Title	Dr.	First Name	Vasudha	Last Name	Bhatnagar	Photograph
Designation		Professor				
Address		107, Department of Computer Science Faculty of Mathematical Sciences New Academic Block University of Delhi Delhi-110007.				
Phone No Office		91-11-27667591 ext.107				
Residence Mobile						
Email		vbhatnagar@cs.du.ac.in				
Web-Page		Http:/people.du.ac.in/~vbhatnagar/				
Educational Qualifications						
Degree		Institution				Year
Ph.D.		Jamia Millia Islamia				2001
M.Phil. /	M.Tech.					
Master of Computer Applications		Departmen University	nt of Computer of Delhi	1985		
B.Sc.(Hons) Mathematical Statistics		University of Delhi			1982	

Sept 2014 – to date : Professor, Department of Computer Science, University of Delhi.

Sept 2012 – Sept 2014: Visiting Associate Professor, Department of Computer Science, South Asian University, New Delhi.

Jan 2009 – Sept 2012: Professor, Department of Computer Science, University of Delhi.

2002 – Dec 2008: Associate Professor, Department of Computer Science, University of Delhi.

1989-2002 : Lecturer/Reader, Department of Computer Science, Motilal Nehru College, University of Delhi.

1985-1989: Software Engineer, Centre for Development of Telematics, Govt. of India.

# Areas of Interest / Specialization

Career Profile

My broad area of interest is Data Analytics. I am interested in classification and clustering ensembles, mining of data streams, discovery of time changing patterns. I am currently working on network analytics problem like comparison of networks, evolution of networks, application of social theories social network analysis, evolution of networks. I also study problems in text analytics.

# Subjects Taught

### <u>Undergraduate Level</u>

Programming Fundamentals, Data Structures, Operating Systems, Computer System Architecture, Database Management Systems

## <u>Postgraduate</u>

Operating Systems, Unix Internals, Data Mining, Advanced Classification, Mining of Data Streams, Projected Clustering, Systems Programming, Graph Analytics

#### Research Guidance

### PhD Awarded

- 1. Ahmed-Al-Hegami (2006): "On Quantification of Novelty in Knowledge Discovery Process" (jointly with Dr. Naveen Kumar)
- 2. Sarabjeet Kochhar (2010): "Towards Characterization of the Data Generation Process in Evolving Databases"
- 3. Sharanjit Kaur (2011): "Leveraging Grid Structure for Clustering of Data Streams"
- 4. Sangeeta Ahuja (2013): "Novel Algorithms for Cluster Ensembles and their Applications"
- 5. Anamika Gupta (2013): "Mining Association rules using Formal Concept Analysis" (jointly with Dr. Naveen Kumar)

#### PhD submitted

6. Manju Bharadwaj: "Design and Comparitive Analysis of Classification Ensembles" (jointly with Dr. Debashish Dash)

### PhD under progress

- 7. Rakhi Saxena: Network Analytics (jointly with Dr. Sharanjit Kaur)
- 8. Swagata Duari: Text Analytics
- 9. Alka Khurana: Text Analytics

# Publications Profile (Last five years)

#### Volumes Edited

- 1. Srinath Srinivasa, Vasudha Bhatnagar (Editors), Big Data Analytics, Proceedings Series Lecture Notes in Computer Science, Vol. 7678, 2012, Springer.
- 2. Vasudha Bhatnagar, Srinath Srinivasa (Editors), Big Data Analytics, Proceedings Series Lecture Notes in Computer Science, Vol. 8302, 2013, Springer.

3. Naveen Kumar, Vasudha Bhatnagar (Editors), Big Data Analytics, Proceedings Series - Lecture Notes in Computer Science, Vol. 9498, 2015, Springer

# Book Chapters

1. Sharanjit Kaur, Vasudha Bhatnagar, Sharma Chakravarthy, Stream Clustering Algorithms: A Primer, Big Data in Complex Systems: Challenges and Opportunities, pp. 105-145, Big Data series, Springer-Verlag (2015)

# Research papers published in Refereed/Peer Reviewed Journals

- 1. Sharanjit Kaur, Rakhi Saxena, Dhriti Khanna, Vasudha Bhatnagar, Data Aware Algorithm for Scalable Clustering, Knowledge and Information Systems (2016)
- 2. Manju Bhardwaj, Kapil Sharma, Vasudha Bhatnagar, Cost effectiveness of Classification Ensembles, Pattern Recognition, (Elsevier) 2016 <a href="http://dx.doi.org/10.1016/j.patcog.2016.03.017">http://dx.doi.org/10.1016/j.patcog.2016.03.017</a>,
- 3. M Bhardwaj, V Bhatnagar, Towards an optimally pruned classifier ensemble, International Journal of Machine Learning and Cybernetics, Volume 6, Issue 5, pp 699-718, October 2015, Springer Berlin Heidelberg.
- 4. Khalid Alhamazani, Rajiv Ranjan, Karan Mitra, Fethi A. Rabhi, Prem Prakash Jayaraman, Samee Ullah Khan, Adnene Guabtni, Vasudha Bhatnagar, An overview of the commercial cloud monitoring tools: research dimensions, design issues, and state-of-the-art. Computing 97(4): 357-377 (2015).
- 5. Vasudha Bhatnagar, Sangeeta Ahuja, Sharanjit Kaur, Discriminant Analysis based Cluster Ensemble, International Journal for Data Mining, Modeling and Management 7(2): 83-107 (2015).
- 6. Vasudha Bhatnagar, Manju Bharadwaj, Sufyan Haroon, Shivam Sharma, Accuracy-Diversity based Classifier Ensemble, Progress in Artificial Intelligence 2 (2-3), 97-111 (2014), Springer Berlin Heidelberg.
- 7. Rishi Das Roy, et al., How do eubacterial organisms manage aggregation-prone proteome?, F1000Res. 2014; 3, Published online Jun 27, 2014. doi: 10.12688/f1000research.4307.1
- 8. Vasudha Bhatnagar, Sharanjit Kaur, Sharma Chakravarthy, Knowledge and Information Systems, Volume 41, Issue 1, pp 127-152, (2014), Springer-Verlag.

# Research papers published in Refereed/Peer Reviewed Conferences

- 1. R Saxena, S Kaur, D Dash, V Bhatnagar, Leveraging Hierarchy and Community Structure for Determining Influencers in Networks, To appear in proceedings of DaWak 2017
- 2. R Saxena, S Kaur, D Dash, V Bhatnagar, Leveraging Structural Hierarchy for Scalable Network Comparison, International Conference on Database and Expert Systems Applications, 2016, 287-302.
- 3. Manju Bhardwaj, Debasis Dash, Vasudha Bhatnagar: Accurate Classification of Biological Data Using Ensembles. ICDM Workshops 2015: 1486-1493

- 5. Aditi Mittal, Abhishek Santra, Vasudha Bhatnagar, Dhriti Khanna, Exploratory Analysis of Light Curves: A Case-study in Astronomy, (Invited Paper), LNCS 8381, 9th International Workshop on Databases in Networked Information Systems (DNIS 2014), 24-26 March 2014, University of Aizu, Japan.
- 6. Sharanjit Kaur, Dhriti Khanna, Tripti Gupta, Vasudha Bhatnagar, Scalable Clustering Using PACT Programming Model, In Proceedings of IEEE ICDMW KDCloud12, Brussels, 10 Dec 2012
- 7. Vasudha Bhatnagar, RashmiDobariyal, Priya Jain, Ashish Mahabal, Data Understanding Using Semi-Supervised Clustering, In Proceedings of 4th International Conference on Intelligent Data Understanding, 24th -26th October 2012, Colorado, US.
- 8. Anamika Gupta, Naveen Kumar, Vasudha Bhatnagar, Mining of Multi-objective Non-Redundant Association Rules in Data Streams, In Proceedings of 11th International Conference on Artificial Intelligence and Soft Computing Web System, Zakopane, Apr 29-May 3, 2012.
- 9. Naveen Kumar, Anamika Gupta, Vasudha Bhatnagar, Lattice Based Associative Classifier, In Proceedings of 4th Asian Conference on Intelligent Information and Database System, to be held in Taiwan, Mar 19-21, 2012.

Conference Organization/ Presentations (in the last five years)

## **Conference Organization**

- 1. International Conference on Big Data Analytics, IIT Delhi, Dec 2014
- 2. International Conference on Big Data Analytics, University of Delhi, Dec 24-26 2012.

## Research Projects (Major Grants/Research Collaboration)

Co-investigator in a MIT project "Intrusion Detection using Soft Computing" (Feb 2005-May2007).

### Awards and Distinctions

Obtained 2<sup>nd</sup> rank in the University in Bsc (H)

### Association With Professional Bodies:

### Memberships:

- 1. Life member Computer Society of India
- 2. Member Association for Computing Machinery (ACM)

# Other Activities

# Academic (last five years)

- 1. I am an IUCAA associate since 2008.
- 2. Involvement in Curriculum Design exercises, Guidelines preparation and Model Question Paper designing and other activities of the department related to MCA, M.Sc (Computer

- Sc.)., B.Sc.(Hons) Computer Science, B.Sc Programme, BA Programme courses in University of Delhi
- 3. PC Co-Chair International Conference on Big Data Analytics, 2012, 2013, 2015 New Delhi,
- PC Member in international conferences/workshops WISEW02, IDEAS06, COMAD06, IDEAS 2007, ISCSS 2007, IBM ICARE09, EXP 09, ICM2CS09, ITBI10, PAKDD10, IDEAS10, IC32010, IDEAS11, DNIS12, BDA2012, BDA2013, BDA2015, BDA2015, DaWaK12-15,
- 5. Supervision of Msc research projects and MCA projects
- 6. Reviewer for KAIS: International Journal (Springer), Journal of DMKD (Springer), International Journal of Data Mining, Modeling and Management (InderScience). Organized Environment workshop (2010), Security workshop (2012) for students

## Administrative

- Head, Department of Computer Science, Nov 2016 onwards
- Placement Advisor (2016-17)
- Nodal Officer for NAAC review (2015-16)
- Head, Department of Computer Science (Oct 2011 Sept 2012)
- Faculty Advisor for student society in the department. (2005-2011)
- Secretary, Departmental Research Committee (2011-12)
- Convenor, Purchase Committee (2010-11)
- Coordinator UG Courses in Computer Science/ Applications in Delhi University (2003-2012)