

Research Contributions at a Glance (Till July 2026)

Sponsored Projects	1		
Patents	2		
Journals	SCI/SCIE/ESCI/Scopus:47	ACM/DBLP/Other Indexed: 6	Total: 53
Books and Chapters	Edited Books: 3	Book Chapters: 4	Total: 7
Conferences	International: 36	National: 5	Total: 41
Ph.D. Thesis Supervised	Awarded: 3, Ongoing: 2		
M.Tech. Thesis Supervised	Supervised: 20, Ongoing: 6		
B.Tech. Project Supervised	Supervised: 22 Groups		
Workshop/FDP Organized	4 (Role-Convener)		
Outreach Activities (Total :52)	Invited Talk/Expert Talk (Workshop/FDP/Training)	Session Chaird (In Conferences)	Participated (Workshop/FDP)
	17	20	15

Completed Research Grants/ Projects:

SN	Details
1.	Content-Based Image Retrieval System Assisted by Mammogram Classification for the Diagnosis of Breast Cancer • Agency: Collaborative Research Scheme under the Proposal of National Project Implementation Unit-New Delhi, Financed by Word Bank. • Project Grant: Rs. 7.30 Lakhs • Role: PI/CO-PI • Grant Year: June 2019, Completed Year: September 2021

Patent:

SN	Details
1.	Indian Patent on “Methods for Designing Dynamic framework for Tuning of SVM Hyper Parameters Based on MFO and Knowledge-Based Search”, No: 202031014705, (Patent Published; Also, First Examination Report (FER) Response Submitted)
2.	Patent Published on “A Framework for Reliability & Performance Analysis of Safety-Critical System using Stochastic Modeling,” 202031014381, Published, 05/2020

Published Journals: (SCI/SCIE/ESCI/Scopus, Total: 53)

SN	Year	Details
1.	2026	Imtiyaz, Vibhav Prakash Singh , and Manoj Madhava Gore. "NGCF-RVFL: Next Generation Convolutional Feature with Random Vector Functional Link for multi-grade diabetic retinopathy detection." <i>Computers and Electrical Engineering</i> 131 (2026): 110972, Elsevier. (IF-5.5) https://doi.org/10.1016/j.compeleceng.2026.110972
2.	2026	Ashima Tyagi, Vibhav Prakash Singh , and Manoj Madhava Gore. “Improved Schizophrenia Detection Using Structural MRI with Multi-Scale Transform and Deep Orthogonal Features" <i>Physical and Engineering Sciences in Medicine</i> , Springer, Accepted Jan 8, 2026. (IF-2.4) https://doi.org/10.1007/s13246-026-01702-w
3.	2026	Jitendra Mehta, Sayani Das, Vibhav Prakash Singh , Abhishek Tiwari, “Computational and statistical insights for leveraging biomarker-driven machine learning models in predicting COVID-19 patient outcomes”, <i>Health Information Science and Systems</i> , Springer, Accepted in Jan 2026, (IF-3.4) https://doi.org/10.1007/s13755-025-00421-y
4.	2026	Imtiyaz Ahmad and Vibhav Prakash Singh , “Content-Based Retrieval of Fundus Images and Diabetic Retinopathy Detection Using Variants of Local Texture Features”, Accepted on 17 July 2026 in <i>Radiological Physics and Technology</i> , Springer. (IF-1.6)
5.	2026	Imtiyaz, Ankur Prakash, and Vibhav Prakash Singh . "Robust Skin Lesion Segmentation in Dermoscopic Images using Attention Residual based UNet Model." <i>Procedia Computer Science</i> ,

		<i>Elsevier</i> , 283 (2026): 4705-4714. https://doi.org/10.1016/j.procs.2026.06.526 (Scopus)
6.	2026	Ahmad, Imtiyaz, Vibhav Prakash Singh , and Manoj Madhava Gore. "Detection of Diabetic Retinopathy using Deep-Inceptional Features and Support Vector Machine." <i>Procedia Computer Science, Elsevier</i> Vol. 283 (2026): 4496-4505. https://doi.org/10.1016/j.procs.2026.06.506 (Scopus)
7.	2025	Ankur Prakash, and Vibhav Prakash Singh , "AI in Radiology: A Comprehensive Survey on Content-Based Medical Image Analysis for Lung Diseases", <i>Network Modeling Analysis in Health Informatics and Bioinformatics, Springer</i> , Vol. 14, pp. 173, Nov 2025. (IF-2.4) https://doi.org/10.1007/s13721-025-00661-8
8.	2025	Arpita Santra, Vibhav Prakash Singh , Roshan Singh, "Content-based retinal image analysis for diabetic retinopathy detection using local neighbouring texture features", <i>Pre-print, International Journal of Applied Nonlinear Science, Inderscience</i> UK, 2025. (IF-0.8) https://doi.org/10.1504/IJANS.2025.10069929
9.	2025	Ashish Ranjan, Abhay Singh Rawat, Vibhav Prakash Singh , and Anil Kumar Singh. "Identification of Neuro-semantic Representation of Concrete Nouns Using Cascaded Feature Selection." <i>SN Computer Science, Springer</i> , Vol. 6, no. 8 pp. 986, Nov 2025. https://doi.org/10.1007/s42979-025-04556-3 (Scopus)
10.	2025	Ankur Prakash, and Vibhav Prakash Singh . "Content-based X-ray Image Retrieval Using Fusion of Local Neighboring Patterns and Deep Features for Lung Disease Detection," <i>Radiological Physics and Technology, Springer</i> , pp. 1-20., Published: July 2025, (IF-1.5), https://doi.org/10.1007/s12194-025-00932-z
11.	2025	Ashima Tyagi, Vibhav Prakash Singh , and Manoj Madhava Gore. "Spatial and frequency domain-based feature fusion for accurate detection of schizophrenia using AI-driven approaches." <i>Health Information Science and Systems, Springer</i> , Vol. 13, no. 1, pp.32, April 2025. (IF-3.4), https://doi.org/10.1007/s13755-025-00345-7
12.	2025	Imtiyaz Ahmad, Vibhav Prakash Singh , and Manoj Madhava Gore. "Detection of Diabetic Retinopathy Using Discrete Wavelet-Based Center-Symmetric Local Binary Pattern and Statistical Features." <i>Journal of Imaging Informatics in Medicine, Springer</i> , Vol. 38, no. 2, pp.1184-1211, April 2025. (IF-3.1), https://doi.org/10.1007/s10278-024-01243-2
13.	2025	Imtiyaz Ahmad, Vibhav Prakash Singh , and Manoj Madhava Gore, "Exploring AI-Assisted Techniques for Diabetic Retinopathy Detection: A Comprehensive Review", <i>Network Modeling Analysis in Health Informatics and Bioinformatics, Springer</i> , Accepted on October 30, 2025. (IF-2.4) https://doi.org/10.1007/s13721-025-00647-6
14.	2025	Nikita Sinha, and Vibhav Prakash Singh . "Detection of Lung Diseases from Acoustic Recordings using Statistical Moments of MFCC and Machine Learning." <i>Procedia Computer Science</i> 260, pp. 142-150, Jan 2025. (Scopus) https://doi.org/10.1016/j.procs.2025.03.187
15.	2025	Tyagi, Ashima, Vibhav Prakash Singh , and Manoj Madhava Gore. "Enhanced Schizophrenia detection using ensemble deep learning and orthogonal linear transformation of structural MRI." <i>Network Modeling Analysis in Health Informatics and Bioinformatics, Vol</i> 14, no. 1, pp. 65, July 2025. (IF-2.4) https://doi.org/10.1007/s13721-025-00557-7
16.	2024	Sumit Kumar, Antriksh Goswami, Vibhav Prakash Singh , and Ruchir Gupta. "A Technique for Faster Convergence of Game-Theoretic Approaches for Edge Computing Resource Allocation." <i>IEEE Transactions on Services Computing</i> , Vol: 17, pp. 3110 – 3121, 2024. (IF-5.8)
17.	2024	Ankur Prakash, Vibhav Prakash Singh , "Content-based CT image retrieval for emphysema using texture and shape features", <i>SN Computer Science, Springer</i> , Vol. 5, pp. 950, Oct 2024. (Scopus) https://doi.org/10.1007/s42979-024-03313-2
18.	2024	Ashima Tyagi, Vibhav Prakash Singh , and Manoj Madhava Gore, "Detection of Schizophrenia from EEG signals using Selected Statistical Moments of MFCC and Ensemble Learning", <i>Neuroinformatics, Springer</i> , Vol. 22 (4), pp. 499-520, 2024. (IF-3.1) https://doi.org/10.1007/s12021-024-09684-4
19.	2024	R Maurya, S Mahapatra, M Datta, Vibhav Prakash Singh , and NN Pandey, "Skin Cancer Detection through Attention Guided Deep Features with Extreme Learning Machine", <i>Scientific Reports, Nature</i> , Vol. 14, pp.17785, August 2024, (IF-3.9), https://doi.org/10.1038/s41598-024-68749-1

20.	2024	J. Sharmila, A. Vidyarthi, and Vibhav Prakash Singh , “An Improved Approach for Initial Stage Detection of Laryngeal Cancer using Effective Hybrid Features and Ensemble Learning Method”, <i>Multimedia Tools and Applications</i> , Vol. 86 (3), pp. 17897-17919, Feb 2024, (IF-3.0, 2023), https://doi.org/10.1007/s11042-023-16077-3
21.	2024	Imtiyaz Ahmad, Vibhav Prakash Singh , and Manoj Madhava Gore, “Segmented Central Symmetric-LBP Based Texture Features for the Detection of Diabetic Retinopathy Using SVM”, <i>SN Computer Science, Springer</i> , Vol. 5 (5), pp. 648, June 2024 (Scopus), https://doi.org/10.1007/s42979-024-02996-x
22.	2023	Vibhav Prakash Singh , Aman Verma, DK Singh, and Ritesh Maurya, “Improved Content-Based Brain Tumour Retrieval for Magnetic Resonance Images using Weight Initialization Framework with Densely Connected Deep Neural Network”, <i>Neural Computing and Applications, Springer</i> , (IF-4.5, 2023), Published on November 15, 2023. https://doi.org/10.1007/s00521-023-09149-w
23.	2023	Aquib Ansari, DK Singh, and Vibhav Prakash Singh , “Detecting Abnormal Behavior in Megastore for Crime Prevention using a Deep Neural Architecture”, <i>International Journal of Multimedia Information Retrieval</i> , Vol. 12 (2), pp.25, Dec 2023 (IF-3.6), https://doi.org/10.1007/s13735-023-00289-2
24.	2023	Ashima Tyagi, Vibhav Prakash Singh , and MM Gore, “An Efficient Automated Detection of Schizophrenia Using k-NN and BoW Features”, <i>SN Computer Science, Springer</i> , Vol. 4 (5), pp. 518, July 2023, (Scopus), https://doi.org/10.1007/s42979-023-01947-2
25.	2023	Aquib Ansari, DK Singh, and Vibhav Prakash Singh , “Detecting Abnormal Behavior in Megastore for Intelligent Surveillance through 3D Deep Convolutional Model”, <i>SCIENDO Journal of Electrical Engineering</i> , Vol. 74 (3), pp. 140-153, June 2023 (IF-1.0), https://doi.org/10.2478/jee-2023-0020
26.	2023	Vibhav Prakash Singh* , Dhruba Jyoti, and Vinay Kumar, “A lightweight knowledge-based PSO for SVM hyper-parameters tuning in a dynamic environment”, <i>The Journal of Supercomputing, Springer</i> , Vol. 79 (16), pp. 18777-18799, Nov 2023 (IF-2.7), https://doi.org/10.1007/s11227-023-05385-y
27.	2023	Vibhav Prakash Singh* , Ashish Ranjan, “Affirmative and Negative Sentence Detection in the Brain Using SVM-RFE and Rotation Forest: An fMRI Study”, <i>SN Computer Science, Springer</i> , Vol 4(4), pp.232, March 2023 (Scopus) https://doi.org/10.1007/s42979-023-01786-1
28.	2023	Dhruba Jyoti, Vibhav Prakash Singh , and Vinay Kumar, “A Novel Adaptive Optimization Framework for SVM Hyper-Parameters tuning in Non-stationary Environment: A Case Study on Intrusion Detection System”, <i>Expert Systems with Applications, Elsevier</i> , Vol. 213, pp. 119189, March 2023. (IF-7.5). https://doi.org/10.1016/j.eswa.2022.119189
29.	2022	Ashima Tyagi, Vibhav Prakash Singh , and Manoj Madhava Gore, “Towards artificial intelligence in mental health: a comprehensive survey on the detection of schizophrenia”, <i>Multimedia Tools and Applications, Springer</i> , pp. 1-63, October 2022, (IF-3.0, 2023), https://doi.org/10.1007/s11042-022-13809-9
30.	2022	Vibhav Prakash Singh and Aman Verma, “Design, Analysis and Implementation of Efficient Deep Learning Frameworks for Brain Tumor Classification”, <i>Multimedia Systems, Springer</i> , Vol. 81 (26), pp. 37541-37567, Nov 2022 (IF-3.0), https://doi.org/10.1007/s11042-022-13545-0
31.	2022	Rahul K, Vivek Tiwari, Swati Jain, Alok Singh Kushwaha, and Vibhav Prakash Singh , “A Role-Entity Based Human Activity Recognition Using Inter-Body Features and Temporal Sequence Memory” <i>IET Image Processing, Wiley</i> , Vol.16, pp. 2911–2921, 2022. (IF-2.34), https://doi.org/10.1049/ipr2.12472
32.	2022	Vibhav Prakash Singh* , Manish Gupta, and Kamlesh Kumar Gupta, “An Efficient Image Encryption Technique Based on Two-Level Security for Internet of Things”, <i>Multimedia Tools and Applications, Springer</i> , pp.1-26, February 2022, Springer (IF-3.0, 2023), https://doi.org/10.1007/s11042-022-12169-8
33.	2022	Vibhav Prakash Singh* , Dhruba Kalita, and Vinay Kumar, “Detection of Breast Cancer Through Mammogram Using Wavelet-Based LBP Features and IWD Feature Selection Technique”, <i>SN Computer Science, Springer</i> , Vol. 3, pp. 175, Feb 2022, https://doi.org/10.1007/s42979-022-01071-7 (Scopus)

34.	2021	Dhruba Jyoti, Vibhav Prakash Singh , and Vinay Kumar. "Two way Threshold Based Intelligent Water Drops Feature Selection Algorithm for Accurate Detection of Breast Cancer", <i>Soft Computing, Springer</i> , Vol. 26 (5), pp. 2277-2305, Nov 2021 (IF-2.5). https://doi.org/10.1007/s00500-021-06498-3
35.	2021	Ashish Ranjan, Vibhav Prakash Singh , Ravi Bhusan Mishra, and Anil Kumar Singh. "Sentence Polarity Detection Using Stepwise Greedy Correlation Based Feature Selection and Random Forests: An fMRI Study." <i>Journal of Neurolinguistics, Elsevier</i> , Vol. 59, pp. 100985, August 2021. (IF-1.2), https://doi.org/10.1016/j.jneuroling.2021.100985
36.	2021	Shailendra Singh, Vibhav Prakash Singh , and AK Mehta, "Differential Evolution Using Homeostasis Adaption Based Mutation Operator and Its Application for Software Cost Estimation", <i>Journal of King Saud University-Computer and Information System, Elsevier</i> , Volume 33 (6), July 2021, pp. 740-752, (IF-6.1) https://doi.org/10.1016/j.jksuci.2018.05.009
37.	2021	Dhruba Jyoti, Vibhav Prakash Singh , and Vinay Kumar. "A Dynamic Framework for Tuning SVM Hyper Parameters based on Moth-Flame Optimization and Knowledge-Based Search." <i>Expert Systems with Applications, Elsevier</i> , Vol.168, Apr 2021, pp. 114139, (IF-7.1). https://doi.org/10.1016/j.eswa.2020.114139
38.	2021	Vinay Kumar, Ashish Kumar Maurya, Karam Veer Singh, Aditya Narayan Hati, and Vibhav Prakash Singh . "Safety Analysis of Safety-Critical Systems for their Applicability on NPP Systems: A State-of-the-Art Review." <i>Quality and Reliability Engineering, Wiley</i> , Vol. 37(5), pp. 1796-1831, January 2021, (IF-2.8) https://doi.org/10.1002/qre.2828
39.	2020	Nagendra Pratap Singh and Vibhav Prakash Singh , "Efficient Segmentation and Registration of Retinal Image Using Gumble Probability Distribution and BRISK Feature", <i>Traitement du Signal</i> , Vol. 37 (5), pp. 855-864, Oct 2020. (IF-1.0) DOI: https://doi.org/10.18280/ts.370519
40.	2020	Ashish Ranjan, Vibhav Prakash Singh , Anil Kumar Singh, and Ravi Bhusan Mishra. "Classifying Brain State in Sentence Polarity Exposure: An ANN Model for fMRI Data", <i>Revue d'Intelligence Artificielle</i> , Vol. 34 No. 3, pp. 361-368, June 2020. https://doi.org/10.18280/ria.340315 (Scopus)
41.	2019	Vibhav Prakash Singh , Rajeev Srivastava, Yadunath Pathak, Shailendra Tiwari, and Kuldeep Kaur. "Content-Based Image Retrieval Based on Supervised Learning and Statistical-Based Moments." <i>Modern Physics Letters B</i> , Vol. 33, no. 19, pp. 1950213, July 2019 (IF-2.668), DOI: https://doi.org/10.1142/S0217984919502130
42.	2018	Vibhav Prakash Singh and Rajeev Srivastava, "Automated and Effective Content-Based Mammogram Retrieval Using Wavelet Based CS-LBP Feature and Self-Organizing Map", <i>Biocybernetics & Biomedical Engineering, Elsevier</i> , Vol. 38, pp.90-105, Jan 2018, (IF-6.6) https://doi.org/10.1016/j.bbe.2017.09.003 ,
43.	2018	Vibhav Prakash Singh , Subodh Srivastava, and Rajeev Srivastava, "An Efficient and Automated Content Based Image Retrieval for Digital Mammography", <i>Journal of X-Ray Science and Technology</i> , Vol 26 (1), pp. 29-49, Jan 2018, IOS Press UK, (IF-1.4), DOI: https://doi.org/10.3233/XST-17306
44.	2018	Vibhav Prakash Singh and Rajeev Srivastava, "Effective Image Retrieval Based on Hybrid Features with Weighted Similarity Measure and Query Image Classification", <i>Int. J. Computational Vision and Robotics</i> , Vol. 8, No. 2, 2018, pp.91-121, Inderscience. https://doi.org/10.1504/IJCVR.2018.091979 , (Scopus)
45.	2018	Vibhav Prakash Singh and Rajeev Srivastava, "Improved CBIR System Using Fusion of Fast Features with Varying Weighted Similarity Measure and Random Forest Classifier", <i>Multimedia Tools and Applications, Springer</i> , Vol.77 (11), pp. 11435-14460, June 2018, (IF-3, 2023). https://doi.org/10.1007/s11042-017-5036-8
46.	2017	Vibhav Prakash Singh , Subodh Srivastava, and Rajeev Srivastava, "Effective Mammogram Classification Based on Center Symmetric-LBP features in Wavelet Domain Using Random Forest Classifier", <i>Technology and Health Care</i> , Vol. 25, pp. 709-727, Jan 2017, (IF-1.285). https://doi.org/10.3233/thc-170851
47.	2017	Vibhav Prakash Singh and Rajeev Srivastava, "Content-Based Mammogram Retrieval Using Wavelet based Complete-LBP and K-means Clustering for the Diagnosis of Breast Cancer", <i>International Journal of Hybrid Intelligent System</i> , Vol. 14, 2017, pp.31-39, IOS Press UK, DOI:

		https://doi.org/10.3233/HIS-170240 (Scopus)
48.	2017	Yashankit, Vibhav Prakash Singh , and Rajeev Srivastava "Comparative Analysis of Distance Metrics for Designing an Effective Content-Based Image Retrieval System Using Colour and Texture Features", <i>International Journal of Image, Graphics and Signal Processing</i> , Vol. 9 (12), pp. 58-64, 2018, MECS Press Hong Kong. https://doi.org/10.5815/ijigsp (Scopus)

Published Journals (ACM/DBLP and Other Indexed, Total: 04):

49.	2017	Vibhav Prakash Singh , Subodh Srivastava, and Rajeev Srivastava. "An Efficient Image Retrieval Based on Fusion of Fast Features and Query Image Classification" <i>International Journal of Rough Sets and Data Analysis</i> , IGI Global USA, 4 (1), pp. 19-37, 2017, https://doi.org/10.4018/IJRSDA.2017010102 (ACM)
50.	2017	Chakrapani, Sumit Raj, and Vibhav Prakash Singh , "Detection of Chronic Kidney Disease Using Artificial Neural Network", <i>International Journal of Applied Engineering Research</i> , Vol. 14 (10), pp. 145-149, 2019 (Scopus, 2019)
51.	2017	Vibhav Prakash Singh , Ashim Gupta, and Rajeev Srivastava. "Fast and Effective Image Retrieval Using Colour and Texture Features with Self-Organising Map." <i>International Journal of Computational Systems Engineering, Inderscience UK</i> , Vol. 3(3), pp. 133-143, 2017. https://doi.org/10.1504/IJCSYSE.2017.086738
48	2016	Vibhav Prakash Singh , Ayush Srivastava, Devang Kulshreshtha, Arpit Chaudhary, and Rajeev Srivastava. "Mammogram Classification Using Selected GLCM Features and Random Forest Classifier." <i>International Journal of Computer Science and Information Security</i> , Vol. 14 (6), pp. 82-88, 2016. (ESCI, 2017)
52.	2012	Vibhav Prakash Singh , Singh Gaurav Arvind, and Arindam G. Mahapatra. "Hybrid correlation based gene selection for accurate cancer classification of gene expression data." <i>International Journal of Computer Applications</i> 43, no. 14 (2012): 13-18.
53.	2012	Meena, K. Y., and VP. Singh . "Text documents clustering using genetic algorithm and discrete differential evolution." <i>International journal of computer applications</i> 43, no. 1 (2012): 975-8887.

Published Books: (Total: 03)

SN	Year	Details
1.	2025	Dey, Somen, Vidyapati Kumar, Dilip Kumar Pratihari, Vibhav Prakash Singh , and Sardar Islam, eds. "Advancing Healthcare Through Decision Intelligence: Machine Learning, Robotics, and Analytics in Biomedical Informatics" Academic Press, (2025) Elsevier
2.	2013	Vibhav Prakash Singh , "Data Mining Approaches for Classifying Gene Expression Data of Cancer", ISBN Number: 978-3-659-39144-6, LAP LAMBERT Publishing Saarbrücken Deutschland, Germany.
3.	2013	Vibhav Prakash Singh , and Navneet Solanki, "IT Infrastructure & Its Management", ISBN Number: 978-93-81126-52-3, First Edition 2012, at Nandani Prakashan Pvt. Ltd., New Delhi.

Published Chapters: (Total: 04)

SN	Year	Details
1.	2024	Ranjan, Ashish, and Vibhav Prakash Singh . "Language processing in the brain: An fMRI study." Elsevier (2024).
2.	2021	Vibhav Prakash Singh and Ashish Kumar Maurya, "Role of Machine learning and Texture Features for the Diagnosis of Laryngeal Cancer", <i>Machine Learning for Healthcare Applications</i> , pp. 353-367, April 12, 2021, Wiley.
3.	2021	Imtiyaz Ahmad, Vibhav Prakash Singh , and Suneeta Agarwal, "Applications of Deep Learning in Diabetic Retinopathy Detection", <i>Deep learning and Its Applications</i> , pp.49-72, November 8, 2021, NOVA Publication, USA.
4.	2021	Palakala Sai Krishna Yadhav, K Susheel Kumar, Vibhav Prakash Singh , and Nagendra Pratap Singh, "Deep Learning Applications", <i>Deep learning and Its Applications</i> , pp.115-130, November 8, 2021, NOVA Publication, USA.

Conferences: (Total: 41, International Conferences-36, National-5)

SN	Year	Details
1.	2025	Ekram Haque and Vibhav Prakash Singh, "Robust Retinal Vessel Segmentation in Noisy Fundus Images Using Deep Learning-Based Variants", Accepted and Presented in <i>18th IEEE-International Conference on Contemporary Computing</i> , IIIT Noida, 2025.
2.	2025	Imtiyaz Ahmad, Vibhav Prakash Singh, MM Gore, "Detection of Diabetic Retinopathy using Deep Inception Features and Support Vector Machine", Accepted and Presented in <i>4th International Conference on Machine Learning and Data Engineering</i> , Dehradun, 2025.
3.	2025	Rukmini Maiti, and Vibhav Prakash Singh . "Source Camera Model Identification Using Deep Features and Ensemble Learning." In <i>2025 International Conference on Advancements in Smart, Secure and Intelligent Computing (ASSIC)</i> , pp. 1-6. IEEE, 2025.
4.	2024	Sudhansu Kumar, Ashish Ranjan, and Vibhav Prakash Singh . "DDoS Attack Detection Using Explainable AI in Machine Learning." In <i>International Conference on Advanced Network Technologies and Intelligent Computing</i> , pp. 3-16. Cham: Springer Nature Switzerland, 2024.
5.	2024	Vaibhav Kumar, and Vibhav Prakash Singh . "Fine-Tuning and Efficacy Assessment of BERT-Based Models in Detecting Early Signs of Depression." In <i>International Conference on Advanced Network Technologies and Intelligent Computing</i> , pp. 371-383. Cham: Springer Nature Switzerland, 2024.
6.	2024	Arpita S, Vibhav Prakash Singh , and Rupesh Dewang. "Content-Based Retinal Image Analysis: Exploring the Impact of Similarity Measures and Machine Learning on LTP Features." In <i>IEEE Students Conference on Engineering and Systems</i> , pp. 1-6. IEEE, 2024.
7.	2024	Ankur P and Vibhav Prakash Singh . "Detection of Lung Diseases Using Deep Transfer Learning-Based Convolution Neural Networks." In <i>International Conference on Advanced Network Technologies & Intelligent Computing</i> , pp. 82-92. Springer Switzerland, 2023.
8.	2024	Prakash, Ankur, Mahima Jaiswal, Chakrapani Singh, and Vibhav Prakash Singh . "Semantic Segmentation of Brain Tumor Images Using Attention-based Residual U-Net Model." In <i>2024 International Conference on Control, Computing, Communication and Materials (ICCCCM)</i> , pp. 210-214. IEEE, 2024.
9.	2023	Omar, Divyansh, Bharat Mahaur, and Vibhav Prakash Singh . "Toward Feature Preserving High-Resolution Virtual Try-On." In <i>International Conference on Signal and Data Processing</i> , pp. 37-47. Singapore: Springer Nature Singapore, 2023.
10.	2023	Chanduka, Pranali, Vibhav Prakash Singh , and Sumeet Sagar. "Detection of Brain Tumour Using Hybrid." In <i>Intelligent Computing Systems and Applications: Proceedings of the 2nd International Conference, ICICSA 2023</i> , vol. 1010, p. 189. Springer Nature, 2024.
11.	2023	Soni, Vaibhav, and Vibhav Prakash Singh . "Copy-Move Forgery Detection Using HOG and LBP Features with Random Forest." In <i>2023 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS)</i> , pp. 13-18. IEEE, 2023.
12.	2023	Imtiyaz Ahmad, Vibhav Prakash Singh , M.M. Gore, "Diabetic Retinopathy Detection based on LBP and Statistical Features using Machine Learning", Accepted and Presented in <i>International Conference on Computer, Electronics & Electrical Engineering & their Applications (IC2E3)</i> , 2023, IEEE
13.	2023	Maurya, Ritesh, Nageshwar Nath Pandey, Vibhav Prakash Singh , and T. Gopalakrishnan. "Plant Disease Classification using Interpretable Vision Transformer Network." In <i>2023 International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON)</i> , pp. 688-692. 2023, IEEE
14.	2022	Ashima Tyagi, Vibhav Prakash Singh , and M.M. Gore, "Machine Learning Approaches for the Detection of Schizophrenia Using Structural MRI", <i>International Conference on Advanced Network Technologies and Intelligent Computing (ANTIC-2022)</i> , BHU Varanasi, Accepted, and Presented on December 23, 2022.
15.	2022	Prashant Prashant, Gargi Srivastava and Vibhav Prakash Singh , "Ensemble of Deep Learning approaches for Detection of Brain Tumor", Accepted and Presented in <i>International Conference on Advancements In Smart Computing And Information Security</i> , Marwadi University Rajkot, November 24-26, 2022.

16.	2022	Mayank Singhal, Vibhav Prakash Singh , and Manoj Wairiya, "Detection of Laryngeal Cancer Using Deep learning Techniques", <i>Fourth International Conference on Computing and Communication</i> , June 3, 2022, Bhubaneswar.
17.	2022	Saivya Gulati, Vibhav Prakash Singh , and Shailendra Shukla. "Comparative Analysis of Deep Learning Approaches for the Diagnosis of Diabetic Retinopathy." In <i>2022 IEEE Students Conference on Engineering and Systems (SCES)</i> , pp. 1-6. IEEE, 2022.
18.	2022	Shailendra Pratap Singh and Vibhav Prakash Singh , "Pareto Based differential Evolution Algorithm using New Adaptive Mutation Approach ", Accepted and Presented in <i>International Conference on Intelligent Systems and Smart Infrastructure (ICISSI-2022)</i> at SIET Prayagraj.
19.	2022	Imtiyaz, Vibhav Prakash Singh , and Suneeta Agarwal. "Detection of Diabetic Retinopathy Using Deep Learning-Based Framework." In <i>Machine Intelligence and Smart Systems</i> , pp. 223-233. Springer, Singapore, 2022.
20.	2022	Abhay Vidyarthi and Vibhav Prakash Singh . "Multiclass Image Classification Using OAA-SVM." In <i>Machine Intelligence and Smart Systems</i> , pp. 235-244. Springer, Singapore, 2022.
21.	2021	Aman Verma and Vibhav Prakash Singh , "HSADML: Hyper-Sphere Angular Deep Metric based Learning for Brain Tumor Classification", <i>12th-ICVGIP Workshop on Medical Image Processing, IIT Ropar</i> , December 19, 2021.
22.	2021	Ashima Tyagi, Vibhav Prakash Singh , and Manoj Madhava Gore. "Improved Detection of Coronary Artery Disease Using DT-RFE Based Feature Selection and Ensemble Learning." In <i>International Conference on Advanced Network Technologies and Intelligent Computing</i> , pp. 425-440. Springer, Cham, 2021.
23.	2021	Ashish, Anil Kumar Singh, Anil Kumar Thakur, and Vibhav Prakash Singh . "Sentential Negation Identification of FMRI Data Using k-NN." In <i>Machine Intelligence and Smart Systems</i> , pp. 657-664. Springer, Singapore, 2021.
24.	2020	Chakrapani, Vibhav Prakash Singh and Dhurba Jyoti Kalita, "Chronic Kidney Disease Detection Using Random Forests and Eigenvectors Based Feature Selection", <i>Accepted and Presented in International Conference (AISCC-2020) at MNIT Jaipur</i> .
25.	2020	Abhishek Kumar, Dhruva Jyoti Kalita, and Vibhav Prakash Singh . "A Modern Pothole Detection technique using Deep Learning." In <i>2nd International Conference on Data, Engineering and Applications (IDEA)</i> , pp. 1-5. IEEE, 2020.
26.	2020	Dhruva Jyoti, Vibhav Prakash Singh , and Vinay Kumar. "A Survey on SVM Hyper-Parameters Optimization Techniques." In <i>Social Networking and Computational Intelligence</i> , pp. 243-256. Springer, Singapore, 2020.
27.	2020	Dhruva Jyoti, Vibhav Prakash Singh , and Vinay Kumar. "SVM Hyper-Parameters Optimization using Multi-PSO for Intrusion Detection." In <i>Social Networking and Computational Intelligence</i> , pp. 227-241. Springer, Singapore, 2020.
28.	2019	Vibhav Prakash Singh and Dhruva Jyoti Kalita, "Classifying Gene Expression of Data of Cancer Using Multistage Ensemble of Neural Network", in <i>ICACSE-2019 at KNIT Sultanpur</i> , held on 8-9th Feb, 2019 Published by Elsevier SSRN.
29.	2018	Vibhav Prakash Singh and Rajeev Srivastava. "Improved Content-Based Image Classification Using a Random Forest Classifier." In <i>Advances in Computer and Computational Sciences</i> , pp. 365-376. Springer, Singapore, 2018.
30.	2017	Vibhav Prakash Singh and Rajeev Srivastava, Improved image retrieval using color-invariant moments, <i>2017 3rd International Conference on Computational Intelligence & Communication Technology</i> , pp.1 – 6. IEEE, 9-10, Feb-2017.
31.	2017	Vibhav Prakash Singh* ; Devang Kulshreshtha*; Ayush Srivastava; Rajeev Srivastava, Content-based mammogram retrieval using k-means clustering and local binary pattern, <i>2017 2nd International Conference on Image, Vision and Computing (ICIVC)</i> , Pages: 634 – 638, Chedgu, China, IEEE, 2-4, June-2017

32.	2017	Ayush Shrivastava, Arpit Chaudhary, Devang Kulshreshtha, Vibhav Prakash Singh , and Rajeev Srivastava, "Automated digital mammogram segmentation using Dispersed Region Growing and Sliding Window Algorithm", <i>2017 2nd International Conference on Image, Vision and Computing</i> , 2017, Pages: 366 – 370, China, IEEE, 2-4 June-2017.
33.	2016	Vibhav Prakash Singh , Shivoam Malhotra, and Rajeev Srivastava. "Combining hybrid information descriptors and DCT for improved CBIR performance." In <i>Control, Computing, Communication and Materials (ICCCCM)</i> , 2016 International Conference on, pp. 1-5. IEEE, 21-22, Oct-2016.
34.	2016	Vibhav Prakash Singh , Published and presented a poster paper on "Computer Added Diagnosis of Breast Cancer Assisted by Content Based Mammogram Retrieval" at <i>CSED IIT (BHU)</i> , Varanasi, April 2-3, 2016.
35.	2015	Vibhav Prakash Singh , Ashim Gupta, Shubham Singh, and Rajeev Srivastava. "An efficient content based image retrieval for normal and abnormal mammograms." In <i>2015 IEEE UP Section Conference on Electrical Computer and Electronics (UPCON)</i> , pp. 1-6. IEEE, 4-6, Dec-2015.
36.	2015	Vibhav Prakash Singh and Rajeev Srivastava. "Design & performance analysis of content based image retrieval system based on image classification using various feature sets." In <i>Futuristic Trends on Computational Analysis and Knowledge Management (ABLAZE)</i> , pp. 664-670. IEEE, 25-27, Feb-2015.
37.	2015	Vibhav Prakash Singh , Rajeev Srivastava, and Neeraj Kumar "Multistage Ensemble Classification for Gene Expression Data of Cancer Using Correlated Informative Features", <i>ICRCWIP 2015</i> , Poornima University- Jaipur, 16-17 Jan-2015.
38.	2014	Kriti Singh, Rajeev Srivastava, and Vibhav Prakash Singh "An Introductory Survey on Content-Based Image Retrieval", National Conference on <i>Present Scenario and Future Trends in Biomedical Engineering and Healthcare Technologies (FTBH 2014)</i> , School of Biomedical Engineering, IIT (BHU), Varanasi, Oct. 17-18, 2014.
39.	2013	Vibhav Prakash Singh , Paper Published & Presented in <i>National Conference on Trends & Advancement in Computer Science & Engineering</i> at B.S.A College of Engineering & Technology Mathura on "String Matching Based Correlated Feature Selection and Classification of Gene Expression Data of Cancer ", held on dated 23 March 2013.
40.	2013	Vibhav Prakash Singh and Achal Tomer, Paper Published & Presented in <i>AICTE Sponsored National Conference-Advance in ICT</i> at MITS Gwalior on "Information Security Using Color Image Watermarking Using Images for Transmitting Secret Information", held on 28-29 Oct-2013.
41.	2011	Vibhav Prakash Singh and Ashu Sharma, Paper Published & Presented in <i>National Conference of Artificial Intelligence & Agent Application</i> , IIT (BHU), Varanasi on "Correlation Based Gene Selection for Accurate Cancer Classification of Gene Expression Data", held on 9-10th Dec-2011.

Organized Workshops/Trainings/Faculty Development Programs: (Role: Convener)

- [1] Organized One-Week Workshop Program on "SERB High-End Workshop (KARYASHALA) on "A Practical Approach to Machine Learning and Deep Learning for Computer Vision Applications using High-End Computing Resources" Organized by CSED, MNNIT Allahabad during March 15-22, 2024.
- [2] Organized One-Week Workshop Program on "Workshop on Advanced Computing Technologies" Organized by CSED, MNNIT Allahabad during February 7-11, 2022.
- [3] Organized One-Week Short-term Course on "Machine Learning and its Applications in IoT, Computer Vision and Cloud Computing (MICC-2021)" organized by CSED, MNNIT Allahabad during September 20-24, 2021
- [4] Organized One-Week Short-term Course on Understanding Deep Learning (Workshop cum Training Program), held on from March 15-19, 2021.

Outreach Activities: (Total No.-52)

Expert Lectures /Invited Talks: (Total No.-17)

- [1] Expert Lecture in self-sponsored Short Term Course (STC) on " ML-NLP-CV-GenAI ", NIT Kurukshetra , held from 11/03/2026 to 15/03/2026
- [2] Expert Lecture on “Fundamental and Real- World Applications of Generative AI” at One-Week Workshop on "Advances in Emerging Technologies” during December 05th–10th, 2025 organized by Department of Computer Science & Engineering, KNIT Sultanpur
- [3] Delivered an Expert Lecture on Content-based Image Retrieval: An AI perspective in 17th Faculty Induction Programme programme in online mode at Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur from 02/06/2025 to 30/06/2025.
- [4] Delivered an Expert Lecture on Deep Learning in A Five day Online FDP on “Applications of AI-ML-Deep Learning in Engineering Fields, VIT Chennai, from 14/10/2024 to 18/10/2024.
- [5] Delivered an Expert Lecture on “Content-Based Image Retrieval: An AI Perspective” at MMMUT Gorakhpur on Jan 28, 2023.
- [6] Delivered an Expert Lecture on “Applications of Machine Learning”, Symposium on Machine Learning and Its Applications at Manipal Institute of Technology Bengaluru, MAHE, Manipal, 25-28 April, 2022.
- [7] Delivered an Expert Lecture on “Image Mining” in a One-Week Short Term Program on Research Trend in Machine Learning and IoT, at MNNIT Allahabad, held on from 15- 19 September, 2021.
- [8] Delivered an Expert Lecture on “Applications of Deep Learning” in a One-Week Training Program on Understanding Deep Learning, at MNNIT Allahabad, held on from March 15- 20 March, 2021.
- [9] Delivered Expert Lecture on “ Image Retrieval: An AI Perspective” at MNNIT Allahabad, Prayagraj on 22nd September 2021 in One Week Short Term Course on “Machine Learning and its Applications in IoT, Computer Vision and Cloud Computing (MICC-2021), organized by CSED, MNNIT Allahabad
- [10] Taken Hands-on Session on “WeKA Tool for the Analysis of Data” at MNNIT Allahabad on 22nd September 2021 in One Week Short Term Course on “Machine Learning and Its Applications in IoT, Computer Vision and Cloud Computing, organized by CSED, MNNIT Allahabad”.
- [11] Delivered an Expert Lecture on “CBIR and Its Applications” in an ATAL-FDP: Deep Learning in Computer Vision, June 9, 2021, at KNIT Sultanpur.
- [12] Delivered an Expert Lecture on “Deep Learning Applications in Computer Vision” in a TEQIP Sponsored Workshop on Computer Science as an Integral Part of Modern Technology Development, at Gaya College of Engineering, Gaya held on from 15/12/2020 to 19/12/2020.
- [13] Delivered an Expert Lecture on “CBIR and Text Analytics” in a ATAL-FDP on Data Science, at Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur, C.G, held on from 12/10/2020 to 16/10/2020.
- [14] Delivered an Expert Lecture on “Some interesting use cases for deep learning” in a One Week FDP Program on Deep Learning and Machine Learning Applications in Computer Vision, at Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur, C.G, held on from 22/08/2020 to 28/08/2020.
- [15] Delivered an Expert Lecture on “Computer Vision: An Image Mining Perspective” in a One Week Short Term Program on Research Trend in Machine Learning and IoT, at MNNIT Allahabad, Prayagraj, held on from 15/09/2021 to 19/09/2021.
- [16] Delivered an Expert Lecture on “Computer Vision: An AI Perspective” in a One –Day Webinar organized by Feroze Gandhi Institute of Engineering & Technology, Raebareli, June 8, 2020.
- [17] Delivered an Expert Lecture on “Role of Digital Education” Intellectual Basket of Women National Conference 2020 organized by Jayoti Vidyapeeth Women’s University, Jaipur in Virtual mode from June 16-21, 2020.

Session Chaired in International Conferences: (Total No.-20)

- [18] Session Chaired in Springer-Second International Conference on Intelligent Systems and Security, held on from 14-16 January, 2026 at IIIT Naya Raipur
- [19] Session Chaired, IEEE International Conference on AI Engineering and Innovation (AIEI 2026), held on 27–28 March 2026 at NIT Jamshedpur.
- [20] Session Chaired in 8th Students' Conference on Engineering & Systems, IEEE, held on 21-23 June 2024, Organized by EED, MNNIT Allahabad.
- [21] Session Chaired in 3rd -International Conference on Advanced Network Technologies and Intelligent Computing, BHU, Varanasi during December 20-22, 2023.

- [22] Session Chaired in International Conference on “Data Analytics and Intelligent Computing” (ICDAIC –2023) on 14th – 15th July 2023 organized by Department of Information Technology at Bansal Institute of Engineering and Technology, Lucknow.
- [23] Session Chaired IEEE International Conference on Artificial Intelligence and Applications (ICAIA-2023) at Alliance University Bangalore, held on April 21, 2023
- [24] Session Chaired in 3rd- International Conference on Machine Intelligence and Smart Systems at Gwalior, held on from Feb 24-25, 2023
- [25] Session Chaired in 2nd-International Conference on Advanced Network Technologies and Intelligent Computing, BHU, Varanasi during December 22-24, 2023.
- [26] Session Chaired in 9th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON-2022) is being organized at IIIT Allahabad in hybrid mode during December 2-4, 2022.
- [27] Session Chaired in International Conference on Advancements in Interdisciplinary Research (AIR2022), Motilal Nehru National Institute of Technology Allahabad, India, May 6-7, 2022.
- [28] Session Chaired in International Conference on Artificial Intelligence: Theory and Applications (AITA-2021), National Institute of Technology Patna, December 23, 2021.
- [29] Session Chaired in 9th International Conference on Big Data Analytics at IIIT Allahabad, held on from December 15-18, 2021.
- [30] Session Chaired in International Conference on Advanced Network Technologies and Intelligent Computing, BHU, 17-18 December, 2021.
- [31] Session Chaired in 2nd- International Conference on Machine Intelligence and Smart Systems at Gwalior, held on from September 24-25, 2021.
- [32] Session Chaired in Machine Vision and Augmented Intelligence (2021), at IIITDM Jabalpur, held on from 11/02/2021 to 14/02/2021.
- [33] Session Chaired in 3rd-International Conference on Advance Computing and Software Engineering-2021 at KNIT, Sultanpur, held on from 19/01/2021 to 20/01/2021.
- [34] Session Chaired in International Conference, MISS-2020, at Gwalior, held on from 24/09/2020 to 25/09/2020.
- [35] Served as a Jury Member in “Grand Finale of Smart India Hackathon 2020 (Software Edition)” at nodal center BHU, Varanasi, held on from 01/08/2020 to 03/08/2020.
- [36] Session Chaired in IEEE-SCES at MNNIT Allahabad, held on from 10/07/2020 to 12/07/2020.
- [37] Session Chaired in 2nd-International Conference on Advance Computing and Software Engineering-2019 at KNIT, Sultanpur.

Attended Workshops/Faculty Development Programs: (Total No.-15)

- [38] Participated in One-Week Induction Program at IIT Kanpur
- [39] Participated in Four Days Workshop on Mathematics in Engineering at IIT Bombay
- [40] Participated in Two Days Workshop on OBE Integration at VJTI, Mumbai.
- [41] Participated in One Week NBA Accreditation Program Organized by NITTR Kolkata
- [42] Participated in Two Days Workshop For OBE Integration and CO-PO Mapping at AKU, Patna
- [43] Participated in Five Days FDP Program on Research Methodology at GCE, Gaya
- [44] Participated in Two Days Workshop on NBA at GCE, Gaya
- [45] Participated in Four Week FDP program at HITM, Agra
- [46] Participated in Two Days Workshop on Meta Heuristic & IT researchers at IIITM Gwalior
- [47] Participated in One-Day Workshop on MAT LAB & SIMULINK organized by Math Works.
- [48] Participated in Two Days Workshop on NLP organized by IIT (BHU), Varanasi.
- [49] Participated in 3 days FDP, Organized by MNNIT Allahabad.
- [50] Participated in Workshop on “Mental Health and Well-Being (MHWB 2026)” organized by the Dean (Student Welfare) Office, Motilal Nehru National Institute of Technology Allahabad, held from May 18–23, 2026. We wish you continued success and well-being.
- [51] Participated in successfully participated in the Five-Days Online Faculty Upgradation Program on Research Excellence and Campus Culture Building (RECCB 2026), organized by the Dean (Faculty Welfare) Office, Motilal Nehru National Institute of Technology Allahabad, Prayagraj, from 22–26 June 2026.

[52] Participated in the One Day Online Workshop on Student Mentoring Skill Workshop (SMSW 2026) ,organized by the Dean (Faculty Welfare) Office, Motilal Nehru National Institute of Technology Allahabad, Prayagraj, on the date 29 June 2026.

Other Details:

- Associate Editor, Multimedia Tools and Applications, Springer
- Actively serving as a reviewer for reputed international journals published by IEEE Transactions, Elsevier, Springer, Wiley, and Taylor & Francis etc.
- Best Paper Award in 2022-International Conference on Intelligent Systems and Smart Infrastructure at SIET Prayagraj.
- Best Paper Award in 4th 2024-IEEE International Conference on Control, Computing, Communication and Materials at UCER, Prayagraj.
- IIT (BHU) Institute Fellowship for Ph.D. from Jan 2014 to Jan 2018.
- MHRD GATE Scholarship for M.Tech from July 2009 to June 2011.
- Best Teacher Award at BSA College of Engineering and Technology, Mathura
- GATE-2009 Qualified
- ACM Professional Membership

(Dr. Vibhav Prakash Singh)