

# Special Issue on Advances in Computing and Communications

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## **Abstract**

This editorial introduces the papers selected for this special issue from the 1st International Conference on Advances in Computing and Communications (ACC-2011).

**Keywords:** Computing, communication.

## Editorial

This special issue comprises selected best papers of first International Conference on Advances in Computing and Communications (ACC2011). ACC2011 was held in Kochi during July 22-24, 2011. ACC2011 was organized in association with Association of Computing Machinery (ACM) - SIGWEB, Machine Intelligence Research Labs (MIR Labs), International Society for Computers and Their Applications, Inc. (ISCA), Computer Society of India (CSI), The Institution of Electronics and Telecommunication Engineers (IETE), The Institution of Engineers (India) and Project Management Institute (PMI). ACC2011 was a three-day conference which provided an opportunity to bring together students, researchers and practitioners from both academia and industry. The conference was focused on advances in computing and communications and it attracted many local and international delegates, presenting a balanced mixture of intellects from the East and from the West.

There are FIVE papers in this special issue.

The paper by Ranjeet Singh Tomar, "Safety of Lane Change Maneuver Through A Priori Prediction of Trajectory Using Neural Networks" employed a neural network for long term forecast of the lane change trajectory and for short term near future positions of the Lane change (LC) vehicle [1]. The network trained using past LC trajectories is used for long and short term forecast of the vehicle's positions during LC.

The paper by Florian Schatz, Sven Koschnicke, Niklas Paulsen, and Manfred Schimmler, "Performance Computing in an EC2 Cloud Using MPI" proposes a master/slave selection algorithm for the EC2 cloud service based on a benchmark [2]. The crucial task of selecting the right master in the set of cloud instances is accomplished optimally.

The paper by Santi P. Maity, "Adaptive Technique for CI/MC-CDMA System using Combined Strategy of Genetic Algorithms and Neural Network" proposes a power allocation scheme in CI/MC-CDMA system using combined Genetic algorithms and neural networks [3]. Author claims that channel capacity and bit error rate performance obtained for the adaptive system is significantly better than the non-power adaptive systems.

The paper by Ashwani Singh and Henry Chandran, "Low complexity FEC Systems for Satellite Communication" introduces a next generation 4K LDPC code designed for low power application in satellite communication domain [4].

The paper by Fan Yu and Subir Biswas, "MAC Protocol Switching: A Novel Tool for Performance Adaptation in Wireless Sensor Networks" presents a distributed MAC protocol switching mechanism for maximizing network throughput in the presence of traffic and topology heterogeneity [5].

We hope that this special issue provides a better understanding of advances in computing and communications. To conclude, we would like to thank the authors who submitted their work to this special issue. We would also like to thank the reviewers for their comprehensive reviews and constructive comments. Finally, we wish to express our thanks to Jaime Lloret Mauri, Editor-in-Chief, Network Protocols and Algorithms for his help and cooperation.

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