GBU Research Publications from September to November, 2025

S. NO.	TITLE OF THE ARTICLE	AUTHOR	JOURNALS NAME	Volume	Issue	Year	DOI
1	Blockchain-Based Framework for Secure and Efficient Peer-to-Peer Renewable Energy Trading	Kumar, R. Anand, A. Verma, N. Rajput, O. Khokher, R.	AIP Conference Proceedings	3335	1	2025	10.1063/5.0294856
2	A review on the recent development in rolling bearings for improvement of tribodynamic performance	Sharma, A. Sharma, S. Pandey, R.K.	AIP Conference Proceedings	3330	1	2025	10.1063/5.0292934
3	Ultrasonic vibration effect in the development of Al/CCLW/alumina metal matrix composite to enhance mechanical properties	Dwivedi, S.P. Chaudhary, V. Sharma, S. Sharma, S.	Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering	239	5	2025	10.1177/09544089231200467
4	Phytochemical-Assisted Fabrication of Biogenic Silver Nanoparticles from Vitex negundo: Structural Features, Antibacterial Activity, and Cytotoxicity Evaluation	Yadav, M. Gaur, N. Wahi, N. Singh, S. Kumar, K. Amoozegar, A. Sharma, E.	Colloids and Interfaces	9	5	2025	10.3390/colloids9050055
5	Inhibition of Growth and Survival of Head and Neck Cancer Cells by Silibinin Involves the Down-Regulation of Erk1/2, AKT and STAT3 Signaling	Singh, N. Ali, M. Biswal, P. Jaiswal, A. Mishra, D. Agarwal, R. Zaidi, R. Singh, R.P.	Molecular Carcinogenesis	64	10	2025	10.1002/mc.70022
6	Flavonoids extract from Vitex negundo inhibit autophagy by targeting PI3K/AKT/mTOR/p70S6K/ULK signaling cascade in cancerous cells	Garg, G. Chaudhary, S. Khatana, K. Bhardwaj, A.	World Journal of Experimental Medicine	15	3	2025	10.5493/wjem.v15.i3.104678
7	Prediction and Enhancing Construction Processes Through Machine Learning and Recent Optimization Techniques	Veerapathran, M. Chinnusamy, S. Singh, H. Chawla, A. Kaur, H.				2025	10.4018/979-8-3373-2555-2.ch006
8	Exploring advancements in space object detection through computer vision	Siddiqui, A.A.I. Deshmukh, P.D. Upreti, K. Kumari, P. Nijhawan, P.				2025	10.1201/9781003542513-1
9	Integrating CPS in digital payments 5.0: A study on security risks and evidence-based solutions	Balan, A. Nijhawan, P. Ramnani, V. K. Upreti, K. Kumari, P.				2025	10.1201/9781003542513-3
10	Smart cyber-physical systems in healthcare: Revolutionizing modern medicine in RPM and health security	Pandey, B. Tomar, R. Upreti, K. Kumari, P. Upreti, S. Poonia, R.C.				2025	10.1201/9781003542513-6
11	Synthesis and Evaluation of Novel Fluorinated Quinoline Derivatives in 2D and 3D Models of Triple-Negative Breast Cancer	Yadav, A. Saini, S. Singh, M. Sharma, D. Mattoo, S. Kashyap, A. Pore, S.K. Prasad, C.P. Rajput, C.S. Rani, R. Kumar, V.	ACS Omega	10	36	2025	10.1021/acsomega.5c01589
12	Use of BCI Systems in the Analysis of EEG Signals for Motor and Speech Imagery Task: A SLR	Iqbal, A. Suhag, A.K. Kumar, N. Bhardwaj, A.	ACM Computing Surveys	58	2	2025	10.1145/3757732
13	Design and screening of novel geniposide derivatives as xanthine oxidase inhibitors for hyperuricemia treatment using QSAR, Molecular docking, Molecular dynamics simulation, ADMET, and DFT Approaches	Benedict, F. Shallangwa, G.A. Goya, N. Umar, A.B. Ibrahim, Z.Y. Chandra, A.	Letters in Drug Design and Discovery	22	9	2025	10.1016/j.lddd.2025.100153

14	Binding Dynamics of Helicobacter pylori CagF-CagV: Biochemical, Computational, and Structural Insights into the Inner Membrane Core Complex of Cag-Type 4 Secretion System	Sain, S. Sacher, S. Solanki, B. Kumar, N.	Journal of Pure and Applied Microbiology	19	3	2025	10.22207/JPAM.19.3.29
15	Sustainable Network Solutions: 5G and LPWAN in Healthcare	Poras, N. Rizvi, N.Z. Tomar, P. Nagar, M.R.				2025	10.4018/979-8-3373-5791-1.ch005
16	Tannin Mitigation in Cashew Apple Juice using Taro and Water Chestnut Powders as Clarifying Agents	Singh, S. Sharma, V. Rajput, S. Srivastava, A. Mishra, A.	Current Research in Nutrition and Food Science	13	Special Issue	2025	10.12944/CRNFSJ.13.Special-Issue-July.10
17	Cancer Stem Cells Connecting to Immunotherapy: Key Insights, Challenges, and Potential Treatment Opportunities	Mathan, S.V. Singh, R.P.	Cancers	17	13	2025	10.3390/cancers17132100
18	Tropical Cyclones Across Global Basins: Dynamics, Tracking Algorithms, Forecasting, and Emerging Scientometric Research Trends	Singh, V. Tiwari, G. Singh, A. Samanta, R. Kumar, A.K. Bisht, D.S. Routray, A. Singh, S. Patel, S.S. Lodh, A.	Meteorological Applications	32	3	2025	10.1002/met.70067
19	A Composite Hybrid Î²-GA Controller and Expo-Pole Clustering for the Model-Order Reduction of the Discrete SISO/MIMO System	Kumari, D. Pal, K. Vishwakarma, C. B.	IETE Journal of Research	71	5	2025	10.1080/03772063.2025.2463621
20	In silico strategies for identifying therapeutic candidates against Acinetobacter baumannii: spotlight on the UDP-N-acetylmuramoyl-L-alanine-D-glutamate:meso-diaminopimelate ligase (MurE)	Kumar, A. Singh, P. Singh, E. Jain, M. Muthukumaran, J. Singh, A.K.	Journal of Biomolecular Structure and Dynamics	43	16	2025	10.1080/07391102.2024.2325661
21	Computational exploration of the genomic assignments, molecular structure, and dynamics of the ccdABXn2 toxin-antitoxin homolog with its bacterial target, the DNA gyrase, in the entomopathogen Xenorhabdus nematophila	Chaudhary, S. Ali, W. Yadav, M. Singh, G. Gupta, N. Grover, S. Ghosh, C. Chandra, S. Rathore, J.S.	Journal of Biomolecular Structure and Dynamics	43	15	2025	10.1080/07391102.2024.2311337
22	Ganoderma lucidum: A Medicinal Mushroom with Prebiotic and Anticancer Potential in Gastrointestinal Cancers	Shankar, A. Sharma, Y. M. Tulsawani, R. Kumar, P.	Current Pharmaceutical Biotechnology			2025	10.2174/0113892010377275250930170651
23	Targeting Angiogenesis for Cancer Prevention and Therapy	Sinha, A. Kujur, P.K. Singh, R.P.				2025	10.1007/978-981-96-7336-0_6
24	Arsenic Removal Technologies: From Challenges to Innovative Solutions	Yadav, A.K. Shirin, S. Dikshit, A.K. Simon, M. Kumar, A.				2025	10.1007/978-3-031-91171-2
25	Seeing Beyond Symptoms Utilizing Machine Learning Techniques for Early Diabetes Diagnosis	Singhal, G. Singh, A. Verma, K. Bhati, N.S.				2025	10.1201/9781003509608-2
26	Carbon Nanomaterials as Efficient Anti-microbial Agent Against Pathogens Including MDR Strains	Sharma, P. Baliyan, S. Gaur, N.				2025	10.1007/978-3-031-90613-8_11
27	IoT and AI-Enabled Healthcare Solutions for Intelligent Disease Prediction	Bhati, B.S. Tiwari, D. Bhati, N.S.				2025	10.1201/9781003509608

28	Performance enhancement model for data security with cross-layer technology using big data	Kumar, S. Sanjay; Bhati, N.S.		1		2025	10.1201/9781003593034-20
29	Resilient Video Watermarking Algorithm Employing Cryptography andÂ Moving Frames	Tyagi, S. Sharma, P. Kumar, S. Singh Bhati, N. Chaudhary, L.	Lecture Notes in Networks and Systems	1439 LNNS		2025	10.1007/978-981-96-7137-3_1
30	Artificial-Intelligence-Based Automated Instructor Feedback System for Education and Research	Yadav, V. Tomar, P.				2025	10.1201/9781003560814-6
31	Artificial Intelligence Tools for Instructors and Learners to Optimize the Teaching and Learning Processes	Upadhyay, P. Bhardwaj, H. Tomar, P.				2025	10.1201/9781003560814-4
32	Zinc oxide nanofluid conductivity modeling using artificial neural Networks	Hussain, M. Ansari, M.A. Mir, F.A.	Pollack Periodica			2025	10.1556/606.2025.01351
33	Enhancing Sign Language Generation Using Generative Adversarial Network: A Deep Learning Perspective	Tewari, P. Gupta, K. Baghel, A.S.	Lecture Notes in Networks and Systems	1433 LNNS		2025	10.1007/978-981-96-7131-1_16
34	Groundwater Quality Index Prediction to Assessment for Drinkability Through Machine-Learning Approach with Geospatial Analysis	Thakur, O.N. Kumar, S. Bhati, N.S.	Lecture Notes in Networks and Systems	1430 LNNS		2025	10.1007/978-981-96-6883-0_11
35	Adaptive Task Offloading Strategy in Smart Home Environments Leveraging Fog Computing and M/G/k/G/k+2 Queues	Singh, R.K. Kumar, A. Prasad, H.C. Singh, D. Kumar, M. Kumar, P.				2025	10.1109/MRIE66930.2025.11156237
36	CWT and LDA Based ECG Signal Analysis for R-Peak Detection	Saini, H. Pal, K. Gupta, V.				2025	10.1109/GCON65540.2025.11173328
37	Phytochemical and pharmacological activities of Vitex negundo L.	Chaudhary, S. Chakraborty, B. Bhardwaj, A.	Allelopathy Journal	66	2	2025	10.26651/allelo.j/2025-66-2-1555
38	A Transformer-Based Approach to Tag Prediction in Competitive Programming Problems	Rajput, S. Baghel, A.S.				2025	10.1109/ICOCT64433.2025.11118919
39	Enhancing Cryptocurrency Fraud Detection with Hybrid Feature-Graph Learning	Srivastava, S. Singh, R.B.				2025	10.1109/ICOCT64433.2025.11118689
40	Rent Sense: Integrating Ensemble Method, Geo-Spatial Model and Time Series Model to Navigate Rental Decision Across Metropolitan Cities	Suman, A. Singh, R.B.				2025	10.1109/ICOCT64433.2025.11118847
41	Improved Deep Learning Model for Epileptic Seizure Detection Using CNN-BiLSTM	Maheshwari, Y. Bhardwaj, A. Dahiya, M. Aggarwal, D.K.				2025	10.1109/ICOCT64433.2025.11118491
42	Performance Analysis of Deepfake Detection Techniques Using Different Deep Learning Models	Pandey, A. Solanki, A.	Lecture Notes in Electrical Engineering	1386 LNEE		2025	10.1007/978-981-96-3936-6_20
43	Leveraging Local Interpretable Model-Agnostic Explanations (LIME) for Sentiment Analysis of News Articles	Tewari, P. Verma, H. Jaiswal, R. Baghel, A.S.	Lecture Notes in Networks and Systems	1378 LNNS		2025	10.1007/978-981-96-5781-0_22
44	Optimizing Agriculture Crop Yield Prediction and Classification Using Machine Learning and Deep Learning	Khokhar, S. Tomar, P.				2025	10.1109/NETCRYPT65877.2025.11102212

45	DIDM: Deepfake Image Detection Model Using Deep Learning	Misra, T. Dinker, A.G.				2025	10.1109/NETCRYPT65877.2025.11102670
46	Enhancing Abstractive Summarization with T5SAM: A Transformer-Based Approach	Chaudhary, H. Solanki, A.				2025	10.1109/NETCRYPT65877.2025.11102242
47	A Modified GP based Feature Selection Model for Solving Real World Classification Problems	Nagar, S. Bhardwaj, A.				2025	10.1109/EAIC66483.2025.11101517
48	Analysis & Modeling of Deep Learning Techniques for Flowchart to Code Generation	Johri, A. Sharma, S. Chaudhary, V. Raj, G. Khurana, S.				2025	10.1109/NETCRYPT65877.2025.11102763
49	An Ensemble Technique for Tea Leaf Disease Prediction Using Machine Learning	Yuvraj, V.P. Bhati, N.S.				2025	10.1109/NETCRYPT65877.2025.11102781
50	Enhanced Image Security by Integrating Discrete Cosine Transform and Convolutional Neural Network	Kumar, G. Dinker, A.G.				2025	10.1109/NETCRYPT65877.2025.11102656
51	Detection of DDoS Attack Using Machine Learning Models	Choudhary, K. Dinker, A.G.				2025	10.1109/NETCRYPT65877.2025.11102586
52	Deep Learning and IoT-Enabled Crop Disease Detection Approach for Precision Agriculture	Gautam, S. Sharma, S.K.				2025	10.1109/NETCRYPT65877.2025.11102617
53	Uniform Manifold Approximation and Projection with Gaussian Mixture Model Based Efficient Clustering Model for Advance Customer Segmentation	Mishra, S. Dinker, A.G.				2025	10.1109/NETCRYPT65877.2025.11102513
54	Connectivity Matrices and Tree Search Strategy Based Wireless Sensor Networks Reliability Measures	Kumar, A. Mishra, S. Baghel, A.S. Sharma, K.				2025	10.1109/NETCRYPT65877.2025.11102366
55	Exploring Generative AI and IoMT in Diabetes Prediction	Anand, A. Kumar, R. Singh, N. Dutta, B. Rajput, O.				2025	10.1201/9781003488255-8
56	Ando type dilation for completely contractive covariant representations	Rohilla, A. Saini, D.	Acta Scientiarum Mathematicarum			2025	10.1007/s44146-025-00188-4
57	Palmitic acid adjunctive therapy upregulates bax/bcl-2 ratio and displays apoptosis as mode of anti-tumorigenic effects in multiple myeloma cells	Kapoor, S. Gupta, N. Raja, K.D. Qamar, I. Singh, A. Sharma, A.	Leukemia and Lymphoma			2025	10.1080/10428194.2025.2547246
58	E2G-Net: Enhancing Efficiency in Graph Neural Networks With Early-Exit Branches	Rahmath, H.R.P. Chaurasia, K. Anika	IEEE Transactions on Emerging Topics in Computational Intelligence			2025	10.1109/TETCI.2025.3573240
59	Highly-efficient TADF OLEDs for photodynamic detection of ovarian and skin tumors	Tiwari, RK Sharma, SK Mishra, R Nagar, MR	Organic Electronics	145		2025	http://dx.doi.org/10.1016/j.orgel.2025.107303
60	Multiphase flow of three immiscible non-Newtonian fluids through porous cylindrical annulus under magnetic field	Kumar, S Deo, S Maurya, PK; Patel, PK	Chinese Journal of Physics	97		2025	http://dx.doi.org/10.1016/j.cjph.2025.06.047
61	A review on embedding therapeutic nanoparticles in mesoporous bioactive glass-ceramics for biomedical applications	Kumar, A Mariappan, CR	Inorganic Chemistry Communications	179		2025	http://dx.doi.org/10.1016/j.inoche.2025.114855

62	Solvothermal synthesis of PVP-assisted CuS structures for sunlight-driven photocatalytic degradation of organic dyes	Dhiman, V Kumar, S Kandwal, A Sharma, P Thakur, A Sharma, SK	Physica B-Condensed Matter	714		2025	http://dx.doi.org/10.1016/j.physb.2025.417520
63	3-Ø, Two-Stage, Grid-Interfaced Solar PV Energy Conversion System with Adaptive Control Based on Approximate Multipliers	Ranjeet Kumar and Omveer Singh	Suranaree Journal of Science and Technology	32	5	2025	https://doi.org/10.55766/sujst8220
64	Gelatin-Based Nanocomposite Films: A Sustainable Green Alternative for Membrane Technology	Nikita Bhardwaj, Jaya Maitra	Polymer Engineering & Science	65	12	2025	https://doi.org/10.1002/pen.70140
65	Understanding the Role of Self Help Groups in Ushering Women Empowerment: A Study Conducted in the Sonitpur District of Assam	Rahul Kapoor, Mayukhi Saikia	Social Work Chronicle	14	1	2025	
66	Modelling and Optimization of Silica Extraction from Perlite Using RSM, ANN, and NSGA-II Techniques	Deepti Goyal, Monika Sharma, Dipti Singh, Raju Pal, Sakshi Kabra Malpani	Silicon	17	14	2025	https://doi.org/10.1007/s12633-025-03520-3
67	2D MXenes: High-Performance Supercapacitors for Future Energy Systems (Accepted)	Divya Bajpai Tripathy, Subhalaxmi Pradhan, Pooja Agarwal, Deepti Goyal	Sustainable Energy and Fuels			2025	https://doi.org/10.1039/D5SE01308A
68	Unveiling therapeutic potential: In Silico discovery of prognostic markers and potential inhibitors for TGFÃŸR1 in pancreatic cancer	Singh, S. Gupta, H. Sinha, S. Kaushik, A.C. Kapoor, S. Awasthi, A.K. Qamar, I. Sahi, S.	Computational Biology and Chemistry	120		2026	10.1016/j.compbiolchem.2025.108646
69	ResEffNet: Web-Based Mpox Skin Lesion Detection System	Singh, T. Solanki, A.	Lecture Notes in Networks and Systems	1608 LNNS		2026	10.1007/978-3-032-03740-4_25
70	Enhancing Dry Bean Classification Through Machine Learning Algorithms	Choudhary, P. Bhardwaj, A.	Lecture Notes in Networks and Systems	1603 LNNS		2026	10.1007/978-3-032-03769-5_37
71	Improved Performance of Crop Disease Detection Using AI	Yadav, A. Ray, V.K. Goyal, P.	Lecture Notes in Networks and Systems	1603 LNNS		2026	10.1007/978-3-032-03769-5_36
72	Computational characterization of a HotDog domain-containing hypothetical protein from the food vacuole of Plasmodium falciparum reveals potential allosteric regulation by antimalarials	Gupta P.; Kaushik N.K.; Sachdeva C.; Mathur K.; Pai S.S.; Saha B.; Dhir S.; Sharma A.	Journal of Biomolecular Structure and Dynamics	44	8	2026	10.1080/07391102.2025.2567918
73	Hybrid Machine Learning Models for Credit Risk Prediction: An Explainable AI Approach	Krishna, S. Solanki, A.	Lecture Notes in Networks and Systems	1597 LNNS		2026	10.1007/978-3-032-02831-0_39
74	Brain Stroke Prediction Using Deep Convolutional Features and Ensemble Classifiers	Patel, P. Singh, R.B.	Lecture Notes in Networks and Systems	1603 LNNS		2026	10.1007/978-3-032-03769-5_19
75	Endophytic nanotechnology as a dual-action approach against agricultural and clinical fungal pathogens	Sharma A.; Sharma E.	Archives of Microbiology	208	2	2026	10.1007/s00203-025-04653-0
76	Immobilization of Heteropolyacids on Zeolite Surface for Catalytic Conversion of Glucose to 5-Hydroxymethyl Furfural (5-HMF)	Gupta S.; Jain R.; Malpani S.K.; Yadav A.; Goyal D.; Bharti S.; Shukla S.K.; Ulucan-Karnak F.	Topics in Catalysis	69	4-Jul	2026	10.1007/s11244-024-02017-4

77	A Novel SHAP-Enhanced LightGBM Framework with Optuna Optimization for Robust Credit Risk Assessment in Financial Systems	Singh, R.R. Ray, V.K.	Lecture Notes in Networks and Systems	1607 LNNS		2026	10.1007/978-3-032-03751-0_21
78	Nature-Inspired MYC Inhibitor Disrupts MYC-Driven Glycolysis and Restricts Ovarian Tumor Growth	Singh M.; Yadav A.; Singh U.; Gupta R.; Cavarzerani E.; Canzonieri V.; Negi D.; Dagar A.; Sathyamoorthy B.; Rizzolio F.; Kumar S.; Baliyan A.; Rani R.; Kumar V.	ChemMedChem	21	1	2026	10.1002/cmdc.202500554
79	Comparative studies on genetic differentiation between two closely related species of Drosophila, D. bipectinata and D. malerkotliana	Singh G.; Singh A.K.; Tiwari A.K.	Journal of Evolutionary Biology	39	3	2026	10.1093/jeb/voaf142
80	Improved Plant Disease Classification Using Deep Transfer Learning Techniques	Gupta, S. Ray, V.K. Goyal, P.	Lecture Notes in Networks and Systems	1607 LNNS		2026	10.1007/978-3-032-03751-0_40