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 vasudhabhatnagar@gmail.com (Preferred)
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	Department of Computer Science, University of Delhi	1985
B.Sc.(Hons) Mathematical Statistics	University of Delhi	1982

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
Undergraduate Level Programming Fundamentals, Data Structures, Operating Systems, Computer System Architecture, Database Management Systems Postgraduate 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)
6. Manju Bharadwaj (2018): "Design and Comparative Analysis of Classification Ensembles"

PhD under progress

7. Rakhi Saxena :Hierarchical Graph Decomposition for Scalable Network Analysis

    (jointly with Dr. Sharanjit Kaur) - Submitted 2019

8. Swagata Duari : Language Agnostics Keyword Extraction (Registered 2015)
9. Alka Khurana : Extractive Text Summarization using Non_negative Matrix Factorization (Registered 2016)
10. Divya Kwatra : Multi-layered Graphs (Registered 2017)
11. Kirti Jain : Sampling of Massively Evolving Graphs (jointly with Dr. Sharanjit Kaur) (Registered 2018)

Publications Profile (Last five years)

Volumes Edited

1. VB Aggarwal, Durgesh Kumar Mishra, *Vasudha Bhatnagar*(Editors), Big Data Analytics (Proceedings of CSI 2015), 2018, Springer

2. 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. Rakhi Saxena, Sharanjit Kaur, Vasudha Bhatnagar (2019), Identifying similar networks using structural hierarchy, Physica A: Statistical Mechanics and its Applications, ISSN 0378-4371, https://doi.org/10.1016/j.physa.2019.04.265. (IF: 2.13) Elsevier.

2. Swagata Duari, Vasudha Bhatnagar (2019), sCAKE: Semantic Connectivity Aware Keyword Extraction, Information Sciences, Volume 477, Pages 100-117, ISSN 0020-0255, https://doi.org/10.1016/j.ins.2018.10.034, (IF: 4.3) Elsevier.

3. Rakhi Saxena, Sharanjit Kaur, *Vasudha Bhatnagar*, Social centrality using network hierarchy and community structure, Data Mining and Knowledge Discovery, https://doi.org/10.1007/s10618-018-0582-x, (IF: 2.481)

4. *V Bhatnagar*, S Kaur, R Saxena, D Khanna, (2017), DASC: data aware algorithm for scalable clustering, Knowledge and Information Systems 50 (3), 851-881, (IF: 2.004), Springer.

5. M Bhardwaj, *V Bhatnagar*, K Sharma, (2016), Cost-effectiveness of classification ensembles, Pattern Recognition 57, 84-96, Elsevier, (IF: 4.582).

6. M Bhardwaj, *V Bhatnagar*, (2015), Towards an optimally pruned classifier ensemble, International Journal of Machine Learning and Cybernetics 6 (5), 699-718, Springer (IF: 1.699).

7. *Vasudha Bhatnagar*, Sangeeta Ahuja, Sharanjit Kaur, (2015), Discriminant Analysis based Cluster Ensemble, Int'l Journal for Data Mining, Modeling and Management 7(2), 83-107, Inderscience.

8. *Vasudha Bhatnagar*, Manju Bharadwaj, Sufyan Haroon, Shivam Sharma, (2014), Accuracy-Diversity based Classifier Ensemble, Progress in Artificial Intelligence 2 (2-3), 97-111 , Springer.

9. K Alhamazani et al., (2014), An Overview of the Commercial Cloud Monitoring Tools: Research Dimensions, Design Issues, and State-of-the-Art; Computing, 1-21, (IF:1.589), Springer.

10. *Vasudha Bhatnagar,* Sharanjit Kaur , Sharma Chakravarthy, (2014), Clustering Data Streams using grid-based synopsis, Knowledge and Information Systems 41 (1), 127-152, (IF: 2.004), Springer

Research papers published in Refereed/Peer Reviewed Conferences

1. Alka Khurana, Vasudha Bhatnagar, Extractive Document Summarization using Non-negative Matrix Factorization, Accepted in 30th International Conference on Database and Expert Systems Applications, DEXA 2019, to be held at tLinz, Austria, August 26 - 29, 2019.

2. Swagata Duari, Vasudha Bhatnagar, Semi-automatic System for Title Construction, Proceedings of ICICCT-2019 (Springer CCIS), 2019.

3. Rakhi Saxena, Sharanjit Kaur, Vasudha Bhatnagar, Leveraging Hierarchy and Community Structure for Determining Influencers in Networks, In Proceedings of 19th International Conference, DaWaK 2017, LNCS, volume 10440, pp. 383-390.

4. Rakhi Saxena, Sharanjit Kaur, Debashish Dash, Vasudha Bhatnagar, Leveraging Hierarchy for Scalable Network Comparison, In Proceedings of DEXA 2016, pp 287-302

5. Manju Bhardwaj, Debasis Dash, Vasudha Bhatnagar: Accurate Classification of Biological Data Using Ensembles. ICDM Workshops 2015: 1486-1493

6. Sharanjit Kaur, Rakhi Saxena, Dhriti Khanna, Vasudha Bhatnagar, Comparing Data Processing Frameworks for Scalable Clustering, Accepted in FLAIRS 2014, to be held during 21-23 May 2014, Florida.

7. 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.

Conference Organization/ Presentations (in the last five years)

Organization

1. Faculty Development Program on Network Science, in collaboration with Teaching Learning Centre, Ramanujam College, University of Delhi, Dec 3-8, 2018.

2. Organized one day workshop on "R Programming", Deptt of CS, University of Delhi, Delhi, Feb 12, 2018.
3. Organized one day workshop on "Graph Analytics", Deptt of CS, University of Delhi, Delhi, Apr 2015.
4. International Conference on Big Data Analytics, IIT Delhi, Dec 2014

Tutorial Presentations and Invited Talks

5. *Skill-sets for coping with Artificial Intelligence,* Expert talk at **IDEA Conclave**, Govind Ballabh Pant Social Science Institute, University of Allahabad, 7 March 2019.

6. *AI : The Double Edged Sword*, Expert Talk at Aryabhatt College, University of Delhi, 28 Feb 2019.

7. *Network Science: Foundation of Social Network Analysis,* Delivered 21 Hour, 1 Credit Course jointly with Dr. Sharanjit Kaur (Associate Professor, AND College, University of Delhi) at Epitech University, Paric, France 13-15 Dec 2018.

8. *Information Diffusion and Epidemic Modeling,* Expert talk at Faculty Development Program on **Network Science**, Deptt of CS, University of Delhi, 5 Dec 2018

9. *Network Science: Foundation of Social Network Analysis*, Expert talk at Faculty Development Program on **Network Science**, Deptt of CS, University of Delhi, 5 Dec 2018

10. *Network Science: Foundation of Social Network Analysis*, Expert talk at Conference on **Software Engineering and Data Sciences**, University of Kashmir, Srinagar, 20-21 Jun 2018

11. *Unsupervised Keyword Extraction from Single Document*, Tutorial at 5th International Conf. on **Big Data Analytics**, 13-15 Dec 2017, Hyderabad, India.(Collaborators: Swagata Duari, Aditya Gupta)

12. *Introduction to Text Analytics* at National Workshop on **Machine Learning** organized by Deen Dayal Upadhyaya College, New Delhi, on December 27, 2017.

13. *Text Analytics - An Introduction* at a Faculty Development Program on **"Big Data Analytics"** organized by Geethanjali College of Engineering and Technology, Hyderabad, on November 29, 2017.

14. *Text Analytics* at Faculty Development Program on "**Data Sciences and Machine Learning**" organized by Bharati Vidyapeeth's College of Engineering, New Delhi, on November 10, 2016.

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 2nd rank in the University of Delhi, in Bsc (H)

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Association With Professional Bodies:
Memberships: 1. Life member - Computer Society of India   2. Member - Association for Computing Machinery (ACM)

Other Activities
Academic

1. I was an IUCAA 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, BDA2012-19, DaWaK12-19, DEXA 2019, TENCON 2019
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).

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