2024 4th International Conference on Technological Advancements in Computational Sciences (ICTACS 2024)

Tashkent, Uzbekistan
13-15 November 2024

Pages 1-668

IEEE

IEEE Catalog Number: CFP24CP5-POD
ISBN: 979-8-3503-8750-6

Copyright © 2024 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:	CFP24CP5-POD
ISBN (Print-On-Demand):	979-8-3503-8750-6
ISBN (Online):	979-8-3503-8749-0

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

❖ Preface iii

1. **Development of Named Entity Recognition Model for Analysis of Oceanographic Texts in Uzbek Language**
Davlatyor B. Mengliev, Nilufar Z. Abdurakhmonova, Vladimir B. Barakhnin, Gavhar I. Kuvondikova, Zebo G. Kadirova, Bahodir B. Ibragimov 1

2. **SVM-ERFE: An Enhanced Method for Identification of Metastatic and Relapsing Nature of Breast Cancer**
Abhijit Kumar, Sumit Kumar, Kevin Riou, Amitava Choudhury, Gurinder Singh, Sudhanshu Tripathi 6

3. **Content Based Image Retrieval: A Study of Approaches and Techniques**
Mehnaz Bano, Priya Matta, Shivali Chandel 16

4. **Heart Disease Prediction Using Machine Learning: A Data-Driven Approach**
Abboskhujaev Akhrorkhuja, Danish Ather, Rahul Chauhan, Kireet Joshi, Gurinder Singh, Naina Chaudhary 23

5. **Abstractive Text Summarization Using BERT and Adversarial Learning**
Abhijith Prakash, Gannamaneni Rohith, J. Umamageswaran 29

6. **Lung Cancer Detection: Leveraging Transfer Learning & AI Chatbot for Doctor Prescription**
Aryan Dixit, Shruti Mishra, Archi Goyal, Vishal Jain 35

7. **Comparative Analysis of Different Approaches for Cyber Forensics**
Dharm Raj, Ajay Kumar Gupta, Kunchanapaalli Rama Krishna 42

8. **Implementation of Machine Learning and Ensemble Learning Techniques to Proactively Predict Students' Academic Success in the Realm of Higher Education**
Taneja Sanjay Devkishan, Sanjay Kumar Singh, Ajay Kumar Bharti 48

9. **Accelerating Gradient Slope Computation with K1 Fluu: A Novel Technique for Neural Network Training**
Naina Chaudhary, Astha Gupta, Gurinder Singh, Ayush Thakur, Pratap Paraji Patil, Vinita Sharma 55

10. **ARON: Adaptive Resource Optimization Network for AI-Driven Business Management**
Pranay Verma, Gurinder Singh, Naina Chaudhary, Ayush Thakur, Astha Gupta, Rajneesh Kler 61

11. **Catalyzing Multilingual NLP: New Methods for Low-Resource Language Support**
Gurinder Singh, Astha Gupta, Pranay Verma, Naina Chaudhary, Rajneesh Kler, Ayush Thakur 67

12. **Refining Large Language Model Query Optimization: An Adaptive Semantic Approach**
Ayush Thakur, Naina Chaudhary, Astha Gupta, Gurinder Singh, Amresh Kumar Choubey, Mohit Bhandwal 76

13. **Exploring University Student Sleep Patterns and Lifestyle Correlations**
Pratap Paraji Patil, Naina Chaudhary, Gurinder Singh, Atul Kumar Srivastava, Sujit Prasad, Manik Arora 81

14. **Face Mask Detection Using Convolutional Neural Networks (CNNs)**
Vijay Madaan, Neha Sharma 88

15. **Innovative Modeling for Assessing Anemia-Associated Hair Loss Severity in Women: CNN and Random Forest Fusion**
Shubham, Deepak Banerjee, Suraj Thakur 94

16. **Robust Car Damage Identification Through CNN and SVM Techniques**
Shubham, Deepak Banerjee 101

17. **Convergence of CNN and SVM Techniques for Liver Cancer Classification: Assessing Molecular, Clinical Presentation, and Staging Classifications**
Shubham, Deepak Banerjee 108

18. **Exploring Color Models for Forensic Hair Comparisons: A Machine Learning Perspective**
Shubham, Deepak Banerjee 115

19. **Integrative Framework for Accurate Corriander Disease Classification: Unifying Deep Learning and Machine Learning Approaches with Feature-Rich Hybrid Models**
Varun Kumar, Riturani 121

20. **RoseGuard: Deep Learning-Based Classification of Rose Leaf Diseases for Precision Agriculture**
Varun Kumar, Shanvi Chauhan 128

21. **Predicting Career Transitions Through Insights from Academic Background and Workforce Dynamics Using Machine Learning**
Rajneesh Kler, Gurinder Singh, Naina Chaudhary, Bobur Abdullaev, Mohit Bhandwal, Danish Ather 134

22. **Combatting Okiru Attacks in IoT Using AI-Powered Detection and Mitigation Tactics**
Aadil Khan, Monica Dutta 139

23. **Lung Cancer Classification by Utilizing Various Transfer Learning Model**
Ankita Sharma, Sonam Mittal 145

24. **Unified Shield: ML and DL Integration Through ANN-SVM for Imbalanced Data**
Ankita Kumari, Ishu Sharma 151

25. **Defending the Treasury: Deep Learning Strategies for Banking Security Against Trojan Threats**
Ankita Kumari, Deepali Gupta, Mudita Uppal 157

26. **Defending Digital Storefronts: Deep Learning Strategies for E-Commerce Ransomware Prevention**
Ankita Kumari, Mudita Uppal, Kamali Singla 163

27. **Predictive Modeling of Brain Stroke Risk Using Supervised Machine Learning Techniques**
Preet Singh, K.R. Ramkumar, Sonam Mittal, Taniya Hasija 169

28. **Efficient Banana Leaf Disease Classification Using Vision Transformer (ViT) Model**
Archana Saini 176

29. **Toward Peak Performance: Analyzing Donor Density and Thickness in Perovskite Through SCAPS-1D Simulation**
Aniket Verma, Nikhil Shrivastava, Jaya Madan 181

30. Transfer Learning Models for Automated Bone Age Prediction: Evaluating Efficiency and Clinical Applicability
Vishesh Tanwar 185

31. Integrating Convolutional Neural Networks with Support Vector Machines for Enhanced Classification of Cabbage Leaf Diseases
Vishesh Tanwar 191

32. Comparative Analysis of Artificial Intelligence Models in Stock Security Index Forecasting with Sentiment Analysis of Economic News
Rahul Thakur, Jasneet Kaur, Harmanjeet Singh 197

33. EfficientNetB3-Based Lung Cancer Classification from CT Scan Images: A Deep Learning Approach
Gurjot Kaur, Neha Sharma 206

34. Implementing Gradient Boosting Techniques for Real-Time Attack Detection in Vehicular Networks
Anshika Sharma, Himanshi Babbar 213

35. Deep Learning-Based Classification of Brain Tumours on MRI Images Using EfficientNetB0
Aditya Kumar, Leema Nelson, Deepak Arumugam 219

36. EfficientNet B3-Based Deep Learning-Based Diabetic Foot Ulcer Classification: A Study Using Thermal Images
Shikha Prasher, Leema Nelson, Shanmugasundaram Hariharan 226

37. Smart Solutions for Road Defect Detection: A Deep Learning Fusion Approach with CNNs and SVMs
Taifa Ayoub Mir, Deepak Banerjee, Deepak Upadhyay, Ramesh Singh Rawat 230

38. Pretrained Sequential CNN Model for Alzheimer Disease Prediction Using MRI Images
Shikha Prasher, Leema Nelson, Deepak Arumugam 236

39. Anticipating Evolutionary Trajectories in Sheet Metal Cutting Using Machine Learning
Taifa Ayoub Mir 241

40. Unveiling Welding Defects Trends Through Deep Learning Analysis
Taifa Ayoub Mir 248

41. Taming Breast Cancer Diagnosis Through Transfer Learning: A Binary Classification Framework for Enhanced Disease Detection
Gunjan Shandilya, Vatsala Anand 255

42. High CMRR Bulk-Driven Difference Amplifier-Based Single-Ended OTA
Ravi Ranjan Kumar, Diksha Thakur, Kulbhushan Sharma 260

43. Driver Drowsiness Detection Using Smart Glasses
Aditya Naik, Priyadarshan Wagh, Riya Kosta, Vijay Oli, Shailendra Aswale 265

44. Optimizing Traffic Sign Detection with MobileNetV2: A Lightweight Deep Learning Approach
Poonam Shourie 272

45. Enhancing Online Transaction Security: A Study on Fraud Detection and Prevention with HMM and Behavior Analysis
Abjijeet More, Dnyaneshwari Khane, Mansi Nagane, Tanuja Bhoir 277

46. Examining the Impact of Duration-Based Costing (DBC) Implementation in Iraqi Production Firms
Hatem Karim Kadhim, Ali Quddous Haraj 282

47. Aspect-Based Music Recommendation System Using CNN
Harshvardhan, Vipashi Kansal, Deepanshu Gupta, Rajvardhan, Upma Jain, Shruti Bhatla 287

48. Brain-Powered Vehicles for Individuals with Disabilities Leveraging AI
T. Jisna Jaison, Priyanka E. Thambi, Nikita Pinheiro 292

49. Characterization of Sewage Sludge: A Comprehensive Examination of Physicochemical Attributes from Treatment Plants
Snehal Kamble, Ajay R. Gajbhiye, S.W. Dhengare 298

50. AI-Enhanced Experimental Analysis on Dairy Wastewater Treatment Using Rotatory Biological Contactor
Pallavi S. Chakole, Ajay R. Gajbhiye, S.W. Dhengare 303

51. Garbage Segregation Robot Using Machine Learning
Renuka Biradar, Ankita Balchandra Waglekar, Manisha Barreto, Komal Dyaneshwar Satardekar, Ameya Wadekar, Shailendra Aswale 307

52. Unraveling the State of the Art: A Comprehensive Review of Brain Tumor Detection Techniques
Naresh Cherukuri, Bala Bhaskara Rao Emani, P. Hema Venkata Ramana, Katuri Rama Krishna, Parasa Rajya Lakshmi, Gopinadh Alapati 313

53. Enhancing Accessibility: Image Captioning for Visually Impaired Individuals in the Realm of ECE Advancements
Qazi Mohd Iqbal Hussain Anwar, Ch. V.S. Satyamurty, Rakesh Kumar Godi 317

54. Leveraging the Power of Deep Learning, Machine Learning, Artificial Intelligence, and Big Data in Finance and Education
A. Swapna, Hari Leela Vemula, B. Amarnath, B. Sasidhar 322

55. Bibliometric Analysis of IoT Application Research: Unveiling Trends and Future Directions for Terahertz Communication in Wireless Systems
Deepak Hajoary, Rinku Basumatary, Raju Narzary 328

56. Identification of Fraudulent Transactions for Enhanced Credit Card Fraud Detection
Monica Gupta, V. Gayathri, Rachna Narula, Vijay Kumar, Surinder Kaur, Neetu Singh 333

57. Precision Disease Grading of Botrytis Cinerea in Kiwifruit Leaves Via CNNs and Logistic Regression
Suraj Thakur, Shubham, Dhruv Chona 339

58. Isolating Sink Hole Attacks in Wireless Sensor Networks Through Trust-Based Mechanism
Swedika Sharma, Puneet Kumar, Vishal Bharti 346

59. Design and Development of Share Price Prediction Framework Using Artificial Intelligence in Fusion with Financial News
Rahul Thakur, Jasneet Chawla, Harmanjeet Singh 352

60. AR Brain Dive: Revealing the Marvels of Neural Anatomy with Augmented Reality
Sanchit Vashisht 360

61. A Comprehensive Review on the Various Types of Solar Cookers
Kaustubh Bhende, Sahil Rakshe, Laksh Bahl, Aanchal Darodkar, Praful Nandankar 367

62. Exploring Bioethical Considerations in the Telemedicine: Ensuring Ethical Practices in Digital Healthcare
Gunawan Widjaja, Hotmaria H. Sijabat 373

63. Building a Robust Machine Translation System for Punjabi to English Using Deep Learning Approaches
Nisha, Megha Chhabra, Ali Imam Abidi, Sonia Setia, Ajay Maurya, Km. Anjli 377

64. Control and Analysis of UPQC for Power Quality Improvement in Renewable Energy Sources: Advancing Wireless Power Transfer and Energy Harvesting Technologies
S. Sudharani, D. Godwin Immanuel 383

65. Influence of Wireless Novel Routing Protocol by Using MDPC Algorithm
Ayad Hasan Adhab, Naseer Ali Hussien 389

66. Internet of Things (IoT) Applications Using Smart Materials and Sensor Technologies to Prevent COVID-19
Jampani Chanda Sekhar, P. Anitha Christy Angelin, R. Giri Prasad, Samson Ebenezar Uthirapathy, Prashant Agrawal, Trilok Suthar 395

67. Power Quality Enhancement of Solar Based Microgrids Using ML and AI
K. Paul Joshua, C. Vennila, Kurikyala Prasad Yadav, D. Kirubakaran, Vartika Kulshrestha, B.R. Praveen 399

68. Comprehensive Review on Fog Computing: Obstacles, Feature Traits, Limitations, and Potential Leverages on Application
Tiyas Sarkar, Manik Rakhra, Pritpal Singh, Prikshat Kumar Angra, Gagandeep Singh Cheema, Neeraj Mathur 404

69. Implementing IoT and Deep Learning-Based Educational Systems for Assessing Practical Learning with Cloud Computing Applications
Hardeo Kumar Thakur, Minal Bafna, Jagendra Singh, Usikela Naresh, Susmi Biswas, Saggurthi Kiran 411

70. A Fine-Tuned MobileNetV2 Deep Learning Model for Citrus Fruit Disease Classification
Gurpreet Singh, Kalpna Guleria, Shagun Sharma 418

71. Advanced Machine Learning Approaches to Combat Fake News in the Digital Era
Tejinder Kaur, Pradosh Kumar Gantayat, Swatismita Das, Madhusmita Majhi 424

72. Enhancing Product Management Through User-Centric Design: A Human-Computer Interaction Perspective
Chitra Krishan, Amrish Kumar Choubey, Ayush Thakur, Astha Gupta, Pranay Verma 428

73. Funds-Chain: Unlocking the True Potential of Crowdfunding Using Blockchain
B.V. Chowdary, Jayanth R. Pawar, AVSR Ashwin, Alugubelly Shivani, Anugu Akhil Reddy 434

74. Performance Analysis of CNN Model for Disease Prediction on Spark and Hadoop
Manvendra Singh, Shubham Khantwal, Sahil Rawat, Sumit Agarwal, S. Vats, V. Sharma 441

75. Performance Evaluation of K-Means Clustering Using MapReduce Programming Model
Akshita Semwal, Anirudh Purohit, Pallava Joshi, Manisha Basera, Vihan Singh Bhakuni, Manika Manwal 447

76. Leaf Disease Detection Using KNN
Ayush Baurai, Priyansha Rawat, Abhay Narayan Singh, Vihan Singh Bhakuni, Ayush, Manika Manwal 453

77. Real-Time Speed Estimation of Moving Vehicle Using YOLOv8
Kashish Sachdeva, Vivek Kumar Singh, Suryakant, Daksh Rawat, Manisha Aeri 459

78. Generating Images Using Vanilla Generative Adversarial Networks
Avantika Bisht, Khushi Rawat, Jai Prakash Bhati, S. Vats, V. Sharma, Sunny Singh 463

79. IoT Based Gas Pipeline Monitoring System
Mohit Singh Gosain, Nikhil Aggarwal 469

80. Intelligent Identification on State-Wise COVID-19 Infection in India
Pooja Anand, Chandani Sharma, Ghazala Ansari, Aarti Sharma, Lipsa Das, Nirmal Vatsyayan 477

81. Leveraging Machine Learning Algorithms for Threat Detection Using AI-Enhanced Cybersecurity Datasets
Atul Kumar, Kalpna Guleria 483

82. Analysis of Mortality Patterns and Forecasting Future Trends: Actuarial Statistical Approaches
P.M. Hrithik, Rakesh Malhan, Manik Rakhra, Rashmi Mathur, Richa Nandra, Rakhi Nagpal 489

83. An Optimized Approach for Goods Based Delivery Network in Metropolitan Cities
Avik Khanna, Shivam Singh Panwar, Avni Verma, Preeti Dubey 496

84. Potato Leaf Disease Detection and Classification Using Deep Learning Technique
Aditi Sharma, Vineeta Singh, Chandani Sharma, Ghazala Ansari, Santosh Kumar, Kapil Joshi 505

85. Forecasting the Unseen: The Role of Artificial Intelligence in Pandemic
Ritu Sachdeva, Ayush Kumar, Bhavya Behl, Harsh Vardhan Pratap Singh 510

86. Enhancing Rice Disease Prediction Through Pre-trained CNN Architectures
Pooja Rani, Rohit Lamba, Ravi Kumar Sachdeva, Anurag Jain, Neelam Singh, Tanupriya Choudhury 520

87. Deep Learning Image Classification Abiotic Plant Disease Detection Classification Using MobileNet
Ritu Aggarwal, Eshaan Aggarwal, Anurag Jain, Rajanikanth Aluvalu, Uma Maheswari, Tanupriya Choudhury 526

88. Examining the Impact of Artificial Intelligence Ethical Issues on Managerial Accounting Performance Metrics
J. Jayashankar 531

89. AI in Agriculture: Yield Optimization and Food Security
Lavanya Chavan, Rishikesh Kumbhalkar, Poorva Agrawal, Nitin Rakesh, R. Parvathi, Mohammad Shahid 536

90. Earthquake Prediction Through Machine Learning Approach
Pratik Shrote, Priya Dasarwar, Snehlata Dongre, Prashant Khobragade 542

91. Design and Development of Algorithmic Trading in Stock Market Using Artificial Intelligence
Vaibhav Verma, Kushagra Jangra, Jasneet Chawla, Harmanjeet Singh 547

92. Numerical Modeling of Two-Phase Filtration Process in Oil Reservoirs
Markhabo Shukurova, Asliddin Ne'matov, Iroda Kholmatova, Gulistan Artikbaeva 553

93. Optimizing Water Usage in Agriculture with Automated Drip Irrigation and Sensor Technology
Parul Dubey, Amit Kumar Shrivastava, Anil Band, Shraddha Raut, Priti Nilesh Bhagat, Ashwini Kukade 559

94. Analyzing Gym Members' Fitness Patterns: A Comprehensive Study of Demographics, Workouts, and Health Metrics
Shivani Gupta, Naina Chaudhary, Gurinder Singh, Pratap Paraji Patil, Sujit Prasad, Atul Kumar Srivastava 565

95. Optimizing AI-Driven Algorithms for Sustainable Supply Chains: Integrating IoT and Blockchain Technologies
Deepa Priyanshu, Abeer Rafi Alabdulraheem, Syed Mohamed Sadath, Najla Almuqbil 570

96. Automated Kidney Disease Detection Using Machine Learning and Computer Vision Basedon Radiology Image Analysis
Pardaev Shokhrukh, Danish Ather, Rahul Chauhan, Kireet Joshi, Gurinder Singh, Naina Chaudhary 575

97. Automatic Brain Tumor Classification and Detection from MRI Images Using CNN
Dishu Kushwaha, Saurabh Singh, Vihan Singh Bhakuni, Khushi Sharma, Purushottam Das, Manisha Aeri 581

98. Scientometric Analysis and Implementation of Word Embedding Techniques in Natural Language Processing
Vikas Attri, Ankush Kapoor, Simranjeet Singh, Payal Sharma 585

99. An Automated Water Resource Management System
Atish Kumar Shah, Prakash Navin, Saurav Suman, Bikram Mahato, Nikhil Aggarwal 591

100. Estimation of Life Table Values Using Mortality Models: A Case Study of the Indian Population
Manik Rakhra, Rakesh Kumar, Sonia Suri, Avneet Kaur Chahal, Gagandeep Singh Cheema 597

101. An Intelligent Learning Approach to Case Analysis for Predicting Legal Outcomes Using Random Forest and K-Nearest Neighbors
Puneet Bafna, Hardeo Kumar Thakur, Jagendra Singh, Jannam Sadana, M. Muhsen Hassan, M. Sree Vani 602

102. Utilizing VGG19 and ResNet50 Neural Network Models for Comprehensive Intelligent Learning and Analysis of Legal Precedents and Texts
Anubhav Mathur, Jagendra Singh, P. Sudheer, Rakesh Kancharla, Mohammed H. Al-Farouni, Priyanka 608

103. Utilizing PTB XL+ Dataset for Advanced Cardiac Disease Prediction with Deep Neural Networks
Tanishq Soni, Deepali Gupta, Mudita Uppal 614

104. Design and Development of DenseNet Transfer Learning Model for Image Classification
Vikas Attri, Ankush Kapoor, Simranjeet Singh, Payal Sharma 619

105. A Comparative Analysis of Decision Trees, Random Forests, and XGBoost for Enhanced Crop Recommendation
Tanishq Soni, Gifty Gupta, Monica Dutta 626

106. Enhancing Wireless Intrusion Detection Systems with the All-Ready State Traversal Pattern Matching (ARSTPM) Algorithm
Ch. Ravikumar, Burri Naresh, BNV Madhu Babu, Tedla Bhavani, Ashlesha Kolakar, Anjum Nabi Sheikh 631

107. Guarding Against IoT Threats: An Analysis of Intrusion Detection with the Kitsune Attack Dataset
Anshika Sharma, Himanshi Babbar 637

108. Enhancement of CIGS-Based Solar Cell Performance Through Acceptor Density Optimization: A SCAPS-1D Simulation Study
Savita Rawat, Jaya Madan, Aniket Verma 642

109. Tactical Training Using Augmented Reality/ Virtual Reality and Haptics
Sanchit Vashisht 646

110. Advances in Skin Cancer Detection: CNNs and Deep Learning Strategies
Shanvi Chauhan 652

111. Agricultural Innovation: Leveraging DenseNet-121 for Superior Paddy Disease Management
Ruchika Bhuria 657

112. Utilizing the U-Net Network for Segmenting the Left Ventricle from Cine-MRI Scans
Sonal Malhotra, Siddhant Thapliyal, Priyanshi Aggarwal, Mukesh Kumar 662

113. Predicting Stress, Anxiety, and Depression: A Multi-Modal Approach
Navneet Kaur, Prashant Ahlawat 669

114. Kinematic and Kinetic Analysis to Improve the Overall Fitness of Wrestlers
Kudratjon Zohirov, Golib Berdiev, Sardor Boykobilov, Gulmira Pardayeva, Muzaffar Ochilov 676

115. Optimizing Lyme Bacterial Disease Identification with Fine-Tuned EfficientnetB0 Model
Gunjan Shandilya, Vatsala Anand 682

116. Data-Driven Insights: Leveraging Analytics for Predictive Modeling in Finance
Mitali Purwar, Upasana Deka, Himadri Raj, Ritu 687

117. Harnessing Data Analytics for Enhanced Decision-Making in Business Operations
Ajatray Swagat Bhuyan, Savita Gehlawat, Aarti Pardeshi, Gauri Chetan Deshpande, Ritu 694

118. Machine Learning and Deep Learning Techniques for Detection of Rheumatoid Arthritis: A Comprehensive Survey
Mohammad Shanavaz, K. Sai Kishore, G. Charan Sree Manikanta, M. Gnanaprasoona, R. Karthikeyan, M.A. Jabbar 700

119. Smart Contracts Student Services for Automating and Streamlining Using Block Chain
Tanveer Baig Z, G. Prakash Babu, Umme Sania, Thaseen Sultana, Naina Chaudhary, Rajneesh Kler 706

120. Infusing Emotion in Text to Speech Model
Yared Alemayehu, Rupesh Kumar Yadav, Abdul Rahman Mohammed, Sudip Thapa, Shweta Chauhan 712

121. Deciphering Shadows of the Mind: Leveraging Random Forest to Unravel Anxiety and Depression from Online Posts
Anmol Rattan Singh, Gurjinder Singh, Nitin Saluja, Lovish Bansal 717

122. Data Storage in Manual Systems that Challenges in Cloud & Fog Computing-Based Systems Which Are Affecting the Online Data-Oriented Application Architecture
Pradeep Kumar, Rajeev Kumar, Madhurendra Kumar 723

123. SmartCare Baby: Revolutionizing Infant Safety and Comfort with the Smart Auto-Cleaning Cradle System
Srishti Gupta, Ankit Aggarwal, Narendra Khatri 728

124. AI Approach for Oncology Using Mono-Cultured HGB Data From Various Methods
Tanya Singh, Divya Talole, Nakshatra Sawarkar, Monali Gulhane, Nitin Rakesh, Pratik Agrawal 734

125. Integrated Machine Learning Approach to Phishing Detection: Comparing SVM, Random Forest, and XGBoost Models
Preet Singh, Taniya Hasija, K.R. Ramkumar 739

126. A Bio-Inspired Optimal Short Pulse Generation in 1.2µm Optically Pumped Micro Disk Lasers for Medical Applications
P. Ashok, C. Rimmya, M. Ganesh Madhan 745

127. Implementation of Particle Swarm Optimization Algorithm Inspired by the Social Behaviour of Birds
Neha Tyagi, Deepshikha Bhargava, Anil Ahlawat 750

128. Optimizing Nutrient Combinations by Differential Evolution Algorithm: A Computational Approach to Dietary Planning
Deepshikha Bhargava, Neha Tyagi, Amitabh Bhargava 755

129. Enhancing Early Childhood Development: A Critical Review of Tracker Applications and the Path Forward for Global and Culturally Sensitive Innovations
Rajan Prasad Tripathi, Azamova Nilufar Abdullaevna 761

130. A Machine Learning Algorithm to Assist People with Speaking Disabilities for Sign Language Detection of People Speaking Uzbek Language
Muzaffar Sabitjanov, Xojikbar Avazov, Shakhrizoda Isomitdinova, Atul Kumar Srivastava 768

131. Advanced Applications of Machine Learning Techniques in FOITS
Dilmurod Davronbekov, Nafisa Juraeva, Asilbek Boboev 773

132. Harvesting Insights: Transforming Wheat Crop Health Through CNNs and Transfer Learning
Parul Dubey, Pushkar Dubey, Sapana Singh Kshatri, Krupali Dhawale, Madhu Sahu, Rahul Vinayak Bambodkar 779

133. Advanced Poultry Disease Detection with Deep Convolutional Neural Networks
Helen K. Joy, N. Sandhyana, Manjunath R. Kounte 786

134. Assessing Social Media's Impact on Mental Health: A Gaussian Naive Bayes Approach
S. Nanditha, Helen K. Joy, Manjunath R. Kounte, R. Sridevi, A. Electa Alice Jayarani, D. Vanusha 791

135. IoT-Enabled WBAN and Machine Learning for Emotion Recognition
Hritesh Mathur, Harsh Panwar, Rahul Karki, Vivek Jangra, Ramnaresh Yadav, Anjali Kapoor 798

136. Optimizing Cloud-Based IoT Architectures with an Energy-Sensitive Load Balancing Algorithm for Enhanced Resource Utilization and Network Efficiency
Ch. Ravikumar, K. Raghavendar, Kalvog Prakasha Chary, K. Naresh, G. Venkata Rami Reddy, D. Sravan Kumar 803

137. Fake News Detection Using Machine Learning
Abhinav Dubey, Arvind Lovewanshi, Namrata Dhanda 809

138. Music Recommendation System Using Python
Mihir Kumar Ranjan, Manikant Thakur, Aman Sharma, Namrata Dhanda 815

139. Comparative Analysis of Consumer Sentiments Using NLP and Pre-Trained Transformer-Based Models
Sahil Thakur, Saloni Mahadule, Shreya Chaple, Poorva Agrawal, Sagarkumar S. Badhiye, Nitin Rakesh 821

140. Model and Numerical Algorithm for Analysis and Prediction of Fluid Distribution in a Porous Medium
Normakhmat Ravshanov, Iroda Kholmatova, Markhabo Shukurova, Asliddin Ne'matov 827

141. Unveiling Effectiveness: Advanced Vehicle Tracking and Detection Systems in Action
Manisha Aeri, Kamlesh C. Purohit 835

142. Revolutionizing Agriculture: Innovations in Transparency, Traceability, and Quality Assessment
K. Amrutha, Lena Geo, Manas Khanna, Pranav Srinivasan 844

143. Advanced Hacker Forum Use Collection and Classification Methods for Preventive Cyber Threat Intelligence
Jaspreet Kaur, Prabhdeep Singh, Amit Kumar 850

144. Development of Software, a Single-dimensional Model for Blood Vessels
Nazirova Elmira, Dilafruz Nurjabova 856

145. A Numerical Approach to a Parabolic Equation: The Finite-Difference Method for Blood Vessels
Elmira Nazirova, Dilafruz Nurjabova, Shikhnazar Ismailov 863

146. Comparative Analysis of Machine Learning Models for Medical Drug Classification
Shilpa Choudhary, R. Srilakshmi, Sandeep Kumar, Monali Gulhane, Nitin Rakesh 869

147. Cybersecurity Risks and Countermeasures in the Threat Landscape of IoT Devices
Krishna Nand Patel, P. Ashok, Abhijit Chirputkar, Samaya Pillai 875

148. Enhancing Air Quality Monitoring with Machine Learning: Case Study in Delhi and Gurugram
Deepika Pantola, Ranjana Sharma, Pratik Dwivedi, Manishit Singh, Anant Teotia 884

149. Navigating the Future: Innovations in Lane Line Recognition Systems
Shreyash Rodge, Parth Satokar, Sadaf Farooqui, Aman Agrawal, Poorva Agrawal, Nitin Rakesh 890

150. Supervise Machine Learning Interface to Predict Physical Properties of Binary Solutions
Poorva Agrawal, Asita Ganatra, Shrishti Prasad, Prakriti Kumari, Rupali Atul Mahajan, Pradnya Mehta 897

151. Unveiling Voices: Empowering Accessibility Through YouTube Transcripts
Nupur Kirwai, Sharvit Kashikar, Aaradhya Bali, Sagarkumar S. Badhiye, Pradnya Borkar, Kamlesh Waghmare 903

152. Blockchain Security for NB-IoT in Food Supply Chain Logistics
Damanpreet Kaur, Prabhdeep Singh, Amit Kumar 908

153. IoT-Integrated Door Sensor Solution for Enhancing Smart Home Security
Ishwari Kakade, Renuka Wadetwar, Kritika Nimje, Sagarkumar S. Badhiye, Pradnya Borkar, Snehal Shinde 913

154. Enhanced Diabetes Prediction Through Advanced Machine Learning Techniques
Devyani Balki, Arushi Shivhare, Sanskruti Nerkar, Monali Gulhane, Nitin Rakesh, Pratik Agrawal 918

155. Leveraging Machine Learning Techniques for Predictive Maintenance and Fault Detection in Industrial Systems
Gautam Sukhani, Monali Gulhane, Nitin Rakesh, Sudhanshu Maurya, Shilpa Choudhary, Senam Pandey 923

156. Digital Video Forensics: Review, Challenges, Parameters and Future Direction
Gurvinder Singh, Raj Gaurang Tiwari, Ambuj Kumar Agarwal, Himani Maheshwari 929

157. Object Shape Classification Using 4x4 Ultrasonic Sensor Array
Sambhav Jain, Kuldeep Singh, Qasim Murtaza 935

158. Prediction and Comparative Analysis of the Stress Level of Humans by Using the Machine Learning Algorithms
C. Sivaraj, J. Angeljulie, D. Hemamalini, Vikram Neerugatti, Narayan Panchal, T.R. Mahesh 942

159. Enhancing Military Training Through Augmented and Virtual Reality Systems
Ayush Deepak Bhange, Sagarkumar S. Badhiye, Rajat Amardeep Kamble, Pradnya Borkar, Kapil Gupta, Aakansha Thakur 948

160. Technological Solutions for Mitigating Air Pollution from E-Waste: A Brief Overview
Ankita Tiwari, N. Ramesh Babu, Nitin Rakesh, Mandeep Kumar, N. Mohankumar 954

161. Economic Impact of Virtual Reality Adoption in the Tourism Sector: A Case Study of Uzbekistan
Shalki Manhas, Mohammad Shoaib Khan, Omar Abdullah, Naina Chaudhary, Otabek Khasanov, Ulugbek Torejanov 960

162. Enhancing Organizational Efficiency and User Experience Through Optimized Human-Computer Interface Design
Ravinder Kaur, Hardeep Kaur, Gaurav Jangra, Raman Kumar 965

163. Automatic Early Detection of Tomato Blight Disease using Deep Neural Networks
Anangsha Halder, Subhrendu Guha Neogi, Shibdas Dutta, Soumallya Chandra Chandra, Pritha Guha Majumdar, Akash Sarkar 969

164. Deep Learning-Based Identification of Strawberry Leaf Diseases with LeNet Architecture
Tanishq Soni 978

165. Deep Learning Transformations in Healthcare: Emphasizing Lung Cancer Diagnosis and Prognosis
K. Venkatesh Sharma, P. Vasanth Sena, Satyanarayana Nimmala, Sagar Mekala, Ratnam Dodda, J. Manoranjini 983

166. Efficient Rice Grain Classification Using MobileNetV2: A Deep Learning Approach
Vishnu Kant 989

167. Predicting Chronic Kidney Disease and Coronary Heart Disease Risks in NIDDM Patients Using CNN-Adam: A Deep Learning Approach
Prashant Verma, Bharat Bhusan Agarwal, Namit Gupta 994

168. Automatic Controlled Robotic Car Based on Node MCU for Real-Time Obstacle and Explosive Detection
Krishan Dutt, Alok Misra, Raj Gaurang Tiwari, Ravinder Singh, Mohit Mishra, Amninder Kaur 1001

169. Impact of E-Waste on Pregnant Lady, Newborn Baby, and Fetus
Ankita Tiwari, N. Ramesh Babu, Nitin Rakesh, Mandeep Kumar, Jagjit Singh Dhattarwal, Abhishek Bhola 1006

170. Blockchain Framework for Secure Patient Data Management
Ankeet Giri, Ramandeep Sandhu, Manik Rakhra, Gagandeep Singh Cheema 1012

171. Biometric Verification Using Blockchain and Quantum Computing
Ishita Sawhney, Saurabh Kumar Singh, Shilpi Sharma 1019

172. Revolutionizing Bladder Cancer Detection: Harnessing Advanced AI-Driven Learning Techniques for Enhanced Early Diagnosis and Effective Treatment Strategies
Gurpreet Singh Panesar, Aman Kaushik, Ajay Goel 1027

173. Advancements in Heart Disease Detection: Integrating Machine Learning Algorithms and Clinical Insights
Sagar Sharma, Ramandeep Sandhu, Manik Rakhra 1036

174. A Medical Diagnostic System for Chronic Kidney Disease by Using Fuzzy Logic
Dalwinder Singh, Janpreet Singh 1043

175. An Overview of Artificial Intelligence Diagnostic Systems for Hepatitis B Virus
Dalwinder Singh, Harjeet Kaur 1047

176. A Review on the Role of Deep Learning for Brain Tumor Detection and Classification
Priyanka Gupta, Ramandeep Sandhu 1051

177. Challenges in Mobile Network Capacity Monitoring & Solutions to Improve Capacity Problems Using Various Parameters
Vikas Gupta, Ashish Kumar Chakraverti, Manoj Kumar 1056

178. Potential of Deep Learning Technique to Enhance the Accuracy of ECG Heartbeats Arrhythmia Time Series
Gurpreet Singh, Kumari Simran, Rajni Goel 1062

179. Predicting Air Quality in India Using Machine Learning Models
Swati Gupta, Himanshu Kumar, Meenu Vijarania, Anjali Gautam, Neerja Negi, Priyanka Dadhich 1067

180. Evaluating Economic Policies: Anticipating GDP Trends and Government Spending
N. Ria, Yashika Gupta, Vanshika Saxena, Shagun Begwani, Meenu Vijarania, Swati Gupta 1071

181. Improving Emergency Medical Services: Using AI and Image Preprocessing to Track and Detect Ambulances
Vithika Shrouty, Poorva Agrawal, Gagandeep Kaur, Latika Pinjarkar, Sanjeev Kumar Pippal, Nitin Rakesh 1077

182. EEG-Based Mental Workload Estimation Using Bidirectional LSTM
Suvarna Sharma, Rashmi Gupta, Jeetendra Kumar, Dharmendra Dangi 1082

183. Automation in Pet Care: An IoT Approach to Smart Pet Feeding Systems
V. Sujatha, Ramachandra Ediga, S. Nusrat Yasmeen, K.K. Baseer, S. Vijayanand, Vikram Neerugatti 1087

184. Green Energy Solutions: Wireless Solar Charging Stations and EVs
C. Maddilety, Khaleel Shaik, S. Rumana Firdose, K.K. Baseer, S. Vijayanand, Vikram Neerugatti 1092

185. Unplugged Solution of Wireless Charging Stations on Electric Vehicle Adoption
T.R. Mahesh, Ravindra Raman Cholla, Vikram Neerugatti, K. Geetha Rani, S. Vijayanand, D. Somashekhara Reddy 1097

186. Advancing Green Communication: Energy-Efficient Lightweight RSA Implementation on FPGA Platforms
Shishir Shrivastava, Amanpreet Kaur, Gurdeep Singh 1102

187. Strengthening Cloud Security: Exploration of Authentication Frameworks in Cloud Computing Environment
Ashtha Goyal, Priya Matta, Sudhanshu Maurya, Yogesh Lohumi, Nilesh Shelke 1107

188. Using the TUG Test in Implementing Gait Analysis of Different Types of Wrestlers
Kudratjon Zohirov, Golib Berdiev, Sardor Boykobilov, Khojiakbar Egamberdiev, Gulmira Pardayeva 1113

189. Analysing Crop Health Using AI and UAV Technology
Yash Pallav Pathak, Khushboo Mehta, Ankit Gambhir, Neha Jain, Rachana Sharma 1121

190. Evaluating Usability and Efficiency in Speech Recognition-Enabled Chatbots
Saroj Kumar Gupta, Abhilasha Jadhav, Jasgurpreet Singh Chohan, Shashank Pareek, Shivani Pant, Ahmed Alkhayyat 1125

191. Enhancing Liver Cancer Diagnosis Through Advanced Image Processing Techniques: A CNN and Logistic Regression Approach
R. Srilakshmi, Shilpa Choudhary, Kamma Vidya, Sandeep Kumar, Monali Gulhane 1131

192. Manufacture and Registration of Products in Healthcare Supply Chain using NFTs
S Sanjib Kumar, Karan Singh, Aadya Bubber 1136

193. Evaluating Educational Commentaries: Sentiment Analysis for Student Testimonials Using Machine Learning
Tushar Kasana, Baljinder Kaur, Manik Rakhra 1142

194. Non-Invasive Skin Disease Diagnostic System Using Deep Learning
Vivek Tomar, Kamlesh Singh Bisht, Ayush Panwar, Reetesh Kumar Dimri, Mayank Singh Negi, Swati Sharma 1148

195. Predictive Cardiovascular Risk Modeling Using Machine Learning Techniques
Himani Maheshwari, Dharminder Yadav, Umesh Chandra, Abhishek Kaleroun, Ashulekha Gupta 1153

196. Smart Tourism-Leveraging Technological Advancements in AI and Machine Learning for Enhanced Hospitality Services
Omar Abdullah, Mohammad Shoaib Khan, Shalki, Akshita Tiwari, Shilpi, Shikha 1160

197. AI and Machine Learning Applications in Tourism: An Empirical Model-Based Research
Mohammad Shoaib Khan, Shalki, Omar Abdullah, Shilpi, Anant Kumar Verma, Shikha Designation 1167

198. Comparative Analysis of Different Classifiers on Fusion of Sentinel Datasets for Agriculture Land
Narayan Vyas, Ganesh Kumar Sethi, Sartajvir Singh 1173

199. YOLOv8-Based Deep Learning Model for Improved Drone Intrusion Detection
Mohini Darji, Khushi Patel, Bansari Patel, Krishna Thakkar, Mehul Minat, Meet K. Patel 1178

200. Heap-based Optimization with Corporate Rank Hierarchy for Enhanced Cluster Head Selection in IoT-Enabled Wireless Sensor Networks
Bandi Rambabu, S. Anupkant, M. Archana, V.N.V.L.S. Swathi, A. Mallareddy, Satyanarayana Nimmala 1185

201. Real-Time AI Driven Shooting Posture Assessment and Correction for Professional and Military Training Using Machine Learning, OpenCV, and MediaPipe
Dhairya Sarswat 1192

202. Time Based Image Synthesis: Light and Color Conversion Using Machine Learning Techniques
Jyoti Ranjan Labh, R.K. Dwivedi 1199

203. Banana Fruit Ripeness Assessment with Transfer Learning Models to Achieve Sustainable Quality
Vinay Gautam, Raj Gaurang Tiwari, Ambuj Kumar Agarwal, Himani Maheshwari, Naresh Kumar Trivedi 1209

204. Gradient Boosting Feature Selection with Machine Learning Classifier for Prediction of Intrusion Image
Shakshi, Rachna Kulhare 1214

205. A Novel Method for the Precise Determination of Mango Ripeness Level: Multi-Layer Visual Feature Fusion
Raj Gaurang Tiwari, Ambuj Kumar Agarwal, Himani Maheshwari, Neema Gupta 1220

206. Algorithm for Determining the Interval of Arrival of Packets in a Multi-Service Network Based on Neuro-Fuzzy Technology
Gulrukh Sherboboyeva 1225

207. Advanced Architectures and Management Strategies for Energy Efficiency in IoT Systems
Anupam Singh, Remya P. George, Nazia Ahmad, Sajithunisa Hussain, Rubina Liyakat Khan, Suhail Javed Quraishi 1231

208. Comparative Study of Communication Protocols for Vehicle-Based Networks
Remya P. George, Nazia Ahmad, Sajithunisa Hussain, Rubina Liyakat Khan, Suhail Javed Quraishi, Anupam Singh 1236

209. Analysis of Book User Ratings and Publication Trends in the Publication Industry Using ML Models
Suhail Javed Quraishi, Anupam Singh, Remya P. George, Nazia Ahmad, Sajithunisa Hussain, Rubina Liyakat Khan 1240

210. Fuzzy Computing Testing and Study Hydroponic Dosing Systems for Rural Indian Subsistence Farmers Using AI and IoT
H. Aditya Pai, N.T. Jyothi, J.V. Muruga Lal Jeyan, Chandrappa, Prithviraj Jain, M. Arvindhan 1245

211. Transforming NFT Experiences: Secure, Engaging, and User-Friendly Platforms
Satya Siddhartha Balanagu, Sreenath G., Shruthi R., Guruprasad S.P., Manjunath R. Kounte 1250

212. A Hybrid Machine Learning Technique based Prediction of Blood Pressure
Rajesh Kumar, Minal Saxena 1256

213. Using Text Vectorization to Analyze Students' Answers Formulated in Different Languages
Chulpan Minnegalieva 1262

214. Android Malware Detection Using Multi-Layer Perceptron Approach for Cybersecurity
Vashnvi Sharma, Damodar Tiwari, Shital Gupta, Twinlkle Sharma 1267

215. Machine Learning Based Prediction of Malicious Intrusions in IoT Empowered Cybersecurity Application
Yatharth Upadhyay, Damodar Tiwari, Shital Gupta, Twinlkle Sharma 1271

216. An Efficient Deep Learning Technique for Emotion Detection Using EEG Signal
Aishwarya Vishwakarma, Vikas Sakalle 1275

217. Precision Agriculture: A Machine Learning Approach to Crop Recommendation
Rohit Lamba, Piyush Chauhan, Pooja Rani, Ravi Kumar Sachdeva, Anurag Jain, Tanupriya Choudhury 1281

218. Leveraging Geographic Information Systems and Remote Sensing for Enhanced Water Resource Management in Kazakhstan
Mohamed Ahmed Hamada, Orden Tolkyn, Gehad M. Hamada 1287

219. Complete Data Using Exploratory Data Analysis and ML Algorithms
Sudhanshu Tripathi, Leena Singh, Jaisurya Sermanraja 1293

220. Optimizing AI-Driven Efficient Communication and Pioneering 6G Network Architecture
Nittu Goutham, Karan Singh, Manisha Manjul 1297

221. Hybrid Image Encryption for IoT Applications: Integrating Cellular Automata and Henon Map to Improve Security and Performance
Biswarup Yogi, Ajoy Kumar Khan, Satyabrata Roy 1303

222. Tomato Leaf Disease Detection Using TensorFlow and Keras Libraries
Rishabh Kushwaha, Vishal Jain 1310

223. Modeling and Analysis of the Kinetics of the Pyrolysis Process of Biomass with Influence Raw Material Composition on Comsol Multiphysics
Mamatkulova Sayyora Gulyamovna, Uzakov Gulom Norboyevich, Qodirov Farrux Ergash Ug'li, Ulasheva Shaxlo Tagayevna 1315

224. Modelling and Simulation of Traffic Dynamics in Almaty City
Ayala Amir 1319

225. DepInferAttack: Framework for Membership Inference Attack in Depression Dataset
Akash Shah, Sapna Varshney, Monica Mehrotra 1326

226. Enhancing Bird Species Identification Using a Custom CNN Architecture
Sachin Kumar, Pronaya Bhattacharya, Krishna Kumar, Satyabrata Roy, Gaurav Aggarwal 1333

227. Ultrasound Beamforming: Exploring Cloud-Native and Edge Computing Solution
Hamza Hadri, Abderahhim Fail, Mohamed Sadik, Amine Essaken 1339

228. Upscaling Images Resolution Using Generative Adversarial Networks
Syed Abbas Khadar Ali, Madan Lal Saini, Edupalli Greeshmanth Kumar, Beeram Bhanu Teja 1344

229. Robotic Grasping Dynamics: Modelling and Simulation in Simulink with Simscape Multibody
Shubham Bhattacharyya, Nirmalya Chakraborty, Budhaditya Bhattacharyya 1350

230. A Comprehensive Analysis of Obstacles to Wearable Technology Adoption in Healthcare
Khushboo Pandey, Purushottam Sharma 1356

231. Deep Learning Based Monkeypox Virus Detection Model Using Skin Lesion Images
Ranjana Dhiman, Uttam Kumar Giri, Ashwani Kumar, Ramamani Tripathy, Ashok Kumar Sahoo, Pradeepta Kumar Sarangi 1362

232. Remote Monitoring of Low Voltage OPL with Power Theft and Fault Detection Using WSN
A.F. Khayrullaev 1367

233. Role of Capsule Network in Brain Tumor Prediction: A Novel Approach
Mamta Sharma, Sunita Beniwal 1373

234. Generating Realistic Images Through GAN
Divya Gupta, Madan Lal Saini, Srujan Prabhu Kumar Mygapula, Sneha Maji, Vanam Prabhas 1378

235. Advancements in Brain Tumor Detection Using Hybrid Deep Learning Models
Kirti Rattan, Gaurav Bathla, Vikas Wasson 1383

236. LULC Classification of Sentinel-2 Satellite Image Using Random Forest Algorithm in Google Earth Engine
Navneet Kaur, Rishi Prakash, Manoj Diwakar 1390

237. Using Machine Learning to Analyze Voice Disorders for Parkinson's Disease Detection
Uttam Kumar Giri, Nidhi Goel, Poluru Sabitha, Ashok Kumar Sahoo, Ramamani Tripathy, Pradeepta Kumar Sarangi 1395

238. Extensive Analysis of Deep Learning Algorithms for Automatic Detection of Liver Anomalies Using MRI and CT Scanned Images
Sugandha Chakraverti, Smita Sharma, Vijay Shukla 1402

239. Real-Time Railway Track Fault Detection and Environmental Monitoring System Using Arduino and GSM
Indusree Devulapalli, Aasritha Varshini Vennelakanti, Ramya Sallakunta 1410

240. Blockchain Solutions for Decentralized Supply Chain Management: Challenges and Innovations
Ayush Gupta, Ambuj Kumar Agarwal 1416

241. Real-Time Stock Market Forecasting: A Deep Learning Approach
Sahastranshu Sinha, Meenakshi Srivastava, S.K. Singh, Brig U.K. Chopra 1424

242. A Fusion of LightGBM, PLSRegression, and ElasticNet Regressors in Advanced Ensemble Stacking for Empowering Predictive Modeling
Sanjay Kumar, Meenakshi Srivastava, Vijay Prakash, Sardar M.N. Islam 1432

243. Comprehensive Analysis on Image Search Engines
Murari Kumar Singh, Ashish Chakraverti, Shiva Gupta 1438

244. Dynamic Traffic Signal Optimization Utilizing Real-Time Lane Analysis with YOLO Framework
Naman Chauhan, Aman Kumar, Sindhu Ravindran, Fizza Ghulam Nabi 1443

245. Enhancing Movie Recommendations: A Content Based Approach Using TF-IDF Weighted Word2Vec and Cosine Similarity
Mayura Chibb, Priyanka Vashisht, Anvesha Katti, Ashima Nrang 1449

246. AquaRescue: Intelligent Drowning Detection and Swift Rescue System Using Integrated Approach
Rakshitha, P. Sowmya, Rashmitha Shettigar, N. Nishanth, Durgaprasad, Dhanush Kumar 1455

247. Advancements in Deep Learning for Early Detection and Diagnosis Across Multiple Disease Domains
Danish Ather, Ibrohimbek Yusupov, Sonia Duggal, Raj Kumar, Pinki Sagar, Vishal Jain 1460

248. Efficient Vision Transformers for Edge Devices: Pruning and Quantization Approaches
Shashank Pareek, Ahmed Saleh Al-Samalek, Ahmed Alkhayyat, Sandeep Singh, Amrita Singh, Shivakrishna Dasi 1465

249. UniExplorer: Revolutionizing the College Experience Through Comprehensive Opportunity Management
Rahil Parikh, Himanshu Nimonkar, Aditya Ved, Om Ghadia, Ashwini Dalvi, Irfan Siddavatam 1472

250. Optimizing Performance in Heterogeneous Wireless Networks: Insights from Adhoc and Sensor Technologies
Shashank Pareek, Ahmed Saleh Al-Samalek, Sandeep Singh, Mohammed Al-Farouni, Sharanpreet Kaur, Jayant Jagtap 1477

251. PATANLS: Performance Analysis of Trust-Aware Node Localization in WSNs
Yogendra Mohan, Rajesh Kumar Yadav, Manisha Manjul 1483

252. Comparative Analysis of Naïve Bayes, Nearest Neighbor, and Logistic Regression Classifiers for the Prediction of Diabetes
Abeda Begum Mahammad, Rajeev Kumar, Rajesh Kumar Singh 1492

253. Perinatal Mental Detection With Chatbots Using Machine Learning
Prabhjot Kaur, Rinku Sharma, Mandeep Singh 1498

254. Tomato Leaf Disease Detection Using CNN Models
Ahmad Ahmad Garba, Vihsal Jain, Kanika Singla 1504

255. Analysing & Exploring the Transforming Diverse Landscape of Artificial Intelligence in M-commerce in India: A Study of its Sub-divides, Privacy Shield and Regulations
Jiya Bhandari, Raziya Ansari, Piyush Chauhan, Shipra Agarwal, Malika Pahwa, Tanupriya Choudhury 1508

256. Line Follower Car Across Various Terrains: Impact of Sensors and Motor Speed
Upma Jain, Robin Singh, Tushar, Keshav Mishra, Vipashi Kansal, Meenakshi Maindola 1515

257. Analysing the Impact of AI Integration on India's E-commerce Giants: A Comparative Study of National Expansion of Amazon India, Flipkart, and Snapdeal
Shrishti Agarwal, Piyush Chauhan, Shipra Agarwal, Arun Pratap Singh Rathore, Tanupriya Choudhury, Abhilasha Mishra 1520

258. MRpoxNet: A Hybrid Approach for Monkeypox Disease Detection Based on Deep Learning
Vandana, Chetna Sharma 1528

259. Exploring Usage of Artificial Intelligence and Machine Learning to Simplify Learning about Wine and Food Pairing for Hospitality Students
Ankit Gupta, Malini Singh, Kshitiz Sharma 1537

260. Enhancing Data Center Efficiency with Docker & Kubernetes: Industry 4.0 Container-as-a-Service (CAAS) for IoE Cloud Technology
R.J.S. Jeba Kumar, J. Roopa Jaya Singh, K. Martin Sagayam, Ravinder Kumar, Pronaya Bhattacharya, Gaurav Aggarwal 1545

261. Computational Error of Circle Dynamics
A. Dzhalilov, A. Aliyev, A. Jalilov, G. Poshakhodjaeva 1552

262. A Rubric-Centric Approach for Automated Test Correction Utilizing RAG and Fine Tuning
G. Harshavardhan, Kulvinder Singh 1558

263. Brownian-Distribution Algorithm Optimized EfficientNet Features for Normal/ Glaucoma Retinal Fundus Image Classification
Venkatesan Rajinikanth, Robertas Damaševičius, David Taniar 1566

264. Femoropopliteal Artery Stent Detection in Fluoroscopy using Otsu's Preprocessing and CNN Segmentation
Venkatesan Rajinikanth, Robertas Damaševičius, David Taniar 1571

265. Monkeypox Detection with Deep-Learning and Ensemble of Features: A Study
Venkatesan Rajinikanth, David Taniar, Robertas Damaševičius 1575

266. Application of Machine Learning Algorithms on Temporal Data for Vegetation Indices in Crop Classification
Vineet Saxena, Rakesh Kumar Dwivedi, Anil Kumar 1579

267. Decoding Heart Health: A Predictive Model for Demographic-Based Cardiovascular Risk
P. Uma Mageswari, Annakumari R., Kavitha S., Swati Sah, Gaurav Kumar 1584

268. Cross-domain Knowledge Adaptation Using Iterative Scaling and Language Model
Rahul Kumar Singh, Puneet Sinha, Agampreet Saini, Manoj Kumar Sachan 1592

269. Analyzing Anomaly Detection Techniques in Privacy-Aware IoT-Based Smart Farming
Anjali Singh, Preeti Kaur 1598

270. A Low-Cost Automatic Free Space Optical Link Alignment System
Shreya Sinha, Aadarsh Kumar, Ankur Saharia, Manish Tiwari 1603

271. Deep Learning for Robust Plant Leaf Disease Classification with Convolutional Neural Network
Maibam Naresh Singh, Abhishek Kumar, Paurav Goel 1606

272. Unifinder: A University Recommender System Enabled with EDAS–A Multi-Criteria Decision Making Model
Mukhammadjon Mamadiev, Kayathri Devi Devprasad, Naina Chaudhary, S.S. Akilan, Pratap Paraji Patil, Manik Arora 1616

273. Automated Multiclass Classification of Lung Diseases with Deep Learning: A Hybrid CNN-LSTM Approach
Sapna Yadav, Pankaj Agarwal, Syed Afzal Murtaza Rizvi 1622

274. A Photonic Crystal Fiber Based Pseudomonas Aeruginosa Bacteria Sensor
Akshat Agrawal, Piyush Shrivastava, Shweta Mittal, Ankur Saharia, Ghanshyam Singh, Manish Tiwari 1628

275. Photonic Crystal Fiber Based SPR Sensor for Prohibited Drug Sensing
Piyush Shrivastava, Akshat Agrawal, Shweta Mittal, Ankur Saharia, Ghanshyam Singh, Manish Tiwari 1632

276. Grid Based Pair Authentication with Improved Security
Afrah Nazir, Sadaf Sagheer, Hishma Naaz, Zainab Israr Ansari, Muneeb Hasan Khan, M. Sarosh Umar 1636

277. Improving Credit Card Fraud Detection Through Stacking Ensemble Models and SMOTE-ENN for Imbalanced Datasets
Jyoti, Chirag Jindal, Naman Singh, Akhil Saini 1642

278. Computer Vision and AI, with Immersive Technologies in Education and Training: A Bibliometric Analysis
Riya Manchanda, Jitendra Sharma, Naresh Kumar, Gaurav Aggarwal 1650

279. Robotic Recyclables Segregation System Using TinyML
Aafil Shaikh, Linard Fernandes, Mckenzie Cardozo, Neil Rodrigues, Shailendra Aswale, Sufola Das Chagas Silva E Araujo 1658

280. Automatic Classification of Healthy/AMD Class Retinal OCT Images with Deep-Learning: A Study
Sivakumar Rajendran 1664

281. Active Face Liveness Detection Using Mediapipe
Abduqayum Rasulmuhamedov, Kayathri Devi Devprasad, Gaurav Aggarwal, Naina Chaudhary, Shivani Gupta, Sujit Prasad 1668

282. Leveraging Machine Learning for Classification of Rheumatoid Arthritis: A Comparative Analysis of Classifier Performance
Naresh Kumar Trivedi, Raj Gaurang Tiwari, Himani Maheshwari, Vinay Gautam, Ambuj Kumar Agarwal 1673

283. The Role of Artificial Intelligence in Advancing Fracture Mechanics: Modeling, Prediction, and Data Analysis
Vivek Srivastava, Nitin Kumar Gupta, Ojas Raturi, Nalin Somani, Mohit Bhandwal, Naina Chaudhary 1678

284. Printed Circuit Board Defect Detection Using CNN Based Deep Learning Technique
Viksith Bardia, M. Prabu 1683

285. Comparative Study between Traditional and Hybrid LSTM Models for Toxic Comment Classification
Viksith Bardia, M. Avinash, M. Prabu 1690

286. Deep Learning Approach to Sugarcane Disease Identification: From Image Analysis to Mobile Application
Ajay Chakravarty, Arpit Jain, Ashendra Kumar Saxena 1696

287. Improving Breast Cancer Detection with Deep Learning Techniques: A Study Using CBIS-DDMS Dataset
Jasjeet Kaur Sandhu, Chetna Sharma, Amandeep Kaur, Pahul Veer Singh Gogna, Vrinda Sharma 1703

288. Studying the Impact of Voice-Activated Chatbot's with Artificial Intelligence on Consumer Interaction in India
Ashish Kumar Verma, Tiyas Sarkar, Manik Rakhra, Vikas Kumar Pandey, Projjal Chakrabarty 1708

289. Predicting Indian Master's and PhD Enrollment Using Data Mining & Machine Learning Approaches
Bhimasen Moharana, Vinay Kumar Singh, Tiyas Sarkar, Abass Hassan, Vikas Kumar Pandey 1714

290. Large Language Model for Practical Evaluation in Cloud Computing with Applications of Real World Data
Tiyas Sarkar, Abhishek Bhattacherjee, Manish Mukhia 1721

291. Enhancing Pet Welfare: A User-Centered Method for GPS Tracking and Health Tracking Using Pawprints
Himanshu Nimonkar, Darshit Adhiya, Priyan Parmar 1730

292. Enhancing Customer Retention: A Comprehensive Analysis of Churn Prediction with KNN
Daksh Rawat, Isha Khetarpal, Devansh Khetarpal, Abhishek Upadhyay, Piyush Bagla, Manisha Aeri 1735

293. Enhancing IoT Security and Efficiency: Advanced Public Key Cryptographic Solutions for the Modern Era
Ramesh Sekaran, Dhanalakshmi Ramasamy, John Basha Mohamed Basha, Kumaresan Maruthapillai, S. Annamalai, Manikandan Parasuraman 1740

294. Quantum Sensors for Next-generation Sensing: Techniques, Applications, and Recent Advancements
Manisha Prajapat, Kamal Kishor Choure, Gausia Qazi, Pukhrambam Puspa Devi, Manish Tiwari, Ghanshyam Singh 1748

295. Comparative Analysis of Machine Learning Algorithms for Traffic Flow Prediction in Intelligent Transportation Systems
Mahima Yadav, Bijendra Kumar 1752

296. Analysis of the Effectiveness of Machine Learning Methods in Predicting Wheat Yields
Veronika Myan 1756

297. The Role of Industry 5.0 in Empowering Healthcare Through Technology and Value Creation
Riaz Ahmed, Suhel Ahmad Khan, Sudesh Kumar 1762

298. Design and Development of Tomato Leaf Classification Framework Using CNN
Sayed Abu Lais Ezaz Ahmed, Abhishek Kumar, Ranjit Singh 1768

299. Random Forest Algorithm for High-Resolution Land Use Mapping in Google Earth Engine: A Case Study in Kota
Sudipta Mukherjee, Madhumita Mukherjee, Suvojit Ganguly, Tushar Tingote 1776

300. Image Caption Generator Using LSTM
Chalcheema Sasidhar, Madan Lal Saini, Medarametla Charan, Avula Venkata Shivanand, Vijay Mohan Shrimal 1781

301. Enhancing Customer Service Response and Efficiency with AI-Driven Automation
C. Naga Ganesh, M. Chitra Devi, B.R. Celia, Gitanjali Shrivastava, V. Vijayalakshmi, Srinivas P 1787

302. AI-Driven Precision Agriculture: Techniques for Monitoring Crop Health and Yield Optimization
Deepak Sharma, M. Chitra Devi, Vivek Veeraiah, Manisha Kasar, Deepshikha Aggarwal, Tripti Sharma 1794

303. Advanced Machine Learning Techniques for Optimizing Renewable Energy Systems in Healthcare Facilities
S. Pradeep, Kalpana P, G. Sreeram, Amarja Adgaonkar, Devika Rani Roy, Arpit Namdev 1801

304. Transformer Models for Enhanced Natural Language Processing in Medical Records Management
Vaibhav Prakash Vasani, Swapnil Chandrakant Pawar, Sowmya P., Shahanawaj Ahamad, Aradhana Sahu, Gokul Talele 1808

305. Facial Recognition in Patient Monitoring Systems: Advanced Convolutional Neural Networks
Arhath Kumar, Kusumitha H.R., Vivek Veeraiah, Abhra Pratip Ray, Bhawna Janghel Rajput, Arpit Namdev 1815

306. Innovations and Risks in Decentralized Finance (DeFi) for Blockchain-Based Healthcare Systems
B.R. Celia, M. Yellaiah Nayudu, N. Rajitha, H.S. Abzal Basha, Thejaswini K O, Sudesh Rao 1822

307. Enhancing Data Security and Privacy in Electronic Health Records with Blockchain Technology
Hamela K., Gitanjali Shrivastava, Perikala Umapathi, Jayshri Sagar Bankar, Snehal Dipak Chaudhary, Rajeshwari Kisan 1829

308. Developing Advanced Security Frameworks for IoT Devices in Connected Healthcare Ecosystems
Karthik, Vivek Veeraiah, G. Nageswara Rao, Priyanka Torne, Aradhana Sahu, Arpit Namdev 1836

309. Technological Innovations in IoT-Based Smart Agriculture Systems for Sustainable Crop Management
S. Padmapriya, Ashok Todmal, Vivek Veeraiah, Bhawna Janghel Rajput, G. Muthugurunathan, Rakshitha 1843

310. Remote Patient Monitoring Innovations Using IoT for Improved Healthcare Outcomes
Vivek Veeraiah, Aishwarya D. Shetty, Thejaswini K O, Srinivas P, Sudhanshu Tripathi, Faiz Mohammad 1849

311. Optimizing Linear Regression Models: A Comparative Study of Error Metrics
Prabin Dumre, Somnath Bhattarai, H.K. Shashikala 1856

312. Smart Educational Ecosystems: Tailoring Employee Training with AI and IoT in the Industry 5.0 Landscape
Arnima Pathak, Mani Shivhare, Durgesh Kumar 1862

313. Histopathological Image Analysis for Lung Disease Diagnosis: A VGG16-Based Approach
Uma Bisht, Abhishek Singh Gurkha, Shubham Naudiyal, Daksh Rawat, Purushottam Das, Aditya Verma 1869

314. Investigating Need of Digital Marketing to Enhance the Applicability of IoT for Medical Application
Srinivas P, Thejaswini K O, Naim Shaikh, Rohit Anand, Nidhi Sindhwani, Ankur Gupta 1875

315. Strengthening Information Relay by Using a Robust IEP between Cloud Service Suppliers
Kretika Tiwari, Akrati Sharma, Neeraj Sharma, Mohammad Shoaib Khan 1882

316. Quantum-Inspired Optimization Algorithms for Scalable Machine Learning in Edge Computing
Rohit Goyal, Krishan Kumar, Vivek Sharma, Rudramani Bhutia, Arpit Jain, Munish Kumar 1888

317. Enhancing YouTube Spam Filtration Efficiency Through Deep Learning Based Techniques
Arpana Sinhal, Pradeep Kumar, Gaurav Aggarwal 1893

318. Enhanced Vision Transformer with Lion Optimizer for Accurate Classification of Monkeypox Skin Images
Roheet Bhatnagar, Esraa Hassan, Abeer Saber, Mahmoud Y. Shams, Samar Elbedwehy 1897

319. Machine Learning Approaches for Identifying Fraudulent Banking Transactions: A Financial Management Perspective
Yogesh Kumar Jain, CA. Dhaarna Singh Rathore, Anjani Johrawanshi, Abhishek Maheshwari, Ankur Pandey, Neeraj Saxena 1903

320. CXM Technologies for Smart Destinations: Enhancing Tourists' Experiences and Influx
Vikas Tembhare, Neelam Talera, Mohammad Shoaib Khan 1910

321. Computational Aspects of Universal Constants for Critical Circle Maps
Sh. Djalilov, A. Dzhalilov, A. Aliyev, A. Jalilov 1917

322. From Sensor Data to Smart Decisions with an Integrated Framework for Next-Generation Farming Systems
Pinki Sagar, Danish Ather, Raj Kumar, Sonia Duggal, Ibrohimbek Yusupov, Vishal Jain 1924

323. Integrating Predictive Models and Remote Sensing for Sustainable Agriculture, Energy, and Environmental Management
Raj Kumar, Danish Ather, Pinki Sagar, Ibrohimbek Yusupov, Sonia Duggal, Vishal Jain 1930

324. Leveraging Digital Technologies and System Dynamics for Achieving Sustainable Development Goals Across Diverse Sectors
Sonia Duggal, Danish Ather, Ibrohimbek Yusupov, Pinki Sagar, Raj Kumar, Vishal Jain 1935

325. Advancing the Connectivity and Automation of Smart Devices by Merging Artificial Intelligence with the Internet of Things
Shashank Pareek, Muntather Almusawi, Mohammed Al-Farouni, Raman Kumar, Kamaljeet Kaur, Shivakrishna Dasi 1940

326. Advancements in Operating System Design for Cloud Computing Environments
Shashank Pareek, Laith H. Fezaa, Hassan M. Al-Jawahry, Jasgurpreet Singh Chohan, Jatinder Kumar, Protyay Dey 1946

327. Exploring the Role of AI in Enhancing Remote Sensing Technologies for Climate Change Studies
Ahmed Alkhayyat, Raman Kumar, Hassan M. Al-Jawahry, Bhagwati Lal Pareek, Jaspreet Kaur, Jayant Jagtap 1952

328. Meta-Learning Algorithms for Few-Shot Classification in Imbalanced Datasets
Raman Kumar, Laith H. Fezaa, Ahmed Alkhayyat, Bhagwati Lal Pareek, Jatinder Kumar, Abhilasha Jadhav 1958

329. Neural Architecture Search (NAS) for Vision Tasks
Divyansh Bansal, Hassan M. Al-Jawahry, Mohammed Al-Farouni Raman Kumar, Kamaljeet Kaur, Nilesh Bhosle 1964

330. Deciphering Deception-LSTM Combats Deepfake Audios
Yushsvi Acharya, Jahanvi Tyagi, Mahesh Jangid 1970

331. Comparative Analysis of IoT and Blockchain Technologies in Enhancing Security and Efficiency in Healthcare Systems
Ashok Kumar, Anshita Shukla, Vikas Thada, Vikrant Chole, Jhankar Moolchandani, Santosh Sahu 1976

332. Predicting Student Academic Performance Using Machine Learning: Analyzing Socio-Economic and Personal Factors from Secondary Education in Portugal
Santosh Sahu, Ashok Kumar, Rahul Kumar, Anshita Shukla, Vikrant Chole, Jhankar Moolchandani 1982

333. Predictive Analytics in Sports: Using Machine Learning to Forecast Outcomes and Medal Tally Trends at the 2024 Summer Olympics
Jhankar Moolchandani, Vikrant Chole, Santosh Sahu, Rahul Kumar, Anshita Shukla, Ashok Kumar 1987

AUTHOR INDEX