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- [1] X. Jiang, A. Pattavina, and S. Horiguchi, "Strictly nonblocking f-cast photonic networks", *IEEE/ACM Trans. Netw.*, Vol. 16, no. 3, pp. 73245, 2008.
- [2] F. Bistouni, and M. Jahanshahi, "Improving the reliability of the Benes network for use in large-scale systems", *Microelectron. Reliabil.*, Vol. 55, no. 3, pp. 67995, 2015.
- [3] R. Aggarwal, and L. Kaur, "An efficient Routing Scheme to provide more Fault-tolerance for an Irregular Multistage Interconnection Network", *Advance Computing Conference, IEEE International*, 2009, pp. 948.
- [4] F. Bistouni, and M. Jahanshahi, "Improved extra group network: a new fault-tolerant multistage interconnection network", *J. Supercomput.*, Vol. 69, no. 1, pp. 16199, 2014.
- [5] R. He, and J. G. Delgado-Frias, "Fault tolerant interleaved switching fabrics for scalable high-performance routers", *Parallel Distribut. Syst. IEEE Trans.*, Vol. 18, no. 12, pp. 172739, 2007.
- [6] C. C. Fan, and J. Bruck, "Tolerating multiple faults in multistage interconnection networks with minimal extra stages", *Comput. IEEE Trans.*, Vol. 49, no. 9, pp. 9981004, 2000.
- [7] X. Shen, F. Yang, and Y. Pan, "Equivalent permutation capabilities between time-division optical omega networks and non-optical extra-stage omega networks", *IEEE/ACM Trans. Netw.*, Vol. 9, no. 4, pp. 51824, 2001
- [8] Y. Yang, and J. Wang, "Routing permutations on baseline networks with node-disjoint paths", *Parallel Distribut. Syst. IEEE Trans.*, Vol. 16, no. 8, pp. 73746, 2005.
- [9] P. H. Pham, J.Song, J.Park, and C.Kim, "Design and implementation of an on-chip permutation network for multiprocessor system-on-chip", *Very Large Scale Integration (VLSI) Syst. IEEE Trans.*, Vol. 21, no. 1, pp. 1737, 2013.
- [10] Ved Prakash Bhardwaj and Nitin, "On the Performance Analysis of IASEN-3 in Faulty and Non-faulty Networks Conditions", *Proceedings of AASRI Conference on Intelligent Systems and Control*, pp. 104–109, 2013.
- [11] A. Sheta, "Parameter Estimation of Software Reliability Growth Models by Particle Swarm Optimization", *ICGST-AIML Journal*, Vol. 7, No.7, June,2007, pp.55-61.
- [12] R. Aggarwal and L. Kaur, "On Reliability Analysis of Fault-tolerant Multistage Interconnection Networks", *International Journal of Computer Science and Security*, Vol. 2, No. 4, August 2008, pp. 1-8.
- [13] J. Nathaniel Davis, William, Tsun-yuk Hsu and H. J. Siegel, "Fault location techniques for distributed control interconnection networks", *IEEE Transactions on Computers*, Vol. C-34, No.10, October 1985.
- [14] V. P. Kumar and S. M. Reddy, "Design and analysis of fault-tolerant multistage interconnection networks with low link complexity", *Proceedings of 12th International Symposium on Computer Architecture*, 1985 June, pp. 376-386.
- [15] Bansal, P. K., Joshi, R.C., Singh, K., "On a Fault tolerant Multistage Interconnection Network", *International Journal of Electronics and Electrical Engineering*, 20(4), pp. 335-345,1994.
- [16] Aggarwal R., Aggarwal H. and Kaur L., "On Bandwidth analysis of Irregular Fault-tolerant Multistage Interconnection networks", *International Review on Computers and Software*, Vol. 3, No. 2, March 2008, pp. 199-202.
- [17] Bansal P.K, Singh Kuldeep and Joshi R.C., "Quad Tree: A Cost-Effective Fault-Tolerant Multistage Interconnection network", *Proceeding of International Conference IEEE INFOCOM*, 1992, pp. 6D.1.1-6D.1.7.
- [18] Ved Prakash Bhardwaj and Nitin, "A New Fault Tolerant Routing Algorithm for IASEN-2", *Proceeding of second International Conference on Advances in Computing and Communications*, pp199-202, 2012.
- [19] Karamjit Kaur Cheema, Rinkle Aggarwal, "Design Scheme and Performance Evaluation of a new Fault-tolerant Multistage Interconnection Network", *IJCSNS International Journal of Computer Science and Network Security*, VOL.9 No.9, pp. 270-276, September 2009.

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