

# Research Publications by Faculty Members in 2008

## Journals

1. B. Chandra, P. Paul: Fuzzy SLIQ Decision Tree Algorithm. IEEE Transactions on Systems, Man, and Cybernetics, Part B 38(5): 1294-1301, 2008.
2. Reshma Khemchandani, Jayadeva and Suresh Chandra, Linear Potential Proximal Support Vector Machines for Pattern Classification, Optimization Methods and Software, Vol. 23, No. 4, pp. 491- 500, (2008).
3. Reshma Khemchandani, Jayadeva and Suresh Chandra, Regularized Least Squares Support Vector Regression for the Simultaneous Learning of a Function and its Derivatives, Information Sciences, Vol. 178, No. 17, pp. 3402-3414,( 2008).
4. Geetam Tiwari, Joseph Fazio, Sushant Gaurav and Niladri Chatterjee: Continuity Equation Validation for Non-homogeneous Traffic. Journal of Transportation Engineering. ASCE, Vol 134, No. 3, pp 118-127, M 2008.
5. S. Dharmaraja, Vaneeta Jindal and Upkar Varshney: Reliability and survivability analysis for UMTS networks: An analytical approach IEEE Transactions on Network and Service Management, 5 (2008) PP. 132-142.
6. S. Dharmaraja, Vaneeta Jindal and Attahiru Sule Alfa: Phase Type Models for Cellular Networks Supporting Voice Video and Data Traffic, Mathematical and Computer Modelling, 47 (2008) PP. 1167 - 1180.
7. Kishor S. Trivedi Vaneeta Jindal and S. Dharmaraja, Stochastic Modeling Techniques for Secure and Survivable Systems PP. 171 - 207 in Information Assurance: Dependability and Security in Networked Systems Eds. Yi Qian, James Joshi, David Tipper and Prashant Krishnamurthy, Morgan Kaufmann, 2008.
8. Sachin Sharma H.M. Gupta and S. Dharmaraja: EGPSR: Energy aware Greedy Perimeter Stateless Routing for Large Dense Static Wireless Ad-hoc networks, Proceedings of SPECTS 2008, Edinburgh, UK, June 16 - 18, 2008, PP. 122 - 129.
9. Bharat B. Madan, S. Dharmaraja and Kishor S. Trivedi: Combined Guard Channel and Mobile Assisted Handoff for Cellular Networks, IEEE Transactions on Vehicular Technology, 57 (2008) PP. 502 - 510.
10. V.V.K. Srinivas Kumar, B.V. Rathish Kumar and P.C. Das, WEB-Spline based Mesh-free Finite Element Analysis for the Approximation of the Stationary Navier-Stokes Problem, Nonlinear Analysis Series A: Theory, Methods and Applications, Elsevier, 68 (11) 2008, pp-3266-3282.
11. Kundu, S.; Garg, Pratibha Completeness properties of the pseudocompact-open topology on  $C(X)$ . Math. Slovaca 58 (2008), no. 3, 325--338.
12. Jain, Tanvi; Kundu, S. Atsuji completions vis-à-vis hyperspaces. Math. Slovaca 58 (2008), no. 4, 497--508.

13. Anulekha Dhara and Aparna Mehra: Sequential Lagrange Multiplier Conditions for Minimax Programming Problems, *Asia-Pacific Journal of Operational Research*, Vol. 25 (2), pp. 113 - 133, 2008.
14. Deepali Gupta and Aparna Mehra: Two types of approximate saddle points, *Journal of Numerical Functional Analysis and Optimization*, Vol. 29 (5), pp. 532 - 550, 2008.
15. Mani Mehra and Nicholas Kevlahan, "An Adaptive wavelet collocation method for partial differential equations on the sphere", *Journal of Computational Physics*, Vol. 227, pp. 5610--5632, 2008.
16. Mani Mehra and Nicholas Kevlahan, "An adaptive multilevel wavelet solver for elliptic equations on an optimal spherical geodesic grid", *SIAM Journal of Scientific Computing*, Vol. 30 (6), pp. 3073-3086, 2008.
17. Mani Mehra and B. V. Rathish Kumar, "Error Estimates for linear PDEs solved by wavelet based Taylor-Galerkin Schemes", *International Journal of Wavelets, Multiresolution and Information Processing*, Vol. 7, pp. 143--162, 2008.
18. Sharma, Puneet; Nagar, Anima On dynamics of circle maps. *Far East J. Dyn. Syst.* 10 (2008), no. 2, 185--201.
19. Modani, Manish; Sharan, Maithili; Rao, S. Chandra Sekhara Numerical solution of elliptic partial differential equations on parallel systems. *Appl. Math. Comput.* 195 (2008), no. 1, 162--182.
20. Rao, S. Chandra Sekhara; Sarita Parallel solution of large symmetric tridiagonal linear systems. *Parallel Comput.* 34 (2008), no. 3, 177--197.
21. Chandra Sekhara Rao, S.; Sarita A symmetric linear system solver. *Appl. Math. Comput.* 203 (2008), no. 1, 368--379.
22. Rao, S. Chandra Sekhara; Kumar, Mukesh Exponential B-spline collocation method for self-adjoint singularly perturbed boundary value problems. *Appl. Numer. Math.* 58 (2008), no. 10, 1572--1581.
23. Rao, S. Chandra Sekhara Computation of eigenvalues of a real matrix. *Int. J. Comput. Math.* 85 (2008), no. 12, 1849--1863.
24. Rao, S. Chandra Sekhara; Kumar, Mukesh Parameter-uniformly convergent hybrid scheme for singularly perturbed boundary-value problems. *Dynamic systems and applications*. Vol. 5, 420--424, Dynamic, Atlanta, GA, 2008.
25. Sharma, R. K.; Yadav, Pooja The unit group of  $Z_pQ_8$ . *Algebras Groups Geom.* 25 (2008), no. 4, 425--429.
26. Sharma, R. K.; Prajapati, B.; Shah, S. K.  $n$ -additive mapping. *Algebras Groups Geom.* 25 (2008), no. 4, 401--412.
27. Gupta, Megha; Sharma, R. K.; Srivastava, J. B. Weight of groups of order up to 100. *Int. J. Algebra* 2 (2008), no. 17-20, 813--836.
28. Joshi, Kanchan; Sharma, R. K.; Srivastava, J. B.  $\ast$ -prime and strongly prime radicals of group algebras. *Noncommutative rings, group rings, diagram algebras and their applications*, 19--26, *Contemp. Math.*, 456, Amer. Math. Soc.,

Providence, RI, 2008.

29. Gupta, Megha; Sharma, R. K.; Srivastava, J. B. On groups and their weight. *Int. J. Algebra* 2 (2008), no. 5-8, 265--275.

30. Dhara, Basudeb; Sharma, Rajendra K. On additive mapping in semiprime rings with left identity. *Algebras Groups Geom.* 25 (2008), no. 2, 175--179.

31. Dhara, Basudeb; Sharma, R. K. On the annihilators of power values of commutators with derivations. *Int. J. Algebra* 2 (2008), no. 1-4, 91--100.

32. Dhara, Basudeb; Sharma, R. K. Derivations with power central values on Lie ideals in prime rings. *Czechoslovak Math. J.* 58(133) (2008), no. 1, 147--153.

33. Khan, M.; Sharma, R. K.; Srivastava, J. B. The unit group of  $FS_4$ . *Acta Math. Hungar.* 118 (2008), no. 1-2, 105--113.

34. Tripathi, Amitabha On sums of positive integers that are not of the form  $ax+by$ . *Amer. Math. Monthly* 115(2008), no. 4, 363--364.

35. Gautam, Sachin; Srivastava, Ashish Kumar; Tripathi, Amitabha On multicolour noncomplete Ramsey graphs of star graphs. *Discrete Appl. Math.* 156 (2008), no. 12, 2423--2428.

36. Tripathi, Amitabha; Tyagi, Himanshu A simple criterion on degree sequences of graphs. *Discrete Appl. Math.* 156 (2008), no. 18, 3513--3517.

37. Tripathi, Amitabha The postage stamp problem and arithmetic in base  $r$ . *Czechoslovak Math. J.* 58(133) (2008), no. 4, 1097--1100.

38. Tripathi, Amitabha On the Frobenius problem for geometric sequences. *Integers* 8 (2008), A43, 5 pp.

## Conference Proceedings

1. Shiblee, B. Chandra, and P. K. Kalra, Learning of New Neuron Model based on Geometric Mean with New Error Metrics, *Proc. IEEE International Conference on Systems, Man, and Cybernetics*, 1122-1127, 2008.

2. B. Chandra, M. Gupta, M.P. Gupta, A Multivariate Time Series Clustering Approach for Crime Trends Prediction, *Proc. IEEE Systems, Man and Cybernetics*, 892 - 896, 2008.

3. B. Chandra, Gaurav Saxena: A New Association Rule Mining Algorithm, *Lecture Notes in Computer Science*, 4985, 366-375, 2008.

4. Reshma Khemchandani, Jayadeva and Suresh Chandra, Incremental Twin Support Vector Machines, in the *Proc. Modeling, Computation and Optimization*, By S. K. Neogy, A. K. Das, R. B. Bapat, World Scientific Publications, pp. 263-273, (2008).

5. Sameena Shah, Ravi Kothari, Jayadeva and Suresh Chandra, *Mathematical*

Modeling and Convergence Analysis of Trail Formation, AAAI, pp 170-175, (2008).

6. A. Kirmani, N. Goela, N. Chatterjee, B. Vigoda. A Message Passing Algorithm for Active Contours. Proc. ICASSP-2008, Las Vegas, IEEE Computer Society, 2008, pp. 2089-2092, 2008.

7. Niladri Chatterje and Shiwali Mohan. Discovering Word Senses from Text Using Random Indexing. Proc. CICLING-2008, Haifa, Israel, Computational Linguistics and Intelligent Text Processing, LNCS 4919, Ed. Alexander Gelbukh, Springer, pp 299 - 310, 2008.

8. Manjeet Singh, Niladri Chatterjee and Geetam Tiwari. Analysis of Pedestrian Behaviour while Crossing Roads at Signalised Intersections. Proc. CBRI Diamond jubilee Year Conference, CBRI Roorkee, pp 554 - 562, 2008.