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Distributed Computing – IWDC 2004

6th International Workshop
Kolkata, India, December 27-30, 2004
Proceedings

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General Chairs' Message

It was our great pleasure to extend a cordial welcome to all the attendees of the 6th International Workshop on Distributed Computing (IWDC 2004) held at the Indian Statistical Institute, Kolkata (formerly Calcutta) on December 27–30, 2004. In the previous five years, this meeting was held in Jadavpur University, University of Calcutta and at the Indian Institute of Management, Calcutta. We hope that IWDC 2004 continued the tradition of providing a forum for fruitful interactions among the participants from academia, government organizations and industry, coming from 12 different countries around the world.

We express our sincerest thanks to the keynote speakers, Guru Parulkar and Michel Raynal, who kindly agreed to speak on frontier topics in networking and distributed computing. Our thanks are also due to Amar Mukherjee, for delivering the Prof. A.K. Choudhury Memorial Lecture, and to N. Vittal for delivering the banquet speech.

We are immensely grateful to both Nabanita Das and Arunabha Sen for performing an outstanding job as the technical program chairs. With the help of an excellent committee of international experts, they followed very stringent criteria for selecting only the very best technical papers out of a large number of submissions in order to maintain the high quality of the workshop.

We would also like to thank Somprakash Bandyopadhyay for arranging four tutorials on exciting topics by eminent researchers – Biswanath Mukherjee, Archan Misra, Jiannong Cao and Mohan Kumar. We believe that the participants, particularly young researchers and students, highly benefited through these tutorials. Thanks are also due to Bishnu Pradhan for arranging a very interesting panel discussion on the role of distributed computing and networking in food distribution. We are also thankful to all the panelists for their participation.

Our sincere thanks are due to K.B. Sinha, Director of the Indian Statistical Institute, for co-sponsoring this workshop as well as providing both financial and infrastructural supports. We gratefully acknowledge the support of the Department of Science and Technology, Ministry of Communication and Information Technologies, All India Council of Technical Education, DRDO, BSNL, Reserve Bank of India, Council of Scientific and Industrial Research, Hewlett-Packard, Tata Consultancy Services, Cognizant Technology Solutions, Interra Systems, and Interra Information Technologies in sponsoring this event, without which the workshop could not have been organized on this scale.

We are grateful to all the members of the local organizing committee, consisting of Krishnendu Mukhopadhyaya (chair), Bhargab B. Bhattacharya, Jayasree Dattagupta, Susmita Sur-Kolay, Subhas C. Nandy, Chandan Mazumdar, Swapan Bhattacharya, Ujjwal Moulik, Buddhadeb Sau, Nabendu Chaki, Debasish Saha and Partha Bhowmik. Special thanks are also due to Sandip Das (finance chair), Srabani Mukhopadhyaya (publication chair), and the publicity team comprising Mandar Mitra (chair), Mainak Chatterjee and Jiannong Cao, for providing their excellent service to make this workshop a grand success.

Last, but not least, thanks to all the participants and authors. We hope that they enjoyed the workshop as much as the wonderful and culturally vibrant city of Kolkata!

Bhabani P. Sinha
Indian Statistical Institute, Kolkata, India
December 2004

Sajal K. Das
University of Texas, Arlington, USA
December 2004

Program Chairs' Message

On behalf of the Technical Program Committee of the 6th International Workshop on Distributed Computing, IWDC 2004, it was our great pleasure to welcome the attendees to Kolkata, India.

Over the last few years, IWDC has emerged as an internationally renowned forum for interaction among researchers from academia and industries around the world. A clear indicator of this fact is the large number of high-quality submissions of technical papers received by the workshop this year.

The workshop program consisted of 12 technical sessions with 54 contributed papers, two keynote addresses, four tutorials, a panel, a poster session and the Prof. A.K. Choudhury Memorial Lecture. The IWDC Program Committee, comprising 38 distinguished members, worked hard to organize the technical program. Following a rigorous review process, out of 157 submissions only 54 papers were accepted for presentation in the technical sessions; 27 of the accepted papers were classified as regular papers and the remaining 27 as short papers. Another 11 papers were accepted for presentation in the poster session, each with a one-page abstract appearing in the proceedings.

It is needless to mention that behind the success of any such event, there lies the considerable time, effort and devotion of many individuals. We would like to thank all of them, their contributions nurtured this workshop from its very inception. Firstly, we wish to thank the entire program committee for the excellent job it did in organizing the technical sessions. Special thanks are due to all the reviewers for their commitment in reviewing the papers within a very short time. The names of the reviewers who were not program committee members are listed later in the organization pages of this proceedings. Please accept our apologies for any errors or omissions in the list.

We are indebted to Sukumar Ghosh for arranging two exciting keynote speeches and the Prof. A.K. Choudhury Memorial Lecture. We would like to thank Somprakash Bandyopadhyay for organizing four excellent tutorials on cutting-edge technologies. Thanks are due to Bishnu Pradhan for organizing the panel on a topic of immense national importance.

We wish to acknowledge the continuous help and tremendous support provided by the research fellows of the Advanced Computing and Microelectronics Unit of the Indian Statistical Institute. Without their collective efforts this workshop would not have taken place. Special thanks go to the publication chair, Srabani Mukhopadhyay, for her superb job in compiling the proceedings.

Last, but not least, we would like to thank the general chairs of the workshop, Sajal K. Das and Bhabani P. Sinha, for giving us immense support and encouragement throughout this period.

Once again, we hope all delegates enjoyed the historic and eclectic city of Kolkata. We hope the reader will see that the Technical Program of IWDC 2004 was an enjoyable and invigorating one.

Arunabha Sen
Arizona State University, Tempe, USA
December 2004

Nabanita Das
Indian Statistical Institute, Kolkata, India
December 2004

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