Dr. Poornima B. Professor and Head, Department of Information Science & Engg. Bapuji Institute of Engg and Technology, Davangere, Karnataka, India -577004
hodis@bietdvg.edu,
poornimateju@gmail.com

Dr. Poornima B.

Basic Information

Name Dr. Poornima B.
Designation Professor and Head.
Date of Birth   01 June, 1966.

Education Qualification

2012 Ph.D. in Computer Science and Engg on "Studies in Fuzzy Graphs"
    under the guidance of Dr. V. Ramaswamy from Kuvempu University.
2001 M.Tech in Computer Science and Engg from P.D.A. College of Engg,
    Gulbarga, affiliated to V.T.U Belgaum
1989 B.E. in Electronics and Communication, S.I.T. Tumkur,
    affiliated to Bangalore University

Past Experience

1989-1999 Worked as a lecturer at S.I.T. Tumkur, Bapuji Polytechnic, Davangere
    and U.B.D.T.C.E, Davangere

2001-2012 Worked as an Asst Professor of CS&E Department, B.I.E.T Davangere.
    Worked as Dean, Training and Placement for more than 5 years
2012 - Till Date Promoted as Professor and Head, Department of Information Science & Engg

Research Interest

Artificial Intelligence and Machine learning. Big data Analytics, Image Processing

Research Contributions

- Dr. Ashoka K has been awarded with Ph. D for his research topic "Some Novel Approaches for Privacy Preserving Data Publishing" in the year 2018.

- Dr. Vinutha H. P. has been awarded with Ph. D for her research topic "Data Mining Approaches for Security and Data Integrity in Networking Environment" in the year 2018.

- Dr. Pavan Kumar M.P. has been awarded with Ph. D for his research topic "Structure Preserving Non-Photorealistic Rendering Approaches for Image Abstraction and Stylization" in the year 2020.

- Dr. Varsha M. has been awarded with Ph. D for her research topic "Predictive Model for Paddy Crop Disease and Deficiency Detection using Machine Learning Techniques" in the year 2022.

- Dr Bhuvaneshwari K.V. has been awarded with Ph. D for her research topic "Analysis and Classification of Different Gynecological Tumors using Machine Learning Techniques" in the year 2022.

- Dr. Mallikarjuna S.B. has been awarded with Ph. D for his research topic "Detection and Classification of Diseases in Arecanut Using Image Processing and Machine Learning Techniques" in the year 2023.

• Dr.Patil N.S has been awarded with Ph. D. for his research topic "Effective Techniques for Managing Large and Unstructured Graph Database" " in the year 2023

Awards / Recognition

- College Coordinator for New Age Innovation Network (NAIN).
- Director of Bapuji Cooperative Bank, Davangere

Professional Bodies Memberships

ISTE Life member of Indian Society for Technical Education. LM 33081
MIE Life member of The Institute of Engineers (India) M-165366-8
IAENG Life member of International Association of Engg. IAENG 273115

Subjects Handled

- Computer Concepts and C programming
- Operating
- Systems Machine
- Learning Software Engineering
- Data Base Management Systems
- Object Oriented programming with C++
- Computer Networks and many more.

Projects Supervised

46. E Projects:

- M. Tech Projects: 16
- Ph.D.: 10

Workshops Conducted

- One day FDP on "Academic Interface Program" conducted in association with
- TCS, Bengaluru and ISTE faculty chapter on 16th March 2018.
- Two-week FDP on "Foundation program in ICT for Education (FDP101x)" conducted in association with IIT Bombay from 19th to 31st March 2018.
- Two week FDP on "Foundation program in ICT for Education (FDP201x)" conducted in association with IIT Bombay from 12th to 27th May 2018. One day workshop on "Koha and Library Automation" conducted in association with IIT Bombay on 12th October 2018.

- One day workshop on "Moodle Learning Management System" conducted in association with IIT Bombay on 15th March 2019.
- Fivedays workshop on "Effective Teaching" (ICT based programme) in association with National Institute of Technical Teacher's Training & Research, Kolkata (NITTR) from 15th to 19th July 2019
- One day workshop on "Python" conducted in association with IIT Bombay on 22nd June 2019. One day workshop on "LINUX" conducted in association with IIT Bombay on 23rd Aug 2019.
- One day workshop on "e-SIM" conducted in association with IIT Bombay on 23rd Aug 2019.
- Four days Workshop on "Mobile App Development" conducted in association with ISTE faculty chapter on 22nd to 25th Feb 2020.
- Two days Workshop on "Internet of Things" conducted in association with I nsync Forum on 5th to 6th March 2020.
- Two days Workshop on "Software Architecture and Design using Sparx Enterprise Architect-Hands on Approach" conducted in association with RVCE, Bengaluru from 28th Dec 2020 to 01st Jan 2021.
- Two days Workshop on "Image Processing, Computer Vision and Artificial Intelligence Workflows using MATLAB" conducted in association with CoreEL Technologies, Bengaluru from 12th to13th Jan 2021.

- Two days Workshop on "Internet of Things" conducted in association with Insync Forum on 23rd to 25th Oct 2021.
- Four days Workshop on "Soft Skill Program on Communication With Confidence" conducted in association with Insync Forum from 7th to 10th April 2022.
- One day Workshop on "Digital Finearts" conducted in association with Insync Forum on 29th July 2022.
- Three days FDP on "Introduction to Python Programming" conducted in association with ISTE and IEI faculty chapter from 12th to 14th Dec 2022.
- Five days FDP on "Data Analytics and Data Science" conducted in association with VTU Belagavi from 30th Jan to 03th Feb 2023

Projects Sponsored

- Principal Investigator for the Titled "Novel Integrated Filter Based Approaches For Image Abstraction to Investigate The Hidden Research Issues in Processing Domain" for 40,00,000(Forty lakhs) under VGST/K-FIST L2
- Principal Investigator for the Project "Design and Analysis of Efficient Privacy Preserving Data Mining Algorithms" Sponsored by AICTE under RPS, New Delhi.

List of Publications

1. Poornima B and. V. Ramaswamy, Product Fuzzy Graphs, International Journal of Computer Science and Network Security, Volume.9 No.1, January 2009, P114 – 118.

2. Poornima B and. V. Ramaswamy, Edge coloring of a Fuzzy Graph, Advances in Fuzzy Mathematics, Volume 4, Number 1, 2009, P 49 – 58.

3. Poornima B and. Dr. V. Ramaswamy, Fuzzy Regularizable Graphs, International Journal of Mathematics and Computation, Volume 4, No. S09, September 2009, P 105 – 110.

4. Poornima B. and V. Ramaswamy .Application of Edge Coloring of a Fuzzy Graph, International Journal of Computer Applications(IJCA, 975 – 8887) IF: 0.752 Volume 6, No.2, September 2010, P 14-19.

5. Poornima B. and. V. Ramaswamy, Total Coloring of a Fuzzy Graph, International Journal of Computational and Applied Mathematics, Volume 5, Number 1, 2010, P 11 – 22.

6. Poornima B. and V. Ramaswamy, Time Table Scheduling Problem Using Fuzzy Algorithmic Approach,The International Journal of Logic and Computation (IJLP), IF : 1.15 Volume (2): Issue (2), 2011.P 14-21.

7. Ashoka K and Poornima B. "A Survey of Latest Developments in Privacy Preserving Data Publishing" International Journal of Advanced Information Science and Technology (IJAIST) ISSN: 2319:2682 Vol.3, No.12, December 2014 DOI:10.15693/IJAIST/2014.v3i12.14-23, PP 14-23.

8. Vinutha H. P. and Poornima B., A Survey Comparative Study on Intrusion Detection System, International Journal of Advanced Research in Computer and Communication Engineering, ISSN: 2319-5940, IF: 4.582, DOI: 10.17148 PP 410-416 2016

9. Poornima B., "A Comprehensive Survey on Health Care Management by using Internet of Things" International Journal of Scientific and Engineering Research (IJSER) December 24, 2016. ISSN:2229-5518.

10. Ashoka K. and Poornima B., Organized Clustering Method for Privacy Preserving Data Publishing., International Journal of Engineering and Manufacturing Science, ISSN: 2249-3115, Vol. 8, No. 1 pp. 23-32, 2018.

11. Vinutha H. P. and Poornima B., Analysis of Feature selection algorithms for Naïve Bayes Classifier using NSL-KDD, International Journal of Engineering and Manufacturing Science, ISSN: 2249-3115, Vol. 8, No. 1 pp. 167-175, 2018.

12. Archana H M and Poornima B., "System Model for Processing on Multi-Format of Dataset" International Journal of Trend in Scientific Research and Development (IJTSRD) Vol-2/ Issue-5(Jul-Aug 2018) With Impact factor 4.101 for the year of 2018 by I2OR.ISSN:2456-6470. pp.1908-1913

13. Vinutha H. P. and Poornima B., "An Ensemple Classifier Approach on Different Feature Selection Methods for Intrusion Detection", Information systems design and intelligent applications, 442-451 2018

14. Vinutha H. P. and Poornima B., "Detection of Outlier using Interquartile Range Technique from Intrusion Dataset", Information and Decision Sciences, 511-518 2018

15. Ashoka K and Poornima B. "Mutual Correlation based Optimal Slicing for Privacy Preserving in Data Publishing" Springer Nature Singapore Pte Ltd. 2018 Smart Computing and Informatics Systems and Technologies 77, https://doi.org/10.1007/978-981-10-5544-7_58, PP 593-601

16. Vinutha H. P. and Poornima B., "Analysis of NSL-KDD Dataset using K-Means and Canopy Clustering Algorithms based on Distance Metrics" Integrated Intelligent Computing, Communication and Security, 193-200, 2019

17. Bhuvaneshwari K. V. and Poornima B. "Cervical Cancer Cell Identification & Detection using Fuzzy C Mean and K nearest Neighbor Techniques" International Journal of Innovative Technology and Exploring Engineering (IJITEE) Scopus Indexed Vol. 8, August 2019, Issue 10, PP 1080-1084 ISSN(Online): 2278-3075 Impact factor: 5.54

18. Poornima B. and Pavankumar M. P "A Comprehensive Survey on non-photorealistic Rendering and Benchmark Development for Image Abstraction and Stylization" Iran Journal of Computer Science (Springer) 2, 131 - 165 May 2019. https://doi.org/10.1007/s42044-019-00034-1

19. Poornima B. and Pavankumar M. P. "A comprehensive survey on non-photorealistic rendering and benchmark developments for image abstraction and stylization" Iran Journal of Computer Science 10th April 2019.

20. Mr. Ashoka K. and Poornima B., "Mutual Correlation-based Optimal Slicing for Preserving Privacy in Data Publishing" Springer Nature Singapore Pte Ltd. 2018 *Smart Computing and Informatics, Smart Innovation, Systems and Technologies* 77, https://doi.org/10.1007/978-981-10-5544-7_58 PP 593-601.

21. Poornima B. and Pavankumar M. P. "Structure Preserving Image Abstraction and Artistic Stylization from Complex Background and Low Illuminated Images" ICTACT Journal on Image and Video Processing, August 2020, Volume: 11, Issue: 01 ISSN: 0976-9102 (Online).

22. Poornima B. and Pavankumar M. P. "Structure-preserving NPR framework for image abstraction and stylization" The Journal of Supercomputing 21st January 2021.

23. Varsha M. and Poornima B. "A Comparative Study of Ensemble Classifiers for Paddy Blast Disease Prediction Model" International Journal of Computer Sciences and Engineering (IJCSE) E-ISSN: 2347-2693 Vol. 8, Issue.9, 30th September 2020 DOI: https://doi.org/10.26438/ijcse/v8i9.91100 | Available online at: www.ijcseonline.org

24. Poornima B. and Pavankumar M. P. "Structure Preserving Non-Photorealistic Rendering Framework for Image Abstraction and Stylization of Low-Illuminated and Underexposed Images." ICTACT JOURNAL ON IMAGE AND VIDEO PROCESSING Apr. 2021, 22-45. DoI:10.4018/IJCVIP.2021040102. (Indexed by: UGC–Care, DBLP IET indexing)

25. M.P. Pavan Kumar, B. Poornima , H.S. Nagendraswamy , C. Manjunath and B.E. Rangaswamy, "A Refined Structure Preserving Image Abstraction Framework as a Pre-Processing Technique for Desire Focusing on Prominent Structure and Artistic Stylization", WSPC-Vietnam Journal of Computer Science, doi: 10.1142/S2196888822500038. Vol. 08, No. 04, pp. 529-583 (2021) (Indexed by ESCI, Scopus, DBLP, IET, and UGC–Care indexing).

26. M.P. Pavan Kumar, Poornima, B., Nagendraswamy, H.S. and B.E. Rangaswamy, "HDR and Image Abstraction Framework for Dirt Free Line Drawing to Convey the Shapes from Blatant Range Images." Multidimensional Systems and Signal Processing, Springer. 2021. DOI :10.1007/s11045-021-00803-x. (Accepted on 27-09-2021) (Indexed by: SCI-indexing, Scopus, DBLP, IET and UGC-Care).

27. M.P. Pavan Kumar, B. Poornima , H.S. Nagendraswamy, C. Manjunath and

Springer. DOI: 10.1007/s42979-021-00935-8 (Indexed by: DBLP indexing).

28. Varsha, M., Poornima, B., Pavan Kumar, M.P. et al. "Predictive Model for Rice Blast Disease on Climate Data Using Long Short Term Memory and Multi-Layer Perceptron: An Empirical Study on Davangere District." *Annals of Romanian Society of Cell Biology*, ISSN:1583-6258, Vol. 25, Issue 6, 2021, Pages. 4703 – 4722 (2021).

29. Bhuvaneshwari K. V., Poornima, B., " Ovarian Tumor Classification Using Machine Learning Techniques", *Design Engineering,* ISSN: 0011-9342 | Year 2021 Issue: 9 | Pages: 12664 – 12672

30. S. B. Mallikarjuna, Poornima, B., "CNN BASED METHOD FOR MULTI-TYPE DISEASED ARECANUT IMAGE CLASSIFICATION" *Malaysian Journal of Computer Science,* Vol. 34 (3), 2021 PP 255-265 DOI: https://doi.org/10.22452/mjcs.vol34no3.3

31. Varsha, M., Poornima, B., Pavan Kumar, M.P. et al. "Novel hybrid ARIMA–BiLSTM model for forecasting of rice blast disease outbreaks for sustainable rice production." *Iran Journal of Computer Science* (2022). https://doi.org/10.1007/s42044-022-00128-3

32. Varsha, M., Poornima, B., Pavan Kumar, M.P. et al. "A Machine Learning Technique for Rice Blast Disease Severity Prediction Using K-Means SMOTE Class Balancing", *International Journal of Risk and Contingency Management* (2022) Volume 11 • Issue 1. DOI: 10.4018/IJRCM.315304

33. Bhuvaneshwari K. V., Poornima, B. "Analysis of Different Image Segmentation Techniques to Identify and Detect Ovarian Tumor" *GIS Science Journal* ISSN NO: 1869-9391 VOLUME 9, ISSUE 2, 2022. PP 1499-1504.

34. S. B. Mallikarjuna, Poornima, B., "Multi-gradient-direction based deep learning model for arecanut disease Identification." *CAAI Transactions on Intelligence Technology* 1–11 (2022). https://doi.org/10.1049/cit2.12088.

Book Chapters

- Ashoka K, Poornima B. "Mutual correlation based Anonymization for Privacy Preserving Medical Data Publishing" *Information Security in Biomedical Signal Processing*, 2018 IGI Global Publishers. doi: 10.4018/978-1-5225-5152-2.ch016 PP 304 -319

- Ashoka K, Poornima B. "Stipulation-Based Anonymization with Sensitivity Flags

  for Privacy Preserving Data Publishing" *Recent Findings in Intelligent Computing Techniques*, *Advances in Intelligent Systems and Computing 707*, https://doi.org/10.1007/978-981-10-8639-7_46, PP 445 -454

International Conference

- Ashoka K, Poornima B. presented a paper titled "Privacy protection and utility Preserving in Data mining" at the 1st International Conference on Smart Computing & Informatics(SCI) organised by CSE & ISE Student branch of Anil Neerukonda Institute of Technology and Sciences Bheemunipatnam Mandal, Andra Pradesh – 531162, Sangivalasa, Visakhapatnam from 3rd & 4th March 2017.

- Ashoka K, Poornima B. "Enhanced Utility in Preserving Privacy for Multiple Heterogeneous Sensitive Attributes using Correlation and Personal Sensitivity flags

- Ashoka K, and Ashok Kumar A "Methodical Clustering Slant for "Privacy Preserving Data Mining" International Journal of Advanced Research in Computer and Communication Engineering, ISSN:2319-5940, IF: 5.947, Vol. 6, Issue 7, July 2017. ISSN (Online) 2278-1021, ISSN (Print) 2319 5940 pp 377-382.

- Bharathi N. and Dr. Poornima B. presented a paper entitled "Image Processing Technique on Identification of Leaf Types and Diseases on Tomato Leafs" at the International Conference on current Trends in Engineering and

Management(ICCTEM 2014) held on 17-19, July 2014 at Vidyavardhaka College of Engg , Mysore.

- ParveenTaj and DrPoornima B. presented a paper entitled "Feasibility Study of Indian Paper Currency Recognition System using Neural Network" at the International Conference on Information and Communication Technologies (ICICT - 2014) held on 5-6, May 2014 at PES Institute of Technology and Management, Shivamogga.

- Mrs. Vinutha H. P. and Dr. Poornima B., Analysis of NSL-KDD Dataset using K-Means and Canopy Clustering Algorithms based on Distance Metrics, Second International Conference on Integrated Intelligent Computing,Communicatioon and Security (ICIIC-2018)during 24th – 25th January 2018,Organised by the Department of Computer Science & Engg, SJBIT, Bengaluru-60.

- Mrs. Vinutha H. P. and Dr. Poornima B., An Ensemple Classifier Approach on Different Feature Selection Methods for Intrusion Detection, 4th International Conference on Information System Design and Intelligent Applications(India-2017), organized by Duy Tan University, O3 Quang Trung, Da Nang, Vietnam in Association with Pioneer Research Foundation, India during 15th -17th June, 2017.

- Mrs. Vinutha H. P. and Dr. Poornima B., Detection of Outlier using Interquartile Range Technique from Intrusion Dataset, 6th International Conference on Frontiers in Intelligent Computing Theory and Applications(FICTA) organized during 14th – 15th October 2017 at KIIT University, Bhubaneshwar, Odisha, India.

National Conference

- Nirmala B. and Dr. Poornima presented a paper titled "Performance Analysis of WCETT in Wireless Mesh Networks" in the two day National Conference on Emerging & Innovative trends in Computer Science, NCEITCS-2012, May 1-2,2012 organized by Vasavi College of Engineering, Ibrahimbagh, Hyderabad – 31.

- Dr. Poornima B. presented a paper titled "Implementation of K-Means Clustering and Communication Technology (iCATccT-2015)" held at BIET, Davangere on 29th to 31st October 2015.

- Session chair in three days International Conference on "Applied and Theoretical Computing and Communication Technology (iCATccT-2015)" held at BIET, Davangere on 29th to 31st October 2015.

- Devaraj for the "Disease Identification of Cotton Leaves Image Processing Technique" in NCRAECE-17 the national conference on Recent Advances in Electronics and Communication Engineering on 13th October 2017, BIET, Davangere.