Cummins College of Engineering for Women, Pune (An Autonomous Institute Affiliated to Savitribai Phule Pune University) Department of Information Technology

JOURNAL PUBLICATION

| Sr No | Title of the paper | Name of Journal | Name of the faculty Member |
|-------|--|--|----------------------------|
| | | 2023-24 | |
| 1 | A Multi-Classifier-Based Recommender System for Early Autism Spectrum Disorder Detection using Machine Learning, | • | Dr. Dipti Patil |
| 2 | Machine Intelligence Based Assessment of Nutritional Olfactory Features for Controlling Health Hazards Using Electronic Nose | | Dr. Dipti Patil |
| 3 | An intelligent system with fuzzy-based inference engine for secured tele-robotic surgery | Elsevier's Healthcare Analytics | Dr. Dipti Patil |
| 4 | Predicting Sour or Sweet: Exploring Advance DL Methods for Odor Perception Based on Molecular Properties | International Journal of Intelligent Systems and Applications in Engineering | Dr. Dipti Patil |
| 5 | Game-based Teaching Methodology for Active and Informal Learning | JEET | Dr. Anagha Kulkarni |
| 6 | Real-Time Hazard-Free Planetary Landing using Deep Recurrent Neural Network | International Journal of Intelligent Systems and Applications in Engineering | Dr. Dipti Patil |
| 7 | A comprehensive survey on recommender systems techniques and challenges in big data analytics with iot applications | | Dr. Dipti Patil |
| 8 | Data analytics for finding emerging entrepreneur's success factors | Journal of Autonomous Intelligence | Dr. Dipti Patil |
| 9 | Facial Image Encryption and Compression for Secure Image Transmission on Cloud Storage | International Journal of Intelligent Systems and Applications in Engineering | Dr. Anagha Kulkarni |
| 10 | Employing Cumulative Rewards based Reinforcement Machine Learning for Personalized Music Recommendation | | Dr. Makarand Velankar |
| 11 | Smart Stress Related Risk Assessment of Pregnant Woman Using Internet of Medical Things | International Journal of Intelligent Systems and Applications in Engineering | Dr. Dipti Patil |

| Member |
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| Sr No | Title of the paper | Name of Journal | Name of the faculty Member |
|-------|--|--|----------------------------|
| 25 | An Augmented Reality Application to Enhance Visitor | Grenze International Journal of Engineering and Technology | Prajakta Deshpande |
| | Experience | | |
| | | 2021-22 | |
| 26 | Machine-to-Machine Communication for Device | Hindawi, Security and Communication Networks | Dr. Dipti Patil |
| | Identification and Classification in Secure Telerobotics | | |
| | Surgery | | |
| 27 | Secured energy efficient machine -to-machine | Elsevier's Informatics in Medicine Unlocked | Dr. Dipti Patil |
| | communication for telerobotic system | | |
| 28 | A comprehensive survey on investigation | Elsevier's Informatics in Medicine Unlocked | Dr. Dipti Patil |
| | techniques of exhaled breath (EB) for diagnosis of | | |
| | diseases in human body | | |
| 29 | Empirical Analysis of Feature Points Extraction | International Journal of Advanced Computer Science and | Dr. Dipti Patil |
| | Techniques for Space Applications | Applications (IJACSA) | |
| 30 | A Review on Advancements in Automated Plant | International Journal of Engineering and Technology | Radhika Bhagwat |
| | Disease Identification | Innovations | |
| 31 | Enhancing the energy efficiency by LEACH | International Journal of Computational Science and | Dr. Dipti Patil |
| | protocol in the internet of things | Engineering (Inderscience) | |

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CONFERENCE PUBLICATION

| Sr No. | Title of the paper | Name of the Conference | Name of the faculty Member | | | | | |
|--------|--|--|----------------------------|--|--|--|--|--|
| | 2023-24 | | | | | | | |
| 1 | IoT-Based Breath Analysis for Prediction of Rheumatism Using Bi-LSTM | International Conference On Computational Intelligence And Network Systems (CINS 2023) | Dr. Dipti Patil | | | | | |
| 2 | | IECON 2023- 49th Annual Conference of the IEEE Industrial Electronics Society, Singapore | Dr. Dipti Patil | | | | | |
| 3 | Literature survey: Compliant Management System using Blockchain Technology | Smart Trends in Computing and Communications (SmartCom-2024) | Suchitra Morwadkar | | | | | |
| 4 | | IEEE- 2023 International Conference on Artificial Intelligence for Innovations in Healthcare Industries (ICAIIHI) | Dr. Dipti Patil | | | | | |
| 5 | ChatGPT's Evolution in Reshaping Cognitive Behavioral Therapy | | | | | | | |
| 6 | Banking on AI: Exploring the Transformative Role of ChatGPT in Financial Services | IEEE Conference on Engineering Informatics (ICEI) 2023. | Dr. Radhika Bhagwat | | | | | |
| | | 2022-23 | | | | | | |
| 7 | Content-Centric Prediction Model for Early Autism Spectrum Disorder (ASD) Screening in Children | 6th International Conference on Information and Communication Technology for sustainable development ICT4SD 2021 | Dr. Dipti Patil | | | | | |
| 8 | Environment-Based Asthma Trigger Detection (ATD) | 6th International Conference on Information and Communication Technology for sustainable development ICT4SD 2021 | Leena Panchal | | | | | |
| 9 | A Real-Time Driver Drowsiness Detection Using OpenCV, DLib | 6th International Conference on Information and Communication Technology for sustainable development ICT4SD 2021 | Leena Panchal | | | | | |

| Sr No. | Title of the paper | Name of the Conference | Name of the faculty Member |
|--------|---|---|----------------------------|
| 10 | A Comparative Analysis of Various Techniques of | | Harsha Sonune |
| | Data Leakage Detection in Different Domains | Communication Technology for sustainable development | |
| | | ICT4SD 2021 | |
| 11 | | International Symposium on Intelligent Informatics. ISI 2022. | Dr. Dipti Patil |
| | Techniques. | | |
| 12 | Study of NFT Marketplace | International Conference on Data Management, Analytics & | Leena Panchal |
| | in the Metaverse | Innovation (ICDMAI 2023) | |
| 13 | A Review Paper on Employee Management System | International Conference on Business Innovation & | Radhika Bhagwat |
| | | Sustainability: A Roadmap for Business Excellence | |
| 14 | Pix2Pix Generative Adversarial Network with ResNet | IEEE | Prajakta Deshpande |
| | for Document Image Denoising | | |
| 15 | Patch-Based Autoencoder for Document Image | ICT Infrastructure and Computing ICT4SD | Prajakta Deshpande |
| | Denoising with Smoothening | | |
| 16 | Troomate—Finding a Perfect Roommate a Literature | International Conference on Data Management, Analytics & | Prajakta Deshpande |
| | Survey | Innovation | |
| 17 | Graphology-Based Behavior Prediction: Case Study | International Conference on Data Management, Analytics & | Harsha Sonune |
| | Analysis | Innovation (ICDMAI 2023) | |
| | | 2021-22 | |
| 18 | An Augmented Reality Application to Enhance the | 2021 IEEE 4th International Conference on Computing, Power | Suchitra Morwadkar |
| | Shopping Experience of Electronic Appliances | and Communication Technologies (GUCON) | |
| 19 | Crater and Boulder Classification using Convolutional | 2nd International Conference on Emerging Trends and | Dr. Dipti Patil |
| | Neural Networks | Innovations in ICT (ICEI) | |
| 20 | Family of Friends- A hostel utility system | 6th International Conference on Information and | Prajakta Deshpande |
| | | Communication Technology for sustainable development | |
| | | ICT4SD 2021 | |
| 21 | Automated Gate System Using Number Plate | 6th International Conference on Information and | Harsha Sonune |
| | Recognition (NPR) | Communication Technology for sustainable development | |
| | | ICT4SD 2021 | |

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| Sr No. | Title of the paper | Name of the Conference | Name of the faculty Member | |
|--------|--|--|----------------------------|--|
| 22 | Gamification by students: An effective approach to | NCPHE-2022: National Conference on Pedagogy for Higher | Dr. Sneha Thombre | |
| | cyber security Concept learning | Education ,MKSSS's Cummins College of Engineering For | | |
| | | Women (CCEW) | | |
| | | Pune, India, June 25, 2022 | | |
| 23 | Quantitative analysis of comprehension and skill | NCPHE-2022: National Conference on Pedagogy for Higher | Dr. Sneha Thombre | |
| | acquisition of engineering | Education ,MKSSS's Cummins College of Engineering For | | |
| | students from the cyber security virtual internship | Women (CCEW) | | |
| | program | Pune, India, June 25, 2022 | | |
| 24 | Purchase Request Management System | 2021 International Conference on Computational Performance | Dr. Sneha Thombre | |
| | | Evaluation (ComPE). IEEE, 2021 | | |
| 25 | Literature review on Sign Language Generation", | review on Sign Language Generation", 7th International Conference on Data Management, Analytics | | |
| | | and Innovation (ICDMAI) | | |
| 26 | Literature review on Machine Translation Systems for | e review on Machine Translation Systems for 7th International Conference on Data Management, Analytics | | |
| | Sign Language Generation" | and Innovation (ICDMAI) | | |
| 27 | Literature Survey: Indoor Navigation Using | 7th International Conference on Data Management, Analytics | Suchitra Morwadkar | |
| | Augmented Reality | and Innovation (ICDMAI) | | |
| 28 | Literature Survey: Navigation System for Visually | 7th International Conference on Data Management, Analytics | Suchitra Morwadkar | |
| | Impaired People | and Innovation (ICDMAI) | | |

FACULTY AWARDS

| Sr No. | Faculty Name | Туре | Remarks | Awarding Agency | | | |
|--------|--|---------------|--------------------------|--------------------------|--|--|--|
| | 2023-24 | | | | | | |
| 1 | Dr. Dipti Patil International Best paper Award | | BITS Pilani -Dubai | | | | |
| 2 | Dr. Dipti Patil National Appointment as 'member Secretary' of National Committee for | | IN-SPACe, ISRO | | | | |
| | Space technology courses by IN-SPACe Department of Space. | | | | | | |
| | 2022-23 | | | | | | |
| 3 | Dr. Anagha Kulkarni | International | EduTech Leadership Award | World Education Congress | | | |

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| Sr No. | Faculty Name | Type | Remarks | Awarding Agency |
|--------|---------------------|---------------|---|---------------------------------------|
| 4 | Dr. Dipti Patil | National | Incredible Female inventor-2023 award by 9Magnetec IP and | 9Magnetec IP and Research |
| | | | Research | |
| 5 | Dr. Dipti Patil | International | Listed as "Change Maker" by World Intellectual Property | https://www.wipo.int/web/ipday/wipd |
| | | | Organization (WIPO) | -gallery-nominee-profile?profileId=15 |
| | | | | 50528 |
| 6 | Dr. Dipti Patil | International | Elevated as Fellow IETE | |
| 7 | Dr. Dipti Patil | International | Elevated as Senior Member IEEE | |
| | | 2021-22 | | |
| 8 | Dr. Dipti Patil | International | vGHC 21 Scholarship | Anitab.org |
| 9 | Dr. Anagha Kulkarni | International | WE Local 2022 Outstanding Professional Development | SWE |
| | | | Award | |
| 10 | Makarand Velankar | National | Gold Global Jury Award 2021 | Wadhwani Foundation |
| 11 | Dr. Dipti Patil | International | International Best Researcher Award- ISSN Awards" in the | ISSN International Research Awards |
| | | | field of security in telerobotics surgery by IIRA 2022 | 2022 (IIRA-2022) |
| 12 | Dr. Sneha Thombre | National | Yoga Shikshak | Yoga, Vidya Gurukul , Nasik and |
| | | | | Ayush Ministry GoI |

PATENTS (A.Y 2023-24,2022-23,2021-22)

| Sr No. | Faculty Name | Patent Title | Application | Type of | Date | Date | Status |
|--------|-----------------|---------------------------|---------------|----------|--------------|-------------|---------|
| | | | no/Patent No. | Patent | Applied | Granted | |
| 1 | Dr. Dipti Patil | Ai-Ml Enabled Iot Based | 202321053552 | National | Aug 9, 2023 | | Applied |
| | | System For Tender Coconut | | | | | |
| | | Shell Waste Management | | | | | |
| 2 | Dr. Dipti Patil | IoT based Breath Analyser | 202221043464 | National | Jul 29, 2022 | Mar 8, 2024 | Granted |

| Sr No. | Faculty Name | Patent Title | Application | Type of | Date | Date | Status |
|--------|---------------------|--|-------------------------------|--------------------|---------------------|--------------|-----------------------|
| 3 | Dr. Dipti Patil | Piezoelectric Sensors Integrated Hand Gesture Recognition Device | no/Patent No. 201821012736 | Patent National | Applied Mar 4, 2018 | Apr 15, 2024 | Granted |
| 4 | Dr. Dipti Patil | Real Time Depression Detection And Analysis Using Multi-Parametric Fusion Approach | | National | Oct 29, 2015 | Jun 25, 2024 | Granted |
| 5 | Dr. Anagha Kulkarni | A System And A Method For Gesture Recognition Of Indian Sign Language | 1 | National | Aug 31, 2023 | _ | Applied |
| 6 | Dr. Anagha Kulkarni | A System And Method For Enabling Navigation For Visually Impaired People | | National | Aug 16, 2023 | _ | Applied |
| 7 | Dr. Dipti Patil | Iot Based Breath Analyser Device | 202221043464 | National | Jul 29, 2022 | Aug 3, 2024 | Granted |
| 8 | Dr. Dipti Patil | System For Vision Based Selfdecisive Planetary Hazard Free Landing Of A Space Vehicle | | National | Oct 9, 2022 | Mar 27, 2023 | Granted |
| 9 | Dr. Dipti Patil | Trust Computation based secured telerobotic surgery | 202121038225 | National | Aug 24, 2021 | _ | Applied and Published |
| 10 | Dr. Dipti Patil | An internet of Things enabled food and drugs supply chain management using blockchain | | International | Aug 25, 2021 | Sep 12, 2021 | Granted |

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| Sr No. | Faculty Name | Copyright Title | Application no/Copyright | Date | Date | Diary Number |
|--------|-----------------|------------------------------|--------------------------|--------------|--------------|-----------------|
| | · | | No. | Applied | Granted | |
| 1 | Dr. Dipti Patil | | L-137534/2023 | _ | Aug 12, 2023 | _ |
| | | Harvesting using Intelligent | | | | |
| | | Learning Technique | | | | |
| 2 | Dr. Dipti Patil | Spacecraft Simulator | SW-16619/2023 | Mar 8, 2023 | Jun 15, 2023 | 6057/2023-CO/SW |
| 3 | Dr. Dipti Patil | vJUD Lunar Landing | L-126136/2023 | Mar 6, 2023 | Jun 15, 2023 | 5890/2023-CO/L |
| | | Dataset | | | | |
| 4 | Dr. Dipti Patil | Contextual Content-Centric | L-108863/2021 | Sep 23, 2021 | Mar 11, 2021 | 23444/2021-CO/L |
| | | Social Network based | | | | |
| | | Recommender System | | | | |
| 5 | Dr. Dipti Patil | Block diagram Of | L-111675/2022 | Dec 30, 2021 | Mar 2, 2022 | 32021/2021-CO/L |
| | | Lightweight Secured | | | | |
| | | Telerobotic Surgery | | | | |
| 6 | Dr. Dipti Patil | Qos Aware Secured Access | L-112596/2022 | Dec 30, 2021 | Feb 28, 2022 | 31973/2021-CO/L |
| | | Control Algorithm For M2m | | | | |
| | | Communication In Internet | | | | |
| | | Of Things | | | | |
| 7 | Dr. Dipti Patil | Block Diagram Of Secured | L-112005/2022 | Aug 30, 2021 | Feb 21, 2022 | 20721/2021-CO/L |
| | | Telerobotic Surgery | | | | |
| 8 | Dr. Dipti Patil | Non-Invasive Method For | L-114630/2022 | Oct 2, 2022 | Apr 23, 2022 | 2975/2022-CO/L |
| | | Health Analysis Using | | | | |
| | | Intelligent Learning | | | | |
| | | Technique | | | | |

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| Sr No. | Faculty Name | Copyright Title | Application no/Copyright | Date | Date | Diary Number |
|--------|-----------------|----------------------------|--------------------------|--------------|--------------|----------------|
| | | | No. | Applied | Granted | |
| 9 | Dr. Dipti Patil | Multi-Classifier Based | L-115902/2022 | Mar 14, 2022 | May 23, 2022 | 5665/2022-CO/L |
| | | Recommender System For | | | | |
| | | Early Screening Of Autism | | | | |
| | | Spectrum Disorder (Asd) | | | | |
| | | For Patients Using Machine | | | | |
| | | Learning Techniques | | | | |

RESEARCH GRANTS (A.Y 2023-24,2022-23,2021-22)

| Sr No. | Faculty Name | Status | Type | Title of | Sponsoring | Amount | Duration in | Date Sanction |
|--------|---------------------|------------|-------|---|-------------------|----------------|--------------|---------------|
| | | | | Research | agencies | (in Lakhs Rs.) | no. of years | |
| 1 | Suchitra Pakale, | Sanctioned | Major | Blockchian | MAN Truck and Bus | 13.96 | 2 | Mar 18,2024 |
| | Dr. Anagha Kulkarni | | | applicability | Pvt. Ltd. | | | |
| 2 | Dr. Sneha Thombre | Sanctioned | Major | AR/VR | Boeing | 12.39 | | October 2023 |
| 3 | Dr. Dipti Patil | Completed | J | Design of accurate & efficient machine learning autonomous algorithm for guidance & navigation of space landing mission | | 11 | 2 | Jul 26, 2021 |

| Sr No. | Faculty Name | Status | Type | Title of | Sponsoring | Amount | Duration in | Date Sanction |
|--------|---------------------|-----------|-------|-------------------|------------|----------------|--------------|---------------------|
| | | | | Research | agencies | (in Lakhs Rs.) | no. of years | |
| 4 | Dr. Anagha Kulkarni | Completed | Major | Indian Sign | IBM | 11.91 | 2 | June 2020-June 2022 |
| | | | | Language | | | | |
| | | | | Recognition and | | | | |
| | | | | Translation using | | | | |
| | | | | Deep Learning and | | | | |
| | | | | Natural Language | | | | |
| | | | | Processing | | | | |
| 5 | Dr. Dipti Patil | Submitted | Major | Smart IOT Based | DST | 34.86 | 3 | |
| | | | | End to End | | | | |
| | | | | Biodegradable | | | | |
| | | | | Waste | | | | |
| | | | | Management | | | | |
| | | | | Technology | | | | |