

Dr. Kavita Singh

Mobile: +919479106584

Email: singh.kavitamail@gmail.com

Educational Qualification

Qualification	University/Board	Name of Institute	Percent	Year
10 th	Uttar Pradesh Board	Lourdes Convent Girls College, Ghazipur, India	75.8%	2003
12 th	Uttar Pradesh Board	Lourdes Convent Girls College, Ghazipur, India	74%	2005
B.C.A. (Graduation)	Veer Bahadur Singh Purvanchal University Jaunpur	Technical Education and Research Institute, Ghazipur, India	79.7%	2009
M.C.A (Post- Graduation)	Pt. Ravishankar Shukla University Raipur	Pt. Ravishankar Shukla University, Raipur, India	82.07% (Gold Medallist)	2012
Ph.D.	National Institute of Technology Raipur	National Institute of Technology Raipur, Raipur, India	NA	2019

Research Area

My research focuses on developing heuristic and metaheuristic techniques for the solution of *NP-Hard combinatorial optimization problems*.

Journal Papers (Published/Communicated)

1. Kavita Singh and Shyam Sundar (2018): Two new heuristics for the dominating tree problem *Applied Intelligence, Springer-Verlag*, Volume-48, Issue 8, pp 2247-2267 [SCI Journal Impact Factor: 2.882] <https://doi.org/10.1007/s10489-017-1075-0>.
2. Kavita Singh and Shyam Sundar (2018): Artificial bee colony algorithm using problem-specific neighborhood strategies for the tree *t*-spanner problem *Applied Soft Computing, Elsevier*, Volume-62, pp 110-118, [SCI Journal Impact Factor: 4.873] <https://doi.org/10.1016/j.asoc.2017.10.022>.

3. Kavita Singh and Shyam Sundar (2019): A new hybrid genetic algorithm for the maximally diverse grouping problem *International Journal of Machine Learning and Cybernetics, Springer Berlin Heidelberg*, pp 1-20 [SCI Journal Impact Factor: 3.844] <https://doi.org/10.1007/s13042-018-00914-1>.
4. Kavita Singh and Shyam Sundar (2019): A hybrid steady-state genetic algorithm for the min-degree constrained minimum spanning tree problem *European Journal of Operational of Operational Research, Elsevier*, Volume-276, pp 88-105, [SCI Journal Impact Factor: 3.806] <https://doi.org/10.1016/j.ejor.2019.01.002>.
5. Kavita Singh and Shyam Sundar (2019): A hybrid genetic algorithm for the degree-constrained minimum spanning tree problem *Soft Computing, Springer Berlin Heidelberg*, pp 1-18 [SCI Journal Impact Factor: 2.784] <https://doi.org/10.1007/s00500-019-04051-x>.
6. Kavita Singh and Shyam Sundar: Artificial Bee Colony Algorithm using Permutation Encoding for the Bounded Diameter Minimum Spanning Tree Problem (Communicated)].

Conference Papers

1. Kavita Singh and Shyam Sundar (2017): A Heuristic for the Degree-Constrained Minimum Spanning Tree Problem. 2nd International Conference on Soft Computing: Theories and Applications (SoCTA 2017), *Springer*, 22-24 December 2017, Jhansi-India (Published) https://doi.org/10.1007/978-981-13-0589-4_33.
2. Kavita Singh and Shyam Sundar (2017): A New Heuristic for Degree-Constrained Minimum Spanning Tree Problem. International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI 2017), *Springer*, 6-8 December 2017, IIT Kanpur- India (Published) https://doi.org/10.1007/978-981-13-1132-1_12.
3. Kavita Singh and Shyam Sundar (2018): A Heuristic for the Bounded Diameter Minimum Spanning Tree Problem. 2nd International Conference on Intelligent Systems, Metaheuristics & Swarm Intelligence (ISMSI 2018), *ACM Digital Library*, March 24-25, 2018, Phuket, Thailand (Published) doi>10.1145/3206185.3206202.

Research Project

1. Worked as Project Staff in SERB sponsored project “*Metaheuristics techniques for NP-Hard Minimum Spanning Tree Problem*” under the supervision of Dr. Shyam Sundar in the National Institute of Technology Raipur, Raipur India from May 2017 to January 2019.

Work Experience

1. Worked as **Programmer** in National Informatics Centre, Government of India, Raipur, India from August, 2012 to August, 2015.

Technical Knowledge & Skill

Languages:	Angular, .NET, C++, C, R
Database:	Oracle8i/9i/10g,PostGres,MariaDB
Web Technologies:	Node.js , JavaScript, HTML5

Award

1. 2019: Received Post-Doctoral research fellowship **from IFSTTAR Research-Lab Lille France.**
2. 2017: Junior Research Fellowship under SERB sponsored project in 2017.
3. 2012: Gold Medallist award for the master degree from Pt. Ravishankar Shukla University, Raipur, in 2012.