

PCE Faculty publications A.Y 2025-26

Journal Publications

1. **Dr. Priam Pillai** published *Design and Fabrication of an Instrument to Measure Actuation Force of Polypyrrole Deposited on Electrode* in *OP Conference Series: Materials Science and Engineering* (September 2025). Affiliated with PCE, New Panvel.
2. **Dr. Priam Pillai** published *Development of In-House Single-Screw Extruder for the Extrusion of Polymer Composite Filament* in the *International Journal of Innovative Research and Technology* (June 2026). Affiliated with PCE, New Panvel.
3. **Dr. Divya Padmanabhan** published *Polysulfone Membranes with Natural Additives for Water Purification: Fabrication and Performance Testing* in the *Journal of Membrane Science* (November 2025). Affiliated with PCE, New Panvel.
4. **Dr. Divya Padmanabhan** published *Flow Simulation in Hydrogen IC Engine* in the *International Journal of Environmental Sciences* (November 2025). Affiliated with PCE, New Panvel.
5. **Dr. Divya Padmanabhan** published *Biomedical Applications of Polycaprolactone (PCL) Composites: Structure, Properties and Future Prospects* in the *Journal of Research Updates in Polymer Science* (September 2025). Affiliated with PCE, New Panvel.
6. **Dr. Divya Padmanabhan** published *Processability Assessment of HDPE/UHMWPE Blends for Fused Deposition Modeling Applications* in the *Journal of Research Updates in Polymer Science* (October 2025). Affiliated with PCE, New Panvel.
7. **Dr. Richa Agrawal** published *Processability Assessment of HDPE/UHMWPE Blends for Fused Deposition Modeling Applications* in the *Journal of Research Updates in Polymer Science* (October 2025). Affiliated with PCE, New Panvel.
8. **Dr. Richa Agrawal** published *Biomedical Applications of Polycaprolactone (PCL) Composites: Structure, Properties and Future Prospects* in the *Journal of Research Updates in Polymer Science* (September 2025). Affiliated with PCE, New Panvel.
9. **Dr. Gajanan Thokal** published *Artificial Intelligence and Machine Learning in Predictive Maintenance of Rotary Machinery: A Systematic Literature Review* in the proceedings of *ICESC 2025* (October 2025). Affiliated with PCE, New Panvel.
10. **Dr. Gajanan Thokal** published *Empowering Smart Megacities: IoT-Based Smart Metering for Enhanced Energy Efficiency and Consumer Empowerment* in *Science and Technology Asia* (June 2025). Affiliated with PCE, New Panvel.

11. **Dr. Debashish Panda** published *Enhanced Sound Attenuation Using Radially Gradient Sonic Crystals with Cladded Resonators* in the *Journal of Vibration and Control* (August 2025). Affiliated with PCE, New Panvel.
12. **Dr. Debashish Panda** published *Broadband Attenuation of Spherical Acoustic Waves Using Radial Sonic Crystals with Diverging Geometries* in *Applied Acoustics* (August 2025). Affiliated with PCE, New Panvel.
13. **Dr. Vinayak Suryawanshi** published *Microstructural Refinement and Property Enhancement in Nitrided Al7075 Hybrid Composites Reinforced with Al–Ti–B and Al₂O₃* in the *Journal of The Institution of Engineers (India): Series D, Springer* (January 2026). Affiliated with PCE, New Panvel.
14. **Dr. Pruthviraj Pratap Rahane** published *Optimization of Parameters of Solar Tracking Mechanism Integrated with Pulse Width Modulation (PWM) Battery Charge Control* in the *Journal of Technology* (August 2025). Affiliated with PCE, New Panvel.
15. **Dr. Pruthviraj Pratap Rahane** published *Comparative Assessment and Evaluation of Power Output of Different Types of Solar Tracking Mechanism in High Technology Letters* (August 2025). Affiliated with PCE, New Panvel.
16. **Dr. Avinash R. Vaidya** published *Design of Compact Spiral Antenna with Modified Feed Structure for Electronic Warfare Applications in Progress in Electromagnetics Research C (PIER)* (February 2026). Affiliated with PCE, New Panvel.
17. **Dr. Avinash R. Vaidya** published *Parameter Enhancement of Vivaldi Slot 1×2 Array MIMO Antenna Using AMC in Progress in Electromagnetics Research M* (November 2025). Affiliated with PCE, New Panvel.
18. **Dr. Avinash R. Vaidya** published *Enhanced Spiral Antenna Performance by Multistep Ground Plane Reflector for 2–18 GHz Applications in Progress in Electromagnetics Research C (PIER)* (August 2025). Affiliated with PCE, New Panvel.
19. **Dr. Ameet Mehta** published *Parameter Enhancement of Vivaldi Slot 1×2 Array MIMO Antenna Using AMC in Progress in Electromagnetics Research M* (November 2025). Affiliated with PCE, New Panvel.
20. **Aboli Khedkar** published *Memoryless State-Recovery Cryptanalysis Method for Lightweight Stream Cipher – A5/1* in the *International Journal of Electrical and Computer Engineering (IJECE)* (December 2025). Affiliated with PCE, New Panvel.

21. **Aboli Khedkar** published *Eco Marine Trash Collector: A Raspberry Pi Based Smart Waste Collection for Still Water* in the *International Journal of Engineering Research & Technology (IJERT)* (April 2026). Affiliated with PCE, New Panvel.
22. **Aboli Khedkar** published *Autonomous Theft Proof Robot for Item Delivery* in the *International Journal of Engineering Research & Technology (IJERT)* (April 2026). Affiliated with PCE, New Panvel.
23. **Suchitra Arun Patil** published *LPSNet: A Novel Lightweight Polyp Segmentation Convolutional Neural Network* in the *International Journal of Pattern Recognition and Artificial Intelligence* (January 2026). Affiliated with PCE, New Panvel.
24. **Suchitra Arun Patil** published *LIC-Net: Lightweight Integrated Convolutional Network for Accurate Polyp Segmentation* in the *Journal of Theoretical and Applied Information Technology* (October 2025). Affiliated with PCE, New Panvel.
25. **Sonali Kathare** published *MediAstra (The Autonomous Robot)* in the *International Journal of Engineering Research & Technology (IJERT)* (March 2026). Affiliated with PCE, New Panvel.
26. **Sonali Kathare** published *Autonomous Fire Extinguisher Drone* in the *International Journal of Engineering Research & Technology (IJERT)* (February 2026). Affiliated with PCE, New Panvel.
27. **Jisha Sateesh** published *Mechanical Design and Structural Integration of Solar Powered EV Charging Stations for Two Wheelers* in *CTFC Atlantis Springer* (December 2025). Affiliated with PCE, New Panvel.
28. **Dr. Sharvari Govilkar** published *Multiclass Text Classification Using Token-Level Learning Rate Decay in BERT* in the *International Journal of Advances in Signal and Image Sciences* (December 2025). Affiliated with PCE, New Panvel.
29. **Dr. Sharvari Govilkar** published *Analysis and Detection of Suicidal Ideation in Text Data Using Machine Learning* in the *International Journal of Research and Innovation in Social Science (IJRISS)* (June 2026). Affiliated with PCE, New Panvel.
30. **Dr. Mimi Mariam Cherian** published *Evaluation of Deep Learning Approaches to Detect Choroidal Neovascularization* in the *International Journal of Image, Graphics and Signal Processing (IJIGSP)* (August 2025). Affiliated with PCE, New Panvel.
31. **Dr. Ankita Pandit** published *A Survey on Artificial Intelligence-Based Network Intrusion Detection Systems* in *SSRN Electronic Journal, managed by Elsevier* (January 2026). Affiliated with PCE, New Panvel.

32. **Dr. Ankita Pandit** published *Artificial Intelligence-Based Network Intrusion Detection System* in the *Journal of Emerging Technologies and Innovative Research (JETIR)* (February 2026). Affiliated with PCE, New Panvel.
33. **K. S. Charumathi** published *AI-Driven Forensic Analysis: Correlating Cybersecurity Artifacts with LLMs and RAG* in the *Journal of Emerging Technologies and Innovative Research (JETIR)* (May 2026). Affiliated with PCE, New Panvel.
34. **Sangeetha Selvan** published *AI Powered Crypto Analytics Agent for Token Insights and Forecasting* in the *International Innovations & Scholarly Trends Journal* (April 2026). Affiliated with PCE, New Panvel.
35. **Priyanka P. Sherkhane** published *AI Driven Financial Advisor* in the *International Journal of Innovative Research in Technology* (February 2026). Affiliated with PCE, New Panvel.
36. **Priyanka P. Sherkhane** published *Candid-AI: An AI-Powered Multimodal Pre-Interview Screening System for Intelligent Recruitment* in the *Journal of Emerging Technologies and Innovative Research (JETIR)* (January 2026). Affiliated with PCE, New Panvel.
37. **Dr. Jyoti Deshmukh** published *No-Code Backend Platforms and AI-Driven Approaches for Context-Aware Backend Engineering* in *Signa Journal* (April 2026). Affiliated with PCE, New Panvel.
38. **Dr. Jyoti Deshmukh** published *AI Based Interactive Framework for Multimodal Misinformation Detection* in *Vesper Journal* (2026). Affiliated with PCE, New Panvel.
39. **Dr. Jyoti Deshmukh** published *Emerging Paradigms in Psychological Artificial Intelligence and Mental Healthcare: A Review* in *Liberte Journal* (May 2026). Affiliated with PCE, New Panvel.
40. **Dr. Jyoti Deshmukh** published *Evolution of Cancer Pathology Research: A Comprehensive Review* in *Signa Journal* (May 2026). Affiliated with PCE, New Panvel.
41. **Kirti Rana** published *AI-Powered Personalized Conversational Agent for Education* in the *International Journal of Engineering Research & Technology (IJERT)* (April 2026). Affiliated with PCE, New Panvel.
42. **Kirti Rana** published *A Hybrid AI Framework for Real-Time Cloud Data Sanitation and Security* in the *International Journal of Engineering Research & Technology (IJERT)* (April 2026). Affiliated with PCE, New Panvel.
43. **Kirti Rana** published *Banknote Detection System* in *IJIRT* (April 2026). Affiliated with PCE, New Panvel.

44. **Kirti Rana** published *An Accessible Real-Time Assistive System for Visually Impaired* in *JETIR* (April 2026). Affiliated with PCE, New Panvel.
45. **Pooja Bhise** published *AI-Powered Site Selection for Renewable Energy Using Satellite Imagery* in the *International Research Journal (TIJER)* (January 2026). Affiliated with PCE, New Panvel.
46. **Pooja Bhise** published *A Comprehensive Framework for Legal Document Analysis* in *Zenodo* (December 2025). Affiliated with PCE, New Panvel.
47. **Manasi Sagar Kulkarni** published *Course Crafter: Recommendation System Using AI* in the *International Journal of Emerging Technologies and Innovative Research (JETIR)* (January 2026). Affiliated with PCE, New Panvel.
48. **Manasi Sagar Kulkarni** presented/published *AI-Driven Food Label Analysis and Risk Assessment for Food Safety* at the *International Conference on Intelligent Computing and Networking (IC-ICN 2026)*, organized at Thakur College of Engineering and Technology, Mumbai (March 2026). Affiliated with PCE, New Panvel.
49. **Jayamala Chavan** published *Cyberbullying and Hate Speech Detection Using NLP* in the *Journal of Emerging Technologies and Innovative Research (JETIR)* (April 2026). Affiliated with PCE, New Panvel.
50. **Jayamala Chavan** published *SafeGrowth: AI-Powered Portfolio Management for Smarter Investment Decisions* in the *International Journal of Scientific Research and Engineering Development* (January 2026). Affiliated with PCE, New Panvel.
51. **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.
52. **Dr. Aditi Bhateja** published *Survey on Crowd Tracking at Ritual Sites* in the *Journal of Emerging Technologies and Innovative Research (JETIR)* (April 2025). Affiliated with PCE, New Panvel.
53. **Dr. Aditi Bhateja** published *Crowd Tracking at Ritual Sites* in the *Journal of Emerging Technologies and Innovative Research (JETIR)* (April 2025). Affiliated with PCE, New Panvel.
54. **Dr. Aditi Bhateja** published *Intelligent PDF Data Exploration with Natural Language Queries* in the *Journal of Emerging Technologies and Innovative Research (JETIR)* (March 2026). Affiliated with PCE, New Panvel.
55. **Deepa Ekhande** published *Intelligent Vehicle Monitoring System* in *Atlantis Highlights in Sustainable Development, Springer Nature* (April 2025). Affiliated with PCE, New Panvel.

56. **Vrushali Bahurupi** published *Survey Paper on Leveraging Artificial Intelligence and Blockchain to Enhance Supply Chain Management for a Ganpati Idol Selling Platform* in the *Tuijin Jishu / Journal of Propulsion Technology* (January 2026). Affiliated with PCE, New Panvel.
57. **Arpita Agarwal** published *Integrated Machine Learning Approaches for Enhanced Forest Fire Detection* in the *International Journal of Engineering Technology and Management Sciences* (May 2026). Affiliated with PCE, New Panvel.
58. **Supriya Waghmare** published *LChat: A Real-Time Multilingual Chat Application with AI-Based Automatic Language Detection, Translation, and Voice Messaging Support* in *Vesper Journal* (February 2026). Affiliated with PCE, New Panvel.
59. **Shreedevi Kulkarni** published *Emerging Paradigms in Psychological Artificial Intelligence and Mental Healthcare: A Review* in *Liberate Journal* (May 2026). Affiliated with PCE, New Panvel.
60. **Maheshkumar D. Kudre, Narendrakumar R. Dasre and Pritam Gujarathi-Wani** published *An Edge Detection Algorithm Based on Second Order Difference* in *Communications on Applied Nonlinear Analysis* (March 2025). Affiliated with PCE, New Panvel.
61. **Deepali Shrivastava, P. S. Goyal and S. K. Deshpande** published *Development of Nanocomposite Films Having Low Dielectric Constant for Microelectronics Applications* in the *Proceedings of the 68th DAE Solid State Physics Symposium* (April 2026; symposium held December 18–22, 2024). Affiliated with PCE, New Panvel.
62. **Prof. M. S. Balasubramani** published/presented *Challenges in Using AI's Natural Language Processing (NLP) in Analysing Tagore's Gitanjali: The Ethics of Interpretation* at the *3rd International Conference on Recent Advances in Computational Techniques 2025* (November 2025). Affiliated with PCE, New Panvel.