



## Shikha Gupta, PhD

Assistant Professor

Quote: "What is the purpose of life? If one were to express this in just a word, it would have to be "happiness." The purpose of education must therefore accord with the purpose of life. - **Tsuneshaburo Makiguchi**"

[shikhagupta@sscbsdu.ac.in](mailto:shikhagupta@sscbsdu.ac.in)

Shaheed Sukhdev College  
of Business Studies  
Dr. K.N. Katju Marg, Rohini,  
Sector 16, PSP Area IV,  
New Delhi, Delhi 110089

ORCID: <https://orcid.org/0000-0002-0121-572X>

SCOPUS: <https://www.scopus.com/authid/detail.uri?authorId=56313868800>

Google Scholar:

<https://scholar.google.com/citations?user=IUdQIcMAAAAJ&hl=en>

ResearchGate: [https://www.researchgate.net/profile/Shikha\\_Gupta37](https://www.researchgate.net/profile/Shikha_Gupta37)

LinkedIn: [linkedin.com/in/shikha-gupta-cs-du](https://www.linkedin.com/in/shikha-gupta-cs-du)

### Brief Bio Sketch

In my career that spans almost two and a half decades, I worked as a software analyst in my early career and later as a teacher and researcher. My current focus in research is in the area of soft computing. At present, I am interested in the areas of scientometrics and process mining. In the past, my area of focus included application of evolutionary computing to social networks.

I have taught a varied array of courses at post-graduate and under-graduate level including Database Management Systems, Operating Systems.

### Education

<i>Ph.D. "Community Detection in Social Networks: A Quantum-inspired Evolutionary Approach"</i>	University of Delhi, Delhi, India	2018
<i>M.Phil. "Rule Mining Using Formal Concept Analysis"</i>	Madurai Kamraj University, Madurai, India	2009
<i>Master of Computer Applications</i>	University of Delhi, Delhi, India	1997
<i>B.Sc. (H) Statistics</i>	University of Delhi, Delhi, India	1994

### Awards

I am a recipient of multiple academic awards during under-graduate and post-graduate studies including the University Post-Graduate Scholarship from 1994-1996. I have also received a performance award in the year 2000 while working as a software analyst in XRT-CERG America, PA, USA.

## Employment History

	S.S. College of Business Studies, University of Delhi, India	
	Faculty	Since 2000
	XRT-CERG Inc., PA, USA	
	System Analyst	1998-2000
	HCL-Technologies, Noida	
	Software Analyst	1997

## Professional Expertise

I have been teaching Database Management Systems and Operating Systems in the recent years. Prior to that, I have taught Design and Analysis of Algorithms, Computer Graphics , Java and Internet, Theory of Computation, and C++ and OOPS.

## Research-Related Information

**M.Sc. Projects** (jointly with Prof. Naveen Kumar, University of Delhi)

2015-2016 (Major Project). Neha Gupta and Sonam Sonali. Sentiment Analysis of Citation Contexts.

2015-2016 (Minor Project). Neha Gupta and Sonam Sonali. Conference Ranking.

2014-2015 (Major Project). Isha Singhal, Stuti Mittal. Community Detection in Social Networks

2014-15 (Major Project). Tamanna Gupta. Conference Ranking Using Eigenfactor and SJR2.

2014-2015 (Major Project). Barkha Khatri. Community Detection in Multidimensional Networks.

2014-2015 (Minor Project). Tamanna Gupta, Barkha Khatri. QIEA for Community Detection in Social Networks.

2014-2015 (Minor Project). Isha Singhal, Stuti Mittal. Genetic Algorithms for Community Detection in Social Networks: Parameter Tuning.

2013-2014 (Major Project). Archi Mittal, Swati Gogia. Community Detection in Complex Networks Using Sequential and Parallel Quantum-inspired Evolutionary Algorithm- Implementation.

2013-2014 (Minor Project). Archi Mittal, Swati Gogia. Community Detection in Complex Networks using Genetic Algorithm.

2012-2013 (Major Project). Ankit Tripathi, Sheetal Taneja, Monica Bisla.

Community Detection in Large Complex Networks and Facility Location Problem.

2012-2013 (Minor Project). Ankit Tripathi, Monika Bisla, Sheetal Taneja. Quantum Inspired Genetic Algorithm for Community Detection Problem in Social Networks.

2011-2012 (Major Project). Kritika Shrivastava, Priyamvada Sharma. Application

of Machine Learning in Speech Processing.

### **Member/Reviewer Conference Committee**

- Reviewer, International Conference on Big data Analytics, 2020
- Reviewer, International Communication and Community Development Conference, 2019
- Reviewer, Journal of Parallel and Distributed Computing, 2018
- Reviewer, International Conference on Big data Analytics, 2015
- Member, Organizing Committee, International Conference on Big data Analytics, 2014
- Reviewer, International Conference on Big data Analytics, 2014
- Member, Organizing Committee, International Conference on Big data Analytics, 2012

### **Publication List**

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

Gupta, S., Kumar, N., & Bhalla, S. (2023). Citation metrics and evaluation of journals and conferences. *Journal of Information Science*. Scopus, SCI Indexed. IF 2.462, SJR 0.568, H-index 73.

Deshmukh, Sonia, Manoj Agarwal, Shikha Gupta, and Naveen Kumar. "MOEA for discovering Pareto-optimal process models: an experimental comparison." *International Journal of Computational Science and Engineering* 21, no. 3 (2020): 446-456. Scopus, ESCI Indexed, SJR 0.287, H-index 16.

Gupta, Shikha, Stuti Mittal, Tamanna Gupta, Isha Singhal, Barkha Khatri, Ajay K. Gupta, and Naveen Kumar. "Parallel quantum-inspired evolutionary algorithms for community detection in social networks." *Applied Soft Computing* 61 (2017): 331-353. Scopus, SCI Indexed. IF 3.541, SJR 1.308, H-index 97.

#### **Book Chapters: Published**

Gupta, S. & Gupta, S. "Massive Open Online Courses: Promoting Intercultural Communication". In C. Smith & G. Zhou (Eds.), *Handbook of Research on Teaching Strategies for Culturally and Linguistically Diverse International Students*, pp. 289-305. IGI Global. 2022

Gupta, Shikha, Sheetal Taneja, and Naveen Kumar. "Redefining the classroom: Integration of open and classroom learning in higher education." In *Macro-level learning through massive open online courses (MOOCs): Strategies and predictions for the future*, pp. 168-182. IGI Global, 2015.

Gupta, Anamika, Shikha Gupta, and Naveen Kumar. "Mining Frequent Closed Itemsets for Association Rules." In Encyclopedia of Artificial Intelligence, pp. 537-546. IGI Global, 2009.

### **Research Papers: Published in Conferences**

Deshmukh, S., Gupta, S., Kumar, N. GA-ProM: A Genetic Algorithm for Discovery of Complete Process Models from Unbalanced Logs. In: Sachdeva, S., Watanobe, Y., Bhalla, S. (eds.) Big-Data-Analytics in Astronomy, Science, and Engineering. BDA 2021. Lecture Notes in Computer Science, vol. 13167. Springer, Cham. 2022.

Deshmukh, S., Gupta, S., Varshney, S., Kumar, N. A Binary Differential Evolution Approach to Extract Business Process Models. In: Tiwari, A., Ahuja, K., Yadav, A., Bansal, J.C., Deep, K., Nagar, A.K. (eds) Soft Computing for Problem Solving. Advances in Intelligent Systems and Computing, vol 1392 . Springer, Singapore. 2021.

Sonia, Manoj Agarwal, Shikha Gupta, and Naveen Kumar. "Discovering pareto-optimal process models: a comparison of MOEA techniques." In Proceedings of the Genetic and Evolutionary Computation Conference Companion, pp. 286-287. 2018. H5-index 31.

Gupta, Shikha, Barkha Khatri, Tamanna Gupta, and Naveen Kumar. "Modified partition integration method for community detection in multidimensional social networks." In 2015 11th International Conference on Natural Computation (ICNC), pp. 1188-1195. IEEE, 2015. H5-index 16.

Gupta, Shikha, Sheetal Taneja, and Naveen Kumar. "Quantum inspired genetic algorithm for community structure detection in social networks." In Proceedings of the 2014 Annual Conference on Genetic and Evolutionary Computation, pp. 1119-1126. 2014. H5-index 31.

Gupta, Shikha, and Naveen Kumar. "Gpu-based massively parallel quantum inspired genetic algorithm for detection of communities in complex networks." In Proceedings of the Companion Publication of the 2014 Annual Conference on Genetic and Evolutionary Computation, pp. 163-164. 2014. H5-index 31.

Gupta, Shikha, and Naveen Kumar. "Parameter tuning in quantum-inspired evolutionary algorithms for partitioning complex networks." In Proceedings of the Companion Publication of the 2014 Annual Conference on Genetic and Evolutionary Computation, pp. 1045-1048. 2014. H5-index 31.

## **Research Papers- Presented in Conferences**

Gupta, Shikha, and Naveen Kumar. "Higher education – A paradigm shift towards integration of traditional and online education." In Academic Congress, University of Delhi, Delhi. 2012.

Gupta, Shikha, Samarth Gupta. "MOOCs: Promoting International Communication." International Communication and Community Development Conference, Notre Dame Seishin University, Okayama, JAPAN, pp. 8-20. November 16-18, 2019.