

## Curriculum Vitae (CV)

| Title   | Dr. | First Name  | Shweta              | Last Name   | Tyagi | Photograph  |
|---|-----|---|---------------------|---|-------|---|
| Designation   |     |   | Assistant Professor |   |       |   |
| Department  |     |   | Computer Science    |   |       |   |
| Address (Campus)  |     | Shyama Prasad Mukherji College for Women, University of Delhi |                     |   |       |  |
| Phone Number(Campus)  |     | 11 25224499   |                     |   |       |   |
| Fax   |     |   |                     |   |       |   |
| Email   |     | shwetacs@spm.du.ac.in   |                     |   |       |   |
| Education   |     | PhD, MTech, MSc   |                     |   |       |   |
| Subject   |     | Institution   |                     | Details   |       |   |
| Ph.D.   |     | JNU   |                     | Title: Recommender Systems Based on Collaborative Filtering with Knowledge-based Components |       |   |
| M.Tech.   |     | JNU Delhi   |                     | First Division  |       |   |
| M.Sc.   |     | IIT Delhi   |                     | First Division  |       |   |
| Research Interests/ Specialization                                      |     |   |                     |   |       |   |
| Information Filtering, Recommender Systems, Soft Computing, Data Mining |     |   |                     |   |       |   |
| Teaching Experience   |     |   |                     |   |       |   |

12+ Years

### **Publications:**

#### **Book/Proceedings Edited:**

*Proceedings of National Conference on Advances in Computer and Information Technology*, Department of Computer Science, Shyama Prasad Mukherji College, University of Delhi, New Delhi, **Shweta Tyagi**, Baljeet Kaur and Pooja Vashisth (Eds.), 2016, ISBN: 978-93-5258-249-5.

*Proceedings of National Conference on Emerging Trends in Information Technology, Cyber Security- Issues and Challenges*, Special Issue of Journal of Institute of Information Technology and Management, Institute of Information Technology and Management, New Delhi, J. C. Sharma; Rachita Rana; Anil Chopra; Sandhya Maitra; Prerna Mahajan; Harsha Ratnani; Geetali Banerji; **Shweta Tyagi** (Eds.), Vol 4, Issue 1(A), pp. 1-107, Jan-June 2013, ISSN: 0976-8629.

#### **Chapters in Edited Books:**

**Shweta Tyagi**, Pratibha Yadav, Moni Arora, Pooja Vashisth. (2019) Predicting Users' Interest through ELM-Based Collaborative Filtering. In: Shukla R., Agrawal J., Sharma S., Singh Tomer G. (eds) Data, Engineering and Applications, pp 23-33, Print ISBN 978-981-13-6346-7, Online ISBN 978-981-13-6347-4. Springer, Singapore

#### **Research Papers in Journals:**

**Shweta Tyagi** and Kamal K. Bharadwaj, A Hybrid Recommender System using Rule-based and Case-based Reasoning, *International Journal of Information and Electronics Engineering (IJIEE)*, IACSIT, Vol.2(4), pp. 586-590, 2012, ISSN: 2010-3719.

**Shweta Tyagi** and Kamal K. Bharadwaj, Enhancing Collaborative Filtering Recommendations by utilizing Multi-objective Particle Swarm Optimization Embedded Association Rule Mining, *Swarm and Evolutionary Computation*, Elsevier, Volume 13, pp. 1–12, December 2013, ISSN: 2210-6502. **(Impact factor: 10)**

**Shweta Tyagi** and Kamal K. Bharadwaj, A Particle Swarm Optimization Approach to Fuzzy Case-based Reasoning in the Framework of Collaborative Filtering, *International Journal of Rough Sets and Data Analysis (IJRSDA)*, IGI Global, Vol. 1 (1), pp. 48-64, 2014, ISSN: 2334-4598, EISSN: 2334-4601.

**Shweta Tyagi** and Kamal K. Bharadwaj, A Hybrid Knowledge-based Approach to Collaborative Filtering for Improved Recommendations, *International Journal of Knowledge-Based and Intelligent Engineering Systems*, IOS Press, Vol. 18, 2, pp. 121-133, 2014, ISSN: 1327-2314 (Print), 1875-8827 (Online). **(Impact Factor: 0.7)**

Pratibha Yadav and **Shweta Tyagi**, Hybrid Fuzzy Collaborative Filtering: An Integration of Item-based and User-based Clustering Techniques, *Int. J. of Computational Science and Engineering*, InderScience, 2017, Vol. 15, 3-4, pp. 295-310, Print ISSN: 1742-7185 Online ISSN: 1742-7193 **(Impact factor: 2)**

Pratibha Yadav, **Shweta Tyagi** and Harmeet Kaur. (2023) Evolutionary Extreme Learning Machine based Collaborative Filtering, International Journal of Advanced Technology and Engineering Exploration, Vol. 10, 858-874, Print ISSN:2394-5443 Online ISSN: 2394-7454

#### **Participation in International Conferences/Workshops:**

**Shweta Tyagi** and Kamal K. Bharadwaj, Trust-Enhanced Collaborative Filtering for Knowledge-based Recommender Systems, In *proceedings of the Second International Conference on Intelligent Human Computer Interaction (IHCI 2010)*, IIIT Allahabad, India, Springer, pp.269-276, 2010, ISBN: 978-81-8489-540-7.

**Shweta Tyagi** and Kamal K. Bharadwaj, A Collaborative Filtering Framework based on Fuzzy Case-based Reasoning, In *proceedings of the International Conference on Soft Computing for Problem Solving*, Springer AISC Series, Vol 130, pp. 279-288, 2012, Print ISBN: 978-81-322-0486-2, Online ISBN: 978-81-322-0487-9.

**Shweta Tyagi** and Kamal K. Bharadwaj, Enhanced New User Recommendations based on Quantitative Association Rule Mining, In *proceedings of the 3rd International Conference on Ambient Systems, Networks and Technologies (ANT 2012)*, Niagara Falls, Ontario, Canada, Procedia Computer Science, Elsevier, 10, pp. 102 – 109, 2012, ISSN: 1877-0509.

**Shweta Tyagi** and Kamal K. Bharadwaj, Trust-Enhanced Recommender System based on Case-based Reasoning and Collaborative Filtering, In *proceedings of the 2nd International Conference on Power, Control and Embedded Systems (ICPCES – 2012)*, IEEE, pp. 1 – 4, Print ISBN: 978-1-4673-1047-5.

Pratibha Yadav, **Shweta Tyagi** and Harmeet Kaur, "Integrating Transitivity in Collaborative Filtering-Based Recommender System," 2023 IEEE 20th India Council International Conference (INDICON), Hyderabad, India, 2023, pp. 380-385

#### **Awards/Recognition:**

- JRF in Engineering and Technology
- NET qualified
- GATE score card in Mathematics

#### **Conferences/Workshops/Seminars/FDP Attended/Participated:**

- Participated in a two-week online Capacity Building Programme on “Data Science” organized under a project on “Empowering Girls to Reduce the Gender Gap in IT and ITES Sectors in South Asia Region: Training and E-Content Development Programme” during 19th May – 01<sup>st</sup> June, 2023
- Participated in One-Week Online National Faculty Development Program “Back-end, Front-end Web design & Development and App development using Flutter” 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 (PMMMNMNTT) of Ministry of Education during 27 Oct - 3 Nov 2022

- Judged the Inter-College Paper Presentation Competition on The Universal Instrument for Problem Solving ‘Mathematics’ organized by Department of Computer Science, Shyama Prasad Mukherji College on 29 January, 2022
- Participated in 2 Weeks online FDP on Full Stack Web Development organized by Finland Labs (A Unit of Revert Technology Pvt. Ltd.), 2-13 Aug, 2021
- Participated in the Webinar on “Managing References Made Easy Using Mendeley” organized by Miranda House on July 23, 2021
- Participated in the Webinar on “Latest Trends in Information Technology Industry” organized by Shyama Prasad Mukherji College for Women on Nov 7, 2020
- Participated in the “Microsoft Team Training” organized by Shyama Prasad Mukherji College for Women, 28-29 August 2020
- Participated in five-day online FDP on “Machine learning Essential for every Researcher” organized by Kongu Engineering College, Perundurai, Erode, 6-10 Aug, 2020
- Participated in the 36th Edition of BRIDGE 2018 - NEW DELHI (The Largest Industry-Institute Interaction Event of Asia), organized by ICT Academy held on 12th December 2018 at Shangri - La's - Eros Hotel, New Delhi
- Participated in a two-day Faculty Development Programme on “R Programming” at Janki Devi Memorial College, New Delhi on 6-7th Aug 2018.
- Participated in the workshop on LaTex organized by the Department of Mathematics, Shyama Prasad Mukherji College, University of Delhi on 27<sup>th</sup> September, 2016.
- Participated in National Seminar on Issues and Challenges in the Growth of Indian Economy held on 19<sup>th</sup> Feb 2013 at Institute of Information Technology and Management, New Delhi.
- Participated in National Conference on Emerging Trends in Information Technology, Cyber security - Issues and Challenges held on 7<sup>th</sup> March 2013 at Institute of Information Technology and Management, New Delhi.
- The paper entitled “Trust-Enhanced Recommender System based on Case-based Reasoning and Collaborative Filtering” is presented at the *Second International Conference on Power, Control and Embedded Systems 2012 (ICPCES-2012), IEEE, MNNIT Allahabad*.
- The paper entitled “Trust-Enhanced Collaborative Filtering for Knowledge-based Recommender Systems” is presented at the *Second International Conference on Intelligent Human Computer Interaction (IHCI 2010), Springer, IIIT Allahabad*.

#### **Conferences/Workshops/Seminars Organized/Coordinated:**

- Organized a Webinar on “Entrepreneurship: The way to Future” on 24<sup>th</sup> June, 2023
- Worked as a Teacher Coordinator for the Newsbyte edition 2021-22, a Newsletter of Department of Computer Science, Shyama Prasad Mukherji College, University of Delhi.

- Organized a UGC sponsored national seminar on "Artificial Intelligence: Towards the next Generation of Computing", 11<sup>th</sup> -12<sup>th</sup> March, 2022
- Organized an Anti-Ragging Orientation Programme on 9<sup>th</sup> February, 2022 at 12:00 pm on google meet for the students of SPM College
- Organized an online "Session on Career Counselling" for the students of BSc (Hons) Comp Sc of Shyama Prasad Mukherji College on 25<sup>th</sup> June, 2021
- Organized an online event “Session on Career Counselling” on 25<sup>th</sup> June, 2021 for the students of B.Sc. (Hons.) Computer Science
- Organized an FDP on “Introduction to Big Data Analytics” in Shyama Prasad Mukherji College on 6-7 December 2018
- Organized the event "Cloud Literacy Day" on 30 October 2018 for the students of BA (Prog) and B.Sc. (Hons) Computer Science
- Worked as a member in the Organizing committee of the FDP on Effective Teaching and Learning Practices organized in SPM College on 25-26 September 2018
- Organized a seminar on “Digital Transformation” in January 2017 for the students of B.Sc. Computer Science
- Organized a seminar on “Careers options available after Graduation” in February 2017 for the students of B.Sc. Computer Science
- Organized a technical fest “Sangtaraash” of the Department of Computer Science, Shyama Prasad Mukherji College, University of Delhi in February, 2017
- Worked as a Conference Secretary and Proceedings Editor for the successful execution of a National Conference on Advances in Computer and Information Technology (NCACIT- 2016) on 19-20 December 2016 organized by the Department of Computer Science, Shyama Prasad Mukherji College, University of Delhi
- Organized a workshop on “Personality Development Program” in February 2016 for the students of B.Sc. Computer Science and B.Tech. Computer Science.
- Organized a seminar on “Careers in IT after Graduation” in September 2015 for the student/s of B.Sc. (Hons.) Computer Science
- Organized a workshop on “Manual wired and Wireless Controlled Robot” for the students of B.Sc. Computer Science and B.Tech. Computer Science on 8<sup>th</sup> January 2015.
- Organized a workshop on “Cloud Computing” in October 2014 for the students of B.Sc. Computer Science and B.Tech. Computer Science.
- Organized a workshop on “Ethical Hacking and Cyber security” organized in March 2014 for the students of B.Sc. Computer Science, B.Tech. Computer Science, and BA Programme.
- Organized a Guest Lecture on “Advancements in Computing: Moving Towards Parallel and Distributed Systems” for the students of MCA and BCA at Institute of Information Technology and Management18th March, 2013

**Other Responsibilities:**

- **Member, Anti-Ragging Committee for the Academic Year 2019-2023**
- **Member, Placement Committee for the Academic Year 2019-2021**
- **Member, Discipline Committee for the Academic Year 2019-2023**
- **Member, Examinations Committee for the Academic Year 2021 – 2023**
- **Convener, VAC/SEC/GE Courses Committee, Ist Year for the Academic Year 2024 - 2025**
- **Member, NAAC Committee: Nov 2023 to till date**