Research and Development in year 2023-24

Publications

Sr. No.	Title of research paper/Conference	Author	Name of Journal	Link (If available)
1.	Tailoring the multifunctional properties of hydrothermally synthesized reduced graphene oxide/tungsten oxide supported nanorods to enhance the asymmetric electrochemical and water-splitting activities	UV Shembade, RA Moholkar, SB Wategaonkar, PK Pillai, JA Khot, AV Moholkar	Ceramics International, 2024, Elsevier	https://www.sciencedirect.com/science/article/pii/S0272884224004486
2.	Segmentation and detection of soft tissue sarcomas based on mask regional convolutional neural network	V Mittal, B Ruban, D Shekhawat, MT Kolte, BM Manohar	Multimedia Tools and Applications, 2024, Springer	https://link.springer.com/article/10.1007/s11042-024-19003-3
3.	Systematic Knowledge Management of Lessons Learnt in Mitigating Project Overruns	Prof. Murali Bhupati	Asian And Pacific Economic Review, Vol. 17, Issue 1, PP: 8000-8008 (ABDC Indexed Journal) 2024	
4.	Personalized Learning Approach for Outcome Based Distance Learning	VP Desai, KS Oza, PP Shinde, RK Kamat	Journal Of Technical Education, 2024	-
5.	Jaggery making reforms, value addition and preservation: A comprehensive review	PD Ukey, VM Ingale, SB Wategaonkar, JP Park, PK Pillai, JS Ghatge, SB Patil, JA Khot	International Journal of Advanced Biochemistry Research Vol.2 Issue 8 Date :27/01/2024	www.researchgate.net/profile/Sandeep-Wategaonkar/publication/377940792_Jaggery_making_reforms_value_addition_and_preservation_A_comprehensive_review/links/672b5608

				5852dd723cad25ec /Jaggery-making-reforms-value-addition-and-preservation-A-comprehensive-review.pdf
6.	Forecasting groundnut area, production and productivity in Rajasthan, India using ARIMA model	SB Bhusanar, SS Meena	Asian Journal of Agricultural Extension Economics and Sociology, 2023	https://www.researchgate.net/profile/Shatrughn-Bhusanar-2/publication/370033370_Forecasting_Groundnut_Area_Production_and_Productivity_in_Rajasthan_India_using_ARIMA_Model/links/643aaaa52eca706c8b5f79ee/Forecasting-Groundnut-Area-Production-and-Productivity-in-Rajasthan-India-using-ARIMA-Model.pdf
7.	Market Opportunities and Challenges of Farmer Producer Organizations in India	SB Bhusanar, SS Meena	International Journal of Creative Research Thoughts (IJCRT)/11/05/2023	https://www.researchgate.net/publication/370953616_Market_Opportunities_and_Challenges_of_Farmer_Producer_Organizations_in_India
8.	AI-Driven Approaches for Plant Disease Detection: A Comprehensive Review	Prof. Dr. K. Prathapan	IAENG International Journal of Computer Science (2023)	-
9.	Innovation and Technology Development with respect to Machine Learning in improving the Quality of Higher Educational Institutes	Prof. Dr. K. Prathapan	Journal of Liaoning Technical University (Natural Science Edition) (2023)	-
10.	The Performance evaluation of Rice	CR Chandra, K Prathapan, SK Raj	Journal of Tropical Agriculture 61 (1): 1-	https://jtropag.kau.in/index.php/ojs2/article/

			7, (2023)	view/1002
11.	Machine and Deep Learning Approaches for Plant Disease Detection: A Comprehensive Review	Yogesh V. Chimate, Sangram T. Patil, K. Prathapan, Jayendra A. Khot	International Journal on Recent and Innovation Trends in Computing and Communication Vol: 11, Issue 11s (2023)	https://ijritcc.org/index.php/ijritcc/article/view/10094
12.	Need for reverse logistics in Indian B 2 C E-Commerce industry	Prof. Murali Bhupati	Economic Challenger, Vol. 25, No. 98, Ajmer, India, PP: 31-38, 2023.	-
13.	Machine Learning Based Prediction of Health Hazards Caused by Steroid Consumption	M. N. Patil, J Patil	FOUNDRY JOURNAL 2023/9	https://foundryjournal.net/wp-content/uploads/2023/09/11.FJ23C230.pdf
14.	Formative Assessment Based Students' Recruitment Estimation: Neural Network Approach	VP Desai, RK Kamat, PP Shinde, KS Oza	Advances in Computer Science Research, Springer Nature Publications ISBN: 10.2991/978-94-6463-136-4_64, ISSN: 2352-538X, DOI: 10.2991/978-94-6463-136-4_64. (April 2023) (Web of Science)	https://www.atlantis-press.com/proceedings/icamida-22/125986276
15.	From Crisis to Calm: A Study on Detecting and Managing Educational Stress amidst the COVID-19 Pandemic	PP Shinde, VP Desai, PV Jadhav, KS Oza	Crisis, 2023	https://www.researchgate.net/profile/Varsha-Desai/publication/378364591_From_Crisis_to_Calm_A_Study_on_Detecting_and_Managing_Educational_Stress_amidst_the_COVID-19_Pandemic/links/65d629ffadf2362b634b0f3d/From-Crisis-to-Calm-A-Study-on-Detecting-and-Managing-

				Educational-Stress-amidst-the-COVID-19-Pandemic.pdf
16.	A comprehensive study of data forgery techniques for video forgery detection with challenges and future direction	MHA Tirmare, JB Patil, STA Patil	China Petrol Process Petrochem Technol, 2023	-
17.	A Convolutional Neural Network-Based System for Detecting Drowsy Driving	Mr. Ravindra Suresh Kamble	Indian Institution of Industrial Engineering ISSN 0970-2555 Volume-52, Isuue 8 August-2023	-
18.	Studies on Development of Nutritional Baby Food Premix by using multigrain Incorporating with Flaxseed & Ragi Flour	Mr. Kumar Chakre	Positif Journal-2023 Volume 23, Issue 8, AUGUST 2023. Paper ID: PSJ-7625	-
19.	Development of High Nutritional Bottle Gourd Barfi using Spices	Mr. Kumar Chakre	Positif Journal-2023 Volume 23, Issue 8, AUGUST 2023. Paper ID: PSJ-7624 ISSN No.0048-4911 Impact Factor-5.1	-
20.	Development & formulation of Turkish Delight	Mr. Kumar Chakre	Positif Journal-2023 Volume 23, Issue 8, AUGUST 2023. Paper ID: PSJ-7623 ISSN No.0048-4911 Impact Factor-5.1	-
21.	On coupled system of nonlinear Ψ-Hilfer hybrid fractional differential equations	Dr. Ashwini D. Mali	International Journal of Nonlinear Sciences and Numerical Simulation, 24 (4) (2023), 09/06/2021	-
22.	Representation Of Colonial Indian and European Characters in Jim Corbett's 'Man-Eaters of Kumaon	Mrs. Shubhada Sachin Yadav	UGC CARE Approved, Peer Reviewed and Referred Journal 'Rabindra Bharati	-

			Journal of Philosophy' Vol.: XXIV, No:1(i), 2023	
23.	An efficient and convenient heterogeneous Cu/MCM-41 catalyst for the synthesis of 7, 10, 11, 12-tetrahydrobenzo [c] acridin-8 (9H)-one derivatives	SD Dhengale, TR Bhosale, SB Shinde, CV Rode, GB Kolekar, PV Anbhule	Journal Research on Chemical Intermediates Volume 49 Issue 4 Pages 1581-1600 Publication date 2023/4	https://link.springer.com/article/10.1007/s11164-023-04962-3
24.	Template free synthesis of mesoporous carbon from fire cracker waste and designing of ZnO-Mesoporous carbon photocatalyst for dye (MO) degradation	Sachin B. Shinde, Shankar D. Dhengale, Omkar S. Nille, Shivajee S. Jadhav, Anil H. Gore, Tanaji R. Bhosale, Nagesh B. Birajdar, Sanjay S. Kolekar, Govind B. Kolekar, Prashant V. Anbhule	Journal Inorganic Chemistry Communications Volume 147 Pages 110242 Publication date 2023/1/1	https://www.sciencedirect.com/science/article/pii/S13877003220105 04
25.	Convolutional Neural Network Model for Brain lesion Detection	Mr. Sunil Appaso Kumbhar	Industrial Engineering Journal, Volume 52, Issue 7, July 2023	-
26.	Transforming Healthcare Record Security Solutions using Blockchain Technology: A Novel Approach	Dr. Vidya Laxmikant Badadare	Emerging Trends in Basic and Applied Sciences, Vol-II (January 2023)	-
27.	The Secret Sauce to Blockchain Technology: Exploring Fundamentals	Dr. Vidya Laxmikant Badadare	Revolutionizing Digital Healthcare Through Blockchain Technology Applications (March 2023)	-
28.	Remote sensing and GIS-based site selection for effective soil and water conservation measures	Mangal A. Patil, Sarika Wandre, Pradip Dalavi	The Pharma Innovation Journal; 12(6): 5220-5232	-

	in the Warana river basin			
29.	An Integrated Approach to Exploring the Warana River Basin Using Thematic Maps	Mangal A. Patil, Sarika Wandre	IOSR Journal of Agriculture and Veterinary Science	-
30.	Evaporation Reduction by Solar Photovoltaic (SPV) System: A Review	Dr. Mangal A. Patil	International Journal of Scientific Research in Engineering and Management (IJSREM) 07(09): 1-5	-
31.	Machine Learning based IoT application to Improve the Quality and precision in Agricultural System	Mr. Utkarsh Arun Avalekar	European Chemical Bulletin 2023,12 (Special issue 6), 1711 – 1722, 1st Jan 2023	-
32.	A Review on Iot and Artificial Intelligent Based Smart Farming System Using Cloud Computing and Wireless Sensor	Mr. Utkarsh Arun Avalekar	Industrial Engineering Journal, ISSN: 0970-2555, Volume: 52, Issue 6, No. 4, June: 2023	-

Books Published

1	Machine Learning Techniques for SWOT Analysis of Online Education System	PP Shinde, VP Desai, T Ganesh Kumar, KS Oza, S Zalte-Gaikwad	Machine Learning Applications: From Computer Vision to Robotics, 2023, Wiley Online Library	https://onlinelibrary.wiley.com/doi/abs/10.1002/9781394173358.ch10

Paper Presented at National and International Conferences

1	Comprehensive Review of Population based Metaheuristic Algorithms & Ontology Integration	Ms. Sujata Ashok Pardeshi	IEEE/ISBN/ Conference/ Feb 2024	-
2	Ontology as an Open World Assumptions and Its Futuristic View	Ms. Sujata Ashok Pardeshi	IEEE/ISBN/ Conference/ Sept 2024	-
3	Restaurant Quality Analysis: A Machine Learning Approach	RB Diwane, KS Oza, VP Desai	Inventive Systems and Control: Proceedings of ICISC 2023, 2023, Springer	https://link.springer.com/chapter/10.1007/978-981-99-1624-5_10
4	Safeguarding Cloud Infrastructure: An Exploration of Cloud Defense	Dr. Varsha Prashant Desai	Conference Proceeding: KBP ICSSR Proceedings (Sep 2023)	-
5	Studies on the Development of low-cost Nutritional Baby Food Premix by using multigrain Incorporating with Flaxseed & Ragi Flour.	Mr. Kumar Chakre	International Conference IFCON-2023 at CFTRI Mysore	-

IPR (Patents/ Copyrights)

Sr. No.	Title of the Patent	Investigators Name	Patent No. and Date	Status
1	Sugarcane stubble shaving tyne	DYP-ATU Talsande, Mr. Vinayak Shete, Dr. Ranjit Powar, Dr. Suhas Patil, Dr. Jayant S. Ghatage, Dr. J. A. Khot, Dr. K. Prathapan	202421029952A 3/5/2024	Published
2	Vermicompost Screening Machine	DYP-ATU Talsande, Mr. A. B. Gatade, Dr. Suhas Patil, Dr. R. V. Powar, Dr. J. S. Ghatge, Dr. J. A. Khot, Dr. K. Prathapan	411097-001 20/03/2024	Granted
3	Identifying the influences on a university teacher's utilization of E-Learning Environments	Mr. Utkarsh A. Avalekar	202331019109 31/3/2023	Published
4	Machine learning based intelligent irrigation system	Mr. Utkarsh A. Avalekar	403253-001 16/02/2024	Granted
5	Forensic Data Analysing Robotic Device	Dr. Jaydeep B. Patil	408741-001 26/2/2024	Granted
6	Optical Filter for Microscope Condenser Lens	Mr. Utkarsh A. Avalekar Dr. Jaydeep B. Patil	409873-001 08/03/2024	Granted
7	Advanced Robotic Hand for Industrial Application	Mr. Utkarsh A. Avalekar	410588-001 15/03/2024	Granted
8	Medical Assistant Device	Dr. Jaydeep B. Patil	410871-001 18/03/2024	Granted
9	Big Data Processing Healthcare Device	Dr. Varsha P. Desai	6356735 22/04/2024	Granted
10	AI-Based Wireless Electricity Consumption Monitoring Device	Mr. Utkarsh A. Avalekar Dr. J. A. Khot	6359570 15/05/2024	Granted
11	COMPUTER SOFTWARE WORK COMPOSITE	Mr. Yogesh Chmate Dr. Sangram Patil	SW-19887/2024 27/12/2024	Registered

	MACHINE LEARNING SOFTWARE DIAGNOSES EARLYSTAGE MANGO ANTHRACNOSE, POWDERY MILDEW, DIEBACK AND GROUNDNUT LEAF SPOT, RUST DISEASES, HELPING INDIAN FARMERS PROTECT CROPS AND BOOST PRODUCTIVITY			
12	LITERARY/ DRAMATIC WORK THIS BOOK AIMS TO PROVIDE A COMPREHENSIVE OVERVIEW OF THE KEY CONCEPTS, DEVELOPMENTS, AND BREAKTHROUGHS IN THE FIELD OF MEDICINE.	Dr. K. Prathapan Dr. Ullas Mony Mr. Yogesh Virupaksha Chimate Mrs. Shweta Shashikant Pakale Mr. Yogesh Bajrang Thakare	L-161372/2025 25/02/2025	Registered

DYP-ATU MoUs

Sr. No.	Signing Partner	Details of MoU and Research Area	Type of MoU	Date of MoU
1	Rubber Research Institute of India (Govt. of India)	Rubber Plantation (Research Area: -Rubber Technology)	National MoU	15/2/2022
2	IES University, Bhopal	Faculty / Student Training Programs/ Workshops and Research Development (Research Area: -Development in Teaching and Learning)	National MoU	20/2/2022
3	IFM India, (German-based Company)	Received sensor kits of worth 2.3 Lakh (Research Area – Sensor Technology)	National MoU	3/3/2022
4	UAE University, Dubai	Faculty / Student Exchange, Research Development (Research Area – Student Support and Progression)	International MoU (In Process)	3/5/2022
5	Shree Krishna Aayurvedik Clinic & Yoga Centre	Yoga and Health Care (Research Area – Health Sciences)	National MoU	14/7/2022
6	AEROGEL Material Research Centre, Yonsei University, South Korea	Analytical and Organic Chemistry (Research Area: - Material Science)	International MoU	23/11/2022
7	Nexus Infosec, Texas, USA	Cyber Security courses for faculty / student training and recruitment. (Research Area – Cyber Security)	International MoU	28/11/2022
8	Zerovaega Technologies Private Ltd	Student Training and internship Programs/ Workshops	National MoU	20/12/2022
9	Late Mrs. Housabai Homoeopathic Medical College & Hospital	Exchange of Scientific and Technical Material	National MoU	29/12/2022
10	Priyanka Foods and Naturals, India	Student Training, Summer Internship, placements, Certification Programs/ Workshops (Research Area: Food, Agriculture Survey)	National MoU	02/01/2023
11	Global Fortune Mission Pvt. Ltd., Pune	Student Training, Summer Internship, placements, Certification Programs/ Workshops, (Research Area: Agriculture, Import and Export)	National MoU	01/02/2023
12	Mudaksh Tech Advisors Private Limited	Student Training, Summer Internship, placements, Certification Programs/ Workshops, (Research Area: Finance, Wealth management)	National MoU	01/02/2023

13	Arba Minch University, Ethiopia	Faculty / Student Exchange, Research Development (Research Area – Student Support and Progression)	International MoU	01/02/2023
14	WESTFORD EDUCATION GROUP, LONDON, UK	Faculty / Student Exchange, Research Development (Research Area – Student Support and Progression)	International MoU	13/02/2023
15	Bharati Vidyapeeth, Sangli	Faculty / Student Exchange, Research Development (Research Area – Student Support and Progression)	National MoU	17/02/2023
16	BERRY AVIONICS (India LLP)	Establishment of Diploma and Certificate Courses on Drone Technology	National MoU	28/03/2023
17	AS Electronics, Kolhapur	Students Internships, Trainings, Research Projects, Lab Developments	National MoU	20/10/2023
18	SGM College Karad	Faculty / Student Research Development (Research Area – Student Support and Progression)	National MoU	23/11/2023
19	ICSI, Kolhapur	Faculty / Student Exchange, Research Development (Research Area – Student Support and Progression)	National MoU	18/01/2024
20	Albedo Foundation, Nashik	Guest Lecture, Training to Students and Faculty Members, Exposure Visits, Research and Development	National MoU	1/3/2024
21	ExcelR Edtech Pvt. Ltd.	Student and Faculty Development Program	National MoU	8/4/2024
22	Aueursaf Medica-Arba Minch	collaborate on a pilot project of indoor saffron cultivation utilizing LED lights.	National MoU	2/5/2024
23	AgMatrix Pvt. Ltd, Pune	Promoting Capacity-Building Activities Through the Exchange of Faculty And Knowledge Resources Institutional Collaboration for Training Programs / Workshops /Seminars Etc	National MoU	6/5/2024
24	ICAI, New Delhi	Extending Academic Co-Operation in BBA, BBA (Hons.), MBA & MBA (ABM)	National MoU	16/5/2024
25	VIT, Melborn, Australia	Student Dree Program, Faculty Development Program.	International MoU	30/5/2024
26	AGROSON ALLIANCE LLP, Satara	Training to Students and Faculty Members, Exposure Visits, Research and Development	National MoU	30/8/2024

27	Kisan Veer Mahavidyalay, Wai Satara	Faculty / Student Research Development (Research Area – Student Support and Progression)	National MoU	23/11/2024
28	AISSMS-IoIT, Pune	Training to Students and Faculty Members, Exposure Visits, Research and Development	National MoU	5/11/2024
29	NSDC- Ethnotech Academic Solutions	comprehensive, industry-partnered training and recruitment support solutions.	National MoU	6/12/2024
30	Opex Accelerator Private Limited	Startup, Innovation, Incubation, and Research Commercialization programs	National MoU	18/12/2024
31	Dr. Balasaheb Sawant Kokan Krishi Vidyapeeth, Dapoli	Faculty / Student Research Development (Research Area – Student Support and Progression)	National MoU	28/4/2025
32	MyCrave Consultancy, Kolhapur	Research- IPR	National MoU	8/5/2025