Dr. Anamika Gupta Associate Professor S.S. College of Business Studies University of Delhi, Delhi

Educational Qualifications

B.Sc. (H) Mathematics from Delhi University, 1993 M.C.A. from Department of Computer Science, Delhi University, 1996 Ph.D. from Department of Computer Science, Delhi University, 2013

Work Experience

July 2001 till date: Teaching in S. S. College of Business Studies, University of Delhi Aug 1999 to June 2001: Worked as Sr. Software Engineer in Impetus Technologies. July 1996 to July 1999: Worked as Sr. Software Engineer in DCM Data Systems. Jan 1996 to June 1996: Interned at National Informatics Centre, Delhi

Life member of Computer Society of India ACM Professional Member from Dec 2019

Associate Professor in Department of Computer Science, S.S. College of Business Studies, University of Delhi since July 2001. Have five years of industry experience in Communication Technologies, more than nineteen years of teaching experience in programming languages, data mining and more than a decade of research experience in data mining. Have taught several subjects of B.Sc. (H) Computer Science, B.Tech (Computer Science), PGDCA, BIT. Some of the subjects taught are Programming using C++, Java Programming, Systems Programming, Internet Technologies, Data Mining, Data Structures, Computer Networks, Network Programming, Discrete Mathematics etc. Research interests are in the field of Association Rule Mining, Classification, Formal Concept Analysis, Machine Learning, Image Processing. Have published and presented several research papers in the international conferences.

Has been author of NCERT class XIIth Information Practices book, reviewer of NCERT class XIth book for Informatics Practices and class IXth book for ICT.

Awards and Distinctions

- 1. Received Nav Kiran award in 5th national women excellence award ceremony organized by Women International Network, on 25 Nov, 2012
- 2. Received Best Teacher Award by Govt. Of NCT of Delhi in May 2013

College Activities

Administrative activities PGDCSL Coordinator, Teacher-in-charge of Department of Computer Science, Deputy Warden – Girls Hostel, Purchase Committee Member, Governing body Member, Discipline Committee Member, Anti Ragging Committee Member, Stock Verification Committee Convenor, Annual Report Committee Convenor, teacher-in-charge for time table, teacher-in-charge for Laboratory, Admission committee member, NAAC committee member, teacher convenor for IQAC AQAR criteria 7, member of internal assessment monitoring committee, moderation committee member, Student Council member, member of selection committee for several posts

Examination Related Activities Superintendent and deputy superintendent for practical as well as theory examinations, had been head examiner in several papers over the years, has done university examination work for several years, has been involved in paper moderation work.

Student Activities Teacher-in-charge of various students activities like Kartavya – Social service forum, Darkroom – Photography Society, Fourth Wall – Dramatics Society, Kriti – Fine Arts Society, Verve – Street Play Society, Enactus (Formerly known as SIFE), IT Society, Convergence - College seminar, Crescendo – College festival, Alumni Interaction Cell etc. Started NSS chapter in college.

Books Published

- 1. Author, Textbook Development Committee, Textbook on Information Practices for class XII by NCERT, published in August 2020
- 2. Reviewer, Textbook on Information Practices for class XI by NCERT, published in August 2019
- 3. Reviewer, Textbook on Information and Communication Technology (ICT) for class IX by NCERT, published in Feb 2019

Lectures delivered/Paper Presentation

- Paper presentation (Online Mode) on "Texture Feature Extraction: Impact of Variants on Performance of Machine Learning Classifiers: Study on Chest X Ray Pneumonia Images", at 8th International Conference on Big Data Analytics, at Ashoka University, Sonipat, India on Dec 15-18 2020
- Held a workshop on "Python for Data Analysis" at SciPy Conference at IIT Mumbai on Nov 29th 2017
- 3. Delivered a lecture on "Latex-A Documentation Tool" at Refresher Course at CPDHE, DU on Mar 11, 2013
- 4. Paper Presentation on "Mining of Multi-objective Non-Redundant Association Rules in Data Streams" at 11th International Conference on Artificial Intelligence and Soft Computing (ICAISC), Poland in April 2012.
- 5. Delivered a presentation on Mining Closed-Itemset in Data Streams in Workshop on Management of Voluminous Data at Department of Computer Science, DU, Dec 2010
- 6. Paper (Poster) presentation on "Mining Closed Itemset in Data Streams" at IBM-IRL Collaborative Academia Research Exchange, IBM Research Lab, Delhi on Oct 26, 2009
- 7. Held a workshop on Association Rule Mining at DRDO in May 2009
- 8. Delivered a talk on "Creating web sites using HTML" at Refresher Courser at CPDHE, DU in June 2007
- Paper Presentation on "Incremental Classification Rules Based on Association Rules Using Formal Concept Analysis" at 4th International Conference on Machine Learning and Data Mining (MLDM), Germany, in July 2005.

Research Publications

 Gupta A., Gupta A., Verma V., Khattar A., Sharma D. (2020) "Texture Feature Extraction: Impact of Variants on Performance of Machine Learning Classifiers: Study on Chest X-Ray – Pneumonia Images", In: Bellatreche L., Goyal V., Fujita H., Mondal A., Reddy P.K. (eds) Big Data Analytics. BDA 2020. Lecture Notes in Computer Science, vol 12581. Springer.

- Suganda Gupta, Anamika Gupta, E-Assessment Tools for Programming Languages: A Review, Proceedings of International Conference on Information Technology and Knowledge Management, Annals of Computer Science and Information Systems, Vol 14, 2017, ISBN 978-83-949419-2-5
- Jyoti Joshi, Deepak Singh Pawar, Aditya Chaudhary, Anamika Gupta, E mentoring: A Framework for Alumni Network, National Conference on Innovations in IT, Management & Education – Digital India Initiative (CSI Sponsored), Delhi, Mar 2015, ISBN: 978-16-31024-51-1, Pg 158-162
- Lakshay Bhambri, Himanshu Rohilla, Surbhi Sharma, Anamika Gupta, Management System for an Educational Institute, National Conference on Innovations in IT, Management & Education – Digital India Initiative (CSI Sponsored), Delhi, Mar 2015, ISBN: 978-16-31024-51-1, pg 166-169
- Anamika Gupta, Naveen Kumar, Vasudha Bhatnagar, Mining of Multi-objective Non-Redundant Association Rules in Data Streams, 11th International Conference on Artificial Intelligence and Soft Computing (ICAISC), Poland, April 2012. LNAI 7267, ISBN 978-3-642-29347-4, pg 73-81
- Naveen Kumar, Anamika Gupta, Vasudha Bhatnagar, Lattice Based Associative Classifier, 4th Asian Conference on Intelligent Information and Database Systems (ACIIDS), Taiwan, March 2012, LNAI 7196, ISBN 978-3-642-28487-8, pg 22-31
- Anamika Gupta, Vasudha Bhatnagar, Naveen Kumar, Mining Closed Itemsets in Data Stream Using Formal Concept Analysis, 12th International Conference on Data Warehousing and Knowledge Discovery (DaWak), Spain, 2010, LNCS 6263, ISBN 978-3-642-15105-7, pp 285-296
- 8. Anamika Gupta, Vasudha Bhatnagar, Naveen Kumar, Mining Closed Itemsets in Data Streams, (Poster) IBM-IRL Collaborative Academia Research Exchange, IBM Research Lab, Delhi, Oct 26, 2009
- Naveen Kumar, Anamika Gupta, Vasudha Bhatnagar, Fast Construction of Concept Lattice, (Poster) 4th International Conference on Concept Lattices and their Applications (CLA), Tunisia, 2006, LNAI 4923, ISBN 978–3–540–78920–8, Pg 315-316
- Anamika Gupta, Naveen Kumar, Vasudha Bhatnagar, Incremental Classification Rules Based on Association Rules Using Formal Concept Analysis, 4th International Conference on Machine Learning and Data Mining (MLDM), Germany, 2005. ISBN 3540269231, LNAI 3587, pg 11-20

Journal Publications

- Gupta, A., Pandey, G., Gupta, R. *et al.* Machine Learning-Based Approach for Predicting the Altcoins Price Direction Change from a High-Frequency Data of Seven Years Based on Socio-Economic Factors, Bitcoin Prices, Twitter and News Sentiments. *Comput Econ* (2024). <u>https://doi.org/10.1007/s10614-023-10538-5</u> SCIE IF 2.0
- 2. Anamika Gupta, Khushboo Thakkar, Veenu Bhasin, Aman Tiwari and Vibhor Mathur, "Bystander Detection: Automatic Labeling Techniques using Feature Selection and Machine Learning" International Journal of Advanced Computer Science and Applications(IJACSA), 15(1), 2024. http://dx.doi.org/10.14569/IJACSA.2024.01501112

ESCI and Scopus IF 0.9

3. Gupta, A., Kochchar, S., & Joshi, A. (2023). Image Classifier based on Histogram Matching and Outlier Detection using Hellinger distance. *Journal of Applied Data Sciences*, *4*(4), 407-413. doi:https://doi.org/10.47738/jads.v4i4.114 Scopus

- 4. Shikha Gupta, Sarika Tomar, Anamika Gupta. Learner-generated YouTube presentations for formative assessment[J]. STEM Education, 2023, 3(4): 306-330. doi: 10.3934/steme.2023019 Scopus
- A. Gupta, S. Gupta, M. Bisht, P. Hooda, and M. Salik, "Document Co-citation Analysis using Concept Lattice", *Eng. Technol. Appl. Sci. Res.*, vol. 13, no. 5, pp. 11837–11842, Oct. 2023. DOI: <u>10.48084/etasr.6201</u> ESCI and Scopus IF 1.5
- 6. Sarabjeet Kaur Kochhar and Anamika Gupta (2023). Deploying Change Modeling to study the Evolution of COVID-19 related Menstrual Health Issues. Adv. Artif. Intell. Mach. Learn., 3 (3), Sep 2023:1460-1481, DOI:10.54364/aaimI.2023.1185 Scopus
- S. Rajpal, M. Agarwal, V. Kumar, A. Gupta and N. Kumar, "Triphasic DeepBRCA-A Deep Learning-Based Framework for Identification of Biomarkers for Breast Cancer Stratification," in IEEE Access, vol. 9, pp. 103347-103364, 2021, doi: 10.1109/ACCESS.2021.3093616. SCIE and Scopus IF 3.9
- 8. Anamika Gupta, Gunjan Gupta, Arjun Malhotra, Khushboo Chitre, Ojasvi aggarwal, Nitesh Kumar Gupta, Intello- An Intelligent Chatbot for Replacing FAQs, Journal of Web Engineering and Technology, STM Journals, Vol 5, No 1, April 2018, ISSN: 2455-1880 (UGC approved)
- 9. Anamika Gupta, Naveen Kumar, Vasudha Bhatnagar, Analysis of Medical Data using Data Mining and Formal Concept Analysis, International Journal of Medical and Health Sciences, World Academy of Science, Engineering and Technology, Vol 1, No 11, 2007

Book Chapters

- 1. Anamika Gupta, Saksham Jain, Prashi Goyal, Abdal Lalit, Engagement Analysis in MOOCs, Computer Society of India ADHYAYAN Magazine, Apr-Jun 2020.
- 2. Anamika Gupta, Aayush Khattar, Anshuman Gupta, Vaishnavi Verma, Texture Analysis Techniques in Image Processing, Computer Society of India ADHYAYAN Magazine, Apr-Jun 2020.
- Anamika Gupta, Kajal Gupta, Anurag Joshi, Devansh Sharma, Book Chapter on Tools for E-Assessment Techniques in Education: A Review, Handbook of Research on E-Assessment in Higher Education, Edited by Ana Azevedo (Polytechnic of Porto, Portugal) and José Azevedo (Polytechnic of Porto, Portugal), IGI Global, September 2018, ISBN: 9781522559368 DOI: 10.4018/978-1-5225-5936-8
- Vasudha Bhatnagar, Anamika Gupta, Naveen Kumar, Algorithms for Association Rule Mining, Encyclopedia of Artificial Intelligence, Information Science Reference, IGI Global, 2009
- 5. Anamika Gupta, Shikha Gupta, Naveen Kumar, Mining Frequent Closed Itemsets for Association Rules, Handbook of Research on Innovations in Database Technologies and Applications, Information Science Reference, IGI Global, 2009

Innovation Projects

1. Title: Web Based Automation for the Self-Assessment of an Educational Institute

PI: Dr. Anamika Gupta Co-PI: Dr. Poonam Verma, Principal, SSCBS, Dr. Gurjeet Kaur, Assistant Professor, SSCBS Funding Agency: University of Delhi Amount: 3.5 Lakh Rupees Period: Aug 2015 to Mar 2017 Title: E-Mentoring in DU

 Title: E-Mentoring in DU PI: Dr. Anamika Gupta Co-PI: Ms. Kishori R. Shankar, Assistant Professor, SSCBS Funding Agency: University of Delhi Amount: 3.0 Lakh Rupees Period: Nov 2013 to March 2015

Conference/Seminar/Workshop Organised

- 1. Organized Workshop on "Media Careers of Tomorrow in the Digital World", conducted by Ujjawal K. Choudhary, head of School of Media at Pearl Academy on Feb 13, 2019 at SSCBS.
- 2. Organized Lecture on "Role of IT in Market Research" by Mr. Rohit Jhamb, Senior Client Director, Ipsos, Netherlands, on Feb 28th 2019
- 3. Organized Workshop on 'Best practices against fake information' co-curated by WhatsApp and NASSCOM Foundation. On Apr 3, 2019 at SSCBS, Akash Ganga Auditorium
- 4. Organised 1-day remote assisted hands-on workshop on "ISCP" organised by FOSSEE group, IIT Mumbai on Jan 11, 2018 and another 1-day workshop on Jan 18, 2018
- 5. Organised 3-day remote assisted hands-on workshop on "Programming with Python" organised by FOSSEE group, IIT Mumbai on Jan 22-25, 2018
- 6. Organised an Industry talk on "Recent Trends in Web Technologies" by Mr. Raja Chabbara, CTO, Experience Global Mobile Technologies on Jan 17th, 2018
- 7. Organised a talk on Application Penetration testing by Mr. Karthik Verma, lecturer and examiner for the National Security Database Empanelment Programs, National Technical research Organisation, Govt of India, on Oct 2014
- 8. Organised a Workshop on Android Applications, Sept 13, 2014 to Sept 20, 2014 by NIIT technologies
- 9. Organised a Talk on Ux Design on Apr 12, 2014 by Mr. Ankur Sardana, Design Manager, Samsung
- 10. Organized a seminar on "Career Opportunities for Computer Science Graduates". 15 Counselling sessions were conducted by the B.Sc. alumni of the SSCBS College.
- 11. Organizing member of international conference on Big Data Analytics by department of computer science, DU. 3 day conference was held at IIC, Lodi Road and was attended by more than 175 researchers from all over the world.
- 12. Organized a workshop on PHP-tool for creating dynamic web pages, at SSCBS, DU in April 2013

Training Programmes and Conferences Attended

- Attended FDP on Machine learning by Prof. Ramesh Agarwal, JNU, held at SSCBS on Jan 29th – Feb 3rd 2018
- Attended workshop on R conducted by Department of Computer Science, DU on Feb 12th 2018
- 3. Attended 1-day remote assisted hands-on workshop on "ISCP" organised by FOSSEE group, IIT Mumbai on Jan 11, 2018

- 4. Attended Scipy Conference at IIT Mumbai, Nov29-30 2017
- 5. Attended Youth Adda on SDG Goal 5 organised by UNV, Pravah and Commutiny.
- Attended 4th International Seminar on Management and Computing Technologies Vision 2050 organised by Ideal Institute of Management, technology and School of Law, GGSIPU University in Aug 2017
- 7. Attended the refresher course on Computer Science/Maths/Operation Research from CPDHE, DU, Jan2-22, 2013
- 8. Attended the refresher course on Education from CPDHE, DU, Mar 1-21, 2013
- 9. Attended International Conference on Big Data Analytics, University of Delhi and University of Aizu, Dec 24-26, 2012.
- 10. Attended Workshop on Management of Voluminous Data, Department of Computer Science, University of Delhi, Dec 21-23, 2010
- 11. Attended BM-IRL Collaborative Academia Research Exchange, IBM Research Lab, Delhi, Oct 26, 2009
- 12. Attended Autonomic Computing Workshop, IBM Research Lab, Delhi, March 28, 2007
- Attended 3rd International Conference on Information Systems Security, University of Delhi, Dec 16-20, 2007
- 14. Attended 2nd Three-week Refresher Course in Computer Science, UGC-ASC, Jamia Millia Islamia, Delhi, Dec 7-28, 2006
- 15. Attended 79th Four-week Orientation Programme, UGC-ASC, Jamia Millia Islamia, Delhi, Nov 1-28, 2006
- 16. Attended 4th International Conference on Machine Learning and Data Mining in Pattern Recognition, Germany, July 9-11, 2005
- 17. Attended Workshop on Elements of Statistics in Data Mining, Department of Computer Science, University of Delhi, Dec 28-30, 2004
- Attended VLDB Summer School on Frontiers of Database Technology, IIT Delhi, June 1-4, 2004
- 19. Attended Mathematics Training and Talent Search Programme, IIT Bombay, May 24- June 19, 1993