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# Information Systems Security

8th International Conference, ICISS 2012  
Guwahati, India, December 15-19, 2012  
Proceedings

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# Message from the General Chairs

Welcome to the Eighth International Conference on Information Systems Security (ICISS 2012), organized by the Indian Institute of Technology Guwahati under the aegis of the Society for Research in Information Security and Privacy (SRISP). Over the years, this conference has blossomed into an internationally renowned forum for interaction among representatives from academia and industry. Through technical sessions, tutorials, and invited talks, it aims to bring together participants wishing to present their latest thoughts and technologies.

The conference has been able to attract high profile invited speakers. This year we are fortunate to have Dr. Christopher Kruegel, the Eugene Aas Chair in Computer Science, Computer Science Department, University of California at Santa Barbara; Dr. Prasad Naldurg, Microsoft Research; and Dr. Lenore Zuck, Department of Computer Science, University of Illinois at Chicago.

A conference of this magnitude is the result of the tremendous collective effort of various chairs. With the help of the program committee members, the program co-chairs, Diganta Goswami and Venkat Venkatakrishnan, have produced a truly outstanding technical program. The tutorial co-chairs, Rajan Shankaran and Arijit Sur, have arranged six half-day tutorials by leading experts. ICISS also provides a platform for students and research scholars working in all areas of computer science and engineering, and communication and information technologies, to present their on-going research works and interact with peers. The student forum chair, Partha Sarathi Mandal, has done an excellent job in reviewing and selecting a good collection of student papers for presentation at this forum.

The publicity chairs, Shamik Sural, Claudio A. Ardagna, and Aryabartta Sahu, did a fantastic job in widely publicizing this conference. The publication chair, Samit Bhattacharya, was instrumental in putting together the proceedings and ensuring their high quality. Thanks are also due to the finance chair, Sanasam Ranbir Singh, for assuming the good financial health of the conference. Finally, our sincere thanks to the organizing co-chairs, J.K. Deka, Santosh Biswas, and their team, for their smooth management of the conference.

We are grateful to the Indian Institute of Technology Guwahati for extending logistics support. The steering-committee members, Gautam Barua, Chandan Mazumdar, Aditya Bagchi, Somesh Jha, Arun Kumar Majumdar, Anish Mathuria, Atul Prakash, Gulshan Rai, Sriram K. Rajamani, Pierangela Samarati, and Sushil Jajodia, provided the committee members with invaluable help, guidance, and support.

Last but not the least, we wish to sincerely thank all the authors, reviewers, program committee members, and participants for their continued support and

commitment to the success of this technical meeting. Once again, on behalf of the conference committee, we welcome you all to Guwahati, the Gateway to North-East India! We wish you a very pleasant stay in this beautiful city and hope you will find the ICISS 2012 experience a memorable one.

October 2012

Sukumar Nandi  
R. Sekar

# Message from the PC Chairs

This volume contains the papers selected for presentation at the Eighth International Conference on Information Systems Security (ICISS 2012) held during December 15–19, 2012 in Guwahati, India. ICISS is part of an effort to promote information security and privacy research in India. From its humble beginnings, it has grown to a conference of international repute with participation from several countries.

This year we received 72 submissions from 17 countries across the globe. Each submission was reviewed by about three program committee members. After a rigorous review process, the committee decided to accept 18 full-length papers and 3 short papers. Our special thanks goes to the program committee members and other external reviewers who generously offered their expertise and time to create the final program for the conference. We are also fortunate to have three invited talks from leading experts in the field of information security and privacy.

We thank the Steering Committee, and in particular Prof. Sushil Jajodia, whose counsel we frequently relied on. Profs. R. Sekar and Sukumar Nandi were of great assistance in matters related to conference organization.

We hope you will find the papers in this collection stimulating and rewarding.

December 2012

Venkat Venkatakrishnan  
Diganta Goswami

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