Preface

Increasing size and complexity of software and hardware systems has resulted in the difficulty of reliability guarantees. At the same time, the designs of autonomous computing systems become more critical as we rely on software systems more and more in our daily life. The complexity in system operations becomes even more critical with the emerging of the ubiquitous computing systems of embedded devices and other pervasive systems. Such trends make it necessary to provide software engineers supports of a set of techniques and tools for the development of reliable and autonomous software. To cope with the growing complexity of such systems, the International Conference on Reliable and Autonomous Computational Science (RACS) provide a forum for the exchanging of highly original ideas about reliable and autonomous computing systems. The RACS 2010 is to bring together engineers and scientists from diverse communities who are interested in building reliable and autonomous computing technologies and to discuss and exchange experimental or theoretical results, novel designs, work-in-progress, experiences, case studies, and trend-setting ideas.

This volume contains the papers selected for the presentation at the International conference on Reliable and Autonomous Computational Science (RACS), that is organized at the Southern Polytechnic State University, GA, USA, October 27th 30th, 2010. They were 87 submissions, and only 21 papers are published in this proceedings volume. Each paper was reviewed by at least three members of the Technical Program Committee.

The Technical Program Committee of RACS 2010 was lead by the TPC Chairs, Dr. Rex E. Gantenbein and Dr. Tei-Wei Kuo, and TPC Vice Chair, Dr. Jiman Hong. We wish to thank the TPC members for the time and thought that they gave in creating the excellent program. Without their help and contributions, this program would not be possible. We also want to thank the Organizing Committee for the superior jobs. Our special thanks go to Dr. Sung Y. Shin (Steering Committee Chair), Dr. Sartaj Sahni (Honorable Conference
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Vahid Tarokh
Tei-Wei Kuo
Rex E. Gatenbein
Jiman Hong
Sung Y. Shin
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