Viswanath Pulabaigari, Ph.D.

Brief Bio: Dr. Viswanath Pulabaigari has received B. Tech. (i.e., Bachelors Degree in Technology) in Civil Engineering from Sri Venkateswara University, India in 1994 where he received the 1st rank in the class, followed by an M. Tech. from the Department of Computer Science and Engineering, Indian Institute of Technology Madras, India in 1996 and a Ph.D. from the Department of Computer Science and Automation, Indian Institute of Science, Bangalore, India in 2005 where he won the best thesis award for his work on Pattern Recognition.

In the past he worked as a senior lecturer (instructor) in the Department of Computer Science and Engineering at the Indian Institute of Technology Guwahati, India during 2005. He also worked as an Assistant Professor in the same department during 2005-2008. Since 2008, he has been working as a Professor and Dean (Research and Development) in the Department of Computer Science and Engineering at Rajeev Gandhi Memorial College of Engineering & Technology, Nadyal, AP, India.

Publications:

Journals (peer reviewed)

1. Fusion of multiple approximate nearest neighbor classifiers for fast and efficient classification, P.Viswanath, M.N.Murty and Shalabh Bhatnagar, Information Fusion (Elsevier Science), 5(2004), pp 239-250, 2004.

2.Overlap pattern synthesis with an efficient nearest neighbor classifier, P.Viswanath, M.N.Murty and Shalabh Bhatnagar, Pattern Recognition (Elsevier Science), 38(2005), pp 1187-1195, 2005.

3.Partition Based Pattern Synthesis with efficient algorithms for nearest neighbor classification, P.Viswanath, M.N.Murty and Shalabh Bhatnagar, Pattern Recognition Letters (Elsevier Science), 27(2006), pp 1714-1724, 2006.

4.Rough-fuzzy weighted k-nearest leader classifier for large data sets, V. Suresh Babu, P. Viswanath, Pattern Recognition(Elsevier Science), 42 (2009) 1719-1731

5. Rough-DBSCAN: A fast hybrid density based clustering method for large data sets. Viswanath, P., Suresh Babu, V. Pattern Recognition Letters (Elsevier Science), 30 (2009), 1477-1488.

Book Chapters (peer reviewed)

1. Pattern synthesis techniques for large scale pattern recognition, P.Viswanath, M.N.Murty and Shalabh Bhatnagar, a chapter in Encyclopedia of Data Warehousing and Mining, edited by John Wang, Montclair State University, USA, Published by Idea group inc., USA, 2005, pp 902-905.

2. Some Efficient and Fast Approaches to Document Clustering, P.Viswanath, Bidyut Kr. Patra and V. Suresh Babu, a chapter in the book: Handbook of Research on Text and Web Mining Technologies, edited by Min Song, Published by 1G1, USA, Pages 181-188, 2008.

3. Pattern Synthesis for Non-parametric Pattern Recognition, P.Viswanath, M.N.Murty and Shalabh Bhatnagar, a chapter in Encyclopedia of Data Warehousing and Mining, 2nd Edition, edited by John Wang, Montclair State University, USA, Published by Idea group inc., USA, Pages 1511-1516, 2008.

4. Scalable Non-parametric Methods for Large Data Sets, V. Suresh Babu and P. Viswanath, a chapter in Encyclopedia of Data Warehousing and Mining, 2nd Edition, edited by John Wang, Montclair State University, USA, Published by Idea group inc., USA, Pages 1708-1713, 2008

International Conferences (Peer reviewed)

1. An efficient classifier: using a compact tree structure and novel pattern synthesis, P.Viswanath, M.N.Murty and Shalabh Bhatnagar, In Proceedings of HPC Asia-2002, pp 395-398, Bangalore, India, 2002.

2. Synthetic Patterns for Nearest Neighbor Classifier Design, P.Viswanath, M.N.Murty and Shalabh Bhatnagar, In Proceedings of KBCS-2002, pp 323-332, Mumbai, India, 2002

3. A Pattern Synthesis Technique with an Efficient Nearest Neighbor Classifier for Binary Pattern Recognition, P.Viswanath, M.N.Murty and Shalabh Bhatnagar, In proceedings of 17th Intl. Conf. on Pattern Recognition (ICPR-04), IEEE Computer Society, Volume 4, pp 416-419, Cambridge, UK, 2004.

4. Divide-and-Conquer Approaches for Large-Scale Pattern Recognition, P.Viswanath, M.N.Murty, S.Shivade, Tirupathi and Daulat Ram, Presented at AFOSR Workshop on Information Fusion (in the 7th International Conference on Information Fusion), Stockholm, Sweden, 2004.

5. A Pattern synthesis technique to reduce the curse of dimensionality effect, P.Viswanath, M.N.Murty and Shalabh Bhatnagar, In Proceedings of KBCS-04, Hyderabad, India, 2004, pp 219-228.

6. An Efficient Parzen-Window Based Network Intrusion Detector Using a Pattern Synthesis Technique, P.Viswanath, M.N.Murty and Satish Kambala, Pattern Recognition and Machine Intelligence Edited by Sankar K. Pal et al.,(Proceedings of the First International Conference on Pattern Recognition and Machine Intelligence) , Indian Statistical Institute, Kolkata, 2005, pp 799-804.

7. *l-DBSCAN*: A Fast Hybrid Density Based Clustering Method, P. Viswanath and Rajwala Pinkesh, In Proceedings of the 18th Intl. Conf. on Pattern Recognition (ICPR-06), Hong Kong, IEEE Computer Society, Volume 1, pp 912-915, Aug 2006.

8. A Fast and Efficient Ensemble Clustering Method, P. Viswanath, Karthik Jayasurya, In Proceedings of the 18th Intl. Conf. on Pattern Recognition (ICPR-06), Hong Kong, IEEE Computer Society, Volume 2, pp 720-723, Aug 2006.

9. Novel Document Representation Scheme Using Rough Membership Function for Efficient Document Classification, V. Suresh Babu and P. Viswanath, First International Conference on Signal and Image Processing (ICSIP-06), IEEE Bangalore Section, Volume-2, pp 572-576, December 2006

10. Weighted k-Nearest Leader Classifier for Large Data Sets, V. Suresh Babu and P. Viswanath, Second International Conference on Pattern Recognition and Machine Intelligenc(PReMI-07) , Indian Statistical Institute, Kolkata, Dec, 2007 pp 17-24.

11. Generalized Branch and Bound Algorithm for Feature Subset Selection, Proceedings of the International Conference on Computational Intelligence and Multimedia Applications (ICCIMA 2007) - Volume 02, IEEE Computer Society, Dec 2007, pp 214-218.

12. Speeding up online character recognition, in Proceedings of the Twenty-second International, Kamakhya Gupta, S. V. Rao and P. Viswanath, Conference on Image and Vision Computing, New Zealand, 2007.

13. A Fast single Link Clustering Method for Large Data Sets, Bidyut Kr. Patra, P. Viswanath and Sukumar Nandi in MCDES 2008, IISc, Bangalore, 2008.

14. An Efficient and Fast Parzen-Window Density based Clustering Method for Large Data Sets, First International, V. Suresh Babu, P. Viswanath, Conference on Emerging Trends in Engineering and Technology, IEEE Computer Society, Nagpur, 2008, Pages 531-536.

15. Data Summarization based fast hierarchical clustering method for large datasets, Bidyut Kumar Patra, Sukumar Nandi, and P. Viswanath, In the Proceedings of the International

Conference on Information Management and Engineering (ICIME 2009), held on 3 - 5, April 2009, Kuala Lumpur, Malaysia, Pages 278 – 282, IEEE Computer Society.

16. Speeding-up k-means clustering method: A prototype based approach, T. Hitendra Sarma, P. Viswanath, In the Proceedings of the 3rd International conference on Pattern Recognition and Machine Intelligence (PReMI) 2009 ,LNCS 5909, IIT Delhi, 2009, Pages 56-61

17. An Improvement to k-Nearest Neighbor Classifier, Sai Koti Reddy, Raghava, P. Viswanath and T. Hitendra sarma, Accepted in ICDM-2010, 3rd International Conf. on Data Management, IMT, Ghaziabad, India, 2010, Pages 314-324.

18. Speeding up of Polynomial Time Isomorphic Matching of Molecular Graphs, Narendra, S. V. Rao, Pinaki Mitra and P. Viswanath, Accepted in ICDM-2010, 3rd International Conf. on Data Management, IMT, Ghaziabad, India, 2010, Pages 8-16.

19. k-Nearest Neighbor MeanClassifier: An Improvement Over k-Nearest Neighbor Classifier, Hitendra Sarma, Pavani, P. Viswanath and B. Eswara Reddy, in ICETCSE-2010: 2nd International Conference on Emerging Technologies in Computer Science and Engineering, V.R. Sidhartha Eng College, Vijayawada, Pages 66-71, Feb 12-13, 2010.

20. A Method to generate a reduced Training set for faster and better nearest neighbor classification, p. Viswanath, V. Suresh Babu and T. Naveen Kumar, in KDIR-2010: International Conference on Knowledge Discovery and Information Retrieval, Valencia, Spain.

21. A novel shape based hierarchical retrieval system for 2D images, T Gokaramaiah , P Viswanath and B Eswara Reddy, in Second International Conference on Advances in Recent Technologies in Communication and Computing,ARTCom-2010, Kottayam , Kerala, India, Pages 10-14, IEEE Computer Society.

Professional Achievements and Responsibilities

1. Won Alumni Medal (2006) for best Ph.D. thesis in Electrical Sciences division at Indian Institute of Science, Bangalore, India.

2. Guided one Ph.D. thesis at Indian Institute of Technology Guwahati. Student Name: V. Suresh Babu, completed Ph.D in 2009. Title of the thesis: Fast and Efficient Non-parametric Classification and Clustering Methods for Large Data Sets‖. The student is currently working as a research associate at York University, UK.

3. Guided 15 B.Tech. thesis projects and 15 M. Tech Projects at Indian Institute of Technology Guwahati.

4. PC-Member: "9th International Conference on Information Technology", CIT 2006, December 18-21, Bhubaneswar, India, 2006.

5. PC-Member: "3rd Indian International Conference on Artificial Intelligence (IICAI-07), December 17-19, Pune, India, 2007.

6. Session Chair: "15th International Conference on Advanced Computing and Communication (ADCOM 2007)", 'Session: Pattern Recognition', December 18-21, IIT Guwahati, India, 2007.

7. PC-Member: "International Conference on Information Technology (ICIT-2008), 17-20 December 2008, Xavier Institute of Management, Bhubaneswar, India.

8. Session Chair & Key note speaker: "International Conference on Web Sciences (ICWS-2009)", January 10-11, 2009, CSI, Koneru Lakshmaiah College of Engineering, Guntur, India.

9. Reviewer: Electronic Letters on Computer Vision and Image Analysis.

10. Reviewer: IEEE Transactions on Systems, Man, Cybernetics (Part B)

11. Reviewer: Pattern Recognition Letters (Elsevier Science)

12. SPONSORED PROJECTS: AICTE sponsored project under research promotion scheme (RPS).