei Zhao, Wei Gao</i>	
Detection of Human Brain Tumor by Medical Image Processing and PCA Based Image Fusion	919
<i>M Narmadha, L Arthi, T Narmatha</i>	
The Configuration and Verification Analysis of AMBA-Based AHB2APB Bridge.....	924
<i>B H Niharika, S Ramesh</i>	
A Lightweight Deep Learning Model for Automatic Diagnosis of Lung Cancer.....	929
<i>Sayyada Hajera Begum, Mirza Iliyaz Baig, Mohammed Abbas Hussain, Mohd. Abdul Muqeet</i>	
Application of Automated Writing Evaluation (AWE) System Based on Intelligent Technology	934
<i>Liping Liu</i>	
Data Security Management Based on Transparent Encryption Policy	939
<i>Wei Zhan, Bo Jin, Huan Xu, Chenxi Dong</i>	
The Influence of Bullying on Anxiety of Primary and Middle School Students Under Data Mining Technology	943
<i>Zuo Yue, Yaru Chen, Han Ru, Zhengkui Liu, Kehui Wang, V Sunil Kumar</i>	

Implementation of Enhanced Energy Aware Clustering Based Routing (EEACBR) Algorithm to Improve Network Lifetime in WSN's	948
<i>P. Satyanarayana, Usha Devi Yalavarthi, Yadavalli S S Sriramam, M. Arun, V. Gokula Krishnan, S. Gopalakrishnan</i>	
The Optimization of Binary Feature Selection Problem Using GSK Algorithm.....	954
<i>Thatikonda Somashekar</i>	
A Public Key Cryptography Based Mechanism for the Secure Transmission of RGB Images Using Elliptic Curve Based Hill Cipher and Magic Square Concept.....	960
<i>T K Ratheesh, Varghese Paul</i>	
The Classification and Classification of Big Data Based on the Internet of Things.....	966
<i>Mingcai Zheng</i>	
Automotive Features Controlling Using APDS 9960.....	971
<i>Swati Shilaskar, Shaunak Dhande, Dhavanit Gupta, Akshay Dhawale, Abhishek Gaikwad, Sayar Gandhi, Shripad Bhatlawande</i>	
Electric Design of 35kV Substation	977
<i>Xuefeng Wang, Shengxing Li, Zixuan Du, Qingshan Li, Ying Wang, Chentao Wang</i>	
Detection of COVID-19 by Cough Sound: A Method Based on DSC + BiLSTM.....	982
<i>Jie Meng, Peng Zhang, Jianhua Wang, Aohui Wang, Long Zhang</i>	
Person Recognition Based on Deep Learning Using Convolutional Neural Network	987
<i>Minu Balakrishnan, G Dharanya, K Subaharini</i>	
Economic Dispatch Modeling of Multi-Energy Flow Coupled Network Considering Hydrogen Energy Storage	991
<i>Guiping Zhou, Zhihong Wang, Shitao Wang, Wenjia Jiang, Jie Cai</i>	
Enhanced SS-FIM Algorithm for High Utility Uncertain Itemsets	997
<i>Dubba Naga Malleswari, D Nageswara Rao, Pellakuri Vidyullatha, G S Pradeep Ghantasala, R Sathiyaraj, Yogesh</i>	
Cross Platform Mobile Web Growth and Design System Based on Large Data Interaction	1002
<i>Hui Qi</i>	
Intelligent Tourism System Based on Android Platform	1006
<i>Pian Wang</i>	
Queue Orchestration Using an In-Memory Broker	1010
<i>Shreyas Ganesh, Rohan George, R Tejas, Nihaarika Badri, K Vinodha</i>	
Service Quality Evaluation Algorithm of Tourist Scenic Spots Based on Fuzzy Cluster Analysis	1016
<i>Junna Hou</i>	
Computer Network Information Security Threat Identification Technology Based on Big Data Clustering Algorithm.....	1022
<i>Hong Yang</i>	
Art Design of Public Facilities Based on Smart City	1026
<i>Na Chen</i>	
Target Detection System of Agricultural Economic Output Efficiency Based on Kruskal Algorithm	1031
<i>Yan Zuo</i>	

Computer Interlocking Simulation System Based on Artificial Intelligence Web.....	1036
<i>Hui Qi</i>	
A Broad Analysis on Fake News Detection Using Various Machine Learning Techniques	1041
<i>Lakshmi Holla, KS Kavitha</i>	
Improved Particle Swarm Communication Algorithm for Wireless Communication Network Base Station Optimization Application	1046
<i>Zichun Wang</i>	
Construction Optimization of International Trade Information Service System Based on Big Data and Cloud Computing.....	1051
<i>Ting Dai</i>	
Prevention of Road Accidents by Improving Stress Resilience of Drivers Using Machine Learning.....	1055
<i>A Sabareesan, N Sabari Rohith, N Vikash, R Yuvaraj, V Lakshmanan</i>	
Research on Adaptive Information Fusion Algorithm Based on Multi-Sensor	1061
<i>Hongbin Tang</i>	
Face Recognition Model Based on MTCNN and Facenet.....	1066
<i>Siyao Qi, Xinyu Zuo, Weijia Feng, I G Naveen</i>	
Optimization Study of Electric Vehicle Switching Station Scheduling Considering the Enhancement of Wind-Solar Resources Consumption Based on Improved NSGA-II	1071
<i>Bing Gao, Lijuan Gao, Keyi Kang, Hongyuan Ma</i>	
Design of Lightweight Training System for Rail Transit Public Works Based on WebGL	1077
<i>Yongjie Ruan, Ping Feng, Feilong Huang, Junyan Tang, Zhenyu Liu</i>	
Algorithm Study of Blockchain Technology in Engineering Settlement Scenario.....	1083
<i>Kai Zheng, Yanjun Hu</i>	
Informatization of Constructive English Learning Platform Based on Improved GLR Algorithm.....	1088
<i>Jinfeng Liu</i>	
English MOOC Teaching Platform Design System Based on KMP Algorithm	1092
<i>Jing Gao</i>	
Semi-Transparent Encryption to Prevent Leakage of Sensitive Information	1097
<i>Wei Zhan, Xian Luo, Fei Long, Guoru Deng</i>	
Outage Probability and Capacity of Decode and Forward Relaying Under Hybrid RF-VLC Channels	1101
<i>Naeem Rahim, Ramesh Kumar, Arsalan Ansari</i>	
Intelligent Grid Scheduling Algorithm Based on Artificial Neural Network	1106
<i>Baoqiang Yue, Jing Peng, Fujun Qi, Haiyan Chen, Guilong Lv</i>	
Design of Machine Vision Image Target Recognition System Based on Improved ORB Algorithm.....	1110
<i>Beiyuan Liang</i>	
Storage Optimized Secured Data Transaction of IoT Sensors.....	1115
<i>Monika Parmar, Lipika Gupta, Bimal Raj Dutta</i>	

PV Sourced Battery Management System with IoT Based Real Time Monitoring System for Electric Vehicle.....	1121
<i>Shilpa Rathod, M. S. Aspalli</i>	
Performance Analysis of E-Learning System Using Data Mining Techniques	1127
<i>R Anitha, S P Cowsigan, U Vanitha, M Ishwarya Niranjana, Finney Daniel Shadrach, S Raagavi</i>	
Aging Building Renovation Based on Programming Aided Design.....	1135
<i>Jingdong Liu, Fengping Wang</i>	
PV Based Smart Inverter for Reliable System.....	1140
<i>R. R. Rubia Gandhi, G. N. Danyashri, S. Aishvarya, S. Divya Prabha, S. Arnesh, C. Kathirvel</i>	

Author Index