Miranda House
UNIVERSITY OF DELHI

Name: Seema Aggarwal

Department: Computer Science

Current Designation: Associate Professor

Email id: seema.aggarwal@mirandahouse.ac.in

Academic Qualifications (reverse chronological order):
- Ph.D., Department of Computer Science, University of Delhi 2013
- Master of Computer Applications (MCA)., Department of Computer Science, University of Delhi 1992
- B.Sc. (Hons) Physics, St. Stephens College, University of Delhi 1989

Research Degree(s) (reverse chronological order):
Ph.D., Department of Computer Science, University of Delhi, 2013
(Thesis Title: Using Mutual Information for extracting Biclusters from Gene Expression Data)

Field of Specialization under the Subject/Discipline:
Analysis of Biological databases.

Prior Experience (in Software Development Industry): About 3 years
Developed system software including intelligent SCSI device drivers, kernel debuggers, RAID and fault tolerant systems.

Total Teaching Experience:

27 years

Teaching at Miranda House since:

2-9-1995

List of Publications (reverse chronological order):
(Articles in referred/peer-reviewed/UGC Care journals/ Books/Book Chapters)

- Sella, N., Manchanda, D., Gupta, I., Bundela, P., Bansal, S., Aggarwal, S.,Roy, B., Verma, M., Jolly, P. & Subramanyan, J. 2018. Use of the smartphone as a handy colorimeter. DU Journal of Undergraduate Research and Innovation 3 (2): 56-63

- Neelima Gupta and Seema Aggarwal. 2010. "MIB: Using Mutual Information for Biclustering gene expression data." Elsevier Journal of Pattern Recognition, Volume 43, Issue 8, August 2010, pages 2692-2697 (IF = 2.584).

- Neelima Gupta and Seema Aggarwal. 2009. Modelling Biclustering as an optimization problem using mutual information In Proceedings of the International Conference on Methods and Models in

Computer Science (ICM2CS09), Delhi, India, December 2009.

- Neelima Gupta and Seema Aggarwal. MIBiClus: Mutual Information based Biclustering Algorithm. International Journal of Electrical and Computer Engineering, 3(2):102-106, 2008.

- Neelima Gupta and Seema Aggarwal. MIB: Using Mutual Information for Biclustering High Dimensional Data. In Proceedings of the European Conference on Data Mining, Amsterdam, Netherlands, pages 119-123, July 2008.

- Neelima Gupta and Seema Aggarwal. SISA: Seeded Iterative Signature Algorithm for Biclustering Gene Expression Data. In Proceedings of the European Conference on Data Mining, Amsterdam, Netherlands, pages 124-128, July 2008.

Educational Resource Material Developed (reverse chronological order):

Research Guidance (reverse chronological order)

Undergraduate Research Projects DSKC (D.S. Kothari Central Inter-disciplinary Research Facility; formerly D.S. Kothari Centre for Research and Innovation in Science Education), Miranda House, University of Delhi, Delhi, at the Summer Workshops Flavor of Research

- Analysis of Crime Against Women and Cyber Security Data using Data Mining Techniques

Research Projects (reverse chronological order):

- Co PI in Delhi University Innovation Project - Mobile! My Lab Anytime Anywhere (Project Code MH 305), from 01 September 2015- October 2016.

- Worked under PI in Delhi University Research project titled "Analysis of Gene Expression Data" 2007-March 2010.

Membership Of Professional Bodies (reverse chronological order):

Administrative Responsibilities (reverse chronological order):

- Teacher-in-Charge, Department of Computer Science, Miranda House, July 2018 to till date, July 2014 to July 2016, July 2011 to July 2012, and July 1997 to July 2007.

- Member of the College Extended Admission Committee 1997-2007, 2011-2012, 2014-till date.

- Member of College IQAC team 2020-2022.

- Conceptualized, drafted the syllabus and was the Coordinator of Add-on course in "Data Science and Analytics" conducted by Department of Computer Science, 2018-till date.

- Coordinator of Add-on course in "Operations Research" conducted by Department of Computer Science and Mathematics 2015-2016.

- Nodal Officer of College for conduct of OBE for odd semester 2021.

- Member of NIRF task force 2017-2022.

- NAAC Coordinator for Computer Science Department, Miranda House, 2021.

- Member of the editorial team for NAAC 2021.

- Website and connectivity committee 2019- continuing.

- Organized a webinar "CYBER UNSAFE", 2021 attended by 210 participants on 30 Dec 2021.

- Organized a webinar "Do I Need to Be Agile?" on 12 Oct 2021.

- Organized an online Counselling Session with Mrs. Alpana Rastogi, Counsellor, Miranda House to help students cope with mental health issues due to COVID-19 and express that they are not alone on 06 May 2021.

- Organized a webinar "Managing References Made Easy Using Mendeley" in collaboration with Elsevier on 27 Jul 2021.

- Organized an online Fireside Chat on "Discovering Knowledge from Enterprise Data Sources" on 13 Oct 2020.

- Organized a workshop on "Current and Future of Digital and Cyber Forensics" on 18 Sep 2019.

- Member of the selection committee for appointment of lab staff, adhoc and guest faculty in computer science department.

- As DBT Star Coordinator (2011-2012), conducted the following workshops for students of Department of Computer Science, Miranda House

  - Robotics: Touching Lives (9 April and 10 April, 2012)

  - Scientific Visualization of Life Systems (23 March and 24 March, 2012)

- NSS Program Officer and in charge, NSS Unit: 1996-99.