

PCE Faculty publications A.Y 2024-25

Journal Publications

1. **Dr. Kamini K. Chaudhari** published *Thermoelastic Field Analysis Using Differential Transform Under Moore-Gibson-Thompson Theory* in *Physica Scripta* (International, November 2024). Affiliated with PCE, New Panvel.
2. **Dr. Surabhi Singh** published *Climate Informatics: Climate Prediction and Machine Learning* in *IJAER* (International, April 2025). Affiliated with PCE, New Panvel.
3. **Dr. Sundeep H. Deulkar** contributed *Enhancing STEM Education through Data Science: Predicting Electric Motor Performance with Linear and OLS Regression* as a book chapter in *Advancements in Intelligent Systems, 1st Edition*, SCRS Publications (2024). Affiliated with PCE, New Panvel.
4. **Dr. Sundeep H. Deulkar** contributed *Comparative Optical Analysis Using Homemade Spectrometers: Transmittance and Reflectance Methods for Material Studies* as a book chapter in *Innovations in Electronic Materials: Advancing Technology for a Sustainable Future, 1st Edition*, Springer (2025). Affiliated with PCE, New Panvel.
5. **Arun Pillai** published *Design and Implementation of a 64-bit Vedic Multiplier Using Urdhva Tiryakbhyam Sutra for Minimizing Delay and Area Consumption* in the *Journal of Xidian University* (2024). Affiliated with PCE, New Panvel.
6. **Prof. Amey Nijasure** published *The Application of Virtual Reality in Automotive Design* in the *ARAI Journal of Mobility Technology* (International, October 2025). Affiliated with PCE, New Panvel.
7. **Prof. Amey Nijasure** published *Development of Automobile Scaled Model from CAD (Blender) Using FDM 3D Printing* in the *International Journal of Advanced Control and System Engineering* (International, November 2024). Affiliated with PCE, New Panvel.
8. **Dr. Amey Marathe** presented *A Comparative Analysis of Suspension Systems in Electric Vehicles* at the *International Conference on Recent Trends in Materials Science and Mechanical Engineering (ICRMSME 2025)* (International, to be published in AIP Conference Proceedings). Affiliated with PCE, New Panvel.
9. **Dr. Sharvari Govilkar and Mrs. Anudnya Suyog Sawant** published *Text Classification in Marathi Language* in the *Journal of Emerging Technologies and Innovative Research* (International, November 2024). Affiliated with PCE, New Panvel.

10. **Prof. Shubhangi Chavan, Aditya Kotkar, Sahil Panchal, Pratik Gupta and Rupali Rana** published *StyleSync: Outfit Recommender* in the *Journal of Emerging Technologies and Innovative Research* (International, November 2024). Affiliated with PCE, New Panvel.
11. **Murahari Naga Bhavana, Rushabhkumar Jain, Aditya Kale, Suvan Rastogi and Payel Thakur** published *Survey on Hands Free Mouse Using Facial Expression for Physically Disabled People* in *TIJER – International Research Journal* (International, June 2024). Affiliated with PCE, New Panvel.
12. **Saloni Dongare, Devjani Maity, Aparna Prakash, Lakshmipriya Sreedharan and Prof. Payel Thakur** published *A Survey on Machine Learning Approach for Alzheimer's Diagnosis and Wellness Optimization* in the *Journal of Novel Research and Innovative Development* (International, June 2024). Affiliated with PCE, New Panvel.
13. **Prof. Krishnendu Nair, Siddhi Thoke, T. T. K. Urshitha Sai and Pratham Yadav** published *Voxify: Your Gateway to Multilingual Conversations* in the *International Journal of Innovative Research in Technology* (International, March 2025). Affiliated with PCE, New Panvel.
14. **Sayan Basak, Mayur Jadhav, Suraj Choudhary, Pranjal Kadam and Sheetal P. Gawande** published *Web Application Security: A Survey* in the *International Research Journal on Advanced Engineering and Management* (International, August 2024). Affiliated with PCE, New Panvel.
15. **Dr. Ankita V. Pandit, Rupam Maji, Mudabbir Shazan, Rutika Khose and Nidhi Gaikar** published *SkillSync: Job Recommendation System Using Machine Learning* in the *Journal of Emerging Technologies and Innovative Research* (International, March 2025). Affiliated with PCE, New Panvel.
16. **Dr. Ankita V. Pandit, Vivek Ajaikumar, Chivhane Pranay Dattatraya, Deore Anuj Sunil and Chetan Ghos** published *URL Guardian Browser Security with SVM-RF Algorithm* in the *Journal of Emerging Technologies and Innovative Research* (International, April 2025). Affiliated with PCE, New Panvel.
17. **Megha Mohan, Atharv Tad, Akshay Gaikwad and Prasiddhi Ghase** published *AI-Enhanced User Interface: Transforming Mobile Shopping with Sentiment Analysis* in the *Journal of Emerging Technologies and Innovative Research* (International, March 2025). Affiliated with PCE, New Panvel.
18. **K. S. Charumathi, Kundan Choudhary, Sayali Patil, Aditya Khade and Saurabh Sonavale** published *Secure Messaging in Post Quantum Age* in the *Journal of Emerging Technologies and Innovative Research* (International, September 2024). Affiliated with PCE, New Panvel.

19. **K. S. Charumathi, Kundan Choudhary, Sayali Patil, Aditya Khade and Saurabh Sonavale** published *Towards Quantum-Enhanced Email Security: A Prototype Implementation of Quantum Key Distribution* in the *Journal of Emerging Technologies and Innovative Research* (International, April 2025). Affiliated with PCE, New Panvel.
20. **K. S. Charumathi, Anshuni Prakash Churi, Pranita Balasaheb Mali, Rutuja Ravindra Mane and Sudeeksha Guruprasad Byndoor** published *SmartGrain Surveillance – A Proactive System for Secure Storage* in the *Journal of Emerging Technologies and Innovative Research* (International, April 2025). Affiliated with PCE, New Panvel.
21. **Priyanka Sherkhane, Purvesh Sahane, Rohan Gade, Shaikh Mohammed Saqib Abdul Shakoor and Bibin Yohannan** published *Driver Drowsiness Detection Using Machine Learning Algorithms* in *TIJER – International Research Journal* (International, April 2025). Affiliated with PCE, New Panvel.
22. **Aditya Pashte, Pranav Rajeevan, Piyush Pandey, Aditi Chavan and Priyanka Sherkhane** published *Helios-Edge: A Resource-Efficient Modular Multimodal AI Framework for Edge Deployment* in the *Journal of Emerging Technologies and Innovative Research* (International, April 2025). Affiliated with PCE, New Panvel.
23. **Sonali Katkar, Gautami Teli, Raj Kakodkar, Sameer Shahi and Bhagyashri Patil** published *Empowering Personal Productivity and Wellness: Design and Implementation of an Inclusive AI Desktop Assistant with Health Integration* in the *Journal of Emerging Technologies and Innovative Research* (International, March 2025). Affiliated with PCE, New Panvel.
24. **Ashish Manojkumar Kahar, Bhavik Paresh Patil, Nupur Bharat Pansare and Bhagyashri Suresh Patil** published *Hands-Free Gesture Controlled Ordering App: Advanced Analytics and Computer Vision* in the *Journal of Emerging Technologies and Innovative Research* (International, March 2025). Affiliated with PCE, New Panvel.
25. **Suraj Dora, Aditya Gupta, Jyotirmay Prasad, Vasudha Kadam and K. S. Suresh Babu** published *SIGNIFY: A Pre-Primary Learning and Practice Hub for Indian Sign Language* in the *International Journal of Computer Applications* (International, April 2025). Affiliated with PCE, New Panvel.
26. **Kiran Sala, Haris Khan, Karan Patel, Siddhant Avhad and Prof. Suresh Babu** published *Deep Learning Techniques for Real-Time Video Surveillance and*

Crime Prevention in the *Journal of Emerging Technologies and Innovative Research* (International, September 2024). Affiliated with PCE, New Panvel.

27. **Kirti Rana, Asmitha Michael, Aditya Nair, Sreerag Rajesh and Jiya Singh** published *Real-Time Data Sanitation for Cloud Storage Using AI* in the *Journal of Emerging Technologies and Innovative Research* (International, April 2025). Affiliated with PCE, New Panvel.
28. **Kirti Rana, Brijesh Kumar, Shivam Tripathi, Harshada Pawar and Anush Shetty** published *AI-Powered Multilingual Video Generation System for News Articles* in the *Journal of Emerging Technologies and Innovative Research* (International, April 2025). Affiliated with PCE, New Panvel.
29. **Kirti Rana, Vighnesh Kutty, Siddharth Chhatre, Mithunkumar Ravichandran and Nitesh Pandey** published *Deep Learning-Based Fake Banknote Detection System* in the *Journal of Emerging Technologies and Innovative Research* (International, April 2025). Affiliated with PCE, New Panvel.
30. **R. Charfare, A. Desai, N. Keni, A. Nambiar and M. Cherian** published *IoT-AI in Healthcare: A Comprehensive Survey of Current Applications and Innovations* in the *International Journal of Robotics and Control Systems* (International, August 2024). Affiliated with PCE, New Panvel.
31. **R. Charfare, A. Desai, N. Keni, A. Nambiar and M. Cherian** published *Smart Healthcare Framework: Real-Time Vital Monitoring and Personalized Diet and Fitness Recommendations Using IoT and Machine Learning* in the *International Journal of Robotics and Control Systems* (International, May 2025). Affiliated with PCE, New Panvel.
32. **Ashwini Mate, Sarvesh Nair, Anika C. Padmanabhan, Khushnuma Warshi and Mohnish Rajan** published *GestureConnect Along With AI Cursor Control System* in *TIJER – International Research Journal* (International, April 2025). Affiliated with PCE, New Panvel.
33. **Ojas Desai, Jaimeen Shah, Pranav Pawar, Pranav Nair and Prof. Sangeetha Selvan** published *Nexio: AI-Enabled Workspace for Note-Taking, Task Management & Collaboration with Geolocation* in *TIJER – International Research Journal* (International, March 2025). Affiliated with PCE, New Panvel.
34. **Kochrekar, Sarthak, Deshmukh, Jyoti, Ansari, Azeem, Koli, Anirudh and Bhattacharjee, Shivom** published *A Survey on Plant Stem Health Monitoring Using Deep Machine Learning* through Elsevier's *Social Science Research Network (SSRN)* (October 2025). Affiliated with PCE, New Panvel.
35. **Prof. Manasi Kulkarni, Sakshi Dalvi, Vipul Patel, Shruti Patil and Akil Krishna** published *Smart Shopping Cart with Automated Billing Using RFID* in the

Journal of Emerging Technologies and Innovative Research (International, April 2025). Affiliated with PCE, New Panvel.

36. **Kadam, Arjun and Lokhande, Prashant S.** published *Design of an Intrusion Detection Model for Smart Homes Enabled by IoT* in the *International Journal of Engineering Research & Technology* (International, March 2025). Affiliated with PCE, New Panvel.
37. **Pal, Ankit, Lokhande, Prashant S., Bodala, Pranita, Phale, Shubham and Gawde, Darshan** published *Mobile Device Forensics for Social Media Investigations* through Elsevier's *Social Science Research Network (SSRN)* (October 2025). Affiliated with PCE, New Panvel.
38. **Akshay Jadhav** presented *FOPID Controller on SBR* at the *International Conference on Advanced Technologies for Societal Applications* (International). The publication date is not specified in the source. Affiliated with PCE, New Panvel.
39. **Ujwal Harode** published *Mindscape: AI Powered Mental Healthcare Based on Sentiment Analysis* in the *Journal of Emerging Technologies and Innovative Research (JETIR)* (International, April 2025). Affiliated with PCE, New Panvel.
40. **Seema Mishra** published *Adaptive Sign Language Interpretation Using AI/ML* in the *Journal of Emerging Technologies and Innovative Research (JETIR)* (International, April 2025). Affiliated with PCE, New Panvel.
41. **Swati Patil** published *HomeHub: A Digital Real Estate Management System for Efficient...* in the *Journal of Emerging Technologies and Innovative Research* (International, April 2025). Affiliated with PCE, New Panvel.
42. **Uma K. S.** published *Social Media Analytics* in the *Journal of Emerging Technologies and Innovative Research (JETIR)* (International, April 2025). Affiliated with PCE, New Panvel.
43. **Suchitra A. Patil** published *A Multi-Feature Extraction Decoder for Polyp Detection* as a chapter in the *Springer Nature Switzerland – International Conference on Intelligent Computing and Big Data Analytics (ICICBDA 2024)* (International, December 2024). Affiliated with PCE, New Panvel.
44. **Ruchira Patole** published *Advanced Prediction of Supply Faults in Three-Phase Induction Motors Using Integrated Leakage Flux and Thermal Imaging with Machine Learning Methods* in the *2024 IEEE International Conference on Innovations in Communications, Electrical and Computer Engineering* (International, October 2024). Affiliated with PCE, New Panvel.
45. **Ruchira Patole** published *Proactive Detection of Rotor Faults in Rotating Machinery Through Thermal Imaging and Acoustic Analysis Using Artificial Intelligence* at the *IEEE Sixth International Conference on Advances in Electrical*

and Computer Technologies (International, September 2024). Affiliated with PCE, New Panvel.

46. **Bhosale J. D.** published *GSM Based Railway Track Crack Detection System* in *IJAR SCT*, Volume 5, Issue 6 (International, April 2025). Affiliated with PCE, New Panvel.
47. **Dr. Tusharika Sinha Banerjee** published *Innovations and Applications of High-Power Microwave Impulse Radiating Antenna: A Review* in the *Journal of Information Systems Engineering and Management* (International, June 2025). Affiliated with PCE, New Panvel.
48. **Dr. Prashant Nitnaware** published *A Novel Machine Learning and Internet of Things (IoT) Based Dual Monitoring System for Proactive Botnet Attack Prevention* in *Springer Nature, Computer Science* (International, July 2025). Affiliated with PCE, New Panvel.
49. **Rasika Thakare** published *Image and Video Forgery Detection Using Machine Learning* in *JETIR* (International, January 2025). Affiliated with PCE, New Panvel.
50. **Rasika Thakare** published *Donation Prediction Using Random Forest Regressor for NGO* in *JETIR* (International, April 2025). Affiliated with PCE, New Panvel.
51. **Christopher Uzhuthuval** published *Precision Tumor Analytics Through Advanced Machine Learning* in *JETIR* (International, March 2025). Affiliated with PCE, New Panvel.
52. **Christopher Uzhuthuval** published *SmartShot Cricket: Transforming Training and Strategy Through Advanced Analytics and Computer Vision* in *JETIR* (International, April 2025). Affiliated with PCE, New Panvel.
53. **Dr. Aditi Bhateja** published *Crowd Tracking at Ritual Sites in Real Time* in *JETIR* (International, April 2025). Affiliated with PCE, New Panvel.
54. **Dr. Soumya S. Mohapatra** published *Voice Driven AI System for Streamlined Financial Communication and Management* in *JETIR* (International, April 2025). Affiliated with PCE, New Panvel.
55. **Arpita Agarwal** published *Detecting Fake News Through Web Engineering: A Content-Based Machine Learning Perspective* in *JETIR* (International, April 2025). Affiliated with PCE, New Panvel.
56. **Dr. Shreedevi Kulkarni** published *Enhancing Safety: Accident Prevention and Efficient Street Lighting* in *IJNRD* (International, March 2025). Affiliated with PCE, New Panvel.

57. **Dr. Jinesh Melvin Y. I.** published *A Comprehensive Analysis on “Adapt Learn Hub”: An Inclusive Visual Learning Platform for Kids to Overcome Educational Barriers Using Object Detection and Semantic Segmentation* in *JETIR* (International, July 2024). Affiliated with PCE, New Panvel.
58. **Dr. Sandeep M. Joshi** published *Design and Analysis of Helical Cone Coil Heat Exchanger for Low Grade Heat Recovery* in the *Journal of Heat and Mass Transfer Research* (International, August 2024). Affiliated with PCE, New Panvel.
59. **Dr. Divya Padmanabhan** presented *A Novel Composite for Automotive Body Panels* at the *Seventh International Conference on Materials Science and Manufacturing Technology 2025 (ICMSMT 2025)* (International, **to be published in Materials Science Forum**, Scopus-indexed). Affiliated with PCE, New Panvel.
60. **Dr. Gajanan N. Thokal** published *Design of Compact Forklift* in the *Industrial Engineering Journal* (UGC Care, January 2025). Affiliated with PCE, New Panvel.
61. **Dr. Gajanan N. Thokal** published *Analysis of Predictive Mechanical Maintenance Using Artificial Intelligence, Machine Learning and Data Science* in the *International Journal on Emerging Technologies* (International, January 2025). Affiliated with PCE, New Panvel.
62. **Dr. Gajanan N. Thokal** published *Empowering Smart Megacities: IoT-Based Smart Metering to Enhanced Energy Efficiency and Consumer Empowerment* in *Science and Technology Asia Journal* (International, June 2025). Affiliated with PCE, New Panvel.
63. **Prof. Binsu Babu** published *3D-Printed Myoelectric Prosthetic Hand’s Design and Development Featuring Velostat Pressure Sensing* in the *International Journal of Mechanical and Production Engineering* (International, January 2025). Affiliated with PCE, New Panvel.
64. **Prof. M. Durga Rao** published *Experiment Investigation of Peltier Effect in Small Scale Refrigerator* in the *International Journal of Engineering Research in Mechanical and Civil Engineering (IJERMCE)* (International, March 2025). Affiliated with PCE, New Panvel.