

List of Publications of Prasanta K. Jana, *IEEE Senior Member*

Edited Books: 02 International Journals: 19 National Journals: 05

International Conferences: 30 National Conferences: 09 Total: 65

Books / Conf. Proceedings

1. P. K. Jana et al. *Recent Advances on Information Technology, (Proc. of the National Seminar (RAIT-2007)*, Feb. 26-27, 2007, ISM University, Dhanbad), Allied Publishers Pvt. Ltd., New Delhi, 2007.
2. C. Kumar, S. Mukhopadhyay, G. P. Biswas and P. K. Jana, *Recent Advances on Information Technology, (Proc. of the National Seminar (RAIT-2009)*, Allied Publishers Pvt. Ltd., New Delhi, 2009.

International Journals

3. Dheeresh K. Mallick and P. K. Jana, "OTIS-MOT: An Efficient Interconnection Network for Parallel Processing", *Journal of Supercomputing (Springer)*, DOI: 10.1007/s11227-010-0479-y (available online from 15 September 2010).
4. K. T. Lucas and P. K. Jana "Sorting and routing on OTIS-Mesh of Trees," *Parallel Processing Letters (World Scientific)*, Vol. 20, No. 2, pp.145-154, 2010.
5. S. K. Jha, P. K. Jana, R. Yadav, B. Sinha, S. Srivastava, "Improved algorithms for balanced ring formation for fault tolerance in a 2D-Mesh," *Intl. Journal of Computers and Applications (ACTA press)*, Vol. 32, No. 3 , pp. 232-237, 2010.
6. S. K. Jha and P. K. Jana "Parallel algorithm for time series based forecasting on OTIS-Mesh" *Intl. Journal of Computer Applications*, Vo. 1, No. 26, pp. 73-80, 2010.
7. P. K. Jana and Azad Naik, "An upper bound analysis for conflict graph construction in a galled tree problem" *Intl. Journal of Advanced Computer Engineering*, Vol. 3, No.1, 2010, pp. 35-40.
8. S. K. Jha and P. K. Jana "Parallel matrix multiplication on OTIS-torus" Appearing in *Intl. Journal of Advanced Computer Engineering*, Vol. 3, No. 2, 2010.
9. P. K. Jana, Mukha Prasad and Ayush Raj, "A voronoi diagram based clustering algorithm" Appearing in *Intl. Journal of Advanced Computer Engineering*, Vol. 3, No.2, Dec. 2010.

10. K. T. Lucas and P. K. Jana “Parallel algorithms for finding polynomial roots on OTIS-Torus,” *Journal of Supercomputing* (Springer) DOI 10.1007/s11227-009-0312-7, (available online from 7 July 2009).
11. P. K. Jana and Koushik Sinha “Permutation algorithms on optical multi-trees,” *Computers and Mathematics with Applications* (Elsevier Science), Vol. 56, 2008, pp. 2656–2665.
12. P. K. Jana, “Polynomial interpolation and polynomial root finding on OTIS-Mesh,” *Parallel Computing* (Elsevier Science), pp. 301-312, Vol. 32, No. 4, 2006.
13. P. K. Jana and B. P. Sinha “An improved parallel prefix algorithm on OTIS-Mesh,” *Parallel Processing Letters* (World Scientific), pp. 429-440, Vol. 16, No. 4, 2006.
14. P. K. Jana, “Multi-mesh of trees with its parallel algorithms,” *Journal of System Architectures* (Elsevier Science), pp. 193-206, Vol. 50, No. 4, 2004.
15. P. K. Jana, B. D. Naidu, S. Kumar, M. Arora, and B. P. Sinha, “Parallel prefix computation on extended multi-mesh network,” *Information Processing Letters* (Elsevier Science), pp. 295-303, Vol. 84, No. 6, October 2002.
16. P. K. Jana, “Forecasting on a tree with additional ring connections,” *Advances in Modeling* (France), pp. 15-24, Vol. 7, No.3, 2002.
17. P. K. Jana and B. P. Sinha, “Fast parallel algorithms for Graeffe’s root squaring technique,” *Computers and Mathematics with Applications*, (Pergamon-Elsevier), pp. 71-80, Vol. 35, No. 3, 1998.
18. P. K. Jana, “Polynomial interpolation on a mesh of trees,” *Advances in Modeling and Analysis* (France), pp. 31-38, Vol. 4, No. 1,2, 1999.
19. P. K. Jana and B. P. Sinha, “Fast parallel algorithms for forecasting,” *Computers and Mathematics with Applications*, (Pergamon-Elsevier), pp. 39-49, Vol. 34, No. 9, 1997.
20. P. K. Jana and B. P. Sinha, “Efficient parallel algorithms for Lagrange and Hermite interpolation,” *Intl. Journal of Applied Science and Computations* (USA), pp. 118-136, Vol. 4, No. 2, 1997.
21. P. K. Jana and B. P. Sinha, “Fast parallel algorithms for polynomial interpolation,” *Computers and Mathematics with Applications*, (Pergamon-Elsevier), pp. 85-92, Vol. 29, No. 4, 1995.

National Journals

22. P. S. Bishnu and P. K. Jana, “K-Means algorithm: A survey with special emphasis on microarray data analysis,” *Bioinformatics Trends*, pp. 89-96, Vol. 3, No. 4, 2008.
23. P. K. Jana and Nikesh Kumar, “A new parallel algorithm for sequence alignment,” *Bioinformatics Trends*, pp. 81-88, Vol. 1, No. 4, 2006.

24. Dheeresh K. Mallick and P. K. Jana, "Parallel Algorithm for General Step of some numeric computations" *Journal of CSI*, pp. 2-9, Vol. 35, No. 4, October, 2005.
25. P. K. Jana, A. S. Brahmachary and V. S. Yagnick "Backtrack solution for finding sorted king sequence in a tournament," *Journal of CSI*, pp. 33-36, Vol. 35, No. 1, 2005.
26. P. K. Jana, K.Srinivas and A. Chattopadhyay, "Parallel generation of Sturm sequence for solving eigen value problem," *Journal of CSI*, pp. 1-7, vol. 31, No. 3, September, 2001.

International Conferences / Edited Volumes

27. S. K. Jha and P. K. Jana, "Shortest path routing on multi-mesh of trees", Accepted in the *Intl. Conf. of Parallel and Distri. Computing*, London, U.K., 6-8 July 2011.
28. S. K. Jha and P. K. Jana, "Fast parallel prefix on multi-mesh of trees", *Proc. of IEEE Intl. Conf. on Computer and Comm. Technologies (ICCCT-2010)*, 17-19 Sep. 2010, MNNIT, Allahabad, pp. 641-646.
29. Damodar Reddy, Devender Mishra, P. K. Jana, "MST-based cluster initialization for K-means," Accepted for publication in *Proc. of Intl. Conf. COSIT-2011, LNCS (Springer)*
30. N. Kumar, R. Kumar, D. K. Mallick and P. K. Jana, "Hamiltonicity of a general OTIS network," *Lecture Notes in Computer Science, LNCS 5935 (Springer), Heidelberg*, pp. 459-465, 2010.
31. S. K. Jha and P. K. Jana, "A new distributed approach for building balanced ring for fault tolerance in mesh architecture", *Proc. of Intl. Conf. on Methods and Models in Computer Science (ICM2CS09)*, 14-15 Dec. 2009, JNU, New Delhi, pp. 330-333.
32. P. K. Jana and Azad Naik, "An efficient minimum spanning tree based clustering algorithm" *Proc. of Intl. Conf. on Methods and Models in Computer Science (ICM2CS09)*, 14-15 Dec. 2009, JNU, New Delhi, pp. 199-203.
33. K. T. Lucas and P. K. Jana "An efficient parallel sorting algorithm on OTIS-Mesh of Trees," *Proc. IEEE Intl. Advance Computing Conf. (IACC'09)* 6-7 March, 2009, Patiala, India, pp. 175-180.
34. K. T. Lucas, D. K. Mallick and P. K. Jana "Parallel algorithm for conflict graph on OTIS triangular array," *Lecture Notes in Computer Science, LNCS 4904, (Springer), Heidelberg*, pp. 274-279, 2008.
35. D. S. Rao, G. N. Kumar, D. K. Mallick and P. K. Jana "Parallel construction of conflict graph for phylogenetic network problem," *Lecture Notes in Computer Science, LNCS 4815 (Springer), Heidelberg*, pp. 398-405, 2007.
36. D. K. Mallick and P. K. Jana "Matrix Multiplication on OTIS k -ary 2-cube Network," *Proc. of the Intl. Conf. on Parallel and Distri. Processing Techniques and Applications (PDPTA'08)*, Las Vegas, Nevada, USA, 13-17 July, 2008, pp. 224-228.

37. D. K. Mallick and P. K. Jana "Parallel prefix on mesh of trees and OTIS mesh of trees," *Proc. of the Intl. Conf. on Parallel and Distri. Processing Techniques and Applications (PDPTA'08)*, Las Vegas, Nevada, USA, 13-17 July, 2008, pp. 359-364.
38. D. K. Mallick, K. T. Lucas and P. K. Jana "Parallel Lagrange Interpolation on Augmented Optical Multi-trees (OMULT)," *Proc. of Intl. Conf. on Emerging Applications of IT (EAIT-06)*, Feb. 10-11, 2006, Science City, Kolkata.
39. P. K. Jana, "Parallel Sequence Alignment: A Lookahead Approach," *Pattern Recognition and Machine Intelligence: Lecture Notes in Computer Science, LNCS (Springer)*, Heidelberg, pp. 636-639, 2005.
40. P. K. Jana, "Polynomial interpolation on OTIS-Mesh optoelectronic computers," *Distributed Computing-IWDC 2004: Lecture Notes in Computer Science, LNCS (Springer)*, Heidelberg, pp. 373-378, 2004.
41. P. K. Jana, "Improved parallel prefix computation on optical multi-trees," *Proc. of IEEE Indicon 2004*, IIT Kharagpur, India, 20 - 22 Dec. 2004, pp. 414-418.
42. P. K. Jana and Koushik Sinha "Bit reversal permutation on optical multi-trees (OMULT)," *Proc. of 12th Intl. Conf. on Advanced Computing and Comm. (ADCOM 2004)*, Ahmedabad, India, 15-18 December 2004.
43. P. K. Jana and Pravin C. Gokina "Parallel forecasting algorithm on linear array," *Proc. of 7th Intl. Conf. on Information Technology (CIT 2004)*, Hyderabad, India, 20-23 December 2004.
44. D. Mondal and P. K. Jana, "Neighborhood property of OTIS-Mesh optoelectronic computer," *Proc. of 7th Intl. Symposium on Parallel Architectures, Algorithms and Networks ISPAN-04 (IEEE)*, Hong Kong, 10-12 May 2004 pp. 458-462.
45. P. K. Jana, "A neural network based time series forecasting," *Proc. of Intl. Conf. on Intelligent Sensing and Information Processing ICISIP-04 (IEEE)*, Chennai, 4-7 January 2004, pp.329-331.
46. Swagta Saha and P. K. Jana, "A parallel algorithm for medial axis transformation," *Parallel and Distributed Processing and Applications, Lecture Notes in Computer Science, (Springer) 2003*, pp. 356-361.
47. Kaushik Chakraborty and P. K. Jana, "Parallel Evaluation of Chebyshev Polynomials: A Cyclic Reduction Approach" *Proc. 3rd Intl. Conf. on Information Technology, CIT' 2002*, Bhubaneswar, India, December 21-24, 2002.
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49. S. Kumar, M. Arora and P. K. Jana, "Constant time parallel algorithm for submesh allocation and job scheduling on partitionable mesh connected system (PMCS)" *Proc. of 3rd Intl. Conf. on Information Technology*, Bhubaneswar, India, Dec. 20-23, 2000.
50. P. K. Jana and J. Dattagupta, "Mapping algorithms on augmented tree (AT)," *Proc. of the 7th Intl. Conf. on Adv. Comp. and Comm. (ADCOM '99)*, December 20-22, 1999, Roorkee, pp. 172-176, 2000.

51. S. Kumar, M. Arora and P. K. Jana, "Efficient parallel prefix computation and list ranking on Multi-mesh (MM) topology," in *Proc. of the 7th Intl. Conf. on Adv. Comp. and Comm. (ADCOM '99)*, Dec. 20-22, 1999, Roorkee, India, pp. 73-77, 2000.
52. P. K. Jana, "Finding polynomial zeros on a multi-mesh of trees (MMT)," *Proc. of the 2nd Intl. Conf. on Information Technology (CIT '99)*, December 20-22, 1999, Bhubaneswar, India), pp. 202-206, 2000.
53. P. K. Jana and B. P. Sinha, "Efficient parallel algorithms for finding polynomial zeros," *Proc. of the 6th Intl. Conf. on Advanced Computing and Comm. (ADCOM '98)*, December 14-16, 1998, Pune, India, pp. 189-196, 1999.
54. P. K. Jana, "Systolic design for generating Sturm sequence for solving eigen value problems," *Proc. of Intl. AMSE Conf. on Computer Modeling, Simulation and Comm. (CMSC-99)*, Jaipur, India December 1-3, 1999.
55. P. K. Jana, "Systolic design and algorithm for generating discrete orthogonal polynomials," *Proc. 4th Australasian Conf. on Parallel and Real-Time Systems (PART '97)*, Newcastle, Australia, September 29-30, 1997.
56. A. Mahanti, A. Garg, P.K. Jana, "Polynomial interpolation on orthogonal multiprocessors", *Intl. Conf. on Modelling and Simulation (MS'97)*, Australia, October 1997, pp. 11-20.

National Conferences

57. S. K. Jha and P. K. Jana, "Fast data concentration on OTIS-Mesh of Trees" *Proc. of the National Seminar FECIT 2008*, Indian School of Mines, Dhanbad, 13-15 October, 2008, pp. 162-168.
58. K. T. Lucas and P. K. Jana, "All-to-all broadcast on OTIS-Ring optoelectronic Computer," *Proc. of the National Seminar on Recent Advances on Information Technology*, Allied Publishers Pvt. Ltd., pp. 171-177, 2007.
59. D. K. Mallick and P. K. Jana, "Finding Hamiltonian cycle of OTIS network with its application to Lagrange interpolation," *Proc. of the National Seminar on Recent Advances on Information Technology*, Allied Publishers Pvt. Ltd., pp. 51-58, 2007.
60. P. K. Jana, "Some new parallel algorithms on OTIS-Mesh optoelectronic computer" *Proc. of the Workshop on Internet and Applications*, Indian School of Mines, Dhanbad, 10-20 December, 2003, pp. 292-299.
61. S. Kumar, M. Arora and P. K. Jana, "Parallel algorithm for statistical forecasting on Illiac network" *Mathematical Applications in Social and Industrial Sectors: Narosa*, New Delhi, pp. 319-328, 2001.
62. P. K. Jana, "Solving Numerical Problems on Parallel Computers" *Proc. of National Seminar on Advances in Mathematical, Statistical and Computational Methods in Science and Technology*, Indian School of Mines, Dhanbad, November 29 – 30, 2001.
63. S. P. Basu, T. Roy Chowdhury, J. Mahapatra and P. K. Jana, "A practical analysis for the survival of small drug industries," *Proc. of 17th Asian Congress of Pharmaceutical*

Sciences and 50th Indian Pharmaceutical Congress Golden Jubilee Commemoration,
Mumbai, India, December 10-13, 1998, pp. 182.

64. P. K. Jana, "Parallel algorithms for generating traversal listings of a tree," *Proc. of Conf. on Graph Theory and Applications*, University of Mumbai, India, April 23-26, 1997.
65. P. K. Jana, "Design of a linear array for generating discrete orthogonal polynomials," *Proc. of National Symposium on Recent Trends in Computer Applications in Engineering*, Punjab, India, March 8-9, 1996.