

Title	Dr.	First Name	Vasudha	Last Name	Bhatnagar	Photograph	
Designation		Professor					
Address		107, Department of Computer Science					
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Educational Qualifications							
Degree		Institution	Institution			Year	
Ph.D.		Jamia Millia Islamia			2001		
M.Phil. /	M.Tech.						
Master of Computer		Department of Computer Science,			1985		
Applications		University of Delhi					
B.Sc.(Hons)		University of Delhi			1982		
Mathematical Statistics							
Career Pr	Career Profile						

Jan 2009 – 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.

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

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: "Novel Algorithms for Design and 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
- 10. Divya Kwatra: Network 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, 2015, pp. 105-145, Big Data series, Springer-Verlag

# Research papers published in Refereed/Peer Reviewed Journals

- 1. V Bhatnagar, S Kaur, R Saxena, D Khanna, (2017), <u>DASC: data aware algorithm for scalable clustering</u>, Knowledge and Information Systems 50 (3), 851-881, (IF: 2.004), Springer.
- 2. M Bhardwaj, V Bhatnagar, K Sharma, (2016), <u>Cost-effectiveness of classification ensembles</u>, Pattern Recognition 57, 84-96, Elsevier, (IF: 4.582).
- 3. M Bhardwaj, V Bhatnagar, (2015), <u>Towards an optimally pruned classifier ensemble</u>, International Journal of Machine Learning and Cybernetics 6 (5), 699-718, Springer (IF: 1.699).
- 4. Vasudha Bhatnagar, Sangeeta Ahuja, Sharanjit Kaur, (2015), <u>Discriminant Analysis based Cluster Ensemble</u>, Int'l Journal for Data Mining, Modeling and Management 7(2), 83-107, Inderscience.
- 5. Vasudha Bhatnagar, Manju Bharadwaj, Sufyan Haroon, Shivam Sharma, (2014), <u>Accuracy-Diversity based Classifier Ensemble</u>, Progress in Artificial Intelligence 2 (2-3), 97-111, Springer.
- 6. K Alhamazani et al., (2014), <u>An Overview of the Commercial Cloud Monitoring Tools</u>: Research Dimensions, Design Issues, and State-of-the-Art; Computing, 1-21, (IF:1.589), Springer.
- 7. Vasudha Bhatnagar, Sharanjit Kaur, Sharma Chakravarthy, (2014), <u>Clustering Data Streams</u> <u>using grid-based synopsis</u>, Knowledge and Information Systems 41 (1), 127-152, (IF: 2.004), Springer
- 8. 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

#### Research papers published in Refereed/Peer Reviewed Conferences

1. Rakhi Saxena, Sharanjit Kaur, Vasudha Bhatnagar, Leveraging Hierarchy and Community Structure for Determining Influencers in Networks, In Proceedings of Dawak 2017

- 2. Rakhi Saxena, Sharanjit Kaur, Debashish Dash, Vasudha Bhatnagar, Leveraging Hierarchy for Scalable Network Comparison, In Proceedings of DEXA 2016, pp 287-302
- 3. Manju Bhardwaj, Debasis Dash, Vasudha Bhatnagar: Accurate Classification of Biological Data Using Ensembles. ICDM Workshops 2015: 1486-1493
- 4. Sharanjit Kaur, RakhiSaxena, Dhriti Khanna, Vasudha Bhatnagar, Comparing Data Processing Frameworks for Scalable Clustering, Accepted in FLAIRS 2014, to be held during 21-23 May 2014, Florida.
- 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.

## Patent

1. Provisional patent filed in IPO -

Aditya Gupta, Vasudha Bhatnagar "A COMPUTER IMPLEMENTED METHOD FOR DOCUMENT RANKING AND A SYSTEM THEREOF" 2018

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.

## **Tutorial Presentation**

1. Swagata Duari, Aditya Gupta, Vasudha Bhatnagar, Unsupervised Keyword Extraction from Single Document, 5th International Conf. on Big Data Analytics, 13-15 Dec 2017, Hyderabad, India..

## Research Projects (Major Grants/Research Collaboration)

- 1. University of Delhi, Annual Research Project Grant (2007 2012, 2016-17)
- 2. Co-investigator in a MIT project "Intrusion Detection using Soft Computing" (Feb 2005-May2007)
- 3. UGC Minor Research Project, 1999-2001

## Awards and Distinctions

Obtained 2<sup>nd</sup> rank in the University of Delhi, 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

- 1. I have an <u>IUCAA</u> associate 2008-2014.
- 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,
- 4. 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, BDA17, DaWaK12-15,
- 5. Supervision of Msc research projects and MCA projects
- <u>6.</u> Reviewer for KAIS: International Journal (Springer), Journal of DMKD (Springer), International Journal of Data Mining, Modeling and Management (InderScience).

## **Administrative**

- Head, Department of Computer Science (Nov 2016 onwards)
- Placement Advisor, (2016-17)
- 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)

Signature of Faculty Member