

Department of Mathematics

List of Publications in 2016

Journal Publications

1. Rupam Barman and Archit Pal Singh Sachdeva: Proof of a limited version of Mao's partition rank inequality using a theta function identity, *Research in Number Theory*, 2:22, pp. 2-6, 2016.
2. Chandra, B. and Sharma, Rajesh K.: Deep learning with adaptive learning rate using laplacian score, *Expert Systems with Applications*, 63, pp. 1- 7, 2016.
3. Chandra, B. and Sharma, Rajesh K.: Fast learning in Deep Neural Networks, *Neurocomputing*, 171, pp. 1205–1215, 2016.
4. Arti Singh and S. Dharmaraja: Optimal trading strategy under linear-percentage temporary impact price dynamics with conditional value-at-risk as timing risk measure, *International Journal of Decision Support Systems*, 2, pp.13 – 37, 2016.
5. Álvaro Calvachea, Viswanathan Arunachalam and S. Dharmaraja: The Transient and Asymptotic Moments for the Random Mission Time of a System, *Ciencia en Desarrollo*, 7, pp. 109 – 124, 2016.
6. Himanshu Sharma and S. Dharmaraja: Effect of outliers on volatility forecasting and Value at Risk estimation in crude oil markets, *OPEC Energy Review*, 40(3), pp. 276 – 299, 2016.
7. S. Dharmaraja, Resham Vinayak and Kishor S. Trivedi: Reliability and survivability of vehicular ad hoc networks: an analytical approach, *Reliability Engineering and System Safety*, 153, pp. 28-38, 2016.
8. Garima Mishra, S. Dharmaraja and Subrat Kar: Reducing session establishment delay using timed out packets in SIP signaling network, *International Journal of Communication Systems*, 29, pp. 262 – 276, 2016.
9. Varun Jindal and S. Kundu: Nuclear and reflexive properties of some locally convex topologies on $C(X)$, *Bollettino dell'Unione Matematica Italiana*, 8(4), pp. 315-320, 2016.
10. Didier Aussel, Rachana Gupta and Aparna Mehra: Evolutionary variational inequality formulation of the generalized Nash equilibrium problem, *Journal of Optimization Theory and Applications*, 169(1), pp.74-90, 2016.
11. Kavita Goyal and Mani Mehra: Fast diffusion wavelet method for partial differential equations, *Applied Mathematical Modelling*, 40 (7-8) , pp. 5000-5025, 2016.
12. B.S. Panda and D. Pushparaj Shetty: Strong minimum energy hierarchical topology in wireless sensor networks, *Journal of Combinatorial Optimization*, 32(1), pp. 174-187, 2016.

13. Aseem Dalal, B.S. Panda and C.A. Rodger: Total-colorings of complete multipartite graphs using amalgamations, *Discrete Mathematics*, 339 (5), pp. 1587-1592, 2016.
14. B.S. Panda and Arti Pandey: Complexity of total outer-connected domination problem in graphs, *Discrete Applied Mathematics*, 199, pp. 110-122, 2016.
15. Anuradha Sharma and Suman Bala: On the weight distributions of some q-ary cyclic codes, *Ars Combinatoria*, 128, pp. 199-208, 2016.
16. Anuradha Sharma: On cyclic codes of length pn over a finite field, *International Journal of Information and Coding Theory*, 3(3), pp. 217-233, 2016.
17. Anuradha Sharma and Suman Bala: The weight distributions of some binary cyclic codes, *Ars Combinatoria*, 126, pp. 41-63, 2016.
18. Anuradha Sharma and Saroj Rani: On constacyclic codes over finite fields, *Cryptography and Communications*, 8(4), pp. 617-636, 2016.
19. Anuradha Sharma and Saroj Rani: Repeated-root constacyclic codes of length 4 over finite fields and their Applications, *Finite Fields and their Applications*, 40, pp. 163-200, 2016.
20. Anuradha Sharma and Amit K. Sharma: Construction of self-dual codes over Z_2^m , *Cryptography and Communications*, 8 (1), pp. 83-101, 2016.
21. Pawan Kumar Mishra and Sreenadh Konijeti: Bifurcation and multiplicity of solutions for the fractional Laplacian with critical exponential nonlinearity, *Electronic Journal of Differential Equations*, 2016(203), pp. 1-9, 2016.
22. Sarika Goyal and Sreenadh Konijeti: Fractional elliptic equations with sign-changing and singular nonlinearity, *Electronic Journal of Differential Equations*, 2016(145), pp 1-23, 2016.
23. R. Dhanya, S. Prashanth, Sweta Tiwari and K. Sreenadh: Elliptic problems in R^N with critical and singular discontinuous nonlinearities, *Complex Variables and Elliptic Equations*, 61(12), pp. 1656-1676, 2016.
24. J. Giacomoni, Pawan Kumar Mishra and K. Sreenadh: Critical growth fractional Kirchhoff equation, *Complex Variables and Elliptic Equations*, 61(9), pp. 1241-1266, 2016.
25. Pawan K. Mishra and Konijeti Sreenadh: Existence and multiplicity results for fractional p-Kirchhoff equation with sign changing nonlinearities, *Advances in Pure and Applied Mathematics* 7(2), pp. 97-114, 2016.
26. J. Giacomoni, Pawan Kumar Mishra and K. Sreenadh: Critical growth fractional elliptic systems with exponential nonlinearity, *Nonlinear Analysis*, 136, pp. 117-135, 2016.

27. Tuhina Mukherjee and Konijeti Sreenadh: Critical growth fractional elliptic equations with singular nonlinearity, *Electronic Journal of Differential Equations*, 2016 (54), pp. 1-23, 2016.
28. Sarika Goyal, Pawan Kumar Mishra and K. Sreenadh: n-Kirchhoff type equations with exponential nonlinearities, *Revista de la Real Academia Ciencias Exactas, Fisicas y Naturales. Serie A Matematicas*, 110(1), pp. 219-245, 2016.
29. Jacques Giacomoni, Pawan Kumar Mishra and K. Sreenadh: Fractional elliptic equations with critical exponential nonlinearity, *Advances in Nonlinear Analysis*, 5(1), pp. 57-74, 2016.
30. Pawan Kumar Mishra, Sarika Goyal and K. Sreenadh: Polyharmonic Kirchhoff type equations with singular exponential nonlinearities, *Communications in Pure and applied Analysis*, 15(5), pp. 1689-1717, 2016.
31. J. Giacomoni, P.K. Mishra and K. Sreenadh: Critical growth problems for $1/2$ -Laplacian in \mathbb{R} , *Differential equations and Applications*, 8(3), pp. 295-317, 2016.
32. Sudhakar Chaudhary, Vimal Srivastava, V.V.K. Srinivas Kumar and Balaji Srinivasan: WEB-spline-based mesh-free finite element approximation for p-Laplacian, *International Journal of Computational Mathematics*, 93(6), pp. 1022-1043, 2016.
33. N. Shravan Kumar: Power boundedness in the Fourier and Fourier-Stieltjes algebras on homogeneous spaces, *Periodica Mathematica Hungarica* 73(2), pp. 157-164, 2016.
34. N. Shravan Kumar and S. Sivananthan: Characterisation of the Fourier transform on compact groups, *Bulletin of Australian Mathematical Society*, 93(3), pp. 467-472, 2016.
35. Shailesh Kumar Tiwari, Rajendra K. Sharma, Basudeb Dhara: Identities related to generalized derivation on ideal in prime rings, *Beitrage Zur Algebra Und Geometrie*, 57(4), pp. 809-821, 2016.
36. Reetu Siwach, R.K. Sharma and Meena Sahai: Strongly Lie solvable group algebras derived length 4, *Beitrage Zur Algebra Und Geometrie*, 57(4), pp. 881-889, 2016.
37. R.K. Sharma and Chirag Garg: On generalized-derivations in prime rings, *Rendiconti del Circolo Matematico di Palermo*, 65 (2), pp. 175-184, 2016.
38. Swati Sidana and R.K. Sharma: Finite loop algebras of RA2 loops, *Acta Scientiarum Mathematicarum (Szeged)*, 82(1-2), pp. 45-53, 2016.
39. Neha Makhijani, R.K. Sharma and J.B. Srivastava: A note on the structure of $FpkA5=J$ ($FpkA5$), *Acta Scientiarum Mathematicarum (Szeged)*, 82(1-2), pp. 29-43, 2016.
40. Anju and R.K. Sharma: A note on the distribution of self-dual normal bases generators of finite field sunder trace map, *Beitrage Zur Algebra Und Geometrie*, 57(3), pp. 573-578, 2016.

41. Rohit Gupta and R.K. Sharma: Some new classes of permutation trinomials over finite fields with even characteristic, *Finite Fields and their Applications*, 41, pp. 89-96, 2016.
42. Rohit Gupta and R.K. Sharma: On permutation polynomials over finite fields of characteristic 2, *Journal of Algebra and Its Applications* 15(7), 1650133 7 pages, 2016.
43. S. Sidana and R.K. Sharma: On the finite loop algebra of the smallest Moufang loop $M(S_3; 2)$, *Armenian Journal of Mathematics*, 8(1), pp. 68-76, 2016.
44. Dinesh Udar, R.K. Sharma and J.B. Srivastava: Restricted perfect group rings, *Communications in Algebra*, 44(9), pp. 4097-4103, 2016.
45. R.K. Sharma, B. Dhara and S.K. Tiwari: Left annihilator of commutator identity with generalized derivations and multilinear polynomials in prime rings, *Communications in Algebra*, 44(8), pp. 3611-3621, 2016.
46. Neha Makhijani, R.K. Sharma and J. Srivastava: The unit group of some special semi-simple group algebras, *Quaestiones Mathematicae*, 39(1), pp. 9-28, 2016.
47. Swati Sidana and R.K. Sharma: Units in finite loop algebras of RA2 loops, *Asian-European Journal of Mathematics*, 9(1), 1650026 (11 pages), 2016.
48. Neha Makhijani, R.K. Sharma and J.B. Srivastava: Units in finite dihedral and quaternion group algebras, *Journal of the Egyptian Mathematical Society*, 24 (1), pp. 5-7, 2016.
49. Swati Maheshwari and R.K. Sharma: The unit group of group algebra $F_q SL(2; Z_3)$, *Journal of Algebra Combinatorics Discrete Structures and Applications*, 3(1), pp. 1-6, 2016.
50. Ritumoni Sarma and Seema Kushwaha: On finite semi-regular continued fractions, *Integers* 16, Paper No. A45, 11 pages, 2016.
51. S. K. Prajapati and R. Sarma: Total character of a group G with $(G; Z(G))$ as a generalized Camina pair, *Canadian Mathematical Bulletin*, 59(2), pp. 392-402, 2016.
52. Abhishake and S. Sivananthan: Multi-penalty regularization in learning theory, *Journal of Complexity*, 36, pp. 141-165, 2016.
53. Amitabha Tripathi: On the Frobenius problem for $\{a; ha+d; ha+bd; ha+b2d; \dots; ha+bkd\}$, *Journal of Number Theory*, 162, pp. 212-223, 2016.
54. Amit Priyadarshi: Continuity of the Hausdorff dimension for graph-directed system, *Bulletin of Australian Mathematical Society*, 94(3), pp. 471-478, 2016.
55. Ethan Akin, Joseph Auslander and Anima Nagar: Variations on the concept of topological transitivity, *Studia Mathematica*, 235 (3), pp. 225-249, 2016.

56. P. Viswanathan, M.A. Navascués and A.K.B. Chand: Associate fractal functions in L^p -spaces and in one-sided uniform approximation, *Journal of Mathematical Analysis and Applications*, 433(2), pp. 862-876, 2016.
57. P. Viswanathan, M.A. Navascués and A.K.B. Chand: Fractal polynomials and maps in approximation of continuous functions, *Numerical Functional Analysis and Optimization*, 37(1), pp.106-127, 2016.
58. M.F. Barnsley, B. Harding, A.Vince and P.Viswanathan: Approximation of rough functions, *Journal of Approximation Theory*, 209, pp. 23-43, 2016.
59. A.K.B. Chand, M.A. Navascués, P.Viswanathan, S.K. Katiyar: Fractal trigonometric polynomials for restricted range approximation, *Fractals*, 24, 1650022, 11 pages, 2016.

Conference Publications

1. B. Chandra, Rajesh K. Sharma: On Improving the Efficiency of Complex-Valued ELM, 2016 International Joint Conference on Neural Networks (IJCNN), pp. 4438 – 4442, 2016.
2. Arti Pandey and B.S. Panda: b -disjunctive total domination in graphs: algorithm and hardness results, *Lecture Notes in Computer Science*, 9602, 277-288, 2016.