

Dr. Pravesh Kumar

Assistant Professor
Department of Mathematics
Rajkiya Engineering College Bijnor (UP), India (Govt. College affiliated
to AKTU Lucknow)
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Educational Qualification

- PhD from IIT Roorkee in 2013.
- ME in Software Engineering from Thapar University Patiala in 2009
- MSc in Mathematics from CCS University Meeut in 2006.
- **PHD Thesis Title:** *Differential Evolution: Enhanced Variants and Applications to Global optimization Problems*
- **ME Thesis Title:** *Use of Fuzzy Set and Neural Network to Extract Fingerprint Minutiae Point and Location*

Additional Responsibilities:

- Dean Academics, Rajkiya Engineering College Bijnor
- Departmental NBA Coordinator, Rajkiya Engineering College Bijnor

Teaching/Research Experience :

- Assistant Professor in Rajkiya Engineering College (December 2017-till date)
- Assistant Professor in Jaypee Institute of Information Technology, Noida (September 2016-December 2017)
- Assistant Professor in Amity University Gurgaon (October 2014-September 2016)
- Assistant Professor in ITM University Gurgaon (July 2014 - October-2014)
- Assistant Professor in KEC Ghaziabad (Aug 2013-June 2014)
- Teaching Assistant during Ph.D at IIT-Roorkee (August 2009 to June 2013)

Awards/ Fellowships

- **GATE-2006 in Mathematics with 105 AIR (score:429 & percentile:95.74)**
- MHRD Fellowship (Teaching Assessment) during two years of M.E. (2007-09) in Computer Science and Engineering Department, Thapar University Patiala
- MHRD Junior Research Fellowship (**JRF**) for research work in Department of Applied Science and Engineering, IIT Roorkee, Saharanpur Campus from Aug, 2009 to Dec, 2009
- MHRD Senior Research Fellowship (**SRF**) for research work in Department of Applied Sciences and Engineering, IIT Roorkee, Saharanpur Campus from Jan, 2009 to June 2013.
- Full financial grant to attend the **2nd MIBISOC** technical course held at **University of Parma, Italy**, from February 21 to February 25, 2012.
- Full financial grant by **DST, Govt. of India**, to attend the international conference **IEEE SSCI held at Singapore** from April 16 to April 19, 2013.

Papers Published in International Journals

1. **Pravesh Kumar**, “Enhanced Differential Evolution with Information Preserving Selection Strategy”, International Journal of Advanced Intelligence Paradigms 2018. (Accepted) (SCOPUS)
2. Pooja Singh, Praveena Chaturvedi, **Pravesh Kumar**, “A Novel Differential Evolution Approach for Constraint Optimization”, International Journal of Bio-Inspired Computation 2018 (Accepted) (SCIE)
3. **Pravesh Kumar**, Millie Pant, M.Ali and HP Singh, “Enhanced DE with Weighted Base Vector for unconstrained global optimization” Indian Journal of Science and Technology. 2017 (Accepted) (Web of Science)
4. **Pravesh Kumar** and Millie Pant, “Recognition of noise source in multi sounds field by modified random localized based DE algorithm”, International Journal of System Assurance Engineering and Management, 2016, Springer, DOI 10.1007/s13198-016-0544-x (SCOPUS)
5. Pooja, Praveena Chaturvedi and **Pravesh Kumar**, “Control Parameters and Mutation based variants of Differential Evolution Algorithm”, Journal of Computational Methods in Sciences and Engineering, 15(4) pp. 783-800, 2015 (Scopus index)
6. Pooja, Praveena Chaturvedi and **Pravesh Kumar**, “A Cultivated Differential Evolution Algorithm using modified Mutation and Selection Strategy, Innovative Systems Design and Engineering, Vol.6, No.2, 67-74, 2015
7. **Pravesh Kumar**, Millie Pant “Modified Random Localization Based DE for Static Economic Power Dispatch with Generator Constraints”, International Journal of Bio-Inspired Computation 6(4), 250-261, 2014, ISSN: 1758-0374 (SCI Expanded Journal)
8. **Pravesh Kumar**, Sushil Kumar, Tarun Kumar Sharma and Millie Pant, “Bi-level Thresholding Using PSO, Artificial Bee Colony and MRLDE embedded with Otsu Method”, Memetic Computing, Springer, Vol 5(4), 2013, DOI 10.1007/s12293-013-0123-5, ISSN: 1865-9284 (SCIE Journal)
9. **Pravesh Kumar**, Millie Pant and V.P. Singh, “Differential Evolution with Interpolation Based Mutation Operators for Engineering Design Optimization” Advances in Mechanical Engineering and its Applications (AMEA) Vol. 2, No. 3, pp 221-231, 2012, ISSN 2167-6380
10. **Pravesh Kumar**, Millie Pant and V.P. Singh, “Two self adaptive variants of differential evolution algorithm for global optimization”, International journal of Applied Mathematics and Macheinics (IJAMM), 8 (3): 22-34, 2012. ISSN: 0973-0184
11. **Pravesh Kumar**, Sushil Kumar, Millie Pant and VP Singh, “Interpolation based mutation variants of differential evolution”, International Journal of Applied Evolutionary Computing (IJAEC), Vol. 3 (4), pp. 34-50, 2012, ISSN 1942-3594
12. **Pravesh Kumar**, Millie Pant and V.P. Singh, “Two Enhanced Differential Evolution Algorithm Variants for Constrained Engineering Design Problems”, International Journal of Computer Applications (IJCA), 7, pp. 5-8, 2012, ISSN: 0975 – 8887
13. **Pravesh Kumar** and Millie Pant, “HPDE: A Novel Hybrid PSO-DE Algorithm for Global Optimization Problems”, International Journal of Advances in Engineering Sciences, Vol-1, 2011, ISSN: 2231-0347

Papers Published/Presented in International Conferences/ Proceedings

14. **Pravesh Kumar**, Mille Pant and HP Singh, “Solving Non-Linear Optimization Problems Using IUMDE Algorithm, In pros of International conference SoCTA (Springer), 2016
15. **Pravesh Kumar** Millie Pant, Rani Astya and M Ali, “Real Life Optimization Problems Solving By IUDE, Proc in IEEE International Conference on Computing, Communication and Automation (IEEE- ICCCA2016), pp 368-372
16. **Pravesh Kumar** and Mille Pant, “Modified Single Array Selection Operation for DE Algorithm”, in Proc of International Conference on Soft Computing for Problem Solving (SocProS 2015)
17. Pooja, Praveena Chaturvedi and **Pravesh Kumar** “Population Segmentation based variant of Differential Evolution Algorithm”, in Proc of International Conference on Soft Computing for Problem Solving (SocProS 2015),
18. **Pravesh Kumar**, Dimple Singh and Sushil Kumar, “ MRLDE for Solving Engineering Optimization Problems”, In proceeding of IEEE ICCCA 2015

19. Pooja, Praveena Chaturvedi and **Pravesh Kumar**, “A cultivated differential evolution variant for molecular potential energy problem”, in *Procedia Computer Science (Elsevier) Third International Conference on Recent Trends in Computing*, SRM University, pp. 1265-1272, 2015
20. **Pravesh Kumar**, Millie Pant and VP Singh “Noisy Source Recognition in Multi Noise Plants by Differential Evolution”, 2013 Symposium Series on Computational Intelligence (IEEE SSCI-13) Singapore.
21. **Pravesh Kumar**, Sushil Kumar and Millie Pant, “Gray level Image Enhancement by Improved Differential Evolution Algorithm”, *Proceedings of Seventh International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2012) Advances in Intelligent Systems and Computing*, Volume 202, 2013, pp 443-453, *ISSN: 2194-5357*
22. **Pravesh Kumar**, Millie Pant, “Enhanced Mutation Strategy for Differential Evolution”, In *Proc of IEEE Congress of Evolutionary Computing (CEC-12)*, pp 1-6, 2012
23. **Pravesh Kumar**, Millie Pant and VP Singh, “A New Blend of DE and PSO Algorithms for Global Optimization Problems, In *Proc. International Conference IC3- 2011*, IIIT University, Noida, Springer-Verlag Berlin Heidelberg 2011, *Communications in Computer and Information Science*, Volume 168, 2011, pp 102-112, *ISSN: 1865-0929*
24. **Pravesh Kumar**, Millie Pant and V.P. Singh, “Modified Mutation Operators for Differential Evolution”, *Proceedings of the International Conference on Soft Computing for Problem Solving*, Dec 2011 (SocProS 2011), *Advances in Intelligent and Soft Computing*, Vol 130, pp 579-588, 2012, *ISSN: 1867-5662*
25. **Pravesh Kumar**, Sandeep Kumar Mogha and Millie Pant, “Differential Evolution for Data Envelopment Analysis”, In *Proc of International Conference on Soft Computing for Problem Solving (SocProS 2011) December 20-22, 2011*, *Advances in Intelligent and Soft Computing*, Vol. 130, 2012, pp 311-319, *ISSN: 1867-5662*
26. **Pravesh Kumar**, Millie Pant and V.P.Singh, “Information Preserving Selection Strategy for Differential Evolution Algorithm”, In *Proc WICT 2011*, Mumbai (IEEE)
27. **Pravesh Kumar**, Millie Pant and Ajith Abraham, “Two Enhanced Differential Evolution Variants for Solving Global Optimization Problems”, In *Proc NaBIC 2011*, Spain (IEEE)
28. **Pravesh Kumar**, Millie Pant and V.P. Singh, “Differential Evolution with Modified Mutation Strategy for Solving Global Optimization Problems”, In *Proc SEMCCO 2011*, Vishakapatnam (Springer), *Lecture Notes in Computer Science*, Vol. 7076, 2011, pp 11-18, *ISSN: 0302-9743*
29. **Pravesh Kumar** and Millie Pant, “A Self Adaptive Differential Evolution Algorithm for Global Optimization”, In *Proc SEMCCO-2010*, Springer, Verlag Berlin Heidelberg, *LNCS* 6466, pp 103-110, 2010, *ISSN: 0302-974*