

PCE Faculty publications A.Y 2023-24

Journal Publications:

1. **Dr. Priam Pillai** authored the paper titled *Biaxial tensile tests to study mechanical behaviour of thin soft materials* in *Materials Today: Proceedings*, July 2023. ISSN: 2214-7853.
2. **Dr. Priam Pillai** contributed the paper titled *Identifying and segregating items by using image analysis and dobot robot* in *Stochastic Modelling and Computational Sciences*, December 2023. ISSN: 2752-3829.
3. **Dr. Priam Pillai** - *Design and control of Lorentz force micro actuator* - *International Journal of Applied Engineering & Technology* - Dec-23 - ISSN: 2633-4828
4. **Dr. Sandeep M. Joshi** - *Development of solar dryer* - *International Journal of Applied Engineering & Technology* - Dec-23 - ISSN: 2633-4828
5. **P S Goyal** published a paper on the "Magnetic properties of Fe₃O₄ nanoparticles having several different coatings" in the *Bulletin of Materials Science* (2023), Volume 46, page 216, in November 2023.
6. **P.S. Goyal** also contributed a paper on "Determination of sizes of Fe₃O₄ nanoparticles: Results of comparative X-ray diffraction and Small Angle X-Ray Scattering Studies," which was published in the *International Journal of Applied Engineering & Technology*. The ISSN for this journal is 2633-4828.
7. **Dr. Moutusi De** authored *Optical Fiber Based Gold Nanoparticles and Titanium Dioxide Modified In Situ Refractometer and Immunosensor*, published in *IEEE Sensors Journal* (January 2024), ISSN 1558-1748.
8. **Dr. Sharvari Govilkar** authored *Enhancing Answer Ranking in Marathi: A Multi-Faceted Approach Using Lexical-Syntactic, Semantic, and Contextual Similarity*, published in *Journal of Data Acquisition and Processing* (July 2023), ISSN 6636-6647.
9. **Dr. Sharvari Govilkar** authored *Leveraging Semantic Analysis for Monolingual Plagiarism Detection*, published in *Journal of Data Acquisition and Processing* (July 2023), ISSN 6636-6647.
10. **Dr. Sharvari Govilkar** authored *Hindi/Marathi-Bart: An Efficient Sequence-to-Sequence Model for Abstractive Text Summarization for Hindi and Marathi Language*, which was published in the *Scandinavian Journal of Information Systems* in September 2023 (ISSN: 0905-0167 | 1901-0990).

11. **Dr. Sharvari Govilkar** authored *Handling Imbalanced Classes for Model Training in Fake News Detection*, published in the *International Journal on Recent and Innovation Trends in Computing and Communication* in July 2024 (ISSN 2321-8169).
12. **Dr. Sharvari Govilkar** authored *A Comprehensive Research on Emotion Detection Techniques for Pure and Code-Mixed Indian Regional Languages*, published in *Stochastic Modelling & Computational Sciences* in December 2023 (ISSN: 2752-3829).
13. **Dr. Sharvari Govilkar** authored *Comparative Analysis of Named Entity Recognition in Indian Language Texts: Monolingual and Code-Mixed Languages*, published in *Stochastic Modelling & Computational Sciences* in December 2023 (ISSN: 2752-3829).
14. **Dr. Sharvari Govilkar** authored *Exploring Marathi-English Code-Mixing: Comprehensive Analysis of NLP Applications (QA and NER)*, published in the *International Journal of Intelligent Systems and Applications in Engineering (IJISAE)* in March 2024 (ISSN: 2147-6799).
15. **Dr. Divya Padmanabhan** - *Improvement of Water Flux with Date Palm Reinforcement in Composite Membranes* - *International Journal of Applied Engineering & Technology* - Dec-23 - ISSN: 2633-4828
16. **Dr. Divya Padmanabhan** - *Development of Single Axis Solar (PV) Tracker and Its Thermal Analysis* - *International Journal of Applied Engineering & Technology* - Dec-23 - ISSN: 2633-4828
17. **Dr. Divya Padmanabhan** - *A Study on Microstructural and Mechanical Properties of IN718 Processed Through Laser Direct Energy Deposition and Conventional Casting* - *International Journal of Applied Engineering & Technology* - Dec-23 - ISSN: 2633-4828
18. **Dr. Divya Padmanabhan** - *A Comprehensive Review Summarizing the Reinforcement of UHMWPE Composite Scaffolds as An Artificial Implant Biomaterials* - *Materials Today Proceedings* - Jul-23 - -
19. **Dr. Divya Padmanabhan** - *Improving Water Flux Using Agave Reinforcement in Polymeric Membranes* - *NanoWorld Journal* –
20. **Dr. Gajanan Thokal** - *Industry Effluent Water Monitoring System* - *Industrial Engineering Journal*, Vol. XVI & Issue No. 09 - Sep-23
21. **Dr. Gajanan Thokal** - *Sustainable Biocompatible Materials for 3D Printed Fracture Casts: A Comparative Study of Mechanical Properties and Environmental Impact* - *Science & Technology Asia*, Volume 28 No.4 - Dec-23 - P-ISSN 2586-9000
22. **Dr. Arun Shridharan Pillai** authored *Design and Implementation of a 64-bit Vedic Multiplier Using Urdhva*, published in *Journal of Xidian University* (March 2024), ISSN 1001-2400.
23. **Deepali Shrivastava** authored *Determination of Sizes of Fe₃O₄ Nanoparticles: Results of Comparative X-ray Diffraction and Small Angle X-Ray Scattering Studies*, published in *International Journal of Applied Engineering & Technology* (ISSN 2633-4828).

24. **Mimi Cherian** presented *Secure SDN-IoT Framework for DDoS Attack Detection Using Deep Learning and Counter-Based Approach*, published in *Journal of Network and Systems Management*, Springer Nature, June 2023 (ISSN: 1573-7705, Print ISSN: 1064-7570).
25. **Sangeetha Selvan** also wrote *A Survey on Blockchain Identity Authentication System*, published in *SIRJANA JOURNAL* (UGC Care 1), March 2024 (ISSN: 2455-1058).
26. **Satishkumar L. Varma** contributed a paper titled "RAPID-Net: Reduced architecture for pneumonia in infants detection using deep convolutional framework using chest radiograph" in *Biomedical Signal Processing and Control* journal in January 2024. The ISSN is 1746-8094.
27. **Satishkumar L. Varma** also authored a paper titled "Attention-Enhanced Residual U-Net for Nucleus Segmentation in Immunohistochemistry Images" in the *International Journal of Applied Engineering and Technology* (London) in December 2023. The ISSN is 2633-4828.
28. **Satishkumar L. Varma** authored the paper titled "Attention-Enhanced Residual U-Net for Nucleus Segmentation in Immunohistochemistry Images" in the *International Journal of Applied Engineering and Technology* (London) in December 2023. The ISSN is 2633-4828.
29. **Satishkumar L. Varma** presented a paper titled "Consolidation of Squeeze and Excitation with VGG16 for Pneumonia Diagnosis through Chest X-Ray Images" in *Stochastic Modelling and Computational Sciences*, Roman Science Publications, in December 2023. The ISSN is 2752-3829.
30. **Satishkumar L. Varma** contributed the paper "Analysis of Machine Learning and Deep Learning Techniques For Emotion Recognition Using English Text" to the *International Journal of Applied Engineering and Technology* (London) in December 2023. The ISSN is 2633-4828.
31. **Satishkumar L. Varma** authored the paper titled "Deep Architecture for Diagnosis of Pneumonia in Thoracic Images" in the *International Journal of Applied Engineering and Technology* (London) in December 2023. The ISSN is 2633-4828.
32. **Satishkumar L. Varma** presented the paper "Gene co-expression network construction and analysis for identification of genetic biomarkers associated with glioblastoma multiforme using topological findings" in the *Journal of the Egyptian National Cancer Institute* in July 2023. The ISSN is 2589-0409.
33. **Dr. Richa Agrawal** - *A Comprehensive Review Summarizing the Reinforcement of UHMWPE Composite Scaffolds as An Artificial Implant Biomaterials - Materials Today Proceedings* - Jul-23
34. **Dr. Richa Agrawal** - *Finite Element Analysis of Femur Bone under Transient Loading Conditions - International Journal of Applied Engineering & Technology, Vol. 5 No.4 - Dec-23* - ISSN: 2633-4828

35. **Dr. Richa Agrawal** - *Evaluation of Stability of Fixation Using Conventional Miniplate Osteosynthesis in Comminuted and Non-Comminuted Le Fort I, II, III Fractures – A Dynamic Finite Element Analysis - The Scientific Temper*, 15(01) - Mar-24 - ISSN: 0976-8653
36. **Archana Ingole** authored *On the Skew Eigenvalues of Joined Union of Oriented Graphs and Applications*, published in *Quaestiones Mathematicae* (May 2024), ISSN 1607-3606 (print), 1727-933X (online).
37. **Archana Ingole** authored *On the Skew Characteristics Polynomial/Eigenvalues of Operations on Bipartite Oriented Graphs and Applications*, published in *Research in Mathematics* (February 2024), ISSN 2768-4830 (online).
38. **Kamini Chaudhari** authored *Analysis of Thermal Constraints with Bioheat Transfer in Human Tissues*, published in *Interfacial Phenomena and Heat Transfer* (May 2024), ISSN 2169-2785 (print), 2167-857X (online).
39. **Kamini Chaudhari** authored *Impact of Reduced Differential Transform Under Heat-Moisture Coupling on the Hygrothermoelastic Properties in Cartesian Coordinates*, published in *Physica Scripta* (June 2024), ISSN 1402-4896 (online), 0031-8949 (print).
40. **Neethu P** authored *Square Residue Graph*, published in *AIP Conference Proceedings* (May 2024), ISSN 0094-243X.
41. **Lilly Pradhan** authored *Independent Domination Number of Wheel and Path Related Graphs*, published in *AIP Conference Proceedings* (May 2024), ISSN 0094-243X.
42. **Biswajit Panda** authored *Hexagonal Boron Nitride Nanoplatelets Filled Polyphenylene Sulphide Nanocomposites: Influence on Thermal and Dielectric Properties*, published in *Journal of Mines, Metals and Fuels* (December 2023), ISSN 0022-2755.
43. **Dr. Sundeep Deulkar** authored *Determination of Sizes of Fe₃O₄ Nanoparticles: Results of Comparative X-Ray Diffraction (XRD) and Small Angle X-Ray Scattering (SAXS) Studies*, published in *International Journal of Applied Engineering and Technology* (December 2023), ISSN 2633-4828.
44. **Dr. Sundeep Deulkar** authored *Magnetic Properties of Fe₃O₄ Nanoparticles Having Several Different Coatings*, published in *Bulletin of Materials Science* (November 2023), Vol. 46, Article 216.
45. **Darshana Pachkawade** authored *Portrayal of Dystopian Society and Brati as a Dystopian Protagonist in Mahasweta Devi's 'Mother of 1084'*, published in *International Journal of English and Studies* (May 2024), ISSN 2581-8333.
46. **Mimi Cherian** authored *A Review on Recent Driver Safety Systems and Its Emerging Solutions*, published in *International Journal of Computers and Applications*, Volume 46, Issue 3, pages 137–151, January 2024 (ISSN: 1925-7074).

47. **Suresh Babu K.S** authored *Surveillance Video Analysis Using Event Recognition*, published in *International Journal of Emerging Technologies and Innovative Research*, April 2024 (ISSN: 2349-5162).
48. **Priyanka Sherkhane** contributed to *Helios: The Multimodal AI*, published in *Journal of Emerging Technologies and Innovative Research (JETIR)*, May 2024 (ISSN: 2349-5162).
49. **Priyanka Sherkhane** proposed *An End-to-End System for Workout Management*, published in *International Journal of Engineering Research and Technology (IJERT)*, April 2024 (E-ISSN: 2278-0181).
50. **Nair Krishnendu** authored *Automated Grading of Short Answer Scripts*, published in *JETIR*, Volume 11, Issue 2, February 2024 (ISSN: 2349-5162).
51. **Nair Krishnendu** also contributed to *Mental Health Detection Based on Social Media Activities*, published in *JETIR*, Volume 11, Issue 2, February 2024 (ISSN: 2349-5162).
52. **Rupali Sharma** authored *Survey on Detection Methods for Deepfake Videos*, published in *Journal of Emerging Technology and Innovative Research (JETIR)*, March 2024 (ISSN: 2349-5162).
53. **Dhiraj Amin** presented *Flex-Fit Gym Tracker and Diet Recommendation System*, published in *International Research Journal of Engineering and Technology (IRJET)*, Volume 11, Issue, April 2024 (E-ISSN: 2395-0056, P-ISSN: 2395-0072).
54. **Savita Sawant** presented *Pillai InfoDesk*, published in *Journal of Emerging Technologies and Innovative Research*, Volume 11, Issue 4, April 2024 (ISSN: 2349-5162).
55. **Savita Sawant** authored *Resume Analyzer Using Transformers*, published in *Journal of Emerging Technologies and Innovative Research*, Volume 11, Issue 4, April 2024 (ISSN: 2349-5162).
56. **Sangeetha Selvan** contributed to *Survey on Advanced Healthcare System Using Hybrid Machine Learning Algorithms*, published in *Journal of Systems Engineering and Electronics* (ISSN: 1671-1793) DOI: 10.14118/jsee.2024.V34I4.1555, March 2024.
57. **Pooja Bhise** authored *Creating 3D Models Using 2D Views of Objects*, published in *TIJER*, Volume 11, Issue 4, April 2024 (ISSN: 2349-9249).
58. **Pooja Bhise** also contributed to *Travelease: A Comprehensive Android Tourist Companion*, published in *International Journal of Recent Advances in Multidisciplinary Topics*, March 2024 (ISSN: 2582-7839, Online).
59. **Pooja Bhise** published a paper titled "Drive Safe Alert System" in the *International Journal of Novel Research and Development*, in April 2024. The ISSN for this journal is 2456-4184.
60. **Pooja Bhise** also contributed to the *Sirjana Journal*, UGC Care 1, with a paper on "Optical Character Recognition Using Deep Learning," published in May 2024. The ISSN is 2455-1058.

61. **Dr. Jyoti Deshmukh** authored a paper titled "Smart Healthcare: Blockchain-Driven Patient Risk Classification with Machine Learning," published in the *International Journal of Intelligent Systems and Applications in Engineering*, Volume 12, Issue 3, pages 4025-4034, in June 2024. The ISSN for this journal is 2147-6799.
62. **Ameet M. Mehta**, a faculty member, presented a paper titled "Design and Development of CPW-Fed Miniaturized MSA for Improved Gain, Bandwidth, and Efficiency Using PRS" in the journal *Progress In Electromagnetics Research C* in September 2023. The ISSN is 1937-8718.
63. **Ameet M. Mehta** presented a paper titled "A Bow-Tie shaped Slot Antenna with Substrate Integrated Waveguide (SIW) and Periodic Patches for Gain and Bandwidth Improvement" at the 2023 IEEE Pune Section International Conference (Pune Con) held in December 2023. The ISSN for the conference proceedings is 2831-5022.
64. **Ameet M. Mehta** authored the paper titled "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* in March 2024. The ISSN is 1001-2400.
65. **Prerana Kulkarni** authored the paper titled "MyCitypedia: One Stop Complete Directory for A Smart Urban Lifestyle" in the *International Journal of Research and Analytical Reviews* in April 2024. The ISSN is 2348-1269.
66. **Prerana Kulkarni** contributed the paper titled "A Survey of On-Demand Home Services" in the *International Journal of Advanced Research in Science, Communication and Technology* in January 2024. The ISSN is 2581-9429.
67. **Prerana Kulkarni** authored the paper titled "HomeServe: The On-Demand Home Services Platform" in the *International Journal of Research and Analytical Reviews* in April 2024. The ISSN is 2348-1269.
68. **Prashant S. Lokhande** presented the paper "Lost Laptop Tracking System Using Mac Address" in *SSRN* in March 2024. The ISSN is 2304-7151.
69. **Dr. Shreedevi Kulkarni** authored the paper titled "IOT Based Metropolitan Gardening System" in the *International Journal of Agriculture Research and Development* in April 2024.
70. **Vrushali Bahurupi** authored the paper titled *Medley: A Centralized Cloud-Based System For Improved Healthcare Data Security With Authentication* in the *International Research Journal of Engineering and Technology*, April 2024. ISSN: 2395-0056.
71. **Vrushali Bahurupi** contributed the paper titled *Survey Paper on Cloud-Based Secured Healthcare System* in the *International Research Journal of Engineering and Technology*, January 2024. ISSN: 2395-0056.
72. **Arpita Agarwal** presented the paper *Bus Traversal System (Fare Calculation using GPS)* in the *Journal of Emerging Technology and Innovative Research*, March 2024. ISSN: 2349-5162.

73. **Meeta S. Vedpathak** - *Development of Solar Dryer - International Journal of Applied Engineering & Technology* - Dec-23 - ISSN: 2633-4828
74. **Pruthviraj Rahane** - *Development of Single Axis Solar (PV) Tracker and Its Thermal Analysis - International Journal of Applied Engineering & Technology* - Dec-23 - ISSN: 2633-4828