

Dr. Harmeet Kaur

Associate Professor

Department of Computer Science, Hansraj College, University of Delhi, Delhi – 110007, India

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Educational Qualification

PhD in Computer Science Department of Computer Science, University of Delhi, June 2007

Thesis Title: Trust Based Decentralized Recommender Systems

Master of Computer Applications (MCA), Panjab University, Chandigarh, 1997

B.Sc.(G) 'A' with Computer Science, Hans Raj College, University of Delhi, 1994

Work Experience

Hans Raj College	Associate Professor, since July 2010 Assistant Professor, from September 1999 to June 2010
Kirori Mal College	Assistant Professor, from September 1998 to September 1999
Ram Lal Anand College	Assistant Professor (on temporary basis), from January 1998 to July 1998

Visiting Faculty

At Department of Operational Research, University of Delhi from July 2018 to December 2018

At Department of Computer Science, University of Delhi from July 2007 to December 2011, June 2017 – June 2022

Research Area

Artificial Intelligence, Recommender Systems, Natural Language Processing, Crowdsourcing

Papers Taught at Undergraduate Level (Last three years)

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

Papers Taught at Postgraduate Level

MCA/M.Sc. (Computer Science)/ M.Sc. (Operational Research)

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

Collaborative Teaching in the Department of Computer Science, University of Delhi

Ph.D. Programme

1. Part of Research Methodology Course work paper
2. Machine Learning: Course work paper

List of Research Scholars

Ph.D.

1. Bhavna Gupta, *Trust-Based Multiagent Service Recommender System*, PhD awarded in February 2014. Co-supervised with Prof. Punam Bedi. Department of Computer Science, University of Delhi
2. Deepali Jain, *Optimization of Trust Based Recommender Systems*, PhD awarded in December 2015. Department of Computer Science, University of Delhi
3. Jaya Gera, *Analytic Framework to Assess Crowdfunded Campaigns*, PhD awarded in February 2021. Department of Computer Science, University of Delhi
4. Vandana Kalra, *Analysis and Design of an Algorithmic Model for Generating Domain-Specific Vocabulary*, PhD awarded in March 2023. Co-supervisor with Dr. Indu Kashyap. Manav Rachna University, Faridabad
5. Mansi Sood, *Framework for Incremental Updates of Domain-Specific Vocabulary*, PhD awarded in February 2025. Department of Computer Science, University of Delhi
6. Pratibha Yadav, *Broad Area of Research – Recommender Systems*, Registered since December 2019. Department of Computer Science, University of Delhi
7. Vijaya Goel, *Broad Area of Research – Artificial Intelligence*, Registered since October 2023 (Co-supervisor: Dr. Vandana Kalra, Department of Computer Science, Sri Guru Gobind Singh College of Commerce). Department of Computer Science, University of Delhi

Publications

Journal Publications

1. Mansi Jain, Harmeet Kaur, Bhavna Gupta, Jaya Gera, Vandana Kalra. (2025). *Incremental learning algorithm for dynamic evolution of domain specific vocabulary with its stability and plasticity analysis*. Scientific Reports. Vol. 15:272. ISSN 2045-2322. <https://doi.org/10.1038/s41598-024-78785-6>
(SCIE indexed, Impact Factor 2023: 3.8) (Scopus indexed, CiteScore 2023: 7.5)
2. Pratibha Yadav, Jaya Gera, Harmeet Kaur. (2023). *Enhancing the accuracy of Collaborative Filtering based Recommender System with novel Similarity Measure*. Multimedia Tools and Applications. ISSN: 1573-7721, doi: <https://doi.org/10.1007/s11042-023-17428-w>
(SCIE indexed, Impact Factor 2023: 3.0) (Scopus indexed, CiteScore 2023: 7.2)
3. Pratibha Yadav, Shweta Tyagi, Harmeet Kaur. (2023). *Evolutionary Extreme Learning Machine based Collaborative Filtering*. International Journal of Advanced Technology and Engineering Exploration, The ACCENTS, 10(104), 858–874, ISSN: 2394-7454, doi: <http://dx.doi.org/10.19101/IJATEE.2022.10100088>

(Scopus indexed, CiteScore 2023: 1.8)

4. Vandana Kalra, Indu Kashyap, Harmeet Kaur. (2023). *ADS-Classif: A Robust Tool for Classifying Documents from Diverse Sources Using Weighted Domain-Specific Vocabulary*. IETE Journal of Research, Taylor and Francis, 69(12), 8640-8646, ISSN: 0377-2063, doi: <https://doi.org/10.1080/03772063.2023.2177757>

(SCIE indexed, Impact Factor 2023: 1.3) (Scopus indexed, CiteScore 2023: 3.3)

5. Om Trivedi, Harmeet Kaur. (2023). *Sentiment Analysis of Twitter Data*. Hans Shodh Sudha, 3(4), 31 – 37, ISSN: 2582 – 9777
6. Mansi Sood, Jaya Gera, Harmeet Kaur. (2022). *Creation, Evaluation, and Optimization of a Domain-based Dictionary*. Journal of Intelligent & Fuzzy Systems, IOS Press, 43(5), 6123-6136, ISSN: 1875 – 8967, doi: 10.3233/JIFS-220110

(SCIE indexed, Impact Factor 2023: 1.7) (Scopus indexed, CiteScore 2023: 3.4)

7. Vandana Kalra, Indu Kashyap, Harmeet Kaur. (2022). *Classification based Topic Extraction using Domain-Specific Vocabulary: A Supervised Approach*. Indonesian Journal of Electrical Engineering and Computer Science, Institute of Advanced Engineering and Science (IAES), 26(1), 442 – 449, ISSN: 2502-4752, <http://ijeecs.iaescore.com/index.php/IJEECS/article/view/26420>

(Scopus indexed, CiteScore 2023: 2.9)

8. Vandana Kalra, Indu Kashyap, Harmeet Kaur. (2022). *Improving document classification using domain-specific vocabulary: Hybridization of deep learning approach with TFIDF*. International Journal of Information Technology, Springer, 14(5), 2451 – 2457, doi: <https://link.springer.com/article/10.1007/s41870-022-00889-x>, ISSN: 2511 – 2112

(Scopus indexed, CiteScore 2023: 6.0)

9. Bhavna Gupta, Harmeet Kaur, Punam Bedi. (2022). *Enhancing System Robustness of Active Products using Trust based Collaboration*. Journal of Intelligent & Fuzzy Systems, IOS Press, 43(1), 939 – 956, ISSN: 1875 – 8967, doi: 10.3233/JIFS-212691

(SCIE indexed, Impact Factor 2023: 1.7) (Scopus indexed, CiteScore 2023: 3.4)

10. Vandana Kalra, Indu Kashyap, Harmeet Kaur. (2021). *Generation of Domain-Specific Vocabulary Set and Classification of Documents: Weight-Inclusion Approach*. International Journal of Information Technology, Springer, 14(1), 275 – 285, doi: <https://doi.org/10.1007/s41870-021-00830-8>, ISSN: 2511 – 2112

(Scopus indexed, CiteScore 2023: 6.0)

11. Jaya Gera, Harmeet Kaur. (2018). *A novel framework to improve the performance of crowdfunding platforms*. Information & Communications Technology (ICT) Express, Elsevier, 4(2), 55-62, ISSN: 2405-9595, <https://doi.org/10.1016/j.ict.2018.04.011>.

(SCIE indexed, Impact Factor 2023: 4.1) (Scopus indexed, CiteScore 2023: 10.2)

12. Jaya Gera, Harmeet Kaur. (2017). *Dynamics of Pledge Behaviour of Crowdfunded Projects*. International Journal of Information Technology Project Management (IJITPM), IGI Global, 8(1), 72 – 86, ISSN: 1938 – 0232

(Scopus indexed, CiteScore 2023: 1.7)

13. Mansi Sood, Harmeet Kaur. (2014). *Preference based Personalized News Recommender System*, in International Journal of Advanced Computer Research (IJACR), Vol. 4, No. 2, Issue 15, 575 – 581, ISSN: 2277 – 7970
(SNIP (2021): 0.996, SJR (2019): 0.113)
14. Harmeet Kaur, Deepali Jain. (2013). *Generating Trust Based Recommendations for Multiple Independent Domains*, in International Journal of Advanced Computer Research (IJACR), Vol. 3, No. 4, Issue 13, 88 – 97, ISSN: 2277 – 7970
(SNIP (2021): 0.996, SJR (2019): 0.113)
15. Harmeet Kaur, Deepali Jain. (2013). *Optimizing the Number of Neighbors in Trust Based Recommender Systems*, in International Journal of Computer Science Issues (IJCSI), 10 (4), Issue 4, No 2, 230 – 238, ISSN: 1694 – 0784
16. Punam Bedi, Harmeet Kaur, Bhavna Gupta. (2013). *A Reputation based Service Provider Selection System for Delegation of Job by Farmers*. Special Issue on "Applications of Artificial Intelligence in Agriculture", Journal of the Indian Society of Agricultural Statistics (JISAS), 67(1), 23 – 32, ISSN: 0019 – 6363
17. Punam Bedi, Harmeet Kaur, Bhavna Gupta. (2013). *Trust based Access Control for Collaborative System*, Journal of Experimental & Theoretical Artificial Intelligence (JETAI), Taylor and Francis, 26(1), 109-126, DOI: 10.1080/0952813X.2013.813973, ISSN: 1362 – 3079
(SCIE indexed, Impact Factor 2022: 2.2) (Scopus indexed, CiteScore 2023: 6.1)
18. Punam Bedi, Harmeet Kaur, Bhavna Gupta. (2013). *An Agent based Reputation System for Unreliable Grid Environment*, International Journal of Modeling and Optimization (IJMO), 3(1), 74 – 79, DOI: 10.7763/IJMO.2013.V3.238, ISSN: 2010 – 3697
19. Harmeet Kaur, Deepali Jain. (2010). *Modulating Friendship Trust into Context Level Trust in Trust Based Recommender Systems*, in International Journal of Recent Trends in Engineering (IJRTE), ACEEE, USA (a division of IDES), 3(2), 58 – 63, ISSN: 2158 – 5563, DOI: 01.IJRTET.03.02.205
20. Bhavna Gupta, Harmeet Kaur, Punam Bedi. (2010). *A Reputation Based Service Provider Selection System for Farmers*, in Journal of Information Assurance and Security (JIAS), Vol. 5, 508 – 515, ISSN: 1554 – 1010
21. Punam Bedi, Harmeet Kaur, Bhavna Gupta, Jyotsna Talreja, Mansi Sood. (2009). *A Website Recommender System based on Analysis of Users Access log*, in Journal of Intelligent Systems (JIS), Special Issue on Recent Advances in Artificial Intelligence, Walter De Gruyter GmbH, 18(4), 333 – 352, ISSN: 0334 – 1860
(WoS, Scopus indexed) (Year: 2023, CiteScore: 5.9)
22. Punam Bedi, Ravish Sharma, Harmeet Kaur. (2009). *Recommender System based on Collaborative Behavior of Ants*, in Journal of Artificial Intelligence, Asian Network for Scientific Information, 2(2), 40 – 55, ISSN: 1994 – 5450
(Year: 2019, SNIP (2021): 0.864, SJR (2019): 0.134)
23. Punam Bedi, Harmeet Kaur. (2006). *Trust based Personalized Recommender System*, INFOCOM Journal of Computer Science, 5(1), 19 – 26, ISSN: 1807 – 4545
(Inspec indexed)

Conference Publications

1. Pratibha Yadav, Shweta Tyagi, Harmeet Kaur. (2025). *Ae-CB: Autoencoder-Enhanced Content-Based Recommender Systems for Cold-Start and Sparse Environments*. Accepted for publication in proceedings of the 5th International Conference on Computer Vision and Robotics (CVR 2025), NIT Goa, 25 – 26 April, 2025.
2. Musarrat Ahmed, Bhavna Gupta, Harmeet Kaur. (2024). *Language Independent Word Polarity Detection using Star Rating*. 15th International Conference on Advances in Computing, Control, and Telecommunication Technologies, ACT 2024, 21 – 22 June 2024. Grenze Scientific Society, pp. 1923 – 1930, ISBN: 979-833130057-9, doi: 01.GIJET.10.1.558_1
(Scopus indexed)
3. Musarrat Ahmed, Bhavna Gupta, Harmeet Kaur. (2024). *Word Polarity Detection incorporating Intensifiers and Negations*. 5th International Conference on Advances in Information Communication Technology & Computing-(AICTC-2024), Lecture Notes in Networks and Systems, Vol. 1074, Springer, Singapore. pp. 353 – 368, 29 - 30 April 2024, https://doi.org/10.1007/978-981-97-6103-6_23
(Scopus indexed)
4. Pratibha Yadav, Shweta Tyagi, Harmeet Kaur. (2023). *Integrating Transitivity in Collaborative Filtering-Based Recommender System*. In proceedings of the 20th India Council International Conference (INDICON) – 2023, held on December 14 – 17, 2023 organized by IEEE Hyderabad Section and National Institute of Technology, Warangal. pp. 380-385, doi: 10.1109/INDICON59947.2023.10440810
(Scopus indexed)
5. Vandana Kalra, Indu Kashyap, Harmeet Kaur. (2022). *Effect of Distance Measures on K-Nearest Neighbour Classifier*. In proceedings of the 2nd International Conference on Computer Science, Engineering and Applications (ICCSEA-2022), 8 September 2022, GIET University, Gunupur, India
(Scopus indexed)
6. Vandana Kalra, Indu Kashyap, Harmeet Kaur. (2022). *Effect of Ensembling over K-fold Cross-Validation with Weighted K-Nearest Neighbour for Classification in Medical Domain*. In proceedings of the IEEE International Conference On Machine Learning, Big Data, Cloud And Parallel Computing: Trends, Perspectives and Prospects (Com-IT-Con-2022), 26 – 27 May 2022, Manav Rachna International Institute of Research and Studies (MRIIRS), Faridabad, India.
(Scopus indexed)
7. Mansi Sood, Harmeet Kaur, and Jaya Gera. (2021). *Creating Domain Based Dictionary & its Evaluation using Classification Accuracy*. In proceedings of the 8th International Conference on Computing for Sustainable Global Development (INDIACom), 17 – 19 March 2021, Delhi, India, pp. 341–347. IEEE Xplore, ISBN: 978-1-7281-9546-9, doi: 10.1109/INDIACom51348.2021.00059.
(Scopus indexed)

8. Mansi Sood, Harmeet Kaur, and Jaya Gera. (2020). *Information Retrieval using n-grams*. In proceedings of the 3rd International Conference on Recent Trends In Advanced Computing – Artificial Intelligence and Technology, 17 – 18 December 2020, Chennai, India. Lecture Notes in Electrical Engineering, vol. 806, Springer Singapore, ISSN: 1876-1100, ISBN: 978-981-16-6447-2
(Scopus Indexed)
9. Geeta Arneja, Harmeet Kaur. (2019). *Feedback Ratings are Better Indicators of User Sentiments than Whole Review*. In proceedings of the National Conference On Emerging Trends in Information Technology (NCETIT-2019), Kalindi College, University of Delhi, 1 – 2 August 2019, pp. 38 – 47.
10. Jaya Gera, Harmeet Kaur. (2018). *Influence of personality traits on campaign success*, in proceedings of 8th International conference on cloud computing, data science and engineering (CONFLUENCE 2018), Amity University, Noida, Uttar Pradesh, India, 11 – 12 January 2018, IEEE. Doi: 10.1109/CONFLUENCE.2018.8442496
(WoS, Scopus indexed)
11. Jaya Gera, Harmeet Kaur. (2018). *Prediction Model for Crowdfunding Projects*, in proceedings of 11th International Conference on Advanced Computing & Communication Technologies (ICACCT 2018), Asia Pacific Institute of Information Technology, Panipat, Haryana, India, 17 – 18 February 2018, pp. 97 – 107. Advances in Intelligent Systems and Computing (AISC Series), vol. – 702, Springer Nature, ISSN: 2194-5357, ISBN: 978-981-13-0680-8, DOI: 10.1007/978-981-13-0680-8_10
(Scopus indexed)
12. Jaya Gera, Harmeet Kaur. (2018). *Investigation of Parameters influencing the Success of Crowdfunded Campaigns*, in proceedings of International Conference on Applications of Computing and Communication Technologies (ICACCT 2018), Shyama Prasad Mukherji College for Women, University of Delhi, 9 March 2018, Communications in Computer and Information Science (CCIS series), vol. 899, pp. 275 – 285, Springer Nature Singapore Pte Ltd., ISSN: 1865-0929, ISBN: 978-981-13-2035-4, DOI: 10.1007/978-981-13-2035-4_24
(WoS, Scopus Indexed)
13. Harmeet Kaur, Jaya Gera. (2017). *Effect of Social Media Connectivity on Success of Crowdfunding Campaigns*, in proceedings of 5th International Conference on Information Technology and Quantitative Management (ITQM 2017), Jaypee Business School, Noida, 8 – 10 December 2017, Procedia Computer Science series, ISSN: 1877-0509, vol. 122, pp. 767-774, Elsevier, <https://doi.org/10.1016/j.procs.2017.11.435>
(WoS, Scopus Indexed)
14. Jaya Gera, Harmeet Kaur. (2017). *Recommending Investors using Association Rule Mining for Crowd Funding Projects*, in proceedings of 7th International Conference on Advances in Communication, Network, and Computing (CNC '2016), De GRUYTER, 12th March 2016, Bangluru, India.
15. Purnima Yadav, Sathenapally Shrutika, Harmeet Kaur. (2017). *Comparative Study of Sentiment Analysis Techniques and its Application on Twitter*, in proceedings of National Conference of Information Technology and Business Analytics (NCITBA '2017), Jammu, India, January 7 – 8, 2017.

16. Jaya Gera, Harmeet Kaur. (2015). *Identifying Significant Features to Improve Crowd Funded Projects' Success*, in proceedings of 3rd International Conference on Innovations in Computer Science and Engineering (ICICSE '15), Hyderabad, India, August 7-8, 2015, Springer, Innovations in Computer Science and Engineering, Advances in Intelligent Systems and Computing (AISC), vol. 413, pp. 211 – 218, ISSN 2194-5357, ISBN 978-981-10-0419-3, DOI: 10.1007/978-981-10-0419-3_25
(Scopus indexed)
17. Harmeet Kaur, Deepali Jain. (2014). *Controlled Expansion of Neighborhood in Trust Based Recommender Systems*, in proceedings of International Conference on Information and Communication Technologies (ICICT '14), Kochi, India, December 3 – 5, 2014, Procedia Computer Science (2015), ISSN: 1877-0509, Vol. 46, pp. 68-77, DOI: 10.1016/j.procs.2015.01.057 2014
(WoS, Scopus indexed)
18. Punam Bedi, Bhavna Gupta, Harmeet Kaur. (2012). *Predicting Attribute based User Trustworthiness for Access Control of Resources*, in proceedings of 12th International Conference on Hybrid Intelligent Systems (HIS '12), Pune, India, pp. 294 – 299, December 04-07, 2012, USA: IEEE Xplore
(WoS, Scopus indexed)
19. Punam Bedi, Harmeet Kaur, Bhavna Gupta. (2012). *Trustworthy Service Provider Selection in Cloud Computing Environment*, in proceedings of International Conference on Communication Systems and Network Technologies (CSNT '12), Rajkot, India, pp. 714 – 719, DOI 10.1109/CSNT.2012.158, 10-14 May, 2012, USA: IEEE Xplore
(Scopus indexed)
20. Punam Bedi, Bhavna Gupta, Harmeet Kaur. (2012). *Access Control on Grid Resources Using Radial Basis Function Neural Network*, in proceedings of 2nd International Conference on Computer, Communication, Control and Information Technology (C3IT '12), Procedia Technology 4 (2012), Elsevier, pp. 336 – 341, DOI: 10.1016/j.protcy.2012.05.051, 2012
(WoS indexed)
21. Bhavna Gupta, Harmeet Kaur, Punam Bedi. (2011). *Predicting Grid User Trustworthiness using Neural Networks*, in proceedings of International Conference of World Congress on Information and Communication Technologies (WICT '11), Bombay, India, pp. 731 – 736, December 11-14, 2011
(Scopus indexed)
22. Bhavna Gupta, Harmeet Kaur, Namita, Punam Bedi. (2011). *Trust based Access Control for Grid Resources*, in proceedings of International Conference on Communication Systems and Network Technologies (CSNT '11), Jammu, India, pp. 678 – 682, DOI: 10.1109/CSNT.2011.146, June 3-5, 2011, USA: IEEE Xplore
(Scopus indexed)
23. Bhavna Gupta, Harmeet Kaur, Punam Bedi. (2009). *Trust based Personalized Ecommerce System for Farmers*, in proceedings of 4th Indian International Conference on Artificial Intelligence (IICAI '09), Tumkur (near Bangalore), India, pp. 1085 – 1093, December 16-18, 2009
(Scopus indexed)

24. Jyotsna Talreja, Mansi Sood, Harmeet Kaur, Punam Bedi, Bhavna Gupta. (2009). *Using Web Mining to Generate Recommendations: A Website Recommender*, in proceedings of 4th Indian International Conference on Artificial Intelligence (IICAI '09), Tumkur (near Bangalore), India, pp. 333 – 349, December 16-18, 2009
(Scopus indexed)
25. Harmeet Kaur, Deepali Jain. (2009). *Employing Experience for Updating Trust in Trust Based Recommender Systems*, in proceedings of 4th Indian International Conference on Artificial Intelligence (IICAI '09), Tumkur (near Bangalore), India, pp. 1581 – 1597, December 16-18, 2009
(Scopus indexed)
26. Ravish Sharma, Maulein Singh, Ramneet Makkar, Harmeet Kaur, Punam Bedi. (2007). *Ant Recommender: Recommender System Inspired By Ant Colony*, in proceedings of International Conference on Advances in Computer Vision and Information Technology (ACVIT '07), Aurangabad, India, pp. 361 – 369, November 28-30, 2007
27. Punam Bedi, Harmeet Kaur, Sudeep Marwaha. (2007). *Trust based Recommender System for the Semantic Web*, in proceedings of 20th International Joint Conference on Artificial Intelligence (IJCAI '07), Hyderabad, India, pp. 2677 – 2682, January 9-12, 2007
(WoS, Scopus indexed)
28. Punam Bedi, Harmeet Kaur. (2005). *Using Fuzzy Clustering to Determine Trust based Recommendations*, in proceedings of Indian International Conference on Artificial Intelligence (IICAI '05), Pune, India, pp. 2120 – 2136, December 20-22, 2005
(Scopus indexed)
29. Punam Bedi, Harmeet Kaur. (2005). *Trust Based Recommender System*, in proceedings of International Conference on Artificial Intelligence (ICAI '05), Las Vegas, Nevada, USA, pp. 798 – 801, June 27-30, 2005
(WoS, Scopus indexed)
30. Harmeet Kaur, Punam Bedi. (2005). *Using Fuzzy Clustering to Determine Agent Reputation*, in proceedings of International Conference on Data Mining (DMIN '05), Las Vegas, Nevada, USA, pp. 79 – 85, June 20-23, 2005
(WoS, Scopus indexed)
31. Punam Bedi, Harmeet Kaur. (2005). *Clustering Recommendations to Compute Agent Reputation*, in proceedings of Conference on Intelligent Computing: Theory and Applications III, part of the SPIE Symposium on Defense and Security, Florida, U.S.A., pp. 131 – 137, March 28 - April 1, 2005
(WoS, Scopus indexed)
32. Punam Bedi, Harmeet Kaur. (2004). *Modeling Agent Reputation in Uncertain Environment*, in proceedings of International Conference on Cognitive Science (ICCS '04), Allahabad, India, pp. 258 – 263, December 16-18, 2004
33. Punam Bedi, Harmeet Kaur. (2004). *Fuzzy Quantification of Trust*, in proceedings of International Conference on Cognitive Systems (ICCS '04), New Delhi, India, December 14-15, 2004

34. Punam Bedi, Harmeet Kaur, Ankit Malhotra. (2002). *Fuzzy Dimension To Databases*, in proceedings of 37th Annual Convention of Computer Society of India, 2002

Book Chapters

1. Vandana Kalra, Harmeet Kaur. *Large Language Models in Agriculture: From Theory to Practice*. Accepted for publication in the upcoming book, *Harvesting Intelligence: The AI Revolution in Agriculture* by Springer International.
2. Vandana Kalra, Indu Kashyap, Harmeet Kaur. (2020). *Machine Learning and Its Application in Monitoring Diabetes Mellitus*. Chapter 12. In Bhushan Patil and Manisha Vohra (Eds.), *Handbook of Research on Engineering, Business, and Healthcare Applications of Data Science and Analytics*, pp. 228 – 288, ISBN: 978-1-7998-3054-2, Hershey, PA, USA: IGI Global
(Scopus indexed)
3. Punam Bedi, Bhavna Gupta, Harmeet Kaur. (2013). *A Multiagent Framework for Selection of Trustworthy Service Providers*. Chapter 15. In Sabu M. Thampi, Bharat Bhargava, Pradeep K. Atrey (Eds.), *Managing Trust in Cyberspace*, pp. 339 – 359, ISBN (ebook): 978-1-4665-6845-7, ISBN (print): 978-1-4665-6844-0, DOI: 10.1201/b16318-16, CRC Press, Taylor & Francis Group
(WoS, Scopus indexed)

Patent

Applied for a patent (application number: 202411104205) titled “System and Method for Incremental Updates of Domain-Specific Vocabulary Using Incremental Learning” on 29th December 2024. Its status as on 17th July 2025 is “FER Issued, Reply not Filed”. Reply is under preparation and will be submitted soon.

Research Project

One of the Project Investigators of the innovation project HRC 307 (titled: DUA - Device for Uniquely Abled) for which the University of Delhi sanctioned a grant of Rs. 7.5 lakhs. The two other Project Investigators were Dr. Baljeet Kaur (Department of Computer Science) and Mr. Dibyajyoti Das (Department of Physics). There were 10 student members: 8 students of the Department of Computer Science and one student each of Department of Hindi and History. Duration: October 2015 - September 2016.

Some of the innovation projects were selected by the Research Council, University of Delhi, for display during the Convocation Ceremony of the University of Delhi on 19th November 2016 and DUA was one of them. It was also awarded the Best Poster Award in the same.

An article highlighting the project has been published by Electronics for You, a magazine with leading publications in the field of electronics and technology across the globe, titled "DUA: A Wish for Your Safety" in the July 15, 2016 issue. It is also available at the link <http://electronicsforu.com/india-corner/innovations-innovators/dua-wish-safety>.

Advisory Committee Member

1. Preeti Marwaha, Supervisor: Dr. Hema Banati. Title: *Temporal Enhancement of Web Services*. PhD awarded in June 2013. Department of Computer Science, University of Delhi.
2. Monika Bajaj, Supervisor: Dr. Hema Banati. Title: *Targeted Product Promotion using Firefly Algorithm on Social Networks*. PhD awarded in June 2013. Department of Computer Science, University of Delhi.
3. Shikha Agarwal nee Gupta, Supervisor: Dr. Archana Singhal. Title: *Semantically Enhanced Proactive News Recommender System*. PhD awarded in October 2015. Department of Computer Science, University of Delhi.
4. Nidhi Arora, Supervisor: Dr. Hema Banati. Title: *Enhancing Group Search Optimization Algorithm for Structural Analysis of Small Scale Networks*. PhD awarded in June 2019. Department of Computer Science, University of Delhi.
5. Nisha, Supervisor: Dr. Archana Singhal. *Broad Area – Information Security*. Registered since November 2018. Department of Computer Science, University of Delhi.
6. Seema, Supervisor: Dr. Hema Banati. *Broad Area – Analysis of Social Networks*. Registered since December 2019. Department of Computer Science, University of Delhi.
7. Asha Yadav, Supervisor: Dr. Hema Banati. *Broad Area – Web Content Mining*. Registered since December 2019. Department of Computer Science, University of Delhi.
8. Aarti Goel, Supervisor: Dr. Archana Singhal. *Broad Area – Artificial Intelligence*. Registered since February 2022. Department of Computer Science, University of Delhi.
9. Vandita Grover, Supervisor: Dr. Hema Banati. *Broad Area – Sentiment Analysis*. Registered since February 2022. Department of Computer Science, University of Delhi.
10. Neha Gandhi, Supervisor: Dr. Hema Banati. *Broad Area – AI Ecosystems*. Registered since October 2023. Department of Computer Science, University of Delhi.
11. Jasleen Kaur, Supervisor: Dr. Vidhi Khanduja. *Broad Area – AI-Driven Approach for Optimizing Supply Chain Orchestration*. Registered since February 2025. Department of Computer Science, University of Delhi.

Resource Person / Judge in Workshops / Content Editor / Lectures Delivered / Mentorship in Projects

1. Content Editor of Self Learning Material (SLM) of “Object Oriented Programming with C++” (DSC 04) meant for distance learners of B.Sc. (H) Computer Science Sem II of School of Open Learning (SOL), University of Delhi (March – May 2025).
2. Delivered a two hours invited talk on March 18, 2025 on the topic “Recommender System Development with Python”, in the 21 days Training Program under the aegis of ICAR-Centre for Advanced Faculty Training (CAFT) on “Tools and Techniques for Artificial Intelligence based Web Application Development in Agriculture” organized during 04 – 24 March 2025 at Division of Computer Applications, ICAR – Indian Agricultural Research Institute, New Delhi.

3. Internal Expert (Computer Science) for the Science Exhibition in the National Science Day Workshop (NSDW) on “Innovative Technologies in Scientific Research”, held on February 27, 2025 organized by the Faculty of Sciences, Hansraj College in association with HRC – SHAKTI, IQAC, IIC – HRC and RDC, Hansraj College, University of Delhi
4. Mentored the team that presented a Research Paper on “*Reviving Traditional Wisdom: Exploring Ancient Texts for Modern Insights on Medicinal Plants and Safeguarding against Harmful Species*” in the Under Graduate Research Aptitude (UGRA) competition held in the ICSSR-NRC sponsored National Seminar on "Ecological Consciousness in Ancient India: Life Then and Now," jointly organised by Harithkram and the Centre for Indian Knowledge Systems under the aegis of the Internal Quality Assurance Cell, Shaheed Bhagat Singh College, University of Delhi on April 22, 2024
5. The Internal Expert (Computer Science) for the Science Exhibition in the National Science Day Workshop (NSDW) on “Innovative Technologies in Scientific Research”, held on February 27, 2024 organized by the Faculty of Sciences, Hansraj College in association with IIC, WDC, RDC and IQAC, Hansraj College, University of Delhi
6. Judge in Round 2 Dark Patterns Buster Hackathon 2023 held on January 31, 2024 at Hansraj College, University of Delhi, organized by Indian Institute of Technology (BHU) Varanasi and the Department of Consumer Affairs, Government of India
7. Resource person for 2 Sessions on 'Database Management and Information Retrieval' for the Computer Science Teachers of Delhi Public Schools held on September 23, 2023 during the In-person Programme in Computer Science, which was organised by the Human Resource Development Centre, The Delhi Public School Society from 21 – 24 September 2023.
8. Resource person for 2 Sessions in One-Week Online National Faculty Development Program “OFDP-102: Python: Essentials, Programming and Analytics”, from 27th October to 3rd November 2022, jointly organized by University of Delhi and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education.
9. Resource person in workshop on Value Addition Course titled “Digital Empowerment”, conducted by Value Addition Courses Committee (University of Delhi) in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College on 19th October 2022 in the New Seminar Hall, Hansraj College, University of Delhi
10. Delivered a two hour lecture on "Basics Programming Skills on Python" on 8th September 2020. Held as a part of one week Online Workshop on “Machine Learning and Data Analytics Bootcamp” in collaboration with Computer Society of India (CSI) from 7th September to 12th September 2020 conducted by Department of Computer Science and Engineering, Faculty of Engineering and Technology, Manav Rachna International Institute of Research and Technology, Faridabad.
11. Delivered a one hour lecture on “Fuzzy Inferencing and Its Applications” on 21st January 2010. Held as a part of the Technical Session in one day seminar on “An Innovative Approach Towards Cutting Edge Technologies”, Technophilia – 2010. Conducted by Department of Information Technology and Department of Computer Science & Engineering, Northern India Engineering College (Affiliated to Guru Gobind Singh Indraprastha University), Shastri Park, New Delhi – 110053

12. Delivered a two and half an hour lecture on “Recommender Systems” on 20th December 2010 held as a part of Winter School on “Development of Expert Systems in Agriculture” (2 - 22 December 2010) at Division Of Computer Applications, Indian Agricultural Statistics Research Institute, Library Avenue, Pusa, New Delhi – 110012. Winter school is similar to the refresher course held in University of Delhi.

M.Phil.

1. Jyoti Verma, *Semantic Web Enabled Recommender Systems*, 2008. Madurai Kamraj University
2. Ajit Kumar, *Dynamic Channel Aware Bandwidth Management in IEEE – 802.11 Networks*, 2009. Vinayaka Missions University, Salem – 636308, Tamil Nadu, India
3. Narender Singh, *Matrix Reload Based on Remote Access Through Advance Smart Devices*, 2010. Vinayaka Missions University, Salem – 636308, Tamil Nadu, India

M.Sc. (Computer Science) Research Projects

1. Jyotsna Tutreja and Mansi Sood, *Use of Web Mining Techniques to Generate Recommendations*, 2008. Co-supervised with Dr. Punam Bedi. Department of Computer Science, University of Delhi

Administrative Responsibilities

1. Member, Committee to frame guidelines for various courses of Undergraduate level in Computer Science since September 2024
2. Member, Core Committee VAC - Digital Empowerment since April 2023

Administrative Responsibilities in the College

1. Time-table Committee Convener (Arts) for the session 2003 – 2004
2. Superintendent of Annual Examinations for the year 2008
3. Science Admissions Convener for the year 2013, 2019
4. Special Categories Admissions Enabling Committee Convener for the year 2023
5. Computer Science Department Admission-in-charge for the admissions done in 2000, 2001, 2002, 2003, 2004, 2007, 2008, 2010, 2012, 2014, 2016
6. Teacher-in-Charge for the sessions 2001 – 2002, 2002 – 2003, 2007 – 2008, 2010 – 2011, 2012 – 2013, 2015 – 2016, 2019 – 2020, 2023 – 2024
7. Suprintendent of Practical Examinations of the Computer Science Department for the sessions 2001 – 2002, 2002 – 2003, 2007 – 2008, 2010 – 2011, 2012 – 2013, 2015 – 2016, 2019 – 2020
8. Hostel Committee member for the sessions 2001 – 2002, 2002 – 2003, 2010 – 2011

9. Library Committee member for the sessions 2001 – 2002, 2002 – 2003, 2010 – 2011, 2012 – 2013, 2014 – 2015, 2016 – 2017, 2017 – 2018, 2019 – 2020, 2020 – 2021, 2021 – 2022, 2022 – 2023
10. Sports Committee member for the sessions 2001 – 2002, 2002 – 2003, 2007 – 2008, 2010 – 2011
11. Portal Committee member for the sessions 2013 – 2014, 2015 – 2016, 2016 – 2017
12. Discipline Committee member for the session 2012 – 2013, 2015 – 2016, 2018 – 2019
13. Monitoring Committee member for the session 2015 – 2016
14. Workload Committee member for the sessions 2012 – 2013, 2015 – 2016, 2019 – 2020, 2022 – 2023, 2023 – 2024, 2024 – 2025
15. Central Purchase Committee member for the session 2015 – 2016, 2019 – 2020, 2021 – 2022, 2023 – 2024
16. Students' Advisory Committee for the session 2015 – 2016
17. Garden Committee member for the session 2016 – 2017
18. Finance Committee member for the session 2018 – 2019, 2019 – 2020
19. Provident Fund Committee member for the session 2020 – 2021
20. Peer-to-Peer Learning Committee member for the session 2024 – 2025
21. Department Coordinator for compilation data of NAAC, NIRF and other related rankings for the session 2015 – 2016, 2021 – 2022, 2022 – 2023, 2023 – 2024
22. Special Category Admissions Representative, M. Sc. (Geology) Admissions in the session 2024 – 2025
23. Co-Convener, IPR and Ethical Matters (Sub-committee of Research and Development Cell), Hansraj College since May 2024
24. Department Time-Table Convener for the sessions 2024 – 2025, 2025 – 2026