

CURRICULUM VITAE

Vibhav Prakash Singh

Assistant Professor (From 12th June 2019-Present)
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Academic Qualifications:

- **Ph.D.** in Computer Science and Engineering from Indian Institute of Technology (BHU), Varanasi in the year 2018.
Title of the Ph.D. Thesis: Design and Development of Some New Approaches for Effective Content-Based Image Retrieval System
- **M.Tech** in Computer Science and Engineering from ABV-Indian Institute of Information Technology and Management (IIIT), Gwalior with 8.73/10 CGPA in the year 2011.
Title of the M.Tech Thesis: Classifying Gene Expression Data of Cancer Using Correlated Informative Genes
- **B.Tech** in Information Technology from G.L.A Institute of Technology and Management (GLA University), Mathura, affiliated to UPTU, Lucknow with 70% in the year 2005.
Title of B.Tech Project: GSM Router Applications, Industrial project collaborated from Applied Electro Magnetics (AEM), Noida.

Publication (Journals):

1. **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, pp. 11435-14460, 2017, DOI 10.1007/s11042-017-5036-8, *Springer (SCI-2.1)*.
2. **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. DOI: [dx.doi.org/10.1016/j.bbe.2017.09.003](https://doi.org/10.1016/j.bbe.2017.09.003), *Elsevier (SCI-2.1)*
3. **Vibhav Prakash Singh**, Rajeev Srivastava, Yadunath Patak and Shailendra Tiwari “Content-Based Image Retrieval Based on Supervised Learning Framework Statistical-Based Moments”, *Modern Physics Letter B*, World scientific Journal. DOI: <https://doi.org/10.1142/S0217984919502130> (*SCI-0.97*)
4. **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* 26 (2018), pp. 29–49, DOI:10.3233/XST-17306 (*SCI-1.67*)

5. **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, DOI: 10.3233/THC-170851 (*SCI-0.79*).
6. **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*, UK, DOI: <https://doi.org/10.1504/IJCSYSE.2017.086738>.
7. **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 (Scopus, ACM, DBLP Index)*, DOI: <https://doi.org/10.1504/IJCVR.2018.091979>.
8. **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: 10.3233/HIS-170240 (*Scopus, ACM, DBLP Index*)
9. SP Singh, **VP 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*, 2018, (*Scopus Index-Elsevier*), DOI: <https://doi.org/10.1016/j.jksuci.2018.05.009>
10. **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)* 4.1 (2017): 19-37 (*ACM, DBLP Index*).
11. **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* 14, no. 6 (2016): 82.(*ESCI*)
12. 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*, 9 (12), 58-64, 2018. DOI: 10.5815/ijigsp
13. Chakrapani, Sumit Raj, and **Vibhav Prakash Singh**, "Detection of Chronic Kidney Disease Using Artificial Neural Network", *International Journal of Applied Engineering Research*, Volume 14, pp. 145-149, Number 10, 2019 (UGC Listed, Scopus (2017 index)).
14. Shashank Tripathi and **Vibhav Prakash Singh**. *Integrated Networks: A Survey*. *Current Trends in Information Technology*. 2019; 9(1), pp. 22–29
15. **Singh, Vibhav Prakash**, 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.
16. Meena, Yogesh Kumar, Singh, **Vibhav Prakash** "Text documents clustering using genetic algorithm and discrete differential evolution." *International Journal of Computer Applications* 43, no. 1 (2012): 16-19.
17. Kumar, Neeraj, **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.

Books/Book Chapters:

1. **Vibhav Prakash Singh**, Rajeev Srivastava, "Content Based Image Classification Using Colour and Texture Features with Random Forest Classifier", *International Conference on Computer, Communication, and Computational Sciences (IC4S)*, August 12-13, 2016 Published by *Springer book series on Advances in Intelligent Systems and Computing*.
2. Dhurba Jyoti Kalita, **Vibhav Prakash Singh**, Vinay Kumar, "A Survey on SVM Hyper Parameters Optimization Techniques", Presented in SCI-2019, held on 8-9 march, 2019 at Bhopal, proceeding will be published by *Springer book series* on Lecture Notes in Networks and Systems.
3. Dhurba Jyoti Kalita, **Vibhav Prakash Singh**, Vinay Kumar, "SVM Hyper Parameters Optimization using Multi- PSO for Intrusion Detection", Accepted in SCI-2019 to be held on 8-9 march, 2019 at Bhopal, proceeding will be published by *Springer book series* on Lecture Notes in Networks and Systems.
4. **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.
5. **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:

1. **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.
2. **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), 2015 International Conference on*, pp. 664-670. IEEE, 25-27, Feb-2015.
3. **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.
4. **Vibhav Prakash Singh** and Rajeev Srivastava, Improved image retrieval using color-invariant moments, 2017 3rd International Conference on Computational Intelligence & Communication Technology (CICT), Pages: 1 – 6. IEEE, 9-10, Feb-2017.
5. **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.
6. **Vibhav Prakash Singh** and Dhurba 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*.

7. 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 (ICIVC), Year: 2017, Pages: 366 – 370, China, IEEE, 2-4 June-2017.
8. Prateek Prince Thakur, Devang Kulshreshtha, **Vibhav Prakash Singh**, and Rajeev Srivastava, "Convolutional Neural Networks for 3d Brain MRI Classification", in International Conference on Recent Advance in Engineering and Technology (ICRET-18), 7th April 2018 Bangkok.
9. Arpit Chaudhary, Prince Thakur, **Vibhav Prakash Singh** and Rajeev Srivastava, "An Efficient Approach for Image Retrieval Based on Xor Distance Using Binary Hash Codes", in International Conference on Recent Advance in Engineering and Technology, 7th April -2018 Bangkok.
10. **Vibhav Prakash Singh**, Rajeev Srivastava, and Neeraj Kumar "Multistage Ensemble Classification for Gene Expression Data of Cancer Using Correlated Informative Features", International Conference on Communications, (ICRCWIP 2015), POORNIMA UNIVERSITY- Jaipur, 16-17 Jan-2015.
11. **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.
12. **Vibhav Prakash Singh** and Achal Tomer, paper published & presented in *AICTE Sponsored* National Conference -Advance in Information & Communication Technology at MITS Gwalior on "Information Security using Color Image Watermarking Using images for transmitting secret information", held on 28-29 Oct-2013.
13. **Vibhav Prakash Singh**: Paper published & presented in National Conference at College of Science & Engineering Jhansi on "How to Measure the Performance of Grid System Which Works as a Parallel System", held on 30-31 Oct-2010.
14. **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.
15. Kriti Singh, Rajeev Srivastava, **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*), Oct. 17-18, 2014, School of Biomedical Engineering, IIT (BHU), Varanasi, U.P.
16. **Vibhav Prakash Singh**, Published and presented poster paper on "Computer Added Diagnosis of Breast Cancer Assisted by Content Based Mammogram Retrieval" at IIT (BHU), Varanasi, April 2-3, 2016.
17. Pradeep Koli and **Vibhav Prakash Singh**, Paper accepted on "String Matching based implementation of web crawler", in the 2011-International Conference on Computer Communication and Management, Sydney, Australia.

Work Experiences:

- Worked as an Assistant Professor (TEQIP-III, World Bank project under NPIU New Delhi) in the Department of Computer Science and Engineering at Gaya College of Engineering, Gaya from 4th January 2018 to 8th June 2019.
- Worked as Teaching Assistant during Ph.D. (28th December-2013 to 3rd January-2018) in the Department of Computer Science and Engineering at IIT (BHU), Varanasi.
- Worked as an Assistant Professor in the Department of Computer Science/Information Technology Department at Anand Engineering College (Sharda University Group) Agra from July 2011 to December 2013.

Specialization and Interesting Subjects:

- Image Processing & Computer Vision
- Computer Graphics
- Data Mining
- Design & Analysis of Algorithm
- Machine Learning
- Computer Networks
- Distributed System
- Cryptography & Network Security
- Operating System

Reviewer/Committee/Session Chair:

- Reviewer of Journal IEEE Intelligent System
- Session Chair in 2nd International Conference on Advance Computing and Software Engineering-2019 at KNIT-Sultanpur.
- Reviewer of IEEE Transaction on Industrial Electronics
- Reviewer of Journal Measurement-Elsevier
- Reviewer of Computer Methods and Programs in Biomedicine-Elsevier
- Reviewer of Informatics in Medicine Unlocked-Journal-Elsevier
- Reviewer of International Journal of Imaging Systems and Technology-Wiley
- Reviewer of IETE Journal of Research, Taylor and Francis
- Reviewer of Journal Computers, Materials & Continua
- Reviewer of International Journal of Computational Vision and Robotics (Inderscience)
- Reviewer of American Society of Agricultural and Biological Engineers
- Reviewer of Iranian Journal of Science and Technology, Springer
- Program Committee member of Sixth International Conference on Communication Systems and Network Technologies, PTU Punjab.