

Report of the Conference
Second International Conference
On
Eco-friendly Computing and Communication Systems

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ICECCS 2013

17 – 19 October, 2013

Organized by



Department of Mathematics
Jaypee University of Information Technology, Waknaghat
Solan – 173 234 (H.P.)

[Report Submitted by: Dr. Rakesh K Bajaj, Organizing Chair – ICECCS 2013]

The Second International Conference on Eco-friendly computing and communication systems has been successfully completed during October 17-19, 2013. The conference provided a platform for leading experts from green computing, embedded systems programming and high-performance computing community to present and discuss the timely issues, recent advances, their latest research, exchange ideas, and brainstorming applications. The first edition of ICECCS was successfully held at Rajagiri School of Engineering and Technology, Kakkanad, Kochi, Kerala, INDIA (9 -11 August, 2012).

ICECCS-2013 had a special theme this year, “Information Revolution through Green & Eco-friendly Computing,” is particularly relevant considering the fact that it is being held in Wagnaghat, the City in the Evergreen Himachal Pradesh, INDIA. The conference focused on wide range of eco-friendly computing and communication systems dealing with the recent advances of renewable energy sources and electrical drives, Bioinformatics, CAD research contributions on low energy systems, Design Patterns and Frameworks, Electrical machines and adjustable speed drives, Energy aware algorithms and Applications includes Artificial Intelligence, Decision Support Systems and Data & Network mining, Energy aware Distributed Systems like Cloud, Grid, Adhoc systems, Energy efficiency and virtualization, Energy Efficient Software System and Applications, Energy preserving hardware and applications, Energy-aware high performance computing and applications, Energy-aware language abstractions, programming systems, Energy-aware middleware systems, Genetic Algorithms, Green computing in multi core/many core systems, Image Signal Processing, Information and Knowledge Management, Intelligent Energy Management, Low Power embedded systems, Mobile Computing, Pervasive Computing and Communications, Power-aware algorithms and protocols, Power-aware software and hardware, Ubiquitous Computing, Wireless Communication & Networks, etc.



The key sponsors of ICECCS 2013 were Department of Science and Technology (DST), Govt. of India, Department of Electronics and Information Technology

(DEIT), Govt. of India, Defence Research and Development Organization (DRDO), Department of Tourism and Civil Aviation (Himachal Pradesh) and other various private agencies.

Summary of Finance of the Conference

In total, we had received an amount of **Rs. 7, 04,075/-** through sponsorship and registration fee. The total expenses in conference were incurred **Rs. 7, 37,624/-**.

Deliberations during the Conference

The keynote and plenary talks complemented the technical papers and provided an excellent perspective on the state-of-the-art research and challenges in the targeted research areas of the conference. We are very grateful to our honourable keynote speakers for accepting our invitation and their deliberations during the conference:

1. Professor Bhargab B. Bhattacharya, Fellow IEEE, INAE, Department of CSE, ISI, Kolkata, INDIA

Title of the Talk: Sample Preparation Engines on Digital Microfluidic Lab-on-a-Chip for Biomedical Applications

2. Professor Sanjay Ranka, Fellow IEEE, AAAS, Deptt. of CIS and Engg., University of Florida, USA.

Title of the Talk: Reconfiguration in Multicore Machines: Energy, Performance, and Thermal Challenges

3. Professor Ashok Deshpande, Chair: Berkeley Initiative in Soft Computing (BISC)-Special Interest Group, University of California, Berkeley, USA

Title of the Talk: Fuzzy Description of Air Quality using Fuzzy Inference System with Degree of Match: Case Study

4. Professor Chriag Warty, Chief Technologist, Ahilya Technologies, Los Angeles, USA.

Title of the Talk: Software Defined Networking and its application to LTE-Advanced

5. Dr. Jimson Mathew, Department of Computer Science, University of Bristol, UK

6. Professor K. Chandrasekaran, Department of Computer Science, NIT, Surathkal, INDIA

Title of the Talk: Going Green with Cloud

7. Professor S. Sundar, Department of Mathematics, IIT, Madras, INDIA

Title of the Talk: GPU accelerated Finite Pointset Method for Flow Problems

8. Professor Tricha Anjali, Department of Computing and Electrical Engineering, IIT, Mandi, INDIA

Title of the Talk: Network Selection in Heterogeneous Wireless Networks



ICECCS 2013 received 298 research papers from different countries including Canada, England, France, Germany, India, Kuwait, Saudi Arabia, Singapore, South Africa, and Spain. All papers were rigorously reviewed internationally by an expert technical review committee. The committee selected 33 papers (acceptance rate: 11%) for oral presentation in the conference and inclusion in the conference proceedings. All these research papers have been organized into different technical sessions.

List of Technical Sessions:

- Energy Efficient Software System and Applications
- Green Energy Technologies
- Efficient Communication Systems
- Computing Systems and Applications
- Secure and Reliable Systems
- Mathematical Modelling and Scientific & Pervasive Computing

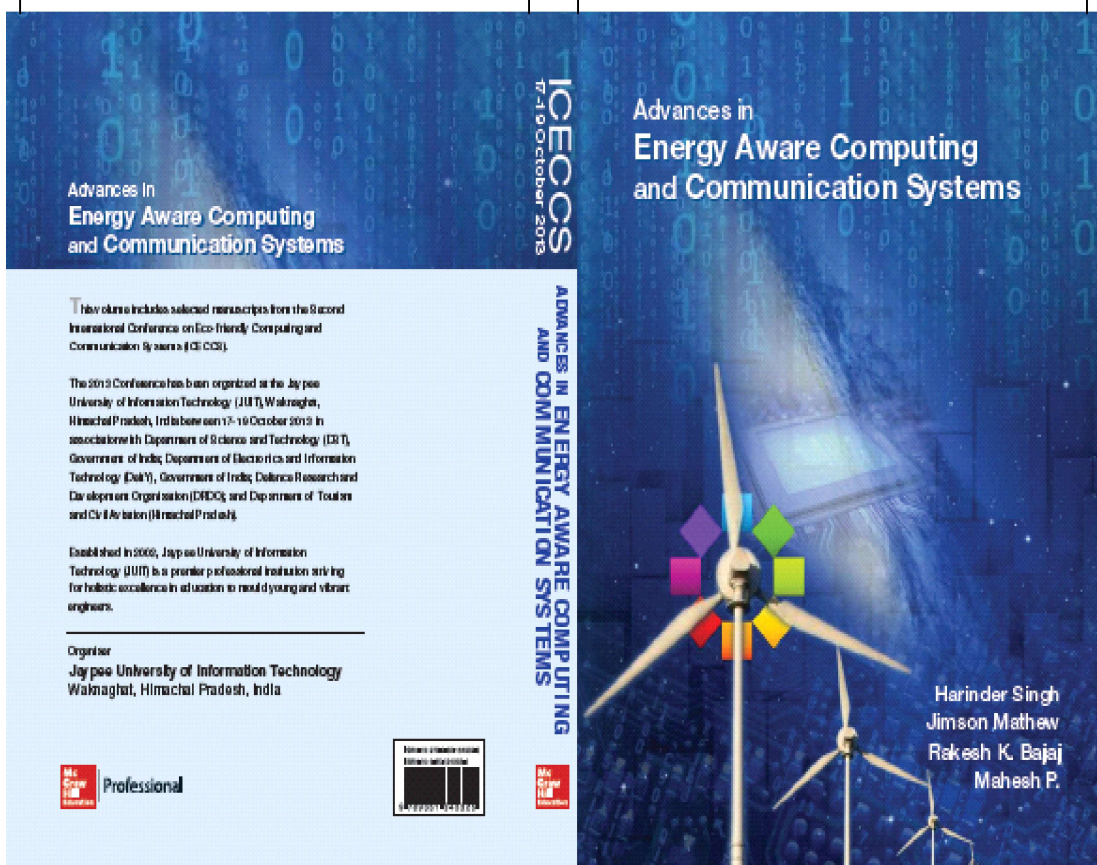
The following three papers were given the best paper awards:

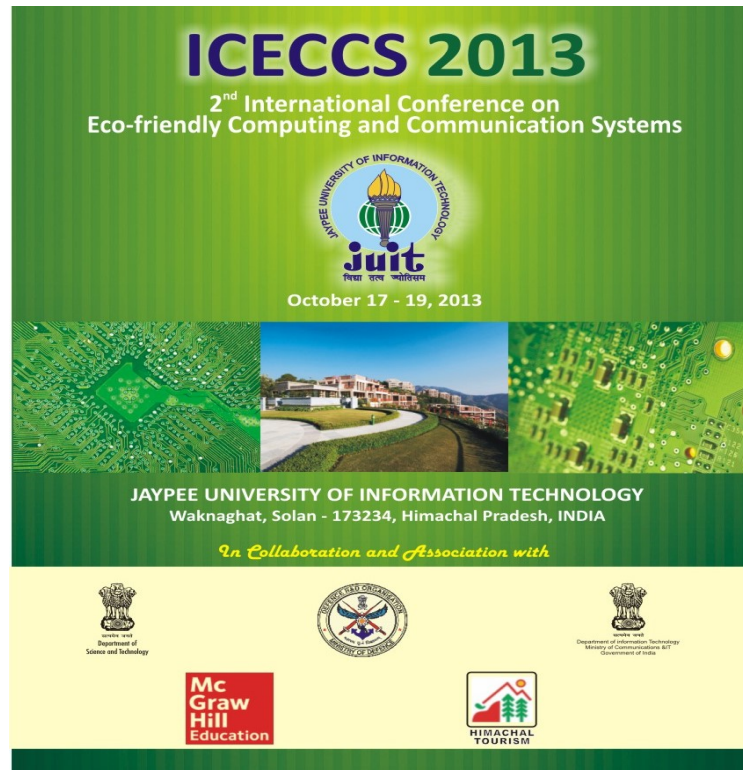
First Best Paper Award	Paper ID# 237 Title: Eco-friendly Sample Preparation with Concentration Gradient on a Digital Microfluidic Biochip, Authors: <i>Sukanta Bhattacharjee, Ansuman Banerjee, Tsung-Yi Ho, Krishnendu Chakrabarty and Bhargab Bhattacharya</i>
Second Best Paper Award	Paper ID# 130 Title: EDCP: Efficient Distributed Clustering Protocol for Large-Scale Wireless Sensor Networks, Authors: <i>Tarachand Amgoth and Prasanta K. Jana</i>
Third Best Paper Award	Paper ID# 4 Title: VIMCLOUD: A Trust Aware Cloud Computing Framework, Authors: <i>Prakash Kumar, Krishna Gopal and JP Gupta</i>

The presenting authors of these papers were given the certificates and prize money.



The proceedings of ICECCS 2013 are organized in a single volume as an edited book technically collaborated with McGraw Hill Professional. We hope that the ICECCS 2013 proceedings will serve as an important intellectual resource for Computing and Communication Systems researchers, pushing forward the boundaries of these two fields and enabling better collaboration and exchange of ideas.





Such conferences provide an opportunity to advance communication between academics, researchers and industry on some very crucial topics. During such events visionaries and scientists from universities and industry and young researchers of different disciplines from all around the world come together and interact, collaborate, exchange useful information, and discuss issues of great concern. We sincerely believe that ICECCS 2013 will open the gates of new collaboration with other agencies in organizing such workshops and conferences. We look forward for the motivation and support for organizing more frequent academic events in future at JUIT, Waknaghat.
