GBU Research Publications from June to August, 2025

S.No.	TITLE OF THE ARTICLE	AUTHORS	JOURNAL NAME	VOLUME	ISSUE	Year	DOI
1	Reno-protection by Didymocarpus pedicellata against oxalate-	A., Singh, Anubha; K., Kumari, Kshama; S., Tandon, Simran; T., Kaur, Tanzeer;	Urolithiasis	53	1	2025	10.1007/s00240-025-01794-1
2	induced damage: mechanistic insights into mitigation of oxidative stress induced signaling pathways in renal cell line and						
3	Insights into the evolution of Candidalysin and recent developments	A., Konwar, Ananya; K., Mathur, Kartavya; S., Pandey,Shivam; K., Bhorali, Kunjan; A., Thakur, Anil; R., Puria, Rekha	Archives of Microbiology	207	9	2025	10.1007/s00203-025-04414-z
4	In-silico guided identification and in-vitro studies of potential FFAR4 agonists for type 2 diabetes mellitus therapy	D., Jhinjharia, Divya; P., Juneja, Pinky; G., Srivastava,Gaurava; K.B., Lokhande, Kiran Bharat; A., Sharma, Aarti; J.S., Rathore, Jitendra Singh; S., Kaur, Savneet;	Expert Opinion on Drug Discovery	20	8	2025	10.1080/17460441.2025.2522896
5	Studies on Effects of Drying Methods on Quality Characteristics of Tomato Pulp Leather	N., Sonkar, Nitin; S.A., Mobin, Sheikh A.; C., Sonkar, Chitra	BIO Web of Conferences	178		2025	10.1051/bioconf/202517803002
6	Edge-assisted federated learning for anomaly detection in diverse IoT network	P., Sharma, Priya; S.K., Sharma, Sanjay Kumar; D., Dani, Diksha	International Journal of Information Technology (Singapore)	17	5	2025	10.1007/s41870-024-01728-x
7	Fake News Identification using Hybrid Detection Models	S., Kumar, Sumit; P., Tomar, Pradeep				2025	10.1109/GINOTECH63460.2025.11077102
8	Adaptive Detection of Fileless & Polymorphic Malware Using Memory Forensics, Computer Vision, and Machine Learning	K., Kushwaha, Kartik; N.S., Bhati, Nitesh Singh				2025	10.1109/GINOTECH63460.2025.11076772
9	ROUGE-SS: A New ROUGE Variant for the Evaluation of Text Summarization	S., Kumar, Sandeep; A., Solanki, Arun; N.Z., Jhanjhi,	Recent Advances in Computer Science and Communications	18	6	2025	10.2174/0126662558304595240528111535

10	Authentication using Static and Continuous Keystroke Dynamics in Classical and Quantum Environments	N., Bhasin, Namisha; S.K., Sharma, Sanjay Kumar; R.K.S.R., Mishra, Rajesh K.S.R.				2025	10.1109/ICCSAI64074.2025.11063702
11	R-peak detection in ECG signal with and without pre-processing techniques	H., Saini, Himanshu; K., Pal, Kirti; V., Gupta, Varun				2025	10.1109/OTCON65728.2025.11070983
12	Performance analysis and comparison of jelly-fish optimisation-based maximum power point tracking controller for partial shading condition	D., Yadav, Dilip; N., Singh, Nidhi	International Journal of Computational Science and Engineering	28	4	2025	10.1504/IJCSE.2025.147611
13	Designing Novel Antibiotics against Pseudomonas aeruginosa to Tackle Antimicrobial Drug Resistance: Structure-based Drug Design of Inhibitors of t-RNA Methyltransferases (trmA) from Pseudomonas aeruginosa	K.S., Bhati, Km Sakshi; N., Singh, Nagendra	Current Chemical Biology			2025	10.2174/0122127968379517250519053237
14	Evaluation of water quality of Yamuna River: A study conducted on Delhi Stretch using CCME WQI and HACA methods	B., Sharma, Bhanupriya; S., Ram, Shobha; S., Vyas, Sameer	IOP Conference Series: Earth and Environmental Science	1489	1	2025	10.1088/1755-1315/1489/1/012008
15	A Study on Challenges and Solutions on Power Optimization Techniques in 5G Nr Communication for the Smartphone	M., Srivastava, Manu; V.K., Ray, Vimlesh Kumar				2025	10.1109/IC3ECSBHI63591.2025.10991253
16	Blockchain Based Secure and Privacy-Preserving Data Aggregation Scheme for Smart Grids	P.P., Singh, Panchanan Pyare; A.G., Dinker, Aarti Gautam; A., Kumar, Abhishek				2025	10.1109/IC3ECSBHI63591.2025.10990967
17	AI-Enabled Recommender Systems and Digital Twins for Agile Decision-Making in Energy Startups: A Vision	M.K., Singh, Mukul Kumar; V., Patel, Vikash; D.S., Pal, Devesh Singh; M.A., Ansari, M. A.; O.P., Singh,Omveer P.; V., Yadav, Vishvajeet				2025	10.1109/IC3ECSBHI63591.2025.10991050

18	Lumbar Spine Segmentation Based on Sagittal View Using Convolutional Neural Network	S., Singh, Smita; N.S., Singh, Neeta S.; N., Kumar, Naresh				2025	10.1109/IC3ECSBHI63591.2025.10991177
19	Leveraging Antiviral Lectins for Developing Glycan-Based Vaccines	A., Goyal, Ayushi; R., Sultana, Razia; S., Saeed,Sarosh; P., Bhati, Piyush; V.,				2025	10.1109/IC3ECSBHI63591.2025.10990882
20	An Approach to Control Safety Message Congestion in IoV Using Metaheuristic Clustering Algorithm	P., Ajmani, Prerna; N.S., Singh, Neeta S.; P., Verma, Poonam				2025	10.1109/IC3ECSBHI63591.2025.10990688
21	Comprehensive Analysis of Machine Learning-Based Intrusion Detection Systems	S., Kumar, Sonu; A., Arindam, Abhirup; A.G., Dinkar,Aarti Gautam; A.S., Baghel, Anurag Singh; N.S., Singh, Neeta S.				2025	10.1109/IC3ECSBHI63591.2025.10990898
22	An ISM Band Microstrip Patch Antenna for Breast Cancer Detection Using Confocal Microwaves Imaging	J., Ahirwar, Jitendra; R.K.S.R., Mishra, Rajesh K.S.R.; N., Agrawal, Niraj; B., Kankane, Bhawna				2025	10.1109/IC3ECSBHI63591.2025.10990983
23	Role of AI in Breast Cancer Detection through Medical Image Analysis: Overview, Methods, and Unresolved Problems	S., Jha, Surbhi; N.S., Singh, Neeta S.; M. A., Ansari, M. A.				2025	10.1109/IC3ECSBHI63591.2025.10990605
24	Skin Microbiome as a Diagnostic Tool for Atopic Dermatitis in Children and Adults	A., Pal, Ananya; K., Mathur, Kartavya; V., Nain, Vikrant; R., Puria, Rekha				2025	10.1109/IC3ECSBHI63591.2025.10990830
25	Predicting K-Coverage in Wireless Multihop Networks with Boundary Effects Using Support Vector Regression: A Feature Sensitivity Analysis for Smart City Applications	S., Singh, Sachin; A., Kumar, Ashutosh; Isha; B., Kankane, Bhawna; R.K.S.R., Mishra, Rajesh K.S.R.				2025	10.1109/IC3ECSBHI63591.2025.10991299
26	Modularity and Lazy Evaluation in Nixos: A Functional Approach to Operating System Configuration	N., Singh, Nikhil; A.S., Baghel, Anurag Singh; P., Mishara, Priyanka				2025	10.1109/IC3ECSBHI63591.2025.10991248

27	Performance Analysis of Oxide Confined VCSEL for Optical Interconnects at 1550 nm Wavelength	P., Goyal, Priyanka; B., Kankane, Bhawna; P., Kumar, Prateek; P., Singh, Prachi				2025	10.1109/IC3ECSBHI63591.2025.10991012
28	AI-Based Cancer Risk Assessment Models: Current Trends Overview	S., Jha, Surbhi; N.S., Singh, Neeta S.; M. A., Ansari, M. A.				2025	10.1109/IC3ECSBHI63591.2025.10991254
29	Comparison of Various Control Techniques for Path Control of Mobile Robots	J., Singh, Jyoti; N., Singh, Nidhi; A., Deep, Alok				2025	10.1109/IC3ECSBHI63591.2025.10991281
30	A Taxonomy of DDoS Attacks on Cloud Computing Environment and Approaches to Mitigation	A.K., Pathak, Alok Kumar; A.G., Dinker, Aarti Gautam; S., Kumar Sharma, Sanjay				2025	10.1109/IC3ECSBHI63591.2025.10991034
31	Analysis of Detailed-Phasor and Phasor-Phasor Model of Phase Shifting Transformer Using On-load Tap Changer	M.K., Singh, Mukul Kumar; M.A., Ansari, M. A.; O.P., Singh, Omveer P.; V., Singh, Vishwamitra; V., Beniwal,				2025	10.1109/IC3ECSBHI63591.2025.10991191
32		Vikas; V., Porwal, Vaibhav					
33	PV Energy Conversion System with Grid Interface Using Variable Step Size Modified Decorrelated NLMS Algorithm	R., Kumar, Ranjeet; O.P., Singh, Omveer P.; S.G., Kumar, Shailendra Ganesh				2025	10.1109/IC3ECSBHI63591.2025.10990985
34	AI-Driven Network Effects and Tokenization for Next-Gen Communication Networks in Energy Systems	M.K., Singh, Mukul Kumar; D.S., Pal, Devesh Singh; P., Yadav, Priyanka; M. A., Ansari, M. A.; V., Singh, Vishwamitra; V., Beniwal, Vikas				2025	10.1109/IC3ECSBHI63591.2025.10991132
35	Order Abatement Technique for LTI MIMO Systems Based on Squirrel Search Algorithm & Dominant Pole Retention	B., Singh, Babita; N., Singh, Nidhi; D., Singh, Dipti				2025	10.1109/IC3ECSBHI63591.2025.10990436

36	5G Radio Access Network Management- The Potential of Smart Contract Blockchain	R., Kumar Srivastava, Ranjan; N.S., Singh, Neeta S.; A.S., Baghel, Anurag Singh				2025	10.1109/IC3ECSBHI63591.2025.10991321
37	Deciphering Amino Acid Features in NRPS Sequences of Biosurfactant-Producing Bacteria: A Framework for Machine Learning Insights	K., Pandey, Kamini; M., Kumari, Madhu; B., Singhal, Barkha				2025	10.1109/IC3ECSBHI63591.2025.10990543
38	Fabrication and Characterization of Coir Fibre Reinforced CaCl2 Crosslinked Starch-Chitosan Films	N., Singh, Neena				2025	10.1109/IC3ECSBHI63591.2025.10991121
39	Diagnostic Study of Thunderstorms Over Uttar Pradesh, India	N., Kumar, Neetak; S., Kumar, Sushil; B., Panda,Bhanumati; A., Routray, Ashish; N., Kumari, Neha; N., Lohan, Nitin				2025	10.1109/IC3ECSBHI63591.2025.10990776
40	Mutually Inhibiting Neural Networks with Second Order Neuronal Activities	A., Panwar, Anjali; V.S., Panwar, Vikas Singh				2025	10.1109/IC3ECSBHI63591.2025.10990693
41	Microbial Safety Aspects of Street Food and Rapid Detection of Foodborne Pathogens Using Biosensor	H.K., Walia, Harpreet Kaur; K., Choudhary, Komal; N., Kumar, Navin; S., Ram, Siya				2025	10.1109/IC3ECSBHI63591.2025.10990546
42	Cognitive Intelligence and Big Data: A Symbiotic Approach to Predictive Analytics in Healthcare	S., Johari, Semal; P., Singh, Parnika				2025	10.1109/IC3ECSBHI63591.2025.10990655
43	RPL Protocol Performance Analysis Across Multiple IoT Topologies	S., Mishra, Suneeta; V., Sharma, Vidushi; K., Vimlesh, Kr				2025	10.1109/IC3ECSBHI63591.2025.10990999
44	Machine Learning-Based Prediction of Heavy Rainfall Days in the Northern Himalayas: A Case Study of Shimla, Srinagar and Kargil	H., Singh, Harshita; B., Rana, Bhumika; S., Kumar, Suśhil; A.S., Baghel, Anurag Singh; J.R., Panda,Jagabandhu R.; N., Singh, Nikhil				2025	10.1109/IC3ECSBHI63591.2025.10990912

45	Exploring the Role of Hurst Exponents in the Multifractral Detendrated Fluctuation Analysis (MFDFA) of ASD Patients' EEG Data	W.P., Chanu, Waribam Pratibha; S., Mandal, Saurav; M., Pohit, Mausumi; R. K., Singh, Rajnish Kumar				2025	10.1109/IC3ECSBHI63591.2025.10991005
46	Analysis of Extreme Rainfall Trends Over 75 Locations (District Wise) of Uttar Pradesh, India using Daily Gridded Rainfall Data (1973-2023)	S., Kumar, Suśhil; A., Kumar, Arun; A., Singh, Amarendra; A.P., Bhaskar, Amar Pratap; A.S., Baghel,Anurag Singh; J.R., Panda, Jagabandhu R.				2025	10.1109/IC3ECSBHI63591.2025.10990961
47	Designing Procedure to Develop a Helical Antenna for SAW Devices	P., Kumar, Prateek; P., Goyal, Priyanka				2025	10.1109/IC3ECSBHI63591.2025.10991134
48	Digital Twins for Scaling Electrical Startups Through AI-DrivenRecommender Systems and Tokenized Energy Markets: A Vision for Future	M.K., Singh, Mukul Kumar; Sangeeta; M.A., Ansari,M. A.; O.P., Singh, Omveer P.; V., Patel, Vikash; V., Yadav, Vishvajeet				2025	10.1109/IC3ECSBHI63591.2025.10991263
49	Jellyfish Optimization for Enhanced Maximum Power Point Tracking of Solar PV Systems Under Partial Shading Conditions	N., Singh, Nidhi; D., Yadav, Dilip; S., Singh, Surbhi				2025	10.1109/IC3ECSBHI63591.2025.10991277
50	Digital Twins for Predictive Maintenance in Renewable Energy Grids with Tokenized Transactions: A Review	M.K., Singh, Mukul Kumar; V., Yadav, Vishvajeet; D.S., Pal, Devesh Singh; M. A., Ansari, M. A.; O.P.,Singh, Omveer P.; V., Patel, Vikash				2025	10.1109/IC3ECSBHI63591.2025.10990399
51	Differentiation of Gut Microbiome Profiles Between Healthy and IBD Individuals Using 16S rRNA Sequencing and AI-Enhanced Analysis: Insights from Indian Cohorts	J., Kaurav, Jyoti; S.K., Sharma, Sanjay Kumar; R.K., Chaudhary, Ravi Kumar				2025	10.1109/IC3ECSBHI63591.2025.10991117
52	Implementation and Evaluation of a FaceNet Inspired Model for Facial Recognition	A., Jayesh, Akshit; N.S., Singh, Neeta S.				2025	10.1109/IC3ECSBHI63591.2025.10990681
53	Review and Assessment of PV Panel Cooling for Performance Enhancement Using Nano- Enhanced Phase Change Materials (NePCMs)	D.D., Gautam, Desh Deepak; H., Thakur, Harishchandra				2025	10.1109/IC3ECSBHI63591.2025.10991020

54	Design and Implementation of Self-Learning Enabled Wireless IoT Framework to Enhance P-V Characteristics of Nonuniformly Shaded PV Arrays	M., Kashyap, Monika; D., Pathak, Diwaker; A., Gautam, Ashi; V., Sharma, Vidushi; G., Verma, Gourav	IEEE Internet of Things Journal	12	16	2025	10.1109/JIOT.2025.3578350
55	A comparative analysis and implementation of CoAP and MQTT protocol for IoT communication	M., Kashyap, Monika; V., Sharma, Vidushi	Life Cycle Reliability and Safety Engineering			2025	10.1007/s41872-025-00324-7
56	Deriving ECG Features from PPG Signals Using Machine Learning Approaches	B., Sahani, Brijesh; D., Sonowal, Durlav; R.K., Baruah, Ratul Kumar				2025	10.1109/DevIC63749.2025.11012513
57	On the Analysis of a Very Severe Cyclonic Storm Nilofar Over the Arabian Sea: A Numerical Weather Prediction Model Study	N., Lohan, Nitin; G., Tiwari, Gaurav; S., Kumar, Sushil; A., Routray, Ashish	Springer Proceedings in Mathematics and Statistics	482		2025	10.1007/978-981-96-3460-6_10
58	Economic assessment of a power system network integrating renewable DG sources with UPFC controller	R., Gandotra, Rupika; K., Pal, Kirti	International Journal of Green Energy			2025	10.1080/15435075.2025.2514489
59	Cellular Senescence and Cardiovascular Aging	D., Kapoor, Devanshi; I., Qamar, Imteyaz	Springer, Singapore			2025	10.1007/978-981-96-1041-9_9
60	Senescence as a Therapeutic Target	O., Singh, Ocean; Y., Ahmad, Yasmin; S., Mohanty, Swaraj				2025	10.1007/978-981-96-1041-9_13
61	Cellular Senescence, Age-Related Disorders, and Emerging Treatments	I., Qamar, Imteyaz; P.K., Maurya, Pawan Kumar				2025	10.1007/978-981-96-1041-9

62	Introduction to Cellular Senescence and Aging	P., Banerjee, Pallabi; K.M., Al-Anazi, Khalid Mashay; M.A., Farah, Mohammad Abul; I., Qamar, Imteyaz				2025	10.1007/978-981-96-1041-9_1
63	The Epigenetic Landscape of Cellular Senescence	D., Jha, Devanshika; R., Kumar, Rishabh; G., Idris, Ghaznavi				2025	10.1007/978-981-96-1041-9_2
64	Cellular Senescence and Stem Cell Exhaustion: Implications for Aging and Regeneration	N., Kumar, Navin; H.K., Walia, Harpreet Kaur				2025	10.1007/978-981-96-1041-9_6
65	Pancreatic β-Cell Senescence: A Contributor to Type 2 Diabetes	R., Urmi, Rajkumari; R., Singh, Risha; M., Singh, Manisha; B.K., Sinha, Bipul Kumar				2025	10.1007/978-981-96-1041-9_8
66	Selection pressure on translational efficiency driven codon usage bias in drought responsive genes of Oryza sativa	T., Bargoti, Taniya; D.P., Nain, Divya Pratap; V., Nain, Vikrant; D., Singh, Deepali	Journal of Plant Biochemistry and Biotechnology			2025	10.1007/s13562-025-00990-9
67	Effects of Gamma Irradiation on Starch Granule Structure and Physicochemical Properties of Unripe Musa acuminata and Musa cavendish	Akansha Sharma, Anu Dhaka, Prachi Kumari, Vipul Chaudhary, Ratnesh Kumar, Srashti Sharma, Ruchi Verma*	International Journal of Environmental Sciences	11	14	2025	https://doi.org/10.64252/x2gwee28
68	Physical Profiling of Mimusops elengi Fruit for Post Harvest Applications	Srashti Sharm, Haritima , Shubham, Vijay Kumar Singh, Aneesh Kunnapillil Surendran,Sweta Subhashree Jena and Ruchi Verma*	International Journal of Environmental Sciences	11	6	2025	https://doi.org/10.64252/5m5jwd21
69	Edible mushrooms for improved human health, food security and environmental sustainability: A critical review	Mishra, A., Shankar, S*.	Science of The Total Environment	995	180093	2025	https://doi.org/10.1016/j.scitotenv.2025.180 093

70	SGSA-C: a new spiky gravitational search algorithm clustering method for segmentation	Himanshu Mittal, Mukesh Saraswat, Raju Pal, Ashish Kumar Tripathi, Avinash Chandra Pandey	International Journal of Machine Learning and Cybernetics			2025	https://doi.org/10.1007/s13042-025-02720-y
71	Nanocatalytic Strategies in Healthcare: Transforming Diagnostics and Therapeutics	Tripathy D.B.; Pradhan S.; Agarwal P.; Gupta A.; Yadav A.; Sinha A.; Chahar M.	Topics in Catalysis	69	4-Jul	2026	10.1007/s11244-025-02109-9
72	Mechanistic inhibition of FtsZ-driven bacterial cytokinesis by natural products: an integrated machine learning and advanced drug discovery approach	Singh R.; Tripathi V.; Dwivedi V.D.; Chouhan G.	Molecular Diversity	30	2	2026	10.1007/s11030-025-11332-1