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Theoretical Aspects of Computing – ICTAC 2012

9th International Colloquium
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Preface

This volume contains the proceedings of the 9th International Colloquium on Theoretical Aspects of Computing (ICTAC) 2012. The event was held in Bangalore, India, during September 24–27, 2012. The ICTAC 2012 colloquium was organized jointly by the International Institute of Information Technology Bangalore (IIIT-B) and United Nations University - International Institute for Software Technology (UNU-IIST) at Macau.

One of the new features of ICTAC 2012 was the holding of an Industry Day to encourage greater communication and co-operation between academic researchers and industrial researchers. We would like to thank Satish Chandra (IBM Research) and Sriram Rajamani (Microsoft Research India) for chairing the first ever Industry Day at ICTAC. We are also thankful to Formal Methods in Europe (FME) for providing partial support for the Industry Day.

ICTAC 2012 received 73 submissions. Each submission was reviewed by at least three members of the Program Committee, along with help from external reviewers. Out of the 73 submissions, the Program Committee accepted 16 full-length papers, and three tool papers. The three tool papers accepted for ICTAC 2012 were presented on the Industry Day.

ICTAC 2012 featured three invited talks by Luke Ong (University of Oxford), Gernot Heiser (NICTA and UNSW Australia), and Ganesan Ramalingam (Microsoft Research India). Gernot Heiser was the invited speaker for the Industry Day, while Luke Ong was the UNU-IIST 20th anniversary speaker.

Luke Ong's invited talk focused on automated verification of actor-style message passing concurrency. Gernot Heiser's invited talk provided an overview of trustworthy systems and focused on how to provide safety and security guarantees to real-world systems including operating systems. Ganesan Ramalingam's invited talk focused on formalizing process failures and achieving failure-free computations in modern distributed platforms.

Apart from the paper presentations and invited talks, ICTAC 2012 continued the tradition of previous ICTAC conferences in holding a school on Software Engineering. The speakers at the Software Engineering school were Supratik Chakraborty (IIT Mumbai), Peter Mueller (ETH Zurich), K.V. Raghavan (IISc), and Nishant Sinha (IBM Research).

On behalf of the Program Committee we would like to thank the authors of the submitted papers, as well as the external reviewers whose expert reviews helped us build up the program.

July 2012

Abhik Roychoudhury
Meenakshi D'Souza

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