

## SPECIAL ISSUE ON RECENT ADVANCES IN STOCHASTIC SYSTEMS THEORY AND ITS APPLICATIONS

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The 42nd International Symposium on Stochastic Systems Theory and Its Applications (SSS'10) was held at Okayama University of Science in Okayama Japan, November 26-27, 2010. The purpose of SSS is to provide a forum for discussing recent advances in all aspects of stochastic systems theory and to bring together researchers and engineers in this field for fruitful collaborations.

The SSS'10 was very successful with more than 100 attendants. The program consisted of one plenary lecture by Hiroshi Kunita, professor emeritus of Kyushu University and 48 contributed papers. The SSS'10 covered a wide variety of topics: Control and Localization of Moving Robots, Signal Detection and Statistical Signal Processing, System Identification and Parameter Estimation, Mathematical Finance, Fault Detection and Diagnosis, Chaos and Fractal, Modeling, Analysis and Control of Stochastic Systems and Stochastic Processes, Applications in Engineering related to Stochastic Processes and Stochastic Systems, Pattern Recognition, Computer Vision and 3-D Information Processing, Neural Networks and Fuzzy Systems, Image Processing, Time Series Analysis and Spectral Estimation, Stochastic Optimization Methods and Evolutionary Methods.

After peer reviews of submitted papers for possible publication in the Special Issue on Recent Advances in Stochastic Systems Theory and Its Applications for SSS'10, 20 papers are accepted with three papers on Modeling, Analysis and Control of Stochastic Systems and Stochastic Processes, one paper on Fault Detection and Diagnosis, three papers on Mathematical Finance, one paper on Pattern Recognition, Computer Vision and 3-D Information Processing, three papers on Applications in Engineering related to Stochastic Processes and Stochastic Systems, two papers on System Identification and Parameter Estimation, three papers on Signal Detection and Statistical Signal Processing, one paper on Neural Networks and Fuzzy Systems, one paper on Control and Localization of Moving Robots, one paper on Time Series Analysis and Spectral Estimation, and one paper on Chaos and Fractal. I hope that this Special Issue will be a useful source for researchers and engineers for further studies on stochastic systems theory and its applications.

Finally, I would like to express my sincere thanks to professor Yan SHI, Executive Editor of IJICIC and the members of local committee of SSS'10. I am grateful to professor Peng SHI, Editor-in-Chief of IJICIC, for his kind support and advice during this project.

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<sup>1</sup>Chair of the Program and Steering Committee of SSS'10