

**2025-2026**

**JOURNAL PUBLICATION**

| <b>Sr.No.</b> | <b>Title of the paper</b>                                                                                     | <b>Name of Journal</b>                                        | <b>Name of the faculty member</b> |
|---------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------|
| 1             | Integrating project-based learning for enhancing higher education within an outcome-based education framework | International Journal of Evaluation and Research in Education | Dr. Anagha Kulkarni               |
| 2             | Deep Learning-based Enhanced Cloud Authentication using Cognitive Biometrics and Secure Encryption Techniques | International Journal of Applied Mathematics                  | Dr. Anagha Kulkarni               |
| 3             | AI-powered breast cancer detection: A comparative study of machine learning and deep learning                 | Mathematical Modelling of Engineering Problems                | Dr. Radhika Bhagwat               |
| 4             | Integrating project-based learning for enhancing higher education within an outcome-based education framework | International Journal of Evaluation and Research in Education | Dr. Radhika Bhagwat               |
| 5             | A Novel Approach to Diabetes Diagnosis Using Deep Hybrid Architecture and Exhaled Human Breath                | International Journal of Drug Delivery Technology             | Dr. Dipti Patil                   |
| 6             | Critical review of Botnet sophistication and detection inefficiencies in IoT and mobile networks              | Discover Internet of Things                                   | Harsha Sonune                     |

**2025-2026**

**CONFERENCE PUBLICATION**

| <b>Sr.No.</b> | <b>Title of the paper</b>                                                                         | <b>Name of the Conference</b>                                                                     | <b>Name of the faculty member</b> |
|---------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------|
| 1             | Crop Yield Estimation Using Machine Learning and Deep Learning                                    | International Conference on Smart Trends for Information Technology and Computer Communications   | Dr. Dipti Patil                   |
| 2             | System Architecture of AI-Powered Gesture-Controlled Cobots for Patient Support and Elderly Care  | 9th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC-2025) | Dr. Dipti Patil                   |
| 3             | Force Estimation in Minimally Invasive Telerobotic Surgery                                        | 9th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC-2025) | Dr. Dipti Patil                   |
| 4             | Smart Agricultural Robotics: A Comprehensive Review of Developments in Automated Fruit Harvesting | 9th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC-2025) | Dr. Dipti Patil                   |
| 5             | YOLO Algorithm-Based Effective Orange Detection and Localization with Improved Data Augmentation  | International Conference on Smart Trends for Information Technology and Computer Communications   | Dr. Dipti Patil                   |
| 6             | Mantralens: A Window into the Emotional Depths of Sanskrit                                        | 9th International Conference on Smart Trends in Computing and Communications                      | Prajakta Deshpande                |

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|----|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 7  | Deep Learning Framework for Perception-Driven Robotic Tissue Manipulation                                                                   | 2nd International Conference on Electronic Circuits and Signaling Technologies ICECST 2025, scheduled from 23rd - 25th October 2025, organized by Lincoln University College, Petaling Jaya, Malaysia | Dr. Dipti Patil     |
| 8  | Deep Learning for QoS-Aware Surgical Video Streaming for Telerobotic Surgery                                                                | 2nd International Conference on Electronic Circuits and Signaling Technologies ICECST 2025, scheduled from 23rd - 25th October 2025, organized by Lincoln University College, Petaling Jaya, Malaysia | Dr. Dipti Patil     |
| 9  | Video Codec Performance in Telerobotic Surgery: Standard Codecs vs. Deep Learning Methods                                                   | 2nd International Conference on Electronic Circuits and Signaling Technologies ICECST 2025, scheduled from 23rd - 25th October 2025, organized by Lincoln University College, Petaling Jaya, Malaysia | Dr. Dipti Patil     |
| 10 | User Interactions and Attention as Internet Currency: Impact on Digital Assets                                                              | 2025 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT)                                                                                                 | Dr. Sneha Thombre   |
| 11 | A Survey of NLP Approaches for Climate Change Sentiment Analysis in Global and Indian Contexts                                              | 10th International conference in Smart trends in Computing and Communications                                                                                                                         | Suchitra Morwadkar  |
| 12 | Leveraging AI and Big Data in Cloud Computing: Case Study of Netflix                                                                        | 2025 12th International Conference on Emerging Trends in Engineering & Technology - Signal and Information Processing (ICETET - SIP)                                                                  | Dr. Radhika Bhagwat |
| 13 | Unified Explainable Artificial Intelligence Framework for Generative Anomaly Detection and Incident Reporting in Nuclear Reactor Operations | International Conference on Information and Communication Technology for Competitive Strategies                                                                                                       | Dr. Dipti Patil     |

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|----|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------|
| 14 | User Interactions and Attention as Internet Currency: Impact on Digital Assets | 2025 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT) | Dr Sneha Thombre |
| 15 | A Comprehensive Survey on AI-Based Approaches for Android Botnet Detection     | International Conference on Computational Intelligence in Data Science                                | Harsha Sonune    |

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**2025-2026**

**FACULTY AWARDS**

| <b>Sr.No.</b> | <b>Faculty Name</b>   | <b>Type</b>   | <b>Remarks</b>                    | <b>Awarding Agency</b>                                  |
|---------------|-----------------------|---------------|-----------------------------------|---------------------------------------------------------|
| 1             | Dr. Anagha Kulkarni   | International | Membership Growth Award           | SWE                                                     |
| 2             | Dr. Makarand Velankar | State         | Entrepreneurship Excellence Award | ENSIN Forum<br>(Entrepreneurship<br>Startup Innovation) |
| 3             | Dr. Makarand Velankar | State         | TiE Pune Chapter Winner           | TiE Pune                                                |

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**2025-2026**

**GRANTED NATIONAL PATENTS**

| <b>Sr.No.</b> | <b>Faculty Name</b> | <b>Patent Title</b>                                                                                      | <b>Application no/Patent No.</b> | <b>Date Applied</b> | <b>Date Granted</b> |
|---------------|---------------------|----------------------------------------------------------------------------------------------------------|----------------------------------|---------------------|---------------------|
| 1             | Dr. Anagha Kulkarni | System For Translating Indian Sign Language into A Common Language and A Method Therefore                | 202021039523                     | 12-Sept-2020        | 30-July-2025        |
| 2             | Dr. Anagha Kulkarni | Real-Time Emotion and Cognitive Skill Visualization Device                                               | 456536-001                       | 25-Apr-2025         | 5 August 2025       |
| 3             | Dr. Dipti Patil     | Construction Material Transport and Load Recommendation Robot                                            | 418541-001                       | 30-May-2024         | 11-July-2025        |
| 4             | Dr. Dipti Patil     | Fruit Harvesting Robotic Arm                                                                             | 472132-001                       | 31 -Aug- 2025       | 12-Jan-2026         |
| 5             | Dr. Dipti Patil     | Modular Cable-Driven Robotic Finger with Rolling-Contact Actuation and Passive Geometric Synchronization | 202521077840                     | 29 Aug- 2025        | 16- June - 2026     |
| 6             | Dr. Dipti Patil     | Breath Sampling and Analyzer Device                                                                      | 490602-001                       | 10- Feb 2026        | 23- Apr -2026       |

**2024-2025**

**JOURNAL PUBLICATION**

| <b>Sr. No</b> | <b>Title of the paper</b>                                                                                                                     | <b>Name of the Journal</b>                                 | <b>Name of the faculty member</b> |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------|
| 1             | Cloud-based Cognitive Image Authentication using Deep Learning Techniques for Secure Access                                                   | Computer Fraud and Security                                | Dr. Anagha Kulkarni               |
| 2             | Improving Facial Expression Recognition with Deep Learning for Faces of Different Ages                                                        | Journal of Information Systems Engineering and Management  | Dr. Anagha Kulkarni               |
| 3             | Towards robust crop disease detection for complex real field background images                                                                | Vietnam Journal of Science and Technology                  | Dr. Radhika Bhagwat               |
| 4             | Case-based reasoning methodology for eLearning recommendation system                                                                          | Int. J. Advanced Intelligence Paradigms                    | Dr. Dipti Patil                   |
| 5             | Statistical Techniques of Exhaled Breath Analysis for Disease Diagnosis and Human Health Monitoring                                           | Journal of Neonatal Surgery                                | Dr. Dipti Patil                   |
| 6             | A Comparative Evaluation of Reinforcement Learning Algorithms for Efficient Autonomous Spacecraft Landing                                     | Advances in Nonlinear Variational Inequalities             | Dr. Dipti Patil                   |
| 7             | Characterization of Human Exhaled Breath Gases for Chronic Obstructive Pulmonary Disease Utilizing an E-Nose Sensor and the Bi-LSTM Algorithm | Majlesi Journal of Electrical Engineering                  | Dr. Dipti Patil                   |
| 8             | Melodic Pattern Recognition and Similarity Modelling: A Systematic Survey in Music Computing                                                  | Journal of Trends in Computer Science and Smart Technology | Dr. Makarand Velankar             |
| 9             | Stress Detection Using Electroencephalogram and Deep Learning                                                                                 | Mathematical Modelling of Engineering Problems             | Dr. Radhika Bhagwat               |
| 10            | Mathematical approach to stock prediction: Evaluating Linear and nonlinear ML Models                                                          | Mathematica Montisnigri                                    | Milind Kolambe                    |

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**2024-2025**

**CONFERENCE PUBLICATION**

| <b>Sr. No</b> | <b>Title of the paper</b>                                                                                                   | <b>Name of Conference</b>                                                                                                         | <b>Name of the faculty member</b> |
|---------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 1             | Deep Learning Approach for Autonomous Spacecraft Landing                                                                    | International Conference on Intelligent Systems Design and Applications                                                           | Dr. Dipti Patil                   |
| 2             | Evaluating Code Sustainability: A Comprehensive Study of Metrics and Tools                                                  | Engineering Informatics, IEEE                                                                                                     | Dr. Sneha Thombre                 |
| 3             | Leveraging AI for Enhanced Botnet Detection - A Review of Machine Learning Approach for Cybersecurity                       | 3rd IEEE International Conference on Blockchain and distributed security systems 2024                                             | Harsha Sonune                     |
| 4             | From Social Signals to Recommendations: Enhancing Customer Experience and Business Insights using Machine Learning          | 8th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud), I-SMAC 2024 - Proceedings, 2024, pp. 849–852 | Dr. Dipti Patil                   |
| 5             | Advancing smart autonomous systems: simulation and testing platforms                                                        | ICICNIS 2024                                                                                                                      | Dr. Dipti Patil                   |
| 6             | A Comprehensive Review on Acreage Estimation of Rabi Pulses and Kharif Onions Using OPTISAR and Hierarchical Decision Rules | 2024 IEEE 4th International Conference on ICT in Business Industry & Government (ICTBIG)                                          | Dr. Dipti Patil                   |
| 7             | Non-Invasive Stress Detection in                                                                                            | 3rd International Conference on                                                                                                   | Dr. Dipti Patil                   |

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|----|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------|
|    | Pregnant Women: A Review and Design of a Simple Smart IOT based System                                       | Blockchain and Distributed Systems Security 2024                                                                                 |                     |
| 8  | Review of the use of Immersive Technologies in Tourism                                                       | International Conference on Intelligent Computing and Emerging Communication Technologies (ICEC-2024)                            | Dr. Anagha Kulkarni |
| 9  | Precision Fruit Harvesting: Stem Detection and Cutting Techniques using Image Processing for Robotic Systems | 6th International Conference on Mobile Computing and Sustainable Informatics (ICMCSI), Goathgaun, Nepal                          | Dr. Dipti Patil     |
| 10 | Reinforcement Learning for Autonomous Systems                                                                | 4th International Conference on Sentiment Analysis and Deep Learning (ICSADL 2025)                                               | Dr. Dipti Patil     |
| 11 | Literature Survey: Decentralized Health Record Management System                                             | 1st IEEE International Conference on AIML- Applications for Engineering & Technology (IEEE ICAET-25) Hybrid Mode Pune (MH) India | Suchitra Pakale     |
| 12 | Early Identification of Nutritional Gaps in Pregnant Women Using Nail Images for Healthcare Analysis,        | IEEE Pune Section International Conference (PuneCon), Pune, India, 2024, pp. 1-4                                                 | Dr. Dipti Patil     |
| 13 | Smart IoT-Based End-to-End Biodegradable Waste Management Technology                                         | 1st International Conference on AIML-Applications for Engineering & Technology (ICAET)                                           | Dr. Dipti Patil     |
| 14 | Contextual Object Detection Using Deep Learning                                                              | 1st International Conference on AIML-Applications for Engineering & Technology (ICAET)                                           | Dr. Dipti Patil     |
| 15 | Autonomous Intelligence: AI's Role in Transforming Vehicles, Drones,                                         | International Conference on Sustainable Energy Technologies and Computational Intelligence                                       | Dr. Dipti Patil     |

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|----|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------|
|    | and Space Missions                                                                           | (SETCOM),                                                                                                  |                       |
| 16 | A Comprehensive Study for Accuracy in 3D Map Creation using Sensor Fusion Techniques in SLAM | 2025 International Conference on Engineering, Technology & Management (ICETM)                              | Dr. Anagha Kulkarni   |
| 17 | Artificial Intelligence in Indian Legal Services: Challenges and a Strategic Framework       | 1st International Conference on AIML-Applications for Engineering & Technology (ICAET)                     | Dr. Sneha Thombre     |
| 18 | Rhythmic Pattern Recognition - A Review                                                      | 2024 IEEE Pune Section International Conference (PuneCon)                                                  | Dr. Makarand Velankar |
| 19 | Performance = Implementation + Hardware + Input Data, with application to SpMV               | 2024 IEEE 31st International Conference on High Performance Computing, Data and Analytics Workshop (HiPCW) | Dr. Sneha Thombre     |
| 20 | Exploring ML Techniques for Correlating Sentiment with Stock Prices in India                 | 1st International Conference on AIML-Applications for Engineering & Technology (ICAET)                     | Dr. Sneha Thombre     |
| 21 | Literature Survey: Decentralized Health Record Management System                             | 1st International Conference on AIML-Applications for Engineering & Technology (ICAET)                     | Suchitra Morwadkar    |

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**FACULTY AWARDS**

| <b>Sr No</b> | <b>Faculty Name</b> | <b>Type</b> | <b>Remarks</b>                                                                                                           | <b>Awarding Agency</b>  |
|--------------|---------------------|-------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------|
| 1            | Dr. Dipti Patil     | National    | Recognition for contributing in framing the syllabus of Space technology at AICTE                                        | AICTE                   |
| 2            | Dr. Dipti Patil     | National    | Presented Poster of CANSAT of Team Vinidra on National Space Day 23 August 24 in the presence of Hon. President of India | ISRO, IN-SPACe          |
| 3            | Dr. Dipti Patil     | National    | "Most influential Professor' award in Dewang Mehta National Educational Leadership Awards , Mumbai                       | Dewang Mehta Foundation |
| 4            | Dr. Dipti Patil     | University  | Appointed as Research and Recognition Committee member (RRC) of Computer Engineering board of SPPU                       | SPPU, Pune              |
| 5            | Dr. Anagha Kulkarni | National    | "Most influential Professor' award in Dewang Mehta National Educational Leadership Awards , Mumbai                       | Dewang Mehta Foundation |

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**2024-2025**

**PATENTS**

| <b>Sr.<br/>No.</b> | <b>Faculty<br/>Name</b> | <b>Patent Title</b>                               | <b>Application<br/>no / Patent<br/>No.</b> | <b>Type of<br/>Patent</b> | <b>Date<br/>Applied</b> | <b>Status</b>            |
|--------------------|-------------------------|---------------------------------------------------|--------------------------------------------|---------------------------|-------------------------|--------------------------|
| 1                  | Dr. Anagha<br>Kulkarni  | A system and<br>method for User<br>Authentication | 202421090150                               | National                  | 20<br>November,<br>2024 | Applied and<br>published |