

GUEST EDITORIAL PREFACE

Special Issue on Advanced Information Technologies and Applications, Part 2

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Welcome to the special issue of the International Journal of Interdisciplinary Telecommunications & Networking. This is a special issue addresses information technology from a broad interdisciplinary perspective. In keeping with the journal's mission this issue is dedicated to new results from high-quality original interdisciplinary academic and practitioner research, surveys, and case studies which address information technology related issues, answer questions, or solve problems. The aim of this special issue is to bring together interdisciplinary researchers and professionals of both advanced information technologies and applications. Topics addressed include advanced information science, information technologies, wireless communication systems, and other key technologies which include cloud computing, networking, security, and related applications. Five articles are included from open submissions and selected articles from 2014 Cross-Strait Conference on Information Science and

Technology, which was held on August 23-25, 2014, Beijing, China. All articles were refereed.

The papers included in this special issue are more technical in nature. The first article, by J. Yi, proposes an adaptive elastic net method for edge linking of images by introducing an adaptive dynamic parameter strategy and a stochastic noise strategy, which enables the network to have superior ability for escaping from local minima and converge sooner to optimal or near-optimal solutions. The simulation results indicate that the proposed method could produce more meaningful contours than the original Elastic Net in shorter time. The second article, by Y. Liu, presents a real-time remote monitoring system for the running state of commercial passenger buses by monitoring various parameters, such as brake pressure, oil pressure and fault code. They also suggested a run-length based relative coding algorithm to compress the massive monitoring data. The next article, by R. Cao, proposes a model free

adaptive composite control method for permanent magnet linear motor which includes an adaptive feed forward compensator and is designed to eliminate or suppress the effects of inherent force ripple for a Permanent Magnet Linear Motor (PMLM). The simulation results indicate that the proposed composite control algorithm is more effective compared to PID control for strong coupling of nonlinear system and difficult to realize stable control. The fourth article, by C. Zhang, proposes a new evolution model based on a complex network among the cluster heads in wireless sensor network. The proposed model exhibits a good fault-tolerance as well as robustness and a power-law degree distribution. The final article, by G. Javidi, establishes a satellite communication emulator for Hyperspectral Microwave Atmospheric Sounder (HyMAS), which is a test bed that mimics the functionality of the instrument such as how data is retrieved and processed through computers in the instrument. They also

proposed a new framework application called Interoperable Remote Component allowing flexibility to program computers on how to communicate with each other, what devices to connect to and other factors.

Finally, we would like to thank the authors for their valuable contributions and the reviewers for their time and efforts in providing many valuable suggestions and comments. We particularly wish to express our gratitude to the Editors-in-Chief, Michael R. Bartolacci and Steven R. Powell, and IGI's staff, for their kind support in the preparation of this special issue. We sincerely hope that IJITN's audience will enjoy reading this issue.

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