Summary Sheet of Research Contributions

Sponsored Projects	**01** (Completed)			
Patents	**02** (Published)			
Journals	SCI/SCIE	Scopus/ESCI	Others	Total No.
	21	**11**	**5**	**37**
Books	**2**			
Book Chapters	**4**			
Conferences	International	National		Total
	31	**5**		**35**
Workshop/FDP Organized	**4 (Role-Convener)**			
Outreach Activities	Invited Talk/Expert Talk (In Workshop/FDP/Training)	Session Chaired (In Conferences)		Participated in Workshop/FDP/Training)
	13	**17**		**11**

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 Lacs • **Role:** PI/CO-PI • **Grant Year:** June 2019 • **Completed Year:** September 2021

Patents:

SN	Details
1.	**Published**-Indian Patent on "Methods for Designing Dynamic framework for Tuning of SVM hyper parameters based on MFO and Knowledge-Based Search", Patent Application No: 202031014705, Publication Date: 15/05/2020
2.	**Published** –Indian Patent on "A Framework for Reliability & Performance Analysis of Safety-Critical System using Stochastic Modeling", No. 202031014381, 15/ 05/2020.

Journals (SCI/SCIE/Scopus)

SN	Year	Details
1.	2024	Imtiyaz Ahmad, **Vibhav Prakash Singh**, Manoj Madhava Gore, "Segmented Fractal and Central Symmetric LBP Based Texture Features for the Detection of Diabetic Retinopathy Using SVM", *SN Computer Science, Springer*, Vol. 5 (5), pp. 648, 2024 (**Scopus Indexed**), https://doi.org/10.1007/s42979-024-02996-x
2.	2023	**Vibhav Prakash Singh,** Aman Verma, DK Singh, Ritesh Maurya, "Improved Content-Based Brain Tumour Retrieval for Magnetic Resonance Images using Weight Initialization Framework with Densely Connected Deep Neural Network", *Neural*

		Computing and Applications, Springer, (IF-6.0), published on November 15, 2023. DOI: https://doi.org/10.1007/s00521-023-09149-w
3.	2023	Aquib Ansari, DKSingh, **Vibhav Prakash Singh**, "Detecting abnormal behavior in megastore for crime prevention using a deep neural architecture" *International Journal of Multimedia Information Retrieval*, Springer, 12, 25 (2023), **(IF-6.0)** https://doi.org/10.1007/s13735-023-00289-2
4.	2023	Abhay Vidyarthi and **Vibhav Prakash Singh, "**An improved approach for initial stage detection of laryngeal cancer using effective hybrid features and ensemble learning method**",** *Multimedia Tools and Applications, Accepted on July 5*, 2023 Springer *(IF-3.6),* **https://doi.org/**10.1007/s11042-023-16077-3
5.	2023	Ashima Tyagi, Vibhav Prakash Singh, Manoj Madhava Gore, "An Efficient Automated Detection of Schizophrenia Using k-NN and Bag of Words Features", *SN Computer Science, Springer, Volume .4, issue (5), pp. 518, July 2023,* https://doi.org/10.1007/s42979-023-01947-2 *(Scopus Indexed)*
6.	2023	Aquib Ansari, D. K. Singh, **Vibhav Prakash Singh,** "Detecting Abnormal Behavior in Megastore for Crime Prevention using a Deep Neural Architecture", SCIENDO Journal of Electrical Engineering, Vol. 74 (3) pp. 140-153, 2023. **(IF=0.840),** *https://doi.org/10.2478/jee-2023-0020*
7.	2023	**Vibhav Prakash Singh***, Dhruba Jyoti, and Vinay Kumar, "A lightweight knowledge-based PSO for SVM hyper-parameters tuning in a dynamic environment", The Journal of Supercomputing, Springer, Pre-print, pp. 1-15, 2023 **(IF-3.2),** https://doi.org/10.1007/s11227-023-05385-y
8.	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", pp. 1-38, October 2022, *Expert Systems with Applications,* Vol. 213, pp. 119189, 2023. *Elsevier **(IF-8.9).*** https://doi.org/10.1016/j.eswa.2022.119189
9.	2023	**Vibhav Prakash Singh*,** Ashish Ranjan, "Affirmative and Negative Sentence Detection in the Brain Using SVM-RFE and Rotation Forest: An fMRI Study", *SN Computer Science, Springer, Volume .4 (4), pp.232, March 2023 (Scopus indexed),* https://doi.org/10.1007/s42979-023-01786-1
10.	2022	Ashima Tyagi, **Vibhav Prakash Singh**, and Manoj Madhava Gore, "Towards artificial intelligence in mental health: a comprehensive survey on the detection of schizophrenia", *Multimedia Tools and Applications, pp.* 1-63, October 2022, Springer *(IF-3.6),* https://doi.org/10.1007/s11042-022-13809-9
11.	2022	**Vibhav Prakash Singh*** and Aman Verma, "Design, Analysis and Implementation of Efficient Deep Learning Frameworks for Brain Tumor Classification", *Multimedia Systems, Vol.* 81 (26), *pp.* 37541-37567, 2022, Springer *(IF-2.56)*, https://doi.org/10.1007/s11042-022-13545-0
12.	2022	Rahul, Vivek Tiwar, Swati Jain, Alok Singh Kushwaha, and **Vibhav Prakash Singh**", A Role-Entity Based Human Activity Recognition Using Inter-Body Features and Temporal Sequence Memory" *IET Image Processing, Vol.*16, pp. 2911–2921, 2022. *(IF-2.34),* https://doi.org/10.1049/ipr2.12472
13.	2022	**Vibhav Prakash Singh*,** Manish Gupta, and Kamlesh Kumar Gupta, "An Efficient Image Encryption Technique Based on Two-Level Security for Internet of Things", *Multimedia Tools and Applications*, pp.1-26, February 2022, Springer *(IF-3.6),* https://doi.org/10.1007/s11042-022-12169-8
14.	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", *SN Computer Science, Springer.* Volume 3**,** pp. 175, February 2022,

		https://doi.org/10.1007/s42979-022-01071-7 (*Scopus indexed*)
15.	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", *Soft Computing*, Vol. 26 (5) , pp. 2277-2305, November 2021, Springer *(IF-3.73)*. https://doi.org/10.1007/s00500-021-06498-3
16.	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." *Journal of Neurolinguistics, Vol.* 59, pp. 100985, 2021. Elsevier, *(IF-2.37)*, https://doi.org/10.1016/j.jneuroling.2021.100985
17.	2021	Shailendra Singh, **Vibhav Prakash Singh**, and AK Mehta, "Differential Evolution Using Homeostasis Adaption Based Mutation Operator and Its Application for Software Cost Estimation", *Journal of King Saud University-Computer and Information System*, Volume 33, Issue 6, July 2021, Pages 740-752, Elsevier **(IF-13.47)**, https://doi.org/10.1016/j.jksuci.2018.05.009
18.	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." *Expert Systems with Applications*, Volume 168, 15 April 2021, pp. 114139, Elsevier. *(IF-8.9).*, DOI: https://doi.org/10.1016/j.eswa.2020.114139
19.	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." *Quality and Reliability Engineering International*, Vol. 37(5), pp. 1796-1831, January 2021, *Wiley (IF-2.89)* https://doi.org/10.1002/qre.2828
20.	2020	Ashish Ranjan, **Vibhav Prakash Singh**, Anil Kumar Singh, and Ravi Bhushan Mishra. "Classifying Brain State in Sentence Polarity Exposure: An ANN Model for fMRI Data", *Revue d'Intelligence Artificielle,* Vol. 34 No. 3, pp. 361-368, June 2020. https://doi.org/10.18280/ria.340315 (*Scopus indexed),*
21.	2020	Nagendra Pratap Singh and **Vibhav Prakash Singh**, "Efficient Segmentation and Registration of Retinal Image Using Gumble Probability Distribution and BRISK Feature", *Traitement du Signal*, Vol. 37 (5), pp. 855-864, December 2020. *(IF-2.59)* DOI: https://doi.org/10.18280/ts.370519
22.	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." *Modern Physics Letters, Vol.* 33, no. 19 (2019): 1950213, *DOI:* https://doi.org/10.1142/S0217984919502130 *(IF-2.668)*
23.	2018	**Vibhav Prakash Singh**, and Rajeev Srivastava, "Automated and Effective Content-Based Mammogram Retrieval Using Wavelet Based CS-LBP Feature and Self-Organizing Map", *Biocybernetics and Biomedical Engineering*. Vol. (38), Issue (1), pp.90-105, 2018, *Elsevier*. https://doi.org/10.1016/j.bbe.2017.09.003, *(IF-5.31)*
24.	2018	**Vibhav Prakash Singh** and Rajeev Srivastava, "Effective Image Retrieval Based on Hybrid Features with Weighted Similarity Measure and Query Image Classification", *Int. J. Computational Vision and Robotics, Vol. 8, No. 2, 2018, pp.91-121, Inderscience.* https://doi.org/10.1504/IJCVR.2018.091979 *(Scopus indexed)*
25.	2018	**Vibhav Prakash Singh**, Subodh Srivastava, and Rajeev Srivastava, "An Efficient and Automated Content Based Image Retrieval for Digital Mammography", *Journal of X-Ray Science and Technology*, Vol 26 (1), pp. 29–49, 2018, IOS Press UK, *(IF-2.535)*, DOI: [**10.3233/XST-17306**](https://doi.org/10.3233/XST-17306)
26.	2018	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", *International Journal of Image, Graphics and Signal*

		Processing, Vol. 9 (12), pp. 58-64, 2018, MECS Press Hong Kong. **https**://**doi**.org/10.5815/ijigsp *(Scopus indexed),*
27.	2018	**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", *International Journal of Hybrid Intelligent System,* Vol. 14, 2017, pp.31-39, IOS Press, DOI: https://doi.org/10.3233/HIS-170240 *(Scopus indexed),*
28.	2017	**Vibhav Prakash Singh**, and Rajeev Srivastava, "Improved CBIR System Using Fusion of Fast Features with Varying Weighted Similarity Measure and Random Forest Classifier", *Multimedia Tools and Applications*, Vol.77 (11), pp. 11435-14460, 2017, *Springer (**IF-3.6**).* https://doi.org/10.1007/s11042-017-5036-8
29.	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", *Technology and Health Care*, Vol. 25, (2017) 709–727, IOS Press UK, **(IF-1.285).** DOI: https://doi.org/10.3233/thc-170851
30.	2017	**Vibhav Prakash Singh**, Subodh Srivastava, and Rajeev Srivastava. "An Efficient Image Retrieval Based on Fusion of Fast Features and Query Image Classification" *International Journal of Rough Sets and Data Analysis (IJRSDA), IGI Global, US, Vol.* 4 (1), pp. 19-37, 2017 **(Scopus/ACM/DBLP)** **https**://**doi**.org/10.4018/IJRSDA.2017010102
31.	2017	Chakrapani, Sumit Raj, and **Vibhav Prakash Singh**, "Detection of Chronic Kidney Disease Using Artificial Neural Network", *International Journal of Applied Engineering Research*, Vol. 14 (10), pp. 145-149, 2019 *(Scopus indexed, 2017)*
32.	2016	**Vibhav Prakash Singh**, Ayush Srivastava, Devang Kulshreshtha, Arpit Chaudhary, and Rajeev Srivastava. "Mammogram Classification Using Selected GLCM Features and Random Forest Classifier." *International Journal of Computer Science and Information Security*, Vol. 14, no. 6, pp. 82-88, 2016. *(ESCI, 2016)*

Journals (Other Indexed):

SN	Year	Details
1.	2019	Shashank Tripathi and **Vibhav Prakash Singh.** Integrated Networks: A Survey. Current Trends in Information Technology. 2019; 9(1), pp. 22–29
2.	2017	**Vibhav Prakash Singh**, Ashim Gupta, and Rajeev Srivastava. "Fast and Effective Image Retrieval Using Colour and Texture Features with Self-Organising Map." *International Journal of Computational Systems Engineering,* Vol. 3, no. 3 (2017): 133-143., *Inderscience.* https://doi.org/10.1504/IJCSYSE.2017.086738
3.	2014	Neeraj Kumar, **Vibhav Prakash Singh**, Himanshu Mishra, and Atul Barsaiyan. "Modified Kerberos Model for Sustaining the Integrity Privacy & Authentication of Critical Data in Cloud Computing", *International Journal of Scientific & Engineering Research*, Volume-9, Issues-6, 2014.
4.	2012	**Vibhav Prakash Singh**, Singh Gaurav Arvind, and Arindam G. Mahapatra. "Hybrid Correlation based Gene Selection for Accurate Cancer Classification of Gene Expression Data." *International Journal of Computer Applications* 43, no. 14 (2012): 13-18.
5.	2012	Yogesh Kumar Meena, **Vibhav Prakash Singh,** Shashank, "Text documents clustering using genetic algorithm and discrete differential evolution." *International Journal of Computer Applications* 43, no. 1 (2012): 16-19.

Books/Book Chapters:

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, "R**o**le of Machine learning and Texture Features for the Diagnosis of Laryngeal Cancer", *Machine Learning for Healthcare Applications,* 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", *Deep learning and Its Applications*, 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", *Deep learning and Its Applications*, pp.115-130, November 8, 2021, NOVA Publication, USA.
5.	2013	**Vibhav Prakash Singh**, "Data Mining Approaches for Classifying Gene Expression Data of Cancer", ISBN Number: 978-3-659-39144-6, *LAP LAMBERT Publishing Saarbrucken Deutschland, Germany.*
6.	2012	**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.

Conferences:

SN	Year	Details
1.	2024	Arpita santra, **Vibhav Prakash Singh**, Rupesh Kumar Dewang, "Content-based Retinal Image Analysis: Exploring the Impact of Similarity Measures and Machine Learning on LTP Features", 8th Students' Conference on Engineering & Systems, IEEE, Accepted and Presented, MNNIT Allahabad
2.	2024	Ankur Prakash and **Vibhav Prakash Singh,** "Detection of Lung Diseases Using Deep Transfer Learning-Based Convolution Neural Networks", Accepted and Presented in 3rd International Conference on Advanced Network Technologies and Intelligent Computing, Springer, 2023, BHU
3.	2024	Ankur Prakash and **Vibhav Prakash Singh,** "Semantic Segmentation of Brain Tumor Images using Attention-based Residual U-Net Model", Accepted in 3rd International Conference on Control, Computing, Communication & Materials 2024, IEEE
4.	2023	Divyansh Omar, **Vibhav Prakash Singh,** "Towards Feature Preserving High-Resolution Virtual Try-On", ICSDP-2023, November 03-04, 2023, VIT Bhopal, Springer
5.	2023	Pranali Chanduka, **Vibhav Prakash Singh,** "Detection of Brain Tumor using Hybrid Features with Machine Learning approaches", 2nd International Conference on Intelligent Computing Systems and Applications organized by National Institute of Technology Silchar, **September 22-23, 2023, Springer**
6.	2023	Vaibhav Soni, **Vibhav Prakash Singh,** "Copy-Move Forgery Detection Using HOG and LBP Features with Random Forest", IEEE International Conference on Computing, Communication, and Intelligent Systems 03rd-04th Nov, 2023 Sharda University, Greater Noida, India.
7.	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 *International Conference on Computer, Electronics & Electrical Engineering & their Applications (IC2E3),* 2023, IEEE
8.	2023	Maurya, Ritesh, Nageshwar Nath Pandey, **Vibhav Prakash Singh,** and T. Gopalakrishnan. "Plant Disease Classification using Interpretable Vision Transformer

		Network." In *2023 International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON)*, pp. 688-692. 2023, IEEE
9.	2022	Ashima Tyagi, **Vibhav Prakash Singh**, and M.M. Gore, "Machine Learning Approaches for the Detection of Schizophrenia Using Structural MRI", *International Conference on Advanced Network Technologies and Intelligent Computing (ANTIC-2022), BHU Varanasi*, Proceeding published in *Communications in Computer and Information Science, Springer,* vol-1798, pp. 423-439, March 2023.
10.	2022	Prashant Prashant, Gargi Srivastava and **Vibhav Prakash Singh**, "Ensemble of Deep Learning approaches for Detection of Brain Tumor", Accepted and Presented in *International Conference on Advancements In Smart Computing And Information Security*, Marwadi University Rajkot, November 24–26, 2022.
11.	2022	Mayank Singhal, **Vibhav Prakash Singh**, and Manoj Wairiya, "Detection of Laryngeal Cancer Using Deep learning Techniques", *Fourth International Conference on Computing and Communication*, June 3, 2022, Bhubaneswar.
12.	2022	Saivya Gulati, **Vibhav Prakash Singh,** and Shailendra Shukla. "Comparative Analysis of Deep Learning Approaches for the Diagnosis of Diabetic Retinopathy." In *2022 IEEE Students Conference on Engineering and Systems (SCES)*, pp. 1-6. IEEE, 2022.
13.	2022	Shailendra Pratap Singh and **Vibhav Prakash Singh**, "Pareto Based differential Evolution Algorithm using New Adaptive Mutation Approach ", Accepted and Presented in *International Conference on Intelligent Systems and Smart Infrastructure (ICISSI-2022)* at SIET Prayagraj.
14.	2022	Imtiyaz, **Vibhav Prakash Singh**, and Suneeta Agarwal. "Detection of Diabetic Retinopathy Using Deep Learning-Based Framework." In *Machine Intelligence and Smart Systems*, pp. 223-233. Springer, Singapore, 2022.
15.	2022	Abhay Vidyarthi and **Vibhav Prakash Singh**. "Multiclass Image Classification Using OAA-SVM." In *Machine Intelligence and Smart Systems*, pp. 235-244. Springer, Singapore, 2022.
16.	2021	Aman Verma and **Vibhav Prakash Singh**,"HSADML: Hyper-Sphere Angular Deep Metric based Learning for Brain Tumor Classification", *12th-ICVGIP Workshop on Medical Image Processing, IIT Ropar*, December 19, 2021.
17.	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 *International Conference on Advanced Network Technologies and Intelligent Computing*, pp. 425-440. Springer, Cham, 2021.
18.	2021	Ashish, Anil Kumar Singh, Anil Kumar Thakur, and **Vibhav Prakash Singh**. "Sentential Negation Identification of FMRI Data Using k-NN." In *Machine Intelligence and Smart Systems*, pp. 657-664. Springer, Singapore, 2021.
19.	2020	Chakrapani, **Vibhav Prakash Singh** and Dhurba Jyoti Kalita, "Chronic Kidney Disease Detection Using Random Forests and Eigenvectors Based Feature Selection", *Accepted and Presented in International Conference (AISCC-2020) at MNIT Jaipur.*
20.	2020	Abhishek Kumar, Dhruba Jyoti Kalita, and **Vibhav Prakash Singh**. "A Modern Pothole Detection technique using Deep Learning." *In 2nd International Conference on Data, Engineering and Applications (IDEA),* pp. 1-5. IEEE, 2020.
21.	2020	Dhruba Jyoti, **Vibhav Prakash Singh**, and Vinay Kumar. "A Survey on SVM Hyper-Parameters Optimization Techniques." *In Social Networking and Computational Intelligence*, pp. 243-256. Springer, Singapore, 2020.

22.	2020	Dhruba Jyoti, **Vibhav Prakash Singh**, and Vinay Kumar. "SVM Hyper-Parameters Optimization using Multi-PSO for Intrusion Detection." *In Social Networking and Computational Intelligence,* pp. 227-241. Springer, Singapore, 2020.
23.	2019	**Vibhav Prakash Singh** and Dhruba Jyoti Kalita, "Classifying Gene Expression of Data of Cancer Using Multistage Ensemble of Neural Network", in *ICACSE-2019 at KNIT Sultanpur,* held on 8-9th Feb, 2019 Published by Elsevier SSRN.
24.	2018	**Vibhav Prakash Singh** and Rajeev Srivastava. "Improved Content-Based Image Classification Using a Random Forest Classifier." In *Advances in Computer and Computational Sciences*, pp. 365-376. Springer, Singapore, 2018.
25.	2017	**Vibhav Prakash Singh** and Rajeev Srivastava, Improved image retrieval using color-invariant moments, *2017 3rd International Conference on Computational Intelligence & Communication Technology, pp.*1 – 6. IEEE, 9-10, Feb-2017.
26.	2017	**Vibhav Prakash Singh*;** Devang Kulshreshtha*; Ayush Srivastava; Rajeev Srivastava, Content-based mammogram retrieval using k-means clustering and local binary pattern, *2017 2nd International Conference on Image, Vision and Computing (ICIVC)*, Pages: 634 – 638, Chedgu, China, IEEE, 2-4, June-2017
27.	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", *2017 2nd International Conference on Image, Vision and Computing*, 2017, Pages: 366 – 370, China, IEEE, 2-4 June-2017.
28.	2016	**Vibhav Prakash Singh**, Shivoam Malhotra, and Rajeev Srivastava. "Combining hybrid information descriptors and DCT for improved CBIR performance." In *Control, Computing, Communication and Materials (ICCCCM),* 2016 International Conference on, pp. 1-5. IEEE, 21-22, Oct-2016.
29.	2016	**Vibhav Prakash Singh**, Published and presented a poster paper on "Computer Added Diagnosis of Breast Cancer Assisted by Content Based Mammogram Retrieval" *at CSED IIT (BHU),* Varanasi, April 2-3, 2016.
30.	2015	**Vibhav Prakash Singh**, Ashim Gupta, Shubham Singh, and Rajeev Srivastava. "An efficient content based image retrieval for normal and abnormal mammograms." *In 2015 IEEE UP Section Conference on Electrical Computer and Electronics (UPCON)*, pp. 1-6. IEEE, 4-6, Dec-2015.
31.	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 Futuristic Trends on Computational Analysis and Knowledge Management (ABLAZE),* pp. 664-670. IEEE, 25-27, Feb-2015.
32.	2015	**Vibhav Prakash Singh**, Rajeev Srivastava, and Neeraj Kumar "Multistage Ensemble Classification for Gene Expression Data of Cancer Using Correlated Informative Features", *ICRCWIP 2015*, Poornima University- Jaipur, 16-17 Jan-2015.
33.	2014	Kriti Singh, Rajeev Srivastava, and **Vibhav Prakash Singh** "An Introductory Survey on Content-Based Image Retrieval", National Conference on *Present Scenario and Future Trends in Biomedical Engineering and Healthcare Technologies (FTBH 2014),* School of Biomedical Engineering, IIT (BHU), Varanasi, Oct. 17-18, 2014.
34.	2013	**Vibhav Prakash Singh**, Paper Published & Presented in *National Conference on Trends & Advancement in Computer Science & Engineering* 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.

35.	2013	**Vibhav Prakash Singh** and Achal Tomer, Paper Published & Presented in *AICTE Sponsored National Conference-Advance in ICT* at MITS Gwalior on "Information Security Using Color Image Watermarking Using Images for Transmitting Secret Information", held on 28-29 Oct-2013.
36.	2011	**Vibhav Prakash Singh** and Ashu Sharma, Paper Published & Presented in *National Conference of Artificial Intelligence & Agent Application*, IIT (BHU), Varanasi on "Correlation Based Gene Selection for Accurate Cancer Classification of Gene Expression Data", held on 9-10th Dec-2011.

Teaching Experiences

Position	Institution	Year
Assistant Professor	MNNIT Allahabad, India	June 2019-till now
Assistant Professor	Gaya College of Engineering (Government of Bihar)	Jan 2018 –May 2019
Teaching Assistant	IIT(BHU), Varanasi India	Jan 2014-Dec 2017
Assistant Professor	Anand Engineering College, Agra	July 2011-Dec 2013
Teaching Assistant	IIIT, Gwalior	Aug 2009- June 2011

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

[1] Organized One-Week Short-term Course on Understanding Deep Learning (Workshop cum Training Program), held on from March 15-19, 2021.
[2] 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
[3] Organized One-Week Workshop Program on "Workshop on Advanced Computing Technologies" Organized by CSED, MNNIT Allahabad during February 7-11, 2022.
[4] 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.

Outreach Activities: (Total: 40)

Invited Talks: (Total No.-13)

[1] Delivered an Expert Lecture on "Content-Based Image Retrieval: An AI Perspective" at MMMUT Gorakhpur on Jan 28, 2023.
[2] 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.
[3] 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.
[4] 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.

[5] 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

[6] 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".

[7] Delivered an Expert Lecture on "CBIR and Its Applications" in an ATAL-FDP: Deep Learning in Computer Vision, June 9, 2021, at KNIT Sultanpur.

[8] 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.

[9] 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.

[10] 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.

[11] 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.

[12] 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.

[13] 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.-16):

[1] Session Chaired in 8th Students' Conference on Engineering & Systems, IEEE, held on 21-23 June 2024, MNNIT Allahabad.

[2] 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.

[3] Session Chaired IEEE International Conference on Artificial Intelligence and Applications (ICAIA-2023) at Alliance University Bangalore, held on April 21, 2023

[4] Session Chaired in International Conference on International Conference on Machine Intelligence and Smart Systems at Gwalior, held on from Feb 24-25, 2023

[5] Session Chaired in International Conference on Advanced Network Technologies and Intelligent Computing, BHU Varanasi during December 23-24, 2022.

[6] 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.

[7] Session Chaired in International Conference on Artificial Intelligence: Theory and Applications (AITA-2021), National Institute of Technology Patna, December 23, 2021.

[8] Session Chaired in 9th International Conference on Big Data Analytics at IIIT Allahabad, held on from December 15-18, 2021.

[9] Session Chaired in International Conference on Advanced Network Technologies and Intelligent Computing, BHU, 17-18 December, 2021.

[10] Session Chaired in International Conference on International Conference on Machine Intelligence and Smart Systems at Gwalior, held on from September 24-25, 2021.

[11] Session Chaired in Machine Vision and Augmented Intelligence (2021), at IIITDM Jabalpur, held on from 11/02/2021 to 14/02/2021.

[12] 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.

[13] Session Chaired in International Conference, MISS-2020, at Gwalior, held on from 24/09/2020 to 25/09/2020.

[14] 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.

[15] Session Chaired in IEEE-SCES at MNNIT Allahabad, held on from 10/07/2020 to 12/07/2020.

[16] Session Chaired in 2nd-International Conference on Advance Computing and Software Engineering-2019 at KNIT, Sultanpur.

[17] Session Chaired in International Conference on Advancements in Interdisciplinary Research (AIR2022), Motilal Nehru National Institute of Technology Allahabad, India, May 6-7, 2022.

Attended Workshops/Faculty Development Programs: (Total No.-11)

[1] Participated in One-Week Induction Program at IIT Kanpur

[2] Participated in Four Days Workshop on Mathematics in Engineering at IIT Bombay

[3] Participated in Two Days Workshop on OBE Integration at VJTI, Mumbai.

[4] Participated in One Week NBA Accreditation Program Organized by NITTR Kolkata

[5] Participated in Two Days Workshop For OBE Integration and CO-PO Mapping at AKU, Patna

[6] Participated in Five Days FDP Program on Research Methodology at GCE, Gaya

[7] Participated in Two Days Workshop on NBA at GCE, Gaya

[8] Participated in Four Week FDP program at HITM, Agra

[9] Participated in Two Days Workshop on Meta Heuristic & IT researchers at IIITM Gwalior

[10] Participated in One-Day Workshop on MAT LAB & SIMULINK organized by Math Works.

[11] Participated in Two Days Workshop on NLP organized by IIT (BHU), Varanasi.

PhD Thesis (Ongoing)*

Name of the student	Reg. Number	Thesis Title
Ashima Tyagi	2020RCS01	Detection of Schizophrenia Using Artificial Intelligence Techniques (In advanced stage)
Imtiyaz Ahmad	2021RCS08	Retinal Image Analysis for the Detection of Diabetic Retinopathy using AI and Image Processing (State-of-the-Art Seminar Completed)
Ankur Prakash	2022RCS51	Comprehensive Viva Completed

M. Tech. Thesis Supervised

SN	Year	Student	Project Title	Status
1	2022-23	Vaibhav Soni (2021CS026)	Image Forgery Detection Using Computer Vision Approaches	Completed
2		Divyansh Omar (2021CS02)	Image-Based Virtual Try-On	Completed

3		Mahima Jaiswal (2021IS28)	Brain Tumor Segmentation Using Deep learning	Completed
4		Pranali Chanduka (2021SW30)	Content-Based Medical Image Analysis	Completed
5		Ankit Srivastava (2020TR04)	Traffic Flow parameters estimation Using Video Traffic Data	Completed
6		Mayank Singhal (2020CS08)	Detection of Laryngeal Cancer Using Deep Learning Technique	Completed
7	2021-22	Abhishek singh (2020TR01)	Traffic Classification Using AI	Completed
8		Vishal Yadav (2020CS25)	Improving ABR streaming by using network features and machine learning	Completed
9		Saivya Gulati (2020SW13)	Detection of Diabetic Retinopathy Using Ensemble of Deep Learning Approaches	Completed
10	2020-21	Imtiyaz Ahmad (2019CS22)	Diagnosis of Diabetic Retinopathy Using Computer Vision	Completed
11		Gautam Prateek (2019IS16)	Enhanced Heart-Disease Prediction Using Genetic Search Based Feature Selection	Completed

Reviewers

- IEEE Transactions on Industrial Electronics
- IEEE Transactions on Neural Networks and Learning Systems
- IEEE Transactions on Computational Social Systems
- IEEE Intelligent Systems
- IEEE Access
- Expert Systems with Applications, Elsevier
- Computer Methods and Programs in Biomedicine, Elsevier
- Measurement, Elsevier
- Informatics in Medicine Unlocked-Journal, Elsevier
- Complex & Intelligent Systems, Springer
- Signal, Image and Video Processing, Springer
- Sadhana, Springer
- Multimedia Tools and Application, Springer
- Iranian Journal of Science and Technology, Springer
- International Journal of Imaging Systems and Technology, Wiley
- IETE Journal of Research, Taylor and Francis
- Journal of Defense Modeling and Simulation, SAGE
- Computers, Materials & Continua, Tech Science Press
- Computer Systems Science and Engineering, Tech Sciences
- International Journal of Computational Vision and Robotics, Inderscience
- International Journal of Medical Engineering and Informatics, Inderscience

Awards/ Fellowship/Membership:

- 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 Paper Award in International Conference on Intelligent Systems and Smart Infrastructure (ICISSI-2022) at SIET Prayagraj.
- GATE-2009 Qualified
- ACM Professional Membership
- Member of CSI, IAENG, and IACSIT

(Dr. Vibhav Prakash Singh)