

Research publications 2025

S. N o.	Faculty Name	School	Year	Publication Title	Journal Name
1	Dr. Mayank Sharma	SOS	2025	Synthesis of Dihydropyrimidinones and Dihydropyrimidin(thio)ones in Ionic Liquid: A Systematic Review on Biginelli Reaction	Chemistry Select
2	Dr. Akhilesh Prajapati	sos	2025	Design, Synthesis, Computational Studies, and Evaluation of Triazole Acetamide Linked with Phenyl Piperazine Derivatives as Anticancer Agents Against Breast Cancer	<i>Polycyclic Aromatic Compounds</i>
3	Dr. Parin Kanaiya and Dr. Mayank Sharma	SOS	2025	Recent Advances in Catalytic Approaches for Pyrano[2,3-c]Pyrazole Synthesis: Green and Sustainable Perspectives	Chemistry Select
4	Dr. Yesha Master	SOS	2025	Improving yield and quality through salt-tolerant PGPR inoculation: a focus on vigor index and growth promotion of wheat (<i>Triticum aestivum</i>)	<i>International Journal of Agriculture and Biology</i>
5	Dr. Yesha Master	SOS	2025	Panchal J, Tulasa K, Master Y, Monya S, Parekh S. Bioethanol production from cellulolytic wastes: A comparative study on acid and enzymatic hydrolysis pretreatments for enhanced saccharification and fermentation. 2025, 13(2), 55-65.	International Journal of Life Sciences Research,
6	Dr. Aditya Puranik	SoS	2025	Solvent Free, Selective Oxidation of Styrene Catalyzed by Cobalt Acylpyrazolone Supported onto Neutral Alumina: Synthesis and Spectral Characterization	<i>Journal of Molecular Structure</i>
7	Dr. Nilesh Bhaskarrao Bahadure	SOT	2025	Effect of Multiple Fuel Injection Strategies on the Performance of Common Rail Direct Injection Engine Fueled with Biodiesel of Used Temple Oil	<i>Integrated Technologies in Electrical, Electronics and Biotechnology Engineering, CRC Press, Taylor & Francis Group</i>
8	Dr. Nilesh Bhaskarrao Bahadure	SOT	2025	Intelligent Toll Management Using Limited CNN-Based Vehicle Classification	<i>Communications in Computer and Information Science</i>
9	Dr. Nilesh Bhaskarrao	SOT	2025	Importance of Human Judgment in Artificial Intelligence: A Panoramic Overview	<i>Advances in Science, Technology</i>

	Bahadur e				& Innovation (Springer)
10	Dr. Nilesh Bhaskarrao Bahadur e	SOT	2025	Human Biological Analysis Through Fitness Watch using the Deep Learning Algorithm	Wellness Management Powered by AI Technologies . John Wiley & Sons, Inc.
11	Dr. Nilesh Bhaskarrao Bahadur e	SOT	2025	DataVerse: Empowering Artificial Intelligence using Metaverse Error! Bookmark not defined.	Artificial Intelligence and Metaverse through Data Engineering (Nova)
12	Dr. Archana Deokar	SoS	2025	Synthetic Approaches to Access Indolin-3-ones	Asian Journal of Organic Chemistry
13	Mr. Bhaumik Machhi	SOT	2025	Advancing S-LEACH Protocol for Real-Time Underwater Observation in Freshwater Ecosystems (Rivers/Lakes)	
14	Mr. Bhaumik Machhi	SOT	2025	Implementation and Iterative Analysis of LEACH and Its Variants in UWSN Protocols	
15	Ms. Mosam Patel	SoT	2025	Automated Redaction Framework: Utilizing SpaCy and ChaCha20-Poly1305 for Secure Information Handling	ICON AI SMT 25, GSFCU Conference
16	Ms. Mosam Patel	SoT	2025	LEVERAGING AUDIO DATA FOR EMOTION RECOGNITION WITH MACHINE LEARNING	Journal of Engineering Sciences
17	Dr. Bhoomi Shah	SoT	2025	An Efficient Approach of Brain Tumor Detection & Extraction using BWT with Auto Enhance Technique	Procedia Computer science
18	Dr. Swati Mohapatra	SOS	2025	Impact of Rising Atmospheric Carbon Dioxide on Soil Health and Plant Nutrition	Soil Health and Nutrition Management
19	Dr. Swati Mohapatra	SOS	2025	Fabrication of HA nano-crystal reinforced PHAs based composites for orthopedic fracture-fixing accessories using sustainable resources	Environment, Development and Sustainability
20	Dr. Swati Mohapatra	SOS	2025	Experimental Evaluation of Nanocomposites	Advances in Polymer Composite Research:

					Integrating Experimental and Computational Approaches; Taylor & Francis, CRC Press
21	Dr. Parin Kanaiya	SOS	2025	Microwave-Assisted Synthesis, Characterization, and Surfactant Interaction Studies of Water-Soluble Tetrasulfonatomethylcalix[4]resorcinarene[WSC4R]	J Incl Phenom Macrocycl Chem
22	Dr. Parin Kanaiya	SOS	2025	Microwave assisted Synthesis, Characterization and Antimicrobial study of Azocalix[4]resorcinarene	Current Microwave Chemistry
23	Dr. Parin Kanaiya and Dr. Mayank Sharma	SOS	2025	Microwave-Assisted Synthesis and Characterization of Calix[4]resorcinarene Schiff base[C4RSB]	Current Green Chemistry
24	Ms Zalak Kansagra	SOT	2025	Optimizing ASR for Low-Resource Language: Fine-Tuning Wav2Vec2-XLSR for Gujarati	ICON AI SMT 25, GSFCU Conference
25	Dr. Krunal Soni	SoM&L A	2025	Quantitative Assessment Of Consumer Satisfaction Determinants In The Automobile Sector: A Regional Analysis Of Gujarat, India	American Journal of Psychiatric Rehabilitation
26	Ms.Hetal Jethani	SOT	April 2025	Facial Expression Recognition using Deep Learning and Graph Convolution Networks	3rd International Conference on Artificial Intelligence and Machine Learning Applications, K.S.Rangasamy College of Technology, Tiruchengode, Namakkal, Tamil Nadu, India, 29-30 April, 2025 (Indexed in SCOPUS)
27	Ms.Hetal Jethani	SOT	May 2025	A Comprehensive System for Multilingual Text Recognition and Cross-Language Data Accessibility Using Machine Learning	3rd IEEE International Conference on Computer,

					Electronics, Electrical Engineering & their Applications, NIT Uttarakhand, India, May 15-16, 2025 (Indexed in SCOPUS)
28			May 2025	Advanced AI-Powered Signature Authentication System using Siamese Neural Network	3rd IEEE International Conference on Computer, Electronics, Electrical Engineering & their Applications, NIT Uttarakhand, India, May 15-16, 2025 (Indexed in SCOPUS)
29	Mr. Bhaumik Machhi	SOT	2025	BRIHASPATI: A cyber forensic web application designed to assist investigators in detecting and analyzing illegal content present on mobile devices.	Bulletin For Technology And History Journal
30	Mr. Bhaumik Machhi	SOT	2025	Thynk AI: A Smart Web-Based Mini Project Generator	NOVYI MIR Research Journal
31	Dr Chandra Has	SoT	2025	Has C, Padhiyar H and Patel R (2025). A Comparative Study of Industrial Wastewater Treatments by <i>Chlorella Vulgaris</i> and <i>Scenedesmus Quadricauda</i> Microalgae	International Journal on Algae.
32	Dr. Mayank Sharma	SoS	2025	Green protocol for the synthesis of 2-amino-4H-chromene-3-carbonitrile derivatives utilizing pyridine-2-carboxylic acid as a rapid catalyst	<i>RSC Advances</i>
33	Ms. Vimla Virparia	SOM& LA	2025	"Cost Variance Analysis: A Pre and Post Covid Study of Gujarat State Fertilizers Ltd.	International Journal of Management, Public Policy and Research
34	Dr. Archana Deokar	SoS	2025	Synthetic Approaches to Access Indolin-3-ones, Asian Journal of Organic Chemistry (Just accepted)	Asian Journal of Organic Chemistry

35	Dr Sankara narayana n	SoS	202 5	Data-Driven High-Performance Liquid Chromatography Method for the Simultaneous Analysis of Disodium Guanylate and Disodium Inosinate in Mushrooms	Data in Brief
36	Dr. Sneha Bajaj	SOT	202 5	Global Corporate Communication in the AI Era: A Case Study of Google Gemini's Gender Language Challenges Across Cultural Markets	Liberte Journal
37	Dr Akhilesh Prajapati	SoS	202 5	Unleashing the Potential of Ferroptosis, Autophagy and Mitochondria Dynamics as Emerging Modalities in Cancer Treatment.	World J Clin Oncol.
38	Dr Akhilesh Prajapati	SoS	202 5	Revolutionizing Cancer Care: Bioprinting Prostate Cancer Stem Cells for Targeted Treatments,	World J Clin Oncol.
39	Dr Akhilesh Prajapati	SoS	202 5	Deciphering the Role of Environmental Exposures in Androgen-Resistant Prostate Cancer an Insights from Multi-Omics and Toxicogenomics: Insights from Exposomics, Toxicogenomics, and Integrative Multi-Omics Approaches. (Book Chapter)	IGI Global Scientific Publishing