

Available online at www.sciencedirect.com**ScienceDirect**

Procedia Computer Science 57 (2015) 1 – 6

Procedia
Computer Science

3rd International Conference on Recent Trends in Computing 2015 (ICRTC-2015)
12th – 13th March 2015 | Delhi, India



Preface



We are very pleased to present the proceedings of the 3rd International Conference on Recent Trends in Computing (ICRTC-2015). The conference was organized by Department of Computer Science and Engineering, SRM University, NCR Campus on 12th and 13th March, 2015 in Delhi, India.

The main objective of the conference is to stimulate and facilitate active exchange, interaction and comparison of approaches, methods and ideas related to specific topics, both theoretical and applied, in the general areas related to the Networking, Database, Intelligent Techniques, Computing Technologies, Software Engineering and other contemporary issues like High Performance Computing, Green Computing, Distributed Computing and Grid Computing to foster the exchange of concepts and ideas.

The Third International Conference on Recent Trends in Computing (ICRTC-2015) is being planned with the objective of bringing together researchers, developers, and practitioners from academia and industry working in the area of advancement in Computing Techniques.

The organizing committee is extremely gratified by the tremendous response to the call for papers. Over 450 papers were submitted from the researchers, academicians and students on wide range of topics from India and countries including Australia, USA, Thailand, Saudi Arabia, Brunei Darussalam, Iran. Around 173 papers are accepted for publication under various tracks. The papers were presented by various researchers in four parallel tracks over a period of two days chaired by experts in the respective domains.

We are very obliged to our Honourable Founder and Chancellor Dr. T. R. Paari Vendhar, for the confidence he has invested on us for organizing this international conference ICRTC – 2015. We express sincere thanks to our Director Dr. (Prof.) Manoj Kumar Pandey and the Administrative Officer Dr. S. Viswanathan, SRM University, NCR Campus for their continuous guidance and full support to bring this conference a magnificent success. We are extremely grateful to our Management for their wholehearted support in organizing ICRTC-2015.

We cordially thank all the authors, presenters and delegates for their active interest in all the interactive sessions throughout the conference to make it successful event. We hope and intend that ICRTC-2015 significantly contributes to fulfillment of the academic excellence and leads to even greater successes of ICRTC events in the future.

Finally, we thank our fellow members of the Technical and Organizing Committee and our student volunteers for the smooth conduct of the conference. Their sincere efforts and contribution made a huge impact on the success of the conference.

With best wishes!

Partha Sarathi Chakraborty, Publication Chair
Manish Bhardwaj, Publication Chair

March, 2015

ICRTC-2015 Conference Organizing Committees

Chief Patron

Dr. T. R. Paari Vendhar,
Chancellor, SRM University, India

Patrons

Mr. Ravi Pachamoothoo,
Chairman, SRM Group, India

Prof. P. Sathyanarayanan,
President, SRM University, India

Dr. T.P Ganesan,
Vice Chancellor, SRM University, India

Prof. (Dr.) Manoj Kumar Pandey,
Director, SRM University, Delhi-NCR Campus, India

Dr. S. Viswanathan,
Administrative Officer, SRM University, Delhi-NCR Campus, India

General Chair

Prof. (Dr.) Rajendra Prasad Mahapatra,
Associate Dean, SRM University, Delhi - NCR Campus, India
Head, Dept. of Computer Science and Engineering, SRM University, NCR Campus, India

Organizing Chair

Prof. Ajay Kumar Aggarwal,
SRM University, Delhi – NCR Campus, India

Organizing Co-Chair

Mr. Partha Sarathi Chakraborty, Assistant Professor
Mr. Manish Bhardwaj, Assistant Professor

Program Chair

Mr. Analp Pathak, Assistant Professor
Ms. Arti Tiwari, Assistant Professor

Conference Secretary

Mr. Jitendra Singh, Assistant Professor
Ms. Monika Johri, Assistant Professor

Publication Chair

Dr. Upendra Gami, Assistant Professor
Mr. Partha Sarathi Chakraborty, Assistant Professor
Mr. Manish Bhardwaj, Assistant Professor

Publicity Chair

Dr. Kapil Kumar Bansal, Head, Dept. of Research & Publication

Dr. Praveen Saraswat, Assistant Professor

Ms. Arnika Jain, Assistant Professor

Mr. Bal Krishna Saraswat, Assistant Professor

Mr. Jaswinder Singh, Assistant Professor

Public Relation Chair

Dr. Naveen Alhawat, Head, Dept. of MCA

Mr. Sunil Kumar, Assistant Professor

Mr. Naresh Sharma, Assistant Professor

Mr. Mohan Raj, Assistant Professor

Session Management Chair

Prof. (Dr.) P. K. Chaturvedi, Dept. of ECE, SRM University

Mr. Rakesh Kumar Yadav, Assistant Professor

Finance Chair

Mr. Jitendra Singh, Assistant Professor

Mr. Manish Bhardwaj, Assistant Professor

Program Technical Support Chair

Mr. M. Mohan, Assistant Professor

Mr. A. Koluthungan, Assistant Professor

Sponsorship Committee

Dr. Praveen Saraswat, Assistant Professor

Mr. Naresh Sharma, Assistant Professor

Mr. P. Velmurugan, Assistant Professor

Mr. Jaswinder Singh, Assistant Professor

Registration Chair

Ms. Megha Agarwal, Assistant Professor

Ms. Renu Gola, Assistant Professor

Ms. Lavika Goel, Assistant Professor

Session Management Committee

Mr. Rakesh Yadav, Assistant Professor

Mr. Govind Verma, Assistant Professor

Ms. Sachi Pandey, Assistant Professor

Mr. Abhishek Sharma, Assistant Professor

Mr. Ravi Ranjan, Assistant Professor

Local Arrangement & Transport Chair

Mr. Chandra Shekhar Tyagi, Assistant Professor

Mr. Mritunjay Singh, Assistant Professor

Ms. Divya Gupta, Assistant Professor

Mr. Vaibhav Sharma, Assistant Professor

Conference Advisory Committee

Dr. Mahadevan Gomathisankaran, North Texas Univ., USA
Dr. Alok Kumar Kushwaha, WCAS, Oman
Prof. Gregorio Martinez, UMU, Spain
Prof. Ranjeet Biswas, Jamia Hamdard, India
Prof. Jenifer Winter, University of Hawaiian, USA
Prof. K. K. Biswas, IIT Delhi, India
Prof. Y. N. Singh, IIT Kanpur, India
Prof. Maryline Chetto, University of Nantes, France
Dr. Ela Kumar, GBU, India
Dr. Arun Sharma, KIET, India
Prof. Lakhmi Jain, Univ. of South Aus., Australia
Dr. Sanjeev Singh, DU, India
Dr. V. K. Panchal, DRDO, New Delhi
Dr. B. K. Panigrahi, IIT Delhi, India
Dr. D. K. Lobiyal, JNU, India
Prof. Ashok Kumar, KSU, USA
Prof. A. K. Verma, S/H University College, Norway

Technical Program Committee

Dr. Valentina E. Balas, Aurel Vlaicu University of Arad, Romania
Dr. Edwin Lughofer, Johannes Kepler University Linz, Austria
Dr. Ritesh Chugh, CQ University Melbourne, Australia
Dr. Rajeev Kumar Kanth, University of Turku, Finland
Professor Rajkumar Buyya, University of Melbourne, Australia
Dr. Nor Liyana Bt Mohd Shuib, University of Malaya, Kuala Lumpur, Malaysia
Dr. Tandra Pal, NIT Durgapur, India
Dr. Bharat Bhargava, Purdue University, USA
Prof. V. Lakshmi Narasimhan, Srikar & Associates Intl. Inc., USA
Dr. Tanzima Hashem, BUET, Dhaka, Bangladesh
Prof. Ganga Bishnu Mund, KIIT University, Bhubaneswar, India
Dr. Kapil Kumar Bansal, SRM University NCR Campus, India
Prof. Ben Liang, University of Toronto, Canada
Prof. Jitender Kumar Chhabra, NIT, Kurukshetra, India
Dr. Biswajit Purkayastha, NIT Silchar, India
Dr. V. S. Dixit, ARSD College, Delhi University, India
Prof. Sanjay Jasola, Uttarakhand Graphic Era Hill University, Dehradun, India
Dr. Punam Bedi, Department of Computer Science, University of Delhi, India
Dr. B. K. Sharma, NITRA, India
Dr. Animesh Tripathy, Ebay Inc., Singapore
Dr. Vidushi Sharma, GBU, India
Prof Zhi Jin, Software Engineering Institute, Peking University, Beijing, China
Prof. Qiang Li, Aarhus University, Denmark
Dr. Guo Lei, National University of Singapore, Singapore
Dr. Ajay Sharma, SRM University Sonepat, Haryana, India
Prof. Subhash C. Sharma, Indian Institute of Technology, Roorkee, India
Dr. Mohsen Toorani, Department of Informatics, University of Bergen, Norway

Dr Rajesh Vasa, Swinburne University of Technology, Melbourne, Australia
Dr Reza Abdi, Bradford University School of Management, West Yorkshire, UK
Prof. Sirirut Vanichayobon, Prince of Songkla University, Thailand
Prof. Hossein Nezakati Alizadeh, Islamic Azad University, Iran
Dr. Chaya Sharma, Indian Institute of Technology, Roorkee, India
Prof. Samarsh Mishra, KIIT University, Bhubaneswar, India
Prof. Ismail Musirin, Universiti Teknologi MARA Malaysia, Malaysia
Dr. Jianping Zeng, School of Computer Science, Fudan University, P.R. China
Dr. Rabins Porwal, ITS, Ghaziabad, India
Prof. Gurpreet Singh Lehal, Punjabi University, India
Mr. Tushar Patnaik, CDAC Noida, India
Dr. Mamta Sareen, DTU, Delhi, India
Dr. Preety Singh, LNMIIT, Rajasthan, India
Prof. Anil K Ahlawat, KIET, Ghaziabad, India
Prof. Rajesh Kumar Tyagi, MVN University, Haryana, India
Dr. Rupali Bhardwaj, Thapar University, India
Dr. Naresh Kumar Nagwani, NIT Raipur, India
Dr. Angelos Rouskas, University of Piraeus, Greece
Dr. Suchismita Roy, NIT Durgapur, India
Dr. D K Saini, Sohar University, Saudi Arabia
Dr. SRN Reddy, IGDTUW, Delhi, India
Dr. Sudhir Kumar Sharma, Alkuwairss, Muscal, Oman.
Dr. Sanjay Agarwal, N.I.T.T.R., Bhopal, India
Dr. Rajan John, Chair-IEEE Ghana Section, All Nation University College, Ghana
Dr. Mignel Rio, University College London, UK
Dr. Ashok Singh Sairam, IIT Patna, India
Dr. Dimitris Kouzoudis, University of Patras, Patra, Greece
Dr. Pengtao Sun, University of Nevada, Las Vegas, USA
Prof. Prabhat Mahanti, University of New Brunswick, Canada
Dr. O.P. Verma, DTU, Delhi, India
Dr. D.S. Kushwaha, MNNIT, Allahabad, India
Dr. Narendran Rajagopalan, NIT, Puducherry, Karaikal, India
Dr. Devendra Kumar Tayal, IGDTUW, Delhi, India
Prof. Srin Ramaswamy, University of Arkansas, USA
Dr. D.S. Nagesh, Delhi Technological University, Delhi, India
Dr Bruce Moulton, University of Technology Sydney, Australia
Dr. Jaya Kandasamy, University of Technology Sydney, Australia
Prof. Hui PENG, Central South University, P. R. China
Prof. Alok Mishra, Atilim University, Ankara, Turkey
Dr. Nasib Singh Gill, M.D. University, Rohtak
Dr. Nilay Khare, MANIT, Bhopal, India
Dr. Rituparna Chaki, University of Calcutta, India
Dr. Rajesh Mishra, Gautam Buddha University, Gr. Noida, India
Dr. Pradeep Tomar, Gautam Buddha University, Gr. Noida, India
Dr. Daya Gupta, Delhi Technological University, Delhi, India
Dr. Manoj Thakur, IIT Mandi, India