

2024 2nd DMIHER International Conference on Artificial Intelligence in Healthcare, Education and Industry (IDICAIEI 2024)

**Wardha, India
29-30 November 2024**

Pages 1-664



**IEEE Catalog Number: CFP24DG7-POD
ISBN: 979-8-3315-2872-0**

**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:	CFP24DG7-POD
ISBN (Print-On-Demand):	979-8-3315-2872-0
ISBN (Online):	979-8-3315-2871-3

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

Building a Data Lake for Power BI in the Cloud: A Review on Utilizing Cloud Storage Services for Large Datasets	1
<i>Viraj Vijay Gurbade, Prateek Verma, Swapnil Gundewar, Vijendra Singh Bramhe</i>	
Design and Development of Automatic Rice Transplanter Machine.....	7
<i>Alok Narkhede, Arvind Mahalle, Tanmay Pandao, Shrikant Jachak, Devendra Shahare</i>	
Handwritten Signature Verification Using CNN	11
<i>Rutuja Nitin Lanjewar, Radha Wasudeo Wande, Swapnil Gundewar</i>	
The Role of Technology in Modern Education.....	17
<i>Priya Kate, Utkarsha Pacharaney, Abhay Tale, Aditya Barhate, Nishad Sheikh, Chinmaya Khadse</i>	
A Review on Soil Moisture Monitoring Methods Using Satellite Images	22
<i>Prateek Verma, Aahash Kamble, Aditya Barhate, Abhay Tale, Amit Gudadhe</i>	
Deep Learning Assisted Model for Medical Image Fusion	28
<i>Supriya Narad, K. T. V. Reddy</i>	
Design of an Improved Model for IoV Security Using Bioinspired Optimization & Scalable Blockchains	34
<i>Pranjali Ulhe, Suresh Asole</i>	
Reducing False Alarm Situation in LPG Leak Detection Using Arduino-Based Multi-Sensor (MQ-2, MQ-5, and MQ-6 Gas Sensor) Module	40
<i>Hrutik Singewar, Shiv Nath Chaudhri, Subodhkumar Daronde</i>	
Predicting Heart Disease: A Machine Learning Approach to Cardiac Health	45
<i>Mansi Sharma, Praveen Kumar</i>	
Principle Component Analysis Based Naïve Bayes and K-Nearest Neighbors Classifiers for the Identification of Oral Mucosal Lesions	50
<i>Pavan Kumar, Arsala Zamir Khan, Vikrant Yashwant Ganvir, Shashikant Rathod, Dipti V Jamkar, Hemlata Vikrant Ganvir</i>	
A Review on the Applications of Machine Learning Algorithms for Mental Stress Detection	56
<i>Renuka Motghare, Shivam Bhoyar, Prateek Verma, Abhay Tale, Aditya Barhate</i>	
Optimization Strategies for Cyber Threat Detection in Cloud Architectures Leveraging Deep Machine Learning for Advanced Malware Identification.....	62
<i>Ankit R. Mune, Arpit U. Chaudhari, M. A. Pund, Tejas P. Adhau, Sumedh P. Ingale, Aditya O. Sable</i>	
AI in Education: A Neutrosophic Graph Framework for Evaluating Challenges and Opportunities	68
<i>A. S. Sasipriya, K. T. V. Reddy</i>	
Predictive Maintenance Strategies for Knee Implants: A MATLAB-Based Approach	74
<i>Om K. Urkande, Sharad S. Chaudhari, Sandeep Shrivastava, Bhushan Patil, Rakesh V. Adakane</i>	

AI in Sustainable Construction: Techniques, Impacts and Solutions	80
<i>Tarika Dagadkar, Sachin Dagadkar, Aditya Barhate, Abhay Tale, Prateek Verma, Anannya Dagadkar</i>	
Mobile App for Enhancing Accessibility Among the Visually Impaired.....	85
<i>Vinish Pujari, Karthik Madnal, Divya Premchandran</i>	
A Comprehensive Evaluation Process by Analytical Hierarchical Process for Identification of Potential Groundwater Zones	91
<i>Amit Anil Gudadhe, K. T. V. Reddy</i>	
Deep Learning-Based Detection and Classification of Gastrointestinal Tract Diseases in Endoscopy Images	95
<i>Rajeshree M. Patil, Shubhangi Giripunje</i>	
Recommendation of Marketplace Using Filter-Based Model for Farmers.....	101
<i>Sachin Narayan Joshi, Avinash B. Manwar</i>	
Steel Plate Defect Detection and Classification Using Light Weight MobileNetV2 Model.....	107
<i>Komal Raju Nimsarkar, Supriya Sawwashere, Shrikant V. Sonekar, Ashutosh Lanjewar, Mirza Moiz Baig</i>	
Classification of Defects in Photovoltaic Cells from Electroluminescence Images Using Advanced Deep Learning Techniques	113
<i>Smita D Khandagale, Sanjay M. Patil</i>	
Leveraging Artificial Intelligence for Effective Assessment and Evaluation in Education: A Comprehensive Review	118
<i>Mawuli Apetorgbor, Supriya Narad, Edidiong Akpabio, Chitra Dhawale, Abdul Konto, Prateek Verma</i>	
A Comprehensive Review of Personalized Learning Platforms and Their Impact on Student Performance in AI Education	124
<i>Mawuli Apetorgbor, Edidiong Akpabio, Supriya Narad</i>	
ShieldSMS Sentinel: Guardian of Your Digital Communication Bastion	130
<i>Palash Gourshettiwar, Rajesh D Thakare, Prapti Duddalwar, Rushikesh Shete, Swapnil Gundewar, Prateek Verma</i>	
AI4BCancer: Breast Cancer Classification Using AutoML - TPOT with PCA.....	136
<i>Charvi Jain, Shaurya Singh Srinet, Tarush Kumar Goyal, Karpagam M</i>	
Medical Image Visualization Using Augmented Reality	142
<i>Himanee Gore, Uttam Chaskar, Bhushan Borotikar, Kalyani Bhole</i>	
Comparative Investigation of BOPPPS–AI Integrated Flipped Classroom Method and Conventional Teaching Method in Mechanical Engineering Education.....	148
<i>P. A. Hatwalne, S. S. Chaudhary, S. V. Prayagi, R. V. Adkane, Sonali Vairagade</i>	
Sentiment Analysis of GitHub Commit Comments Using Machine Learning Techniques	153
<i>Safaa Patel, Gayatri Zagade, Rahul Sharma</i>	
Intelligent Approach for Anomaly Detection Using Machine Learning Techniques in Industrial Control System	159
<i>Ankita Sharma, Rohit Bajaj, Rakesh Sahu</i>	

EMG Signal Processing for Disease Classification Using Machine Learning	165
<i>Harshita S. Awachat, Rajendra Rewatkar, K. T. V. Reddy</i>	
Harnessing Predictive Analytics for Accurate Consumer Behaviour Forecasting: A Comprehensive Review.....	171
<i>Parihar Suresh Dahake, Nidhi Somani</i>	
Predictive Analytics in Performance Appraisal Systems: Enhancing Objectivity and Fairness	177
<i>Parihar Suresh Dahake, Shravan Chandak, Nihar Suresh Dahake</i>	
Human Body Bone Fracture Identification Using Improved Deep Learning Model.....	182
<i>Preeti P. Kale, U. B. Shinde, Devendra L. Bhuyar, K. T. V. Reddy, Hemant B. Mahajan</i>	
IoT-Based Smart Solution for Furrow Farming.....	187
<i>Somesh Banode, Shruti Desuwar, Sujal Tambe, Prasheel Thakre, Kamlesh Kalbande, Nitin Chore</i>	
Maize Leaf Disease Detection Using a Transfer Learning Approach.....	192
<i>P. Tijare, Pragati D. Bharsakle, Yamini M. Babnekar, Mansi S. Nanwani, Jagruti Sudhakarrrao Wankhade, Sanju Dinesh Garle</i>	
Hybrid VGG-SVM Framework for Melanoma Detection: Integrating GAN-Augmented Data and LIME Interpretability	198
<i>Shenson Joseph, Herat Joshi, Somya Singh, Onkar Mayekar, Madhao Wagh</i>	
Advancements in Video Content Analysis Using Machine Learning for Educational Applications: A Comprehensive Review.....	206
<i>Sameer Patil, Suresh Shirgave</i>	
Heart Disease Prediction Using Machine Learning.....	212
<i>Haram Kamal, Bakhtawar, Muhammad Zunnurain Hussain, Muhammad Zulkifl Hasan, Muzzamil Mustafa, Muhammad Atif Yaqub, Hooria Umar, Hoor Fatima, Usama Nasir</i>	
AI-Driven Approaches to Financial Fraud Detection in Banks: A Research Perspective.....	218
<i>Shaista Khan, Michael Savariapitchai, Amruta Mahalle, Mr. Shyam Fardale, Mayuri Pharkar, Pravin Hedau</i>	
Emerging Frontiers of Artificial Intelligence in Epilepsy Care: A Comprehensive Overview	223
<i>Pradnya S. Moon, Neaha Ingale Chaudhary, Prachi A. Bainalwar, Vrushali K. Moon, Shubhangi S. Shambharkar</i>	
A Novel Hybrid Model for Efficient Prediction of Diabetes Using Machine Learning	228
<i>Akshit Jain, Shagun Jain</i>	
Machine Learning-Based Prediction of Home Prices.....	234
<i>Shaista Khan, Vishakha Bhandarkar, Kanchan Artani, Manoj Pande, Rajesh Nakhate</i>	
Development of an Efficient Supervised Machine Learning Model Using Concept Drift Analysis: A Review.....	240
<i>Abhay A. Dande, Mahendra A. Pund</i>	
Lean Model for Improving Educational Institute Grade and Student Performances.....	245
<i>Vinod Waiker, Sanket Shrinath, Asfar H. Siddiqui, Dilip Wankhede, Vijendra Shahu</i>	
CNN-LSTM Model for Deepfake Image Detection	249
<i>Reena Satpute, Chidozie Peter Onwe</i>	

Natural Language Processing in Education System	255
<i>Shraddha P. Bode, Reena S. Satpute</i>	
Unveiling Covert Databases: A Comprehensive Detection Framework.....	260
<i>Dhiraj D. Shirbhate, Sunil R. Gupta</i>	
Predictive Maintenance: Machine Learning Approaches for Enhanced Equipment Reliability.....	266
<i>Roshan R. Karwa, Gajendra R. Bamnote, Yogita A. Dhumale, Pranita P. Deshmukh, Rupali A. Meshram, Sumera M. Iqbal</i>	
Impact of AI Based Marketing on Performance of Two-Wheeler Business with Special Reference to Electric Vehicle.....	272
<i>Pankajkumar Anawade, Shiny Chib, Deepak Sharma</i>	
The Advancements and Benefits of AI-Assisted Robotic Surgery	278
<i>Divya Thakre, Jitendra Patel</i>	
Temperature Monitoring System Using Drone for Agriculture Sector	283
<i>Shailesh Gahane, Chetana Mahajan, Prateek Verma, Deepak Sharma, Pankajkumar Anawade, Payal Khode</i>	
AI Vigilance: Pioneering Malware Detection in the Android Realm	289
<i>Veeramachaneni Nirosha, Gopala Akhil, G. Manikanta Srinivas, J. Anvesh, G. Sai Kumar</i>	
Analyzing Byte Level Tokenization for Two Layer Encryption Technique	295
<i>Renuka S. Durge, Vaishali M. Deshmukh</i>	
Design of an Improved Model Using Hyperspectral Imaging, Data Fusion, and Transformer-Based Deep Learning for Crop Disease Identification Operations	301
<i>Rupali A. Meshram, Abrar S. Alvi, Parnal P. Pawade</i>	
Analyzing Healthiness of Fast Food Items Using Statistics and Machine Learning	307
<i>Sandeep Raskar, Shilpa Kharche, Vishal Gotarane</i>	
Comparative Analysis of Human Behavioural for Analysing Actions in Sport Videos Using Artificial Intelligence and Computer Vision.....	315
<i>Nidhi G. Gupta, A. A. Bardekar</i>	
Enhance Quality and Quantity Yield Measuring Technique for Fruit Farming	321
<i>Komal Baburao Bijwe, A. B. Gadicha</i>	
Efficient Detection and Categorization of Thyroid Nodules from Medical Ultrasound Images.....	327
<i>Prarthana A. Deshkar, Punit Fulzele</i>	
Advanced Hybrid Model: Multimodal Emotion Recognition with Improved EEG Feature Fusion	333
<i>Surbhi Bharti, Arushi Garg, Prisha Sharma, Anya Shandilya, Preet Kanan, Ashwni Kumar</i>	
Throat Cancer Detection: A Comprehensive Review of Multimodal Analysis and Machine Learning Techniques.....	338
<i>Pragati Prakash Pachghare Budhe, U. H. Gawande</i>	
VTherapy: Deep Learning-Based Hand Rehabilitation System	344
<i>Priyal Maniar, Gargi Vedpathak, Sofia Francis</i>	
Profiling of Learners and Instructors for Developing an Intelligent Learning Environment.....	350
<i>Vaishali Malkar, Seema Kolkur</i>	

The Future of Learning: AI-Guided Content Creation and Automated Delivery Mechanisms	355
<i>Suchitra Labhane, Rishabh Patel, Shaista Khan, Amol Mashankar, Akash Shukla, Sanajana Tode</i>	
Generative Modeling Techniques for Simulating Rare Agricultural Events on Prediction of Wheat Yield Production	361
<i>Yogita Dhumale, Gajendra Bamnote, Ruchita Kale, Gaurav Sawale, Anand Chaudhari, Roshan Karwa</i>	
Is AI Really Improving the Quality of Digital Diagnosis	366
<i>Deepak Sharma, Kalyani Yede, Vaishali Rahate, Martin Mollay, Pankajkumar Anawade, Shailesh Gahane</i>	
The Role of Artificial Intelligence in the Management of Long-Term Care and Prevention	372
<i>Divya Darne, Surendra S Agrawal</i>	
Interactive Coding Platform with Code Summarizer	377
<i>Priyanka Jaiswal, Anushree Dhomne, Sakshi Rawarkar, Sanket Bulkunde, Sarvesh Lanjewar, Vedant Mundel</i>	
Efficient Model for Social Behaviour Analysis and Depression Detection in User Tweets	383
<i>Nishad Shahakar, Rutika Battuwar, Renuka Kadu, Priyanka Khandekar, Jumale Archana, Chetan Saoji, Namrata S. Mane</i>	
Detection of Objects in Remotely Sensed Images Using an Explainable Convolutional Neural Network Enhanced with Tetralet Attention Optimized by Canis Hunt.....	388
<i>Mayur V. Tiwari, Sanjay V. Dudul</i>	
Enhanced Mammogram Images Classification Through Comprehensive CNN Parameters Analysis	394
<i>Saguna Ingle, Amarsinh Vidhate, Sangita Chaudhari</i>	
Artificial Intelligence in Enhancing Quality of Education: SEM Approach.....	399
<i>Anoushka Gupta, Mallieswari R, Debolina Gupta</i>	
HR Nexus: A Comprehensive Solution for Organized Workforce Management.....	404
<i>Potuganti Ajay Kumar, Pratyush Reddy T, Patlori Vishal Reddy, Sai Nrusimha Karthikeya Padi, Jagadeesh Dandu</i>	
Integrating 4QS Factors to Enhance Learning Quality Using Machine Learning	410
<i>Ruchita Kale, Mohan Tasare, Yogita Dhumale, Manoj Kumar Rawat, Gaurav Sawale</i>	
Precision Agriculture Technologies for Crop Monitoring and Management.....	416
<i>Samreen Fathima, Amgoth Jagan</i>	
The Role of Artificial Intelligence (AI) in Transforming Biomedical Imaging: A Comprehensive Overview	420
<i>Gunjan R. Chaudhari, Umesh B. Telrandhe</i>	
The Role of Artificial Intelligence in Forensic Odontology: A Narrative Review of the Current Applications, Associated Challenges, and Future Directions	425
<i>Jeyaseelan Augustine, Kuldeep Singh, Anil Kumar Saini, Mahesh Verma</i>	
Blockchain in Pharmaceutical Supply Chain Management.....	431
<i>Aarya Nimsadkar, Anil Pethe</i>	
Surgical Robotics in Ophthalmology.....	437
<i>Bhushan H. Ukey, Surendra S. Agrawal</i>	

Comparing Neural Networks in Human Brains and AI Systems with Focus on Genetics and Experiential Differences	442
<i>Hemant Borakhade, Deepali Onkar, Deepali Borakhade</i>	
Wearable Technology and Its Effect on the Provision of Healthcare.....	448
<i>Monika S. Hiware, Pranita Jirvankar</i>	
AI in Healthcare – Precision Medicine and Diagnosis	454
<i>Suvarna U Patel, Pranita Jirvankar</i>	
Unmanned Aerial Vehicles and Low-Flying Drones: A Review of Classification	460
<i>Shrijeet Pagrut, Pradip Jawandhiya</i>	
Healthcare Data Security and Privacy	466
<i>Pawan Shankar Majre, Nikhita M. Chambhare</i>	
The Role of AI in Patients' Communication	472
<i>Harsh M. Choudhari, Samiksha Khobragade</i>	
Ethical and Regulatory Consideration in AI-Assisted Drug Development.....	478
<i>Payal Warokar, Sukeshini Lote</i>	
Application of AI in Agricultural Mechanization Behaviour in Vidarbha (Wardha) Region.....	484
<i>Shyam K Fardale, Ajay W. Pethe, Amruta Mahalle, Naina Mansukhani, Vijay N. Uprikar, Amit Sahu</i>	
Application of Data Analytics in Healthcare Management: A Comprehensive Review	489
<i>Anjali Singh, Sukeshini Lote</i>	
A Deep Learning Approach for Fast Detection of COVID-19 Using Lung X-Ray Scans.....	495
<i>Nitin L. Gavankar, Ravindra R. Rathod, Vivek N. Waghmare, Madhav M. Bokare</i>	
A Review on How AI Helps in Treating Mental Illness	501
<i>Purvi Jethwa, Sukeshini Lote</i>	
Exploring Medical Diagnosis Using Vision Transformer and CNN.....	507
<i>Saqlain Kalokhe, Fahad Khan, Salim Shaikh, Nusrat Jahan</i>	
Drug Discovery and Development Process	513
<i>Akash Hande, Nikhita Chambhare</i>	
SMART Kitchen Technology	518
<i>Deepak Sharma, Monali Sharma, Anil Sharma, Pankajkumar Anawade, Michael Savariapitchai, Shailesh Gahane</i>	
AI in Precision Medicine.....	523
<i>Shiv Pradip Sarode, Samiksha Khobragade</i>	
The Future of Drug Discovery and Development: How Quantum Computing is Altering Pharmaceutical Research.....	528
<i>Abhishek Raj, Anil M. Pethe</i>	
Ethical Considerations in AI-Driven Supply Chain Management: A Review of Emerging Trends and Challenges	534
<i>Geeta Naidu, Ujwala Narkhede, Padmakar Shahare, Pranay Wankhede, Revati Deshkar, Amit Gudadhe</i>	

The Role of AI in Circular Economy Supply Chains: A Comparative Analysis of Industry Practices	541
<i>Vishakha Ashish Mankar, Athar Javed Ali, Reema Kamlani, Yogita Sure, Shailesh Kediya, Amit Gudadhe</i>	
AI and the Future of Work in Logistics: A Delphi Study on Workforce Transformation	547
<i>Shailesh Kediya, Vandana Mohanty, Mubina Saiffee, Rajani Kumar, Lalit Agrawal, Aarti Kulkarni</i>	
Revolutionizing Healthcare: AI-Powered Imaging Transforms Medical Diagnosis.....	553
<i>Shrutika Bhure, Vaishnavi Shete</i>	
Explainable AI for Fraud Detection: Enhancing Transparency and Trust in Financial Decision-Making	557
<i>Rahul Kapale, Prasanna Deshpande, Shyam Shukla, Shailesh Kediya, Yoginee Pethe, Sujit Metre</i>	
A Meta-Analysis of AI in Fraud Detection: Evaluating the Effectiveness of Different Algorithms and Data Sources	563
<i>Nitu Chouhan, Shailesh Kediya, Umesh Wagh, Prasanna Deshpande, Pravin Karmore, Debasis Das</i>	
Chatbots in Customer Service: A Comparative Analysis of Performance and Customer Satisfaction	570
<i>Shailesh Kediya, Vandana Mohanty, Aparna Gurjar, Nitu Chouhan, Ruchi Sharma, Priti Golar</i>	
Impact of Covid-19 on Survivor's Health Using Machine Learning Techniques: Review	576
<i>Lata R. Tembhare, M. M. Kshirsagar, Manoj Patil</i>	
The Impact of AI-Driven Personalization on Customer Loyalty: A Meta-Analysis of E-Commerce Studies	581
<i>Amishi Arora, Rahul Kapale, Pratyush Sharma, Maitreya Nalavade, Mubina Saiffee, Manda Ukey</i>	
Real-Time Inverse Kinematics Function Generation Using (GANs) and Advanced Computer Vision for Robotics Joints.....	587
<i>Aakash Palliwar, Aman Khapre, Arya Kasare, Samiksha Nikhare</i>	
Machine Learning Models and Medical Data Analysis: An Experiment.....	593
<i>Navdeep Kaur, Manpreet Kaur Grewal, Uttam Kumar Giri, Alok Kumar Agrawal, Ashok Kumar Sahoo, Pradeepta Kumar Sarangi</i>	
Edge Computing and Fog Computing for Health Care and Engineering System.....	599
<i>Rasika Thakare, Nikhita Chambhare</i>	
The Problem of Data Bias in Healthcare AI	605
<i>Ashutosh S Vajpayee, Deepak Khobragade</i>	
Developing an Intelligent Integrated Software Agent for Streamlined Interview Automation and Enhanced Candidate Insights.....	611
<i>Jeethu Joseph, M. V. Judy</i>	
AI for Healthcare Data Security and Privacy	617
<i>Paras Telrandhe, Shivani Makhijani</i>	
Review Article: AI Tools for Detection of Cardiovascular Disorders	623
<i>Yash Santosh Thakare, Pranali Shastrakar</i>	

Android Based Food Rescue System.....	629
<i>Priyanka More, Rushikesh Shete, Pooja Bhaladhare, Kirti Gujarkar, Megha Amol Sakure, Sana Khan</i>	
The Impact of Artificial Intelligence on Personalized Nutrition and Healthcare Management	632
<i>Shreya Lonkar, Suhira Alina Sayyad, Pranali Shastrakar</i>	
An Integrated Analysis of AI Networks and Wireless Communication (E-Mail).....	638
<i>Vaibhav C. Kapile, Rahul Ingle</i>	
AI for Personalized Nutrition and Healthcare Management.....	642
<i>Kaushik Kahalkar, Ujwal Vyas</i>	
Personalized Treatment Classification for Breast Cancer Patients Using Random Forest Algorithm	648
<i>Rupa. A. Fadnavis, M. M. Kshirsagar</i>	
Smart Hiring: Leveraging AI for Effective Employee Selection.....	653
<i>Martin H Mollay, Deepak S. Sharma, Aryan G. Kale, Pankajkumar Anawade, Shailesh Gahane</i>	
The Role of AI in Medical Imaging Diagnostic	659
<i>Chirag D Ahuja, Surendra Agarwal</i>	
ImageCraft - Text to Image Synthesis	665
<i>Daivik Rao, P Yatish Sriram, Dakshayani M, Aniket Gupta</i>	
Machine Learning and AI Approaches to Manufacturing Applications.....	670
<i>Deep Shende, Rahul Ingle</i>	
Beyond the Hype: A Critical Evaluation of Predictive Analytics Accuracy in High-Stakes Business Decisions	674
<i>Nihar Suresh Dahake, Parihar Suresh Dahake, Abhijit Gajghate</i>	
Insights into Employer Attractiveness Through Text Analytics: Evidence from the Financial Technology Industry	680
<i>Shravan Chandak, Rahul Mohare, Simran Manthapurwar</i>	
Transforming Healthcare: A Comprehensive Review of AI Applications in Medical Care.....	685
<i>Aachal D. Raut, Shardha. R. Kale, Sahil S. Gawande</i>	
New Era of Healthcare: Utilizing Artificial Intelligence to Unlock Telehealth's Full Potential Post-Pandemic	691
<i>Sonia Pandey, Divyanshu Mehrotra, Kanak Pandey, Neema Bisht, Amrita Verma Pargaien, Akbar Nawaz</i>	
Biomedical Devices: Development & Performance in Healthcare System.....	696
<i>Rudresh Talmale, Sandip Sonwane</i>	
Design of an Improved Model for Nutrient Deficiency Detection in Plants Using CNNs, Autoencoders, and Precision-Aware Learning	700
<i>Parnal P. Pawade, A. S. Alvi, Rupali A. Meshram</i>	
Improved Healthcare Quality Through Health Informatics.....	706
<i>Sanskriti Shende, Sunita Vaidya</i>	
AI Used in Healthcare and Data Privacy	711
<i>Saniya Firdous Turak, Abhishek Jadhao, Shivani Makhijani</i>	

5G-Enabled Communication for Real-Time Patient Monitoring: Opportunities and Challenges	716
<i>Renu Mahajan, Parneet Kaur</i>	
A Comprehensive Review of Applications of Nanomedicine for Cancer Therapy	722
<i>Gaurav S. Kharabe, Samiksha Khobragade</i>	
AI and Mental Health: A New Era of Healing.....	728
<i>Dhruv S. Sharma, Jitendra Patel</i>	
AI in Healthcare: An International Quest for Criminal Liability in Medical Negligence Cases	733
<i>Kafi Mahmud, Mukesh Kumar, O. P. Midha</i>	
The Transformative Impact of Telehealth on Chronic Disease Management: A Comprehensive Review.....	738
<i>Megha S. Roy, Gunjan R. Chaudhari, Umesh B. Telrandhe</i>	
Defence System with HC 12 Communication.....	744
<i>Ajay Thatere, Praveen Kumar Dhankar, Akshaykumar Meshram, Prateek Verma, Rupesh Pohane, Ashish Jirapure</i>	
Leveraging Digital Twin Technology to Combat Cardiovascular Disease: A Comprehensive Review.....	749
<i>Induni Nayodhara Weerathna, Praveen Kumar, Prateek Verma, David Raymond, Anurag Luharia, Gaurav Mishra</i>	
A Comprehensive Review of Bio-Medical Portable Devices for Blood Coagulation Detection Device.....	755
<i>Joy Bore, Trishul Dhale, Praveen Kumar, Gauri S. Deshmukh</i>	
Hydro-Sense: Precision Agriculture and Water Conservation	761
<i>Om Thigale, Shreyash Telsang, Manthan Thakare, Ranjeetsingh Suryawanshi, Mansi Waghmode, Vinayak Wankhade</i>	
Assessing the Adoption and Impact of AI Chatbots in Customer Service: A Survey-Based Study in Indian Service Industries	767
<i>Vijay Uprikar, Amruta Mahalle, Dipak Tighare, Pratik Kodmalwar, Hrushikesh Landage, Sameer Thakare</i>	
A Review of Social Media Sentiment Analysis Using Machine Learning to Enhance Stock Market Prediction	773
<i>Rohini Raut, Saniya Saratkar, Gayatri Thakre, Trupti Thute, Aarti Chaudhari, Palash Gourshettiwar</i>	
Deep Learning Models in Healthcare	779
<i>Shaktisinh Thakur, Supriya Narad</i>	
The Role of AI in Understanding Consumer Buying Motive in the Farm Implementation.....	785
<i>Shyam K Fardale, Ajay W. Pethe, Amruta Mahalle, N. K. Thakre, Vijay N. Uprikar, Jatin Prakash Patil</i>	
Towards Seamless Glucose Monitoring: A Smart Non-Invasive System for Diabetes Patients	790
<i>Adesh Pawar, Sanket G. Kelzarkar, Vishal Kumar Choudhary, Ashwini Daburkar, Praveen Kumar, Rutuja Hore</i>	
Model Agnostic Predictive Smart Load Balancer in Microservices Environment	796
<i>Snehal Chaflekar, Rajendra Rewatkar</i>	

Electrical Simulation Systems for Task Specific Tremor Suppression : Current Status and Future Directions	802
<i>Purnashti Bhosale, Rajendra Rewatkar, Pravin Pokle, K T V Reddy</i>	
Leveraging Artificial Intelligence for Efficient Road Traffic Management	808
<i>Vaibhavi Vilayatkar, Pranjali Ulhe, Khushi Shapekar</i>	
AI in Agriculture: The Future of Robotic Farming and Automation	814
<i>Mrunali Bhasme, Pranjali Ulhe, Sakshi Gokhe</i>	
A Comprehensive Approach to Healthcare Chatbots Using SpaCy NLP and Naive Bayes Algorithm	821
<i>Shruthi G, Sinchana K C, Soumya C P, Sugnyan S Abbigeri</i>	
Enhanced E-Commerce Demand Prediction Through Ensemble Models and Optuna-Based Hyperparameter Optimization	827
<i>Ramakrishna Garine</i>	
Integrating Transparent Crowdfunding Platform and AI-Based Treatment Fund Estimation.....	834
<i>Sanjana K, Asha G R, Nandhini Vineeth</i>	
AI-Powered Personalized Learning for Advancing Educational Equity.....	840
<i>Sakshi Gokhe, Pranjali Ulhe, Mrunali Bhasme</i>	
Deep Learning-Based Approaches for Effective IoT Malware Classification.....	846
<i>Marwa A. Abd Al Abbas</i>	
Advantage of Using AI in Education to Enhance Learning: Review and Analysis	852
<i>Richa Panjabi, Ahmed Al-Sa'Di, Esraa Ahmad</i>	
Advancing Malware Defense: A Hybrid Approach with Explainable Deep Neural Networks.....	858
<i>Deepika Sharma, Manoj Devare</i>	
AI's Corrective Feedback Vs. Traditional Recasts: Which Fosters Better Grammar Accuracy?	864
<i>Mamta Chhabriya, Naathi Naresh Babu, A. Satya Phani Kumari</i>	
A Comparative Study on Challenges and Solutions on Product Classification Based on Data Virtualization	870
<i>Meenal N. Pande, S. E. Yedey</i>	
Evaluating Chloramphenicol Toxicity in Pediatric Populations	876
<i>Mayur Madavi, Sandip Sonwane</i>	
Soft Computing Tools to Enhance Classroom Learning and Team Empathy of Learners.....	880
<i>Rajesh Aniruddha Tiwari, Sohel A. Bhura</i>	
Enhancing Cybersecurity and Threat Detection in Vehicular Ad-Hoc Networks (VANETs) Using Blockchain and Fallback Policy	885
<i>Samrat Thorat, Dinesh Rojatar, Prashant Deshmukh</i>	
Smart Finance: An Overview of Artificial Intelligence Integration in Fintech.....	891
<i>Parth Dhananjay Akre, Utkarsha Pacharaney, Warsha Siraskar</i>	
Optical Flow Self-Teaching in Multi-Frame with Full-Image Warping Via Unsupervised Recurrent All-Pairs Field Transform.....	897
<i>Devidas S. Thosar, Rajashree D. Thosar, Pramod B. Dhamdhere, Shinde Babaso Ananda, Umakant D. Butkar, Dipika S. Dabhade</i>	

A Semantic Retrieval System Using Imager Histogram Computation to Reduce Trademark Infringement Based on the Conceptual Similarity of Text	901
<i>Pramod B. Dhamdhere, Devidas S. Thosar, Shinde Babaso Ananda, Rajashree D. Thosar, Dipika S. Dabhade, Umakant D. Butkar</i>	
Review of Machine Learning and Deep Learning Algorithms for Personality Traits Classification.....	907
<i>Satish N Bhadane, Prateek Verma</i>	
The Future of Driving: A Review on the Combination of Artificial Intelligence and Autonomous Vehicles	913
<i>Nikita Zade, Mayur Gawande, Prateek Verma, Swapnil Gundewar</i>	
Evaluating the Security Impact of Face Recognition and IoT-Enabled Blockchain on Electronic Voting Machines	919
<i>Omprakash A. Jaisinghani, Prabhakar. L Ramteke</i>	
Blockchain Enabled Secure Data Sharing in Medical Sensors Networks: Concise Review	925
<i>David Raymond, Praveen Kumar, Palash Gourshettiwar, Induni Werarathna, Divyani Mankar, Prateek Verma</i>	
A Comprehensive Review of Supervised Learning Algorithms in Healthcare Applications.....	930
<i>Aditya Barhate, Abhay Tale, Nayan Jikar, Prateek Verma, Praveen Kumar, Prajyot Yesankar</i>	
Generation of Video Subtitles for All Video Creators	936
<i>Snehal Karad, Aparna Lahane, Pramod Dhamdhere, Devidas Thosar, Savitri Mane, Shalaka Kshirsagar</i>	
Medical Data Security and Privacy Preservation Using Blockchain Technology Integrated with Healthcare 4.0 Standand:Current Method and Challanges	941
<i>Swati Sant, Pawan R. Bhaladhare</i>	
Web-Based Smart Healthcare System	947
<i>Mansvi Kishorrao Daigavhane, Swapnil Gundewar, Ayush Pravin Gadkari, Sakshi Prakash Anpan</i>	
Overview of Emerging Biological Computational Framework for Olfactory Studies Utilizing Contextual Technobiomedical Engineering.....	953
<i>Shiv Nath Chaudhri</i>	
Development of Deep Learning Model for Detection of Abdominal Diseases Using Radiological Images	959
<i>Vidhi Wankhade, Soyal Nimbalkar, Kajal Dakhare, Rohan Jangamwar, Meher Langote, Prateek Verma</i>	
A Review on the Developments in the Field of AI-Based Gait Analysis.....	964
<i>Vidhi Wankhede, Prateek Verma, Shailesh Gahane</i>	
Ethical Guidelines for Utilization of Artificial Intelligence in Healthcare: A Review.....	969
<i>Vaishnavi Shete, Anil Pethe</i>	
A Novel Consensus Algorithm for Improving Mining Performance.....	975
<i>Nilima S. Dandge, Sangram S. Dandge</i>	
DermDetectNet: Identifying Skin Diseases with Advanced Computer Learning.....	980
<i>Sonali S. Sonavane, Devidas S. Thosar, Bhagyashri R. Wankar, Komal Jadhav, Pranjali A. More, Amruta Kulkarni</i>	

HOG-Based Feature Extraction for Accurate Modi Script Character Recognition	986
<i>Ketki R. Ingole, Pritish Tijare</i>	
A Review on Machine Learning Assisted Drying Behaviour Prediction of Agricultural Seeds and Fruits.....	992
<i>Sandip Jawre, Prateek Verma, Chandrakant B. Kothare</i>	
Large Language Model-Based Mobile Apps in OPDs: Optimized Patient Management and Prioritization.....	998
<i>Vaishnavi Mishra, Obaid Noman, Nandkishor Bankar, Anjali Tiwari, Snehal Godbole, Dilip Timilsina</i>	
Career Navigator: Your AI Career Counselor.....	1001
<i>Ashwini Barbadekar, Vedant Bhagwan, Aryan Thaploo, Arjun Tyagi</i>	
ML-Based IoT Communication Data Analysis Framework for Energy Crisis Management in Commercial Buildings.....	1007
<i>Ashray Sheth, Bansri Choxi, Krisha Darji, Rajesh Gupta, Sudeep Tanwar, Jitendra Bhatia</i>	
Predictive Modeling for Early Cancer Detection: A Machine Learning Approach to Prostate, Lung, and Breast Cancer.....	1013
<i>Chandrayani Rokde, Prajakta Kharwandikar, Amrita Kungwani, Anshu R. Dudhe</i>	
Interdisciplinary Research Scope for Electronic Nose	1019
<i>Radha Wasudeo Wande, Shiv Nath Chaudhari, Rutuja Nitin Lanjewar</i>	
Enhancing Vector Based Retrieval Augmented Generation with Contextual Knowledge Graph Construction	1024
<i>Sagar Mankari, Abhishek Sanghavi</i>	
Comprehensive Overview of Gas and Bio-Sensors Enabling Artificial Intelligence in Healthcare	1030
<i>Yashasvi Raut, Shiv Nath Chaudhri</i>	
Dual PPG-Based Blood Flow Abnormality Detection Using Deep Learning	1036
<i>Manisha Samant, Utkarsha Pacharaney, Shamim Akhtar</i>	
Developing an Edge Based Predictive Maintenance System for Transformer Using Low-Cost Sensors	1040
<i>Pratiksha Pradeep Baji, Nitin L. Gavankar, Mayur Mahambrey, Sonali S. Rokade</i>	
Predictive Modelling of Heart Disease and the Role of Comorbidities in Patient Outcome	1046
<i>Madhura H B, Manushri Jayanthi, Jayashree R</i>	
A Multimodal Approach for Skin Lesion Diagnosis	1052
<i>Anav Bordia, Ayaan Chawla, Karen Gao, Larry McMahan</i>	
Concrete Crack Detection Using Artificial Intelligence	1057
<i>Sangeeta Gangdhar, S. N. Patil</i>	
How IFP, Interactive Tabs, and AI Affect the Achievement in Rural East Godavari District Secondary Schools—A Study.....	1062
<i>Vijaya Kasa, Satya Phani Kumari A, Naresh Babu Naathi</i>	
Smart Solutions for Visual Impairment by AI-Based Assistive Devices	1067
<i>Shubhangi R. Katke, Utkarsha Pacharaney</i>	

Machine Learning-Based Secure Data Communication Framework for Autonomous Electric Vehicles	1072
<i>Bhanderi Prinshkumar, Yuval Bhayani, Angel Kanjiya, Kaju Patel, Rajesh Gupta, Sudeep Tanwar, Lata Gohil</i>	
Integrating Artificial Intelligence in Early Childhood Education: A Review of Current Practices and Future Directions.....	1078
<i>Anjali Rai, Sharath Hullumani V, Moh'D Irshad Qureshi, Raghuveer Raghumahti, Gurjeet Kaur</i>	
Advancements in Image Captioning Using Deep Learning Techniques for Enhanced Descriptive Models.....	1083
<i>Sumedh P. Ingale, G. R. Bamnote</i>	
Analyzing the Role of Machine Learning and Satellite Image Processing in Predicting Deforestation	1089
<i>Chetan W. Rawarkar, Sudhir Agrawal</i>	
Adaptive Conversation Recommendation Systems: Leveraging Large Language Models and Knowledge Graphs	1095
<i>Sagar Mankari, Abhishek Sanghavi</i>	
Integrating Quantitative Parameters for Automating Medical Equipment Maintenance Using Industry 4.0 and FMEA	1101
<i>Shirish Gandhare, Supriya Narad, Pramod Kumar, Tarachand Madankar</i>	
Enhancing Adversarial Robustness in AI Systems: A Novel Defense Mechanism Using Stable Diffusion.....	1107
<i>Shantanu Sudhir Gujar</i>	
Exploring Quantum Key Distribution	1113
<i>Shantanu Sudhir Gujar</i>	
Face-To-Face (F2F) Auth: A Multi-Party Environmental Authentication System for Sensitive Operations	1119
<i>Shantanu Sudhir Gujar</i>	
Advancing Alzheimer's Diagnosis: Performance Analysis of Deep Learning Ensembles in Medical Imaging.....	1124
<i>Sonali Deshpande, Nilima Kulkarni</i>	
Design of an Improved Model for Music Sequence Generation Using Conditional Variational Autoencoder and Conditional GAN	1130
<i>Pallavi Ganorkar, Anagha Rathkanthiwar</i>	
A Mathematical Model for Transformation Matrices in Ultrasound Probe Positioning and Orientation.....	1134
<i>N Mahesh Kumar, Gaurav S Rao, Aditi Parvati, Chaitanya, Trupti</i>	
A Novel Improved Framework for Speckle Denoising Using Deep Learning Approach.....	1140
<i>Nilima Patil, M. M. Deshpande, V. N. Pawar</i>	
Hybrid Machine Learning Models for Accurate Fake News Identification in Online Content	1146
<i>Arpit U. Chaudhari, Hemang Shrivastava</i>	

A Comprehensive Review of Machine Learning Techniques Used for Designing an Academic Result Predictor and Identifying the Multi-Dimensional Factors Affecting Student's Academic Results	1152
<i>Rehaal Qureshi, Prashant S. Lokhande</i>	
Fine-Tuned Transfer Learning Models for Multi-Class Classification of Melanoma Skin Cancer	1158
<i>Apurva Swapnil Shinde, Sangita Chaudhari</i>	
Development of a Nail-Based Application for the Detection of Disease Using Image Processing	1164
<i>Pradnyawant M. Gote, Praveen Kumar, Trishul Dhale, Gaurav Vedprakash Mishra</i>	
A Review: Citrus Disease Detection Using Machine Learning Approach	1170
<i>Savita C. Raut, Nilesh N. Kasat</i>	
Multimodal Machine Learning for Early Detection of Autism in Children: Integrating Gestures and Mood Analysis.....	1175
<i>Chetan Puri, Ujwala Ghodeswar, K. T. V Reddy, Mansi Sharma, Sahil Warudkar</i>	
Artificial Intelligence in OSCE: Innovations and Implications for Medical Education Assessment – a Systematic Review.....	1181
<i>Gaurav Vedprakash Mishra, Anurag Ashok Luharia, Waqar Naqvi, Anshul Sood</i>	
Speculation of Lung Cancer Using Machine Learning Approach	1186
<i>Nikita. C. Band, Manthan P. Pagrut, Pranay S. Rawarkar, Pranav D. Saikhede, Roshani S. Nage, Amol P. Bahale</i>	
Deep Learning-Based Automated Detection and Classification of B-Cell Acute Lymphoblastic Leukemia.....	1192
<i>Aahash Kamble, Utkarsha Pacharaney, Nusrat Parveen, Shamim Akhtar, Gouri Morankar</i>	
Systematic Review of Recent ChatGPT Updates on Reporting of Radiology Cases with Reference to Magnetic Resonance Imaging of the Lumbar Spine.....	1198
<i>Gaurav Vedprakash Mishra, Anurag Ashok Luharia, Waqar Naqvi, Anshul Sood</i>	
Augmented Reality Enhanced Clinical Training: Implications for Skill Acquisition and Retention in Medical Education.....	1203
<i>Vanshika Garg, Lav Soni</i>	
A Survey on Recognition and Translation System of Real-Time Sign Language	1209
<i>Kajal Dakhare, Vidhi Wankhede, Prateek Verma</i>	
Innovative AgTech: A Predictive Machine Learning-Driven Precision Farming Solution for Enhancing Agricultural Productivity in Wardha.....	1215
<i>Aishwarya Kadu, K. T. V Reddy, Ujwalla Gawande</i>	
Deep Learning Models Comparisons on Rice Image Disease Classification Techniques: VGG16, ResNet50, and InceptionV3.....	1221
<i>Suganchand Patel, Anoop Kumar Chaturvedi</i>	
A Review of Machine Learning and Deep Learning Algorithms for Chronic Kidney Disease Prediction	1225
<i>Pratik Nagre, Prateek Verma, Praveen Kumar, Nitin L. Gavankar</i>	
The Role of Artificial Intelligence in Cost Reduction of Marketing Agencies.....	1231
<i>Prathamesh Veling, Palaniappan Sellappan</i>	

Machine Learning Models for Water Quality Assessment and Prediction	1237
<i>S. Nagamallik Raj, M. Maanasa</i>	
Prospective Elementary Teachers' Computational Thinking Skills: A Preliminary Study	1243
<i>Zetra Hainul Putra, Gustimal Witri, Dahnilsyah, Yahya Gunawan, Herry Sumadinata, Arisya Ruspina Putri</i>	
Kolmogorov Arnold Network for Hyperspectral Image Classification: A Detailed Explanation.....	1247
<i>Saurabh Suman, Utkarsha Pacharaney, Vishal Kumar Choudhary, Rahul Raushan, Abhishek Kumar, Gulshan Kumar</i>	
Transformative Trends in Diabetes Care: An Analysis of AI-Enhanced Predictive Healthcare	1252
<i>Atharva Milmile, Prateek Verma</i>	
A Comprehensive Study of Water Quality Trends and Seasonal Variations in Coastal Bays	1258
<i>Mansi Sharma, Praveen Kumar</i>	
Sentiment Analysis of Mental Illness Using Machine Learning Techniques.....	1263
<i>Sakshi Anpan, Palash Gourshettiwar, Mansvi Kishorao Daigavhane, Ayush Pravin Gadkari</i>	
AI-Powered Personalization in E-Commerce.....	1268
<i>Aarti Chaudhari, Shital Hajare</i>	
Smart Healthcare: Early Diagnosis of Fetal Health Conditions Using Machine Learning and Cardiotocographic Data.....	1274
<i>Chetan Puri, K. T. V. Reddy</i>	
Extreme Inception Model and Its Application in Indian Food Image Classification.....	1279
<i>Leena K. Gautam</i>	
Condition Monitoring and Fault Diagnosis of BLDC Motor in Electric Vehicles Using Artificial Intelligence	1283
<i>Swapnil Gundewar, Meher Langote, Swapna Kamble, Prashant Kamble</i>	
AI in Gaming: From Simple Algorithms to Complex Agents	1289
<i>Atharva Waghale, Nayan Potdukhe, Rajendra Rewatkar</i>	
5G Wireless Communication and IoT: Vision, Applications, and Challenges.....	1294
<i>Anushka Bhivgade, Chetan Puri</i>	
Designing of Creator's Information Hub Using Machine Learning	1300
<i>Diksha Gabhane, Ujwalla Gawande, Sanjana Gaikwad, Swati Gajarlewar, Rita Bhawalkar</i>	
Deep Reinforcement Learning in Autonomous Cars to Preventing Road Accident	1305
<i>Rushikesh Thote, Aditya Barhate, Abhay Tale, Prateek Verma</i>	
Empowering Communication: Converting Sign Language to Text Using CNN Technology	1311
<i>Pushpam Vaidya, Devashish Sathawane, Kartik Kalsarpe, Aditya Narule, Srujal Taksande, Chetan Puri</i>	
Development of a Smart Car Parking System	1317
<i>Pawan Dilip Chaudhari, Mayur Muneshwar, Tilak Kale, Chatianya Meghe, Shital Hajare</i>	
Advancing Fake News Detection: A Comparative Analysis of SVM and LR Models and Prospects for Dynamic Model Updating.....	1323
<i>Maitreyee Jadhav, Mansi Patil, Preshika Giri, Yogita Hande</i>	

Author Index