

# International Conference on Innovative Approaches in Multidisciplinary Engineering and Technology (ICIA-MET'26)

13<sup>th</sup>, 14<sup>th</sup> and 15<sup>th</sup> March 2026

Dr. P. M. Yawalkar,  
Dr. Vijay More,  
Dr. Vaibhav Dabhade *Editors*

# **International Conference on Innovative Approaches in Multidisciplinary Engineering and Technology (ICIA-MET'26)**

## **Dr. P. M. Yawalkar**

Department of Computer Engineering, MET's Institute  
of Engineering, Bhujbal Knowledge City, Nashik

## **Dr. Vijay More**

Department of Computer Engineering, MET's Institute  
of Engineering, Bhujbal Knowledge City, Nashik

## **Dr. Vaibhav Dabhade**

Department of Computer Engineering, MET's Institute  
of Engineering, Bhujbal Knowledge City, Nashik



*Published, marketed, and distributed by:*

Deep Science Publishing, 2026  
USA | UK | India | Turkey  
Reg. No. MH-33-0658412  
www.deepscienceresearch.com  
editor@deepscienceresearch.com  
WhatsApp: +91 7977171947

ISBN: 978-93-7185-602-7

E-ISBN: 978-93-7185-594-5

<https://doi.org/10.70593/978-93-7185-594-5>

Copyright © P. M. Yawalkar, Vijay More, Vaibhav Dabhade, 2026.

**Citation:** Yawalkar, P. M., More, V., & Dabhade, V. (2026). *International Conference on Innovative Approaches in Multidisciplinary Engineering and Technology (ICIA-MET'26)*. Deep Science Publishing. <https://doi.org/10.70593/978-93-7185-594-5>

This book is published online under a fully open access program and is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0). This open access license allows third parties to copy and redistribute the material in any medium or format, provided that proper attribution is given to the author(s) and the published source. The publishers, authors, and editors are not responsible for errors or omissions, or for any consequences arising from the application of the information presented in this book, and make no warranty, express or implied, regarding the content of this publication. Although the publisher, authors, and editors have made every effort to ensure that the content is not misleading or false, they do not represent or warrant that the information-particularly regarding verification by third parties-has been verified. The publisher is neutral with regard to jurisdictional claims in published maps and institutional affiliations. The authors and publishers have made every effort to contact all copyright holders of the material reproduced in this publication and apologize to anyone we may have been unable to reach. If any copyright material has not been acknowledged, please write to us so we can correct it in a future reprint.

## **Institutes under MET Bhujbal Knowledge City**

### **Mumbai**

- MET Bhujbal Knowledge City (Bandra)
- MET Rishikul Vidyalaya

### **Navi Mumbai**

- Upcoming State-of-the-Art MET Campus, Sanpada

### **Nashik**

- MET Bhujbal Knowledge City, Adgaon
- Meena Bhujbal School of Excellence
- MET School of Architecture & Interior Design, Govardhan

## **About the Conference**

The International Conference on Innovative Approaches in Multidisciplinary Engineering and Technology (ICIA-MET'26) is a distinguished academic forum that brings together leading researchers, academicians, industry professionals, and practitioners from across the Engineering and Technology spectrum. The conference aims to promote interdisciplinary collaboration by providing a dynamic platform for knowledge exchange among professionals from Mechanical, Electrical, Civil, Computer Engineering, Information Technology, Electronics and Telecommunication, Artificial Intelligence and Data Science, Robotics and Engineering Sciences.

ICIA-MET'26 seek to address emerging challenges through integrative and cross-disciplinary perspectives, encouraging participants to explore innovative methodologies and transformative technologies. Through technical sessions, keynote addresses, and scholarly discussions, the conference facilitates the dissemination of cutting-edge research, fosters collaboration, and contributes to the advancement of Engineering and Technology on a global scale.

Sr No	Title with Author Name	Page No.
1	<b>Mapping the Transformation: A GIS Analysis of Urban Sprawl for Sustainable Futures</b> Ishwar J. Bathe, Bhagyashree G. Satbhai, Dr. Pavan N. Ghumare ishwar.bathe@gmail.com	1
2	<b>Stabilization of Expansive soil using Industrial &amp; Agricultural Wastes</b> Akshay Rajaram Gurav akshaygurav498@gmail.com	2
3	<b>An Eco-Smart Approach: Pervious Concrete Blocks With Partial Replacement By Plastic Aggregates.</b> Shekhar P Kale, Vishal K Paithankar sp326k@gmail.com	3
4	<b>Experimental Analysis of Minimization of Trap Efficiency of Dam Using Different Techniques: A Review</b> Shekhar P Kale, Vishal K Paithankar sp326k@gmail.com	4
5	<b>Use of Ai Tool For Estimation</b> Kute Vivek Vilasrao, Nimbalkar Kunal Rahul kutevilas62@gmail.com	5
6	<b>Recycling Waste from Construction and Demolition: A Route to Sustainable Infrastructure</b> Prashant S Patil, Manoj R. Avhad, Sachin S Patil, Neha R Pimpale prashantp_ioe@bkc.met.edu	6
7	<b>Optimal Placement of RC Shear Walls for Seismic Performance in Multi Storey Residential Buildings: A Comparative Numerical Study</b> Neha R Pimpale, Sachin S Patil, Manoj R. Avhad, Prashant S Patil nehap_ioe@bkc.met.edu	7
8	<b>Jaya Algorithm Based Demand Side Management for Cost-Effective EV and Renewable Integration in Smart Grids</b> Satish J. Ghorpade, Dr. R. B. Sharma, Naveen R. Thevar satishjg@gmail.com,	8
9	<b>Solar Powered Grass Cutter with Height Adjustment, Grass Collection And Remote Operation.</b> Vivek S. Gite, Gaurav D.Gurule, Krishna C. Malode, Shubham G.Mate, Prof. Dinesh Panchve gitevivek61@gmail.com	9
10	<b>Toward Net-Zero Campuses in India: Analytics, Measures, and Economics</b> Amit Chandrakant Kamble, Himmat T. Jadhav ack.uwd@unishivaji.ac.in	10

11	<b>Whale Optimization based Frequency Control System for Isolated Hybrid Power System</b> Diksha M. Ahire, Ravindra K.Munje, Utkarsha L. Mohite, Bhupendra Deshmukh, Deepak P. Kadam dikshaa_ioe@bkc.met.edu	11
12	<b>AI Based Intelligent Home Appliances with IoT Integration for ZeroEnergy Wastage and Comfort Optimization</b> Kunal S. Thakur, Harsh M. Kharebind, Sanskruti S. Suryawanshi, Abhilash A. Netake kunalorf@gmail.com	12
13	<b>IOT based Voice Interactive Medicine Box</b> Mansi P. Chitte, Shraddha S. Sonawane , Khushali V. Patil, Kirti R. Gosavi shraddha.sonawane2004@gmail.com	13
14	<b>Control Strategies In Series Voltage Sag Compensator To Mitigate Inrush Current In Transformer</b> Sanjay Amrutkar, Deepak Kadam sanjayamrutkar2015@gmail.com	14
15	<b>Electrical Fault Classification&amp; Detection In Real Time By Using GAI &amp; Deep Learning Hybrid System</b> Yogesh Ramesh Patni, Kirti S. Kulkarni , Deepak P. Kadam, Nilesh P. Dabe patni.yogesh3@gmail.com	15
16	<b>Power Demand Forecasting and its prediction using AIML</b> Kulkarni Kirti Shashank, Yogesh R. Patni, Deepak Kadam, Nilesh.P.Dabe kirtigosavi16@gmail.com	16
17	<b>E-bin: Smart Waste Segregator</b> Harsh K. Mahajan, Devyani P. Chaudhari, Shrihari P. Kathe, Tejaswini M. Gavargaur devyanichaudhari1842004@gmail.com	17
18	<b>A Comprehensive Review of Renewable Energy Sources and Their Role in Sustainable Development</b> Mohite Utkarsha Laxman, Bhupendra Deshmukh, Sanjay Amrutkar Ahire , Dhiksha Manikrao utkarshamohite@gmail.com	18
19	<b>Load forecasting and Load Management in Smart Grids Using NSGA-II Optimized ANN Model</b> Nilesh.P. Dabe, Yogesh R. Patni, Deepak Kadam, Kulkarni Kirti Shashank nilesh.dabe77@gmail.com	19
20	<b>Demand Side Management in Smart Grids with Renewable Energy Integration: A Comprehensive Review</b> Dr. Prabhat Sharma, Dinesh V. Malkhede dineshm_ioe@bkc.met.edu	20

21	<b>Design of transformer inrush current mitigation technique with Voltage Sag Compensator</b> Diksha Ahire dikshaa_ioe@bkc.met.edu	21
22	<b>Technologies and Methods Smart Home Automation System with Low Energy Consumption</b> Goraksh B Polade, Dr.Umesh Kute , Jaya Wagh gorakshpolade@gmail.com	22
23	<b>Design and Performance Evaluation of a Local Voltage Controller for Islanded AC Microgrids</b> Bhupendra Deshmukh, Mohite Utkarsha Laxman, Diksha M Ahire bhupendrad_ioe@bkc.met.edu	23
24	<b>Electrooculography and Gesture Based Smart Wheelchair for Disabled Patients</b> Nisha Dhule , Kishor Ugale , Tanuja Gaidhani nishadhule5@gmail.com	24
25	<b>Automation of Load Weighing And Calibration System In Mining Vehicles</b> Prof. Yogesh R Patni, Sakshi V Shinde, Rushikesh N Sagale, Omkar D Chavanke patni.yogesh3@gmail.com	25
26	<b>Temperature-Based Cooling Tower Fan Automation Using PLC, VFD and PT100 Sensor</b> Vidhan Shashikant Unawane , Abdullah Sajid Sayyed Danish Akhtar Patel, Prof. D.V.Malkhede unawanevidhan.9665@gmail.com	26
27	<b>A 180-kWp Grid-Connected Rooftop PV System for Energy Security in Higher-Education Institutions: Long-Term Performance and Financial Robustness at Shivaji University, Kolhapur</b> Amit C. Kamble, Himmat T. Jadhav ack.uwd@unishivaji.ac.in	27
28	<b>Implementation of Energy Conservation Strategies and Enhancement of Energy Efficiency in Higher Education Institutions in India: A Comprehensive Review</b> Mr. Amit C Kamble, Dr. H. T. Jadhav ack.uwd@unishivaji.ac.in	28
29	<b>IOT Enabled Smart Shopping Trolley AI Robot</b> Ms. Sampada Karbhari Mapari, Mr. Sachin B. Borse sampadamapari666@gmail.com	29
30	<b>Improved MPPT solar system using FOCV method</b> Pranjali Mahale, Dr. Ravindra G. Dabhade pranjalmahale20@gmail.com	30
31	<b>Human Muscle-Driven Prosthetic Robotic Hand for Physically Challenged Individuals</b> Ms. Dhanashee Gangaram Tadage, Prof. Manjusha Sachin Borse dhanashree6tadage@gmail.com	31

32	<b>Anomalies Detection in MANET to Prevent DoS Attack</b> Prajakta Sudhirkumar Khelkar, Dr. Gautam M Borkar prajaktasudhirkumarkhelkar@gmail.com,	32
33	<b>Embedded System Based Smart E-Voting System Using Authentication Technologies</b> Kishor Ugale kishor.ugale@gmail.com	33
34	<b>Computing Various Optimal Performance Trade-Off s Parameters For FBMC Based Modulation Scheme</b> Nandkishor Sonawane, Dr. Nikita Mitra npsonawane@gmail.com	34
35	<b>Smart Farming Assistant: Real-Time Soil Health Tracking using IoT</b> Tejaswini S. Dande, Nikita S. Patil, Snehal A. Kshirsagar, Dr. D.B. Ahire tejaswinidande23@gmail.com	35
36	<b>Mathematical Modeling and Simulation of Metabolic Pathways in Computational Biology</b> Randhir Singh Baghel, Udit Mamodiya, Ashish Avasthi randhir.baghel@poornima.edu.in	36
37	<b>Machine Learning for Crime Analysis and Prediction: Modern Technique and Issues</b> Shraddha J. Pawar, Dr. Baisa L. Gunjal shraddhap_ioe@bkc.met.edu	37
38	<b>AI-Based Crowd Risk and Missing Person Detection System for Mass Gatherings</b> Krishna Chandrakant Malode, Ayush Shashank Kulkarni, Dnyanesh Sameer Patil Keyur Prashant Kolhe, Mr. Kunal Ramesh Ahire krishnamalode16@gmail.com,	38
39	<b>Bridging Communication Gap: Voice or Text to Indian Sign Language Converter A Review and Design Perspective</b> Miss. Urvi K. Pawar, Miss. Shreya K. Rakibe, Miss. Vaishnavi R. Sandhan, Miss. Samruddhi K. Vispute, Dr. Kirti A. Patil pawarurvi1211@gmail.com	39
40	<b>AI Based Advanced Talk ChatBot</b> Vinit Pawar, Avadhut Dhumane, Vedant Pawar, Aditya Shinde, Prof Namrata D. Ghuse vedant21pawar@gmail.com	40
41	<b>AI-Based Assessment Models for Urban Grievance Management Systems</b> Kaushal V. Patil, Shivam H. Patil, Yash G. Sonawane, Nisha D. Patil shivampatil3804@gmail.com	41

42	<b>Snap-to-Buy: Fruit Quality Detection Using AI and ML</b> Samruddhi Prashant Raut , Bhumika Ramesh Sabale, Khushi Tuffailahmed Shaikh , Nikita Pradip Sabale, Dr. Vaishali Khandave samruddhir.comp_ioe@bkc.met.edu	42
43	<b>CharuFace AI: AI-Powered Dermatology Assistant for Personalized Skincare</b> Chirayu N. Patil , Sakshi R. Sakhare , Sakshi K. Yadav, Neelima S. Ambekar chirayupatil1808@gmail.com	43
44	<b>MediChat: An AI-Powered Healthcare Chatbot for Symptom Assessment and Hospital Recommendation</b> Pratik J. Mali, Rucha A. Kulthe, Laxmi G. Ughade, Neelima S. Ambekar pratikmali242005@gmail.com	44
45	<b>Fake News Detection Using AI and ML: A Comprehensive Hybrid Ensemble Approach: Review</b> Rupesh Borse, Namrata D. Ghuse virus13for@gmail.com	45
46	<b>Bridging the Startup Funding Gap: PitchPortal – A Crowdfunding Platform for Entrepreneurs and Investors: Review</b> Harsh Gupta, Dr. Archana Banait harshrg.comp_ioe@bkc.met.edu	46
47	<b>Internet of Underwater Things Infrastructure: An AI-Driven Hybrid Acoustic–Optical Framework for Real-World Underwater Communication</b> Mayur D. Chaudhari, Prof. Namrata D. Ghuse mayurdc.comp_ioe@bkc.met.edu	47
48	<b>A Hybrid AI Framework for Anxiety Management with Human Oversight</b> Ayush D. Yadav , Neelima S. Ambekar ayu537jhi@gmail.com	48
49	<b>Analyzing SkillNetAI: A Critical Study of Intelligent Collaboration and Skill Matching</b> Ashutosh Kale, Gayatri Shewale, Adhithi Shetty adhithis_comp@bkc.met.edu	49
50	<b>ResiPlan AI: A Comprehensive Analysis of AI-Driven Automated Residential Floor Planning</b> Ashutosh Kale, Swapnil Yeole, Onkar Sonawane, Jayesh Wani Vedant Rajput swapnily.comp_ioe@bkc.met.edu	50
51	<b>Deepfake Detection Website – Detects Manipulated Images or Videos Uploaded by Users</b> Ashish N. Aher , Akash S. Bhagare , Samiksha R. Chavan , Shreya A. Darade · Prof. Anand N. Gharu aherashish766@gmail.com,	51

52	<b>Voice Enabled Restoration of Historic Documents using Deep Learning</b> Neha Dhande, Pratiksha Dhangar , Bhumika Dhodi , Asmita Mahire , Dr.P.M Yawalkar Dhandeneha5@gmail.com	52
53	<b>Real-ESRGAN–Driven MRI Super-Resolution for Diagnostic Precision and AI-Assisted Clinical Deployment</b> Nupur Jadhav , Atharva Bhusnale, Pritesh Gupta , Sakshi Jadhav , Vaishali Hiray nupurjadhav1029@gmail.com	53
54	<b>AI-Based Smart Systems for Allergen and Additive Detection in Packaged Foods: A Review</b> Sanket Dudhade, Sahil Gilbile, Atul Chaudhari, Aditya Gavali dudhadesanket378@gmail.com	54
55	<b>Pet Adoption Application with Machine Learning Verification: A Comprehensive Review</b> Ayush Wankhede, Ajinkya Patil, Parth Thombre, Mohit Patil, Mahesh Korade ayushwankhede9@yahoo.com	55
56	<b>ML-Based Audio Fingerprinting For Noisy Environment</b> Manthan Gavali, Om Malode · Shreeyash Jadhav, Yash Chaudhari, Dr. Vaibhav Dabhade manthang.comp_ioe@bkc.met.edu	56
57	<b>MediCast: Smart Hospital ICU Bed and Oxygen Cylinder Predictor</b> Sahil Arun Sahane, Suhani Sharma, Amay Prasad Sabnis, Suhani Singh, Prof. Rahul Mandlik suhanii0202@gmail.com	57
58	<b>THE CHRONICLES OF JIT: A Novel Approach to Engineering and Entrepreneurial Education via Immersive Simulation</b> Mr. Vaibhav D. Sonawane, Ms. Trupti N. Pathade, Mrs. Vira R. Sonawane, Mr. Mayur S. Mahale, Mrs. Sharmila P. Zhope work.vaibhav1308@gmail.com	58
59	<b>A Comparative Study of Deep Learning and Classical Machine Learning for Image-Based Plant Disease Detection</b> Kiran More, Shalvi Maheshwari, Pratham Shelke, Swaraj Shedge, Shaikh Hunain, Shaikh Ahmed shaikh.hunainshaikhzaheerabbas24@vit.edu	59
60	Review of Ground-Borne Vibration Mitigation in High-Speed Rail Systems through various Modifications Gaurav R. Khairnar, Shailesh P. Palekar gauravkhairnar28.gk@gmail.com	60
61	<b>AI-POWERED COMPOSITE SKETCH USING NLP AND GAN</b> Mahesh H, Vaishnavi Subash, Somnath Bhagat, Vaishnavi Toragalla, Yash Raj sommnathbhagata@gmail.com	61

62	<b>Smart Safety Shoe for Visually Impaired with Object Detection and SOS Alert System</b> Prof.(Dr.)Minal Yadavrao Barhate, Om Nallawar, Vedant Narkhede, Vedika Narlawar, Shreya Narute, Sayali Nevhal, Devesh Nhalade devesh.nhalade24@vit.edu	62
63	<b>SMS Classifier with Encryption Decryption using Machine Learning</b> Ms. Bhonde Vrushali Baban, Ms. Patil Renuka Rajendra, Ms. Wakle Anita Ashok, Ms. Kulkarni Mrunmayee, Mrs. Archana Sachin Gaikwad,, Ms. Poornima Nandu Pathak vrushalibhonde42@gmail.com	63
64	<b>A Comparative Study of Bagging, Boosting, and Hybrid Regression Models for Humidity-Based Air Quality Estimation</b> Mahesh Korade, Omkar Pattnaik korademaheshv@gmail.com	64
65	<b>KrishiAI- A Smart Farming Assistant</b> Sanket Gulve, Piyush Chandwani, Krushna Lonari, Prasad Bhavar, Rahul Mandlik piyushchandwani424201@gmail.com	65
66	<b>Image-Based Invoice Verification System with Blockchain Ledger for Fraud Prevention</b> Komal Phuge, Mihir Jain, Khushaboo Somvanshi, Madhuri Shinde,Siddhesh Pendharkar komalphuge123@gmail.com	66
67	<b>SmartFunnel-Lead Management System using Predictive Modelling in Digital Marketing</b> Chanchal Deore, Devesh Mudaliar, Siddhant Junnare, Kanchan Pekhale, Khurram Khan chanchald.comp_ioe@bkc.met.edu	67
68	<b>ThreatXplain: Explainable Artificial Intelligence for Cyber Threat Detection</b> Dhanashri Aher, Kashish Badgujar, Jay Chavan, Akash Aher, Manjusha Gaikwad kashishbadgujar16@gmail.com	68
69	<b>Automatic Garbage Classification Using Convolutional Neural Networks (CNN)</b> Kalyani Dadave, Dr. Kanchan Dhomse ,Mittal Jagtap Priyanka Chaure Samrudhi Shirode kalyanidadave64@gmail.com	69
70	<b>Smart-Food Lens - An Intelligent Personalized Food Recommendation System</b> Perna Santosh Ahire, Piyush Sunil Nikam, Siddhi Avinash Patil, Shantanu Satish Otari, Ranjana Dahake prerna.comp_ioe@bkc.met.edu	70

71	<b>UrbanView- Quantifying Urban Sustainability via Satellite-Based Multi-Spectral Indices</b> Aniket Nalegaonkar, Anshul Singh Kalyani Pagar, Mahesh Korade, Arundhati Patade anshuls.comp_ioe@bkc.met.edu	71
72	<b>Machine Learning–Based Big Five Personality Traits Prediction Using Typing, Facial, and Voice Modalities</b> Nikita Aher, Sakshi Wagh, Soniya Pawar, Pranjali Rasal, Ranjana Dahake nikitaka.comp_ioe@bkc.met.edu	72
73	<b>DocInsight: Context-Aware Document Review and Reporting Assistant</b> Mukul Rane, Om Baviskar, Devendra Nikam, Tejaswi Malode, Vaibhav Dabhade tejaswimalode@gmail.com	73
74	<b>AI-Enabled Meeting Management Application</b> Shubham Umesh Bhavsar,Chinmay Kalyan Gavale, Sarthak Prashant Dhumal, Shaikh Raees Ahemad Shaikh Mehboob,Kalpesh Bhavesh Sonawane, Bodake Vijay J. bhavsarsubham489@gmail.com	74
75	<b>MedVersa: A Review of NLP and GAN Frameworks for Patient–Provider Communication.</b> Madhuri Zawar, Dr. Sanmati Kumar Jain, Dr. Pradnya Vikhar madhurizawar24@gmail.com	75
76	<b>FlowCall: AI-Powered Voice Assistant for Business Communication – A Comprehensive Solution for Automated Customer Support</b> Tanishka Borade, Rasika Borade, Punyaa Dixit, Kanchan Sharma, Prof. Sonali Bhardwaj tanishka.3315@gmail.com	76
77	<b>Heart Disease Risk Assessment Using Machine Learning</b> Kiran More, Tejas Terdale, Pranav Upare, Raj Sonune, Pushkar Patankar, Yash Shinde tejas.terdale24@vit.edu	77
78	<b>Smart Water Usage Monitoring System with Conservation Tips</b> Minal Barhate , Riya Mote , Mohit Mukane , Niharika Muneshwar , Malik Mujawar, Rohan Murudkar , Muneesh Sharma riya.mote24@vit.edu	78
79	<b>AI Based Healthcare Chatbot</b> Minal Barhate, Pranjali D. Nagmule, Naaz K. Tadavi, Pranav V. Nagur, Parth D. Nakti, Shreya A. Nalawade, Sanskar M. Nalegaonkar pranjali.nagmule24@vit.edu	79
80	<b>Smart Prescription Management and Clinical Support: A Conceptual Modeling and Comprehensive Survey</b> Aryan Shinde, Shrish Soman, Atharva Chitnis, Dr. Seema Patil shp_comp@pvgcoet.ac.in	80

81	<b>Adaptive BNPL with AI: A Comprehensive Study</b> Shrutika Giri, Gayatri Badgajar, Anvi Kore, Dr.Ravindra Apare shrutika.9giri@gmail.com	81
82	<b>IoT-Enabled Smart Home Security System Using ESP32 Nano with Real-Time Intrusion Alerts via Telegram Bot and Automated Locking Mechanism</b> Dr. Minal Yadavrao Barhate, Soham Milind Lonkar, Aditya Namdev Mali, Arjun Vishwas Mane, Samidha Appasaheb Mandage, Shivam Dhanaji Mane, Swara Mamidwar adityamali2681@gmail.com	82
83	<b>Movie Piracy Deterrence Using Infrared Transmitters, Steganography &amp; Cryptography Techniques</b> Mayur V K, Mayur A Akshay, Nagendravenu H K, Kanaka Das, Harshitha S mayurmukund@gmail.com	83
84	<b>A Comprehensive Review on Predicting Student Performance Using Hybrid Machine Learning Models.</b> Satpute Aditya Bhaskar, Aware Tanushri Baban, Lawate Shruti Shrikrishna, More Vaibhavi Avinash, Shaikh Raees Ahemad Shaikh, Bodake Vijay J adityasatpute2004@gmail.com	84
85	<b>Spatial Auditory Attention Detection (EEG)</b> Roocha Balasaheb Doke dokeroocha@gmail.com	85
86	<b>Real Time Video Content Moderation And Spam Dertction Tool</b> Sai Kumar S L, Ramu B T, Mallikarjun Heroor, B M Shree Lakshmi, Dr . Mydhili Nair saikumarskambar@gmail.com	86
87	<b>A Review of KumbhSahyogi A Service Provider Platform: Smart Transport and Parking Management System</b> Kailas Adhav, Vaishnavi Chaudhari, Mayuri Daga, Prathamesh Patil, Priti Lahane chaudharivaishnavi900@gmail.com	87
88	<b>Vaani2Mudra – Indian Sign Language (ISL) Translation for Deaf People</b> Khushboo Lokhande, Samruddhi Mahajan, Sayali Pawar, Janhavi Wankhede khushboolokhande2004@gmail.com	88
89	<b>A Cloud-Based Hybrid Fake Product Detection Using MobileNet and Metadata Verification</b> P Kalyanakumar, Hareshvar S P ,Rohan J hareshvarsp734@gmail.com	89

90	<b>OptiTime: A Constraint-Driven Framework for Real-Time Academic Timetable Generation with Weighted Optimization</b> Dhiraj Barwal ,Pooja Nikam ,Swapnil Khairnar code.dhiraj18@gmail.com	90
91	<b>Advancing FireNet-CNN for Robust, Interpretable, and Multi-Hazard Disaster Detection</b> Abhishek B. Bora, Prof. Namrata D. Ghuse namratag_ioe@bkc.met.edu	91
92	<b>Joint Contrastive Representation Learning for Road Networks and Trajectory Data</b> Shweta Santosh Bhoje, Prof. Namrata D.Ghuse shwetabhoye1@gmail.com	92
93	<b>AI-Driven Multi-Objective Task Scheduling in Fog Computing Using Deep Reinforcement Learning</b> Om Sawant, Gunjan Shahade, Shailesh Pawar, Atul Sanap, Prof. Madhuri Shinde omsawant170@gmail.com	93
94	<b>NextGenHire: Gamified Learning with Skill-Based Job Matching</b> Yash Bhoje, Yamini Sarnaik, Jayesh Shewale, Pratik Shinde, Prof. Namrata Ghuse bhoyeyash56@gmail.com	94
95	<b>TimeBank – Hourly Job Posting &amp; Hiring Platform</b> Sonalı Patil, Sayalı Tarle, Latesh Patel, Hrutvik Rane, Reshma Sonawane sonalipatil022005@gmail.com	95
96	<b>MediNexus: AYUSH-Based Healthcare Recommendation System</b> Kunal Asude ,Kunal Bhadane Pranav Chaudhari ,Dr. Vijay More kunalasude@gmail.com	96
97	<b>JobShield - Detection of Fake Job Posts</b> Prof. P. A. Chaudhari,Sayalı Patil, Chinmayi Bhosale,Sonal Ahire, Nikhil Deshpande pallavic_ioe@bkc.met.edu	97
98	<b>AI-Driven Explainable Product Recommendation System Using LLaMA-2, FAISS, and SHAP for Multi-Platform E-Commerce</b> Diksha Nirbhavane ,Ashwini Pawar ,Samruddhi Aher, Harshali Bagul Prof. Puneet Patel nirbhavanediksha08@gmail.com	98
99	<b>Smart Speed Breaker for Smart Cities</b> Neha Zoman, Sakshi Pawar, Prathamesh Tambe, Prof. Uma Barahate Nehazoman5307@gmail.com	99

100	<b>Design and Performance Optimization of 2.4 GHZ Microstrip Patch Antenna for Wi-Fi, WLAN and Bluetooth Applications</b> Ishwari Gaikwad, Swapnil Kadam, Pranav Kela, Dr. Kalindi Mahajan ishwaripg.etc_ioe@bkc.met.edu	100
101	<b>ML Based Fake Profile Identifier</b> Mr. Bharat Ratan Pagare, Mr. Om Arun Navghire, Mr. Kalpesh Ramesh Pagar, Mr. Ritesh Vilas Shelar, Dr. Vaishali Khandave vaishalik_ioe@met.bkc.edu	101
102	<b>Enhancing Aspect Based Sentiment Analysis</b> Mrs. Bhumika Alte, Yashraj Mhase, Kishor Hirgal, Satyam Mali, bhumikaa.comp_ioe@bkc.met.edu	102
103	<b>AYUSH Knowledge Extraction &amp; Recommendation System</b> Rasika Kokate, Tanuja Karpe, Saloni Gohad, Vaishnavi Gulave, Mrs. Sunita Borse kokaterasika38@gmail.com	103
104	<b>Survey On : Personalized AI Assistant (NOVA)</b> Sneha Patil ,Krutika Gangurde,Sairaj Patil snehapatil1603@gmail.com	104
105	<b>Design &amp; Development of Quadra Steer Mechanism</b> Kaustubh Hire, Vinod Neve, Deven Borse, Kiran Thakare, Omkar Ghumare, Harshal Chavan kaustubhhire033@gmail.com	106
106	<b>Design and Analysis of Front Knuckle of BAJA ATV</b> Rahul.R.Karlekar, H.A.Chavan, karlekarrahul@gmail.com	107
107	<b>Investigation of V-Port Use in Ball Valves Through Design and Analysis: A Comprehensive Review</b> Ishaan Puri , Dr. Raghavendra Barshikar iishaanpuri@gmail.com	108
108	<b>Failure Analysis of Press Tool</b> Sharad Nirgude , Shubham Gorade, Shraddha Sali, Diksha Dusane sharadn_ioe@bkc.met.edu	109
109	<b>Development of a Smart Agro AI Drone</b> Karan Shinde, Sahil Thange, Rushikesh Pingal, Shailesh Mogal, Vishal Chaudhari Thangesahil76@gmail.com	110
110	<b>A review on machining environments for engineering alloys: Sustainable Cooling and Lubrication strategies</b> Medhane Yogita Uttamrao, Ghuge Nilesh Chandrakant yogitamedhane@gmail.com	111
111	<b>Parametric Optimization of Abrasive Water Jet Machining (AWJM) Process for Non-Conventional Rubber-Based Materials</b> Sunil A Kumavat, Amol P Chaudhari sunilkumavat@gmail.com	112

112	<b>Experimental Investigation of Freely Supported Beam through Response Surface Method</b> Raghavendra Barshikar, Rajendra Pawar, Dipak Dond raghavendrab_ioe@bkc.met.edu	113
113	<b>A Study on Development of Natural Fiber Composite Material for Automobile application.</b> Omkar Dnyaneshwar Shirole, Bhushan Raju Gite ,Priyanka Somnath Shinde, Devyani SampatLahitkar, M.S. Nathe maniknathe26@gmail.com	114
114	<b>Design and Feasibility Analysis of a CNC-Based Friction Hardening Tool for Enhanced Wear Resistance in Stainless Steel Pressure Valve Seats</b> Pranav Kutea, Drishika Gupta,Srushti Deshmanea, Aditya Kapsea, Shirsath Seema B., Dr. Dhiraj Deshmukh dhirajd_ioe@bkc.met.edu	115
115	<b>Vibration Analysis of Spur Gears with Phasing Produced by Injection Moulding and FDM Process</b> Chavan Harshal Ashok, Kakade Sachin Prabhakar, Patil Sandip Bhimrao, Deshmukh Dhiraj Devrao chavanharshal@gmail.com	116
116	<b>Exploring the Role of NF-MQL in Sustainable Machining of Challenging Materials</b> Amol P. Vadnere, Nandkishor O. Warbhe,Shyamkumar D. Kalpande,Sachin B. Mahale apvadnere@rediffmail.com	117
117	<b>Influence of Machining Parameters and Optimization Techniques in CNC Milling Operations</b> Sangamnere Swapnil, Prashant Mogal, Waghchaure Pratik, Musale Sidhant, Prof. Sachin Kakade Swapnilsangamnere040@gmail.com	118
118	<b>Effects of Process Parameters on Microstructure and Mechanical Properties of Resistance Spot Welded AISI 316L Joints</b> Preeti Muthal, Swapna Shewale, Ashwin Patil 29junepreeti@gmail.com	119
119	<b>Development Of System To Control Speed And Door Unlocking Of Vehicle In Fire Hazard</b> Rohit Kiran Shinde, Rohan Digambar Suryawanshi, Vaishnavi Kailas Kadam, Prof Y.S More yogeshm_ioe@bkc.met.edu	120
120	<b>Performance Evaluation of Hydrodynamic Journal Bearings with Geometrical Modifications</b> Nitin Ahire, Dhiraj Deshmukh, Nilesh Hyalij nitinaa_ioe@bkc.met.edu	121

121	<p><b>Issues, Challenges &amp; Role of Mathematical and Statistical Analysis in Agile Software Testing</b></p> <p>Mrs. Jyotsana Gore, Mrs. Komal Mahekar, Mrs. Yogita Ahire  <a href="mailto:jyotsanasgore@gmail.com">jyotsanasgore@gmail.com</a></p>	122
122	<p><b>Symmetric Solutions of a Nonlinear Parabolic Problem with Neumann Boundary Conditions using the Moving Plane Method</b></p> <p>Archana S. Shirsat, Dinkar P. Patil  <a href="mailto:archanashirsat1990@gmail.com">archanashirsat1990@gmail.com</a></p>	123
123	<p><b>Extraction of Natural Dyes from Common Marigold Flowers to Dye the Cloths</b></p> <p>Seema K.Nikam, Dr.Pradnya S.Raut, Neeta A. Patil, Shilpa S.Shinde, Sunil.P.Sonavani  <a href="mailto:seemu23.2008@gmail.com">seemu23.2008@gmail.com</a></p>	124
124	<p><b>Dielectric Characteristics Influenced by Moisture of Various Soil Textures at X band Microwave Frequencies</b></p> <p>Dr. R. S. Dhake , Dr. V. S. Khairnar , Prof.R.D. Rajkuvar, Prof. S. M. Mugde  <a href="mailto:rajendrad_ioe@bkc.met.edu">rajendrad_ioe@bkc.met.edu</a></p>	125
125	<p><b>Advances in Fractional-Order Modeling: A Review of Applications in Medicine, Epidemiology and System Optimization</b></p> <p>Ms. Sneha Dattatray Pekhale, Dr. Jatin Majithia  <a href="mailto:snehapekhale@gmail.com">snehapekhale@gmail.com</a></p>	126
126	<p><b>Bridging Mumbai's IT Skills Gap: The Role of Online Learning Platforms</b></p> <p>Mr. Vikas K Hivarkar, Dr Yogesh U Gaikwad  <a href="mailto:Vikasshivarkar3@gmail.com">Vikasshivarkar3@gmail.com</a></p>	127
127	<p><b>ESG Integration Strategies for Indian SMEs: Challenges and Opportunities</b></p> <p>Abhilash Avinash Pandit ,Dr. Ajinkya Shamkant Joshi  <a href="mailto:abhilashpandit82@gmail.com">abhilashpandit82@gmail.com</a></p>	128
128	<p><b>Effectiveness of NSQF Programmes in Hotel Industry</b></p> <p>Prof.Priyanka Gangurde, Prof (Dr) Rakesh Patil,  <a href="mailto:priyanka.gangurde56@gmail.com">priyanka.gangurde56@gmail.com</a></p>	129
129	<p><b>Regional Connectivity and Economic Development: A Conceptual Study of the UDAN Scheme</b></p> <p>Milind Badkhal, Dr. Pankaj Kapse  <a href="mailto:milindbadkhal@gmail.com">milindbadkhal@gmail.com</a></p>	130
130	<p><b>Role of AI-Integrated Supplementary Courses in Traditional Fields like Marketing, HR, Finance and Engineering.</b></p> <p>Smt Ashwini Deepak Kohok, Dr. D. T. Khairnar  <a href="mailto:Ashinikohok30@gmail.com">Ashinikohok30@gmail.com</a></p>	131

131	<b>A Review of ESG Reporting Practices in Indian REITs</b> Prof. Neha Wankhede , Dr. Namrata Deshmukh vadnerkarneha@gmail.com	132
132	<b>Talent Analytics as a Strategic Capability: Linking Data-Driven Insights with Workforce Performance and Organisational Outcomes</b> Harshal Avinash Kumavat, Dr. Sangeeta Birjepatil kumavatharshal1@gmail.com	133
133	<b>Understanding Challenges Faced By FPC And Its Impacton Agriculture Market For Nashik District</b> Anil Nivrutti Pawar , Dr Yogesh Mohan Gosavi Anilp196@gmail.com	134
134	<b>A Study On Consumer Buying Behaviour Of Dairy Products With Reference To Nashik District</b> Prof. Sachin Patole , Dr. Yogesh Gosavi Sachinpatole274@gmail.com	135
135	<b>A Study on Role of Government Schemes in Financial Inclusion through Public Sector Banks in India: Challenges and Opportunities</b> Mahendra Chindha Rokade , Dr. Mital Bhayani mahendrar_ iom@bkc.met.edu	136
136	<b>Reframing Human Resource Development in Knowledge-Driven Economies</b> Malkans Laxmikant Bhat, Dr Sangeeta Birjepatil malkauns.bhat@rediffmail.com	137
137	<b>Examining the impact factors of soft skills on employee work performance in the hospitality industry</b> Dr. Tambe Prashant, Ms. Ware Sayali prashaanttambay@gmail.com,	138
138	<b>Spiritual Practices in Management Institutes: A Comprehensive Review of Literature</b> Dr. Mrs. Shefali S. Bhujbal bhujbal.shefali@gmail.com	139

# International Conference on Innovative Approaches in Multidisciplinary Engineering and Technology (ICIA-MET'26) 13<sup>th</sup>, 14<sup>th</sup> and 15<sup>th</sup> March 2026

## PATRON

Hon. Pankaj Bhujbal, Trustee, MET's BKC, Nashik  
Hon. Sameer Bhujbal, Trustee, MET's BKC, Nashik  
Hon. Dr. Shefali Bhujbal, Chief Administrator, MET's BKC, Nashik

## CONFERENCE CHAIR

Dr. V. P. Wani  
Principal, MET's Institute of Engineering, Nashik

## Editor

Dr. P. M. Yawalkar, Head, Department of Computer Engineering

## Co-Editor

Dr. Vijay More, Associate Professor, Department of Computer Engineering  
Dr. Vaibhav Dabhade, Associate Professor, Department of Computer Engineering