

# Journal of Systems Engineering and Electronics

Volume 21 Number 1

February 2010

## CONTENTS

### ELECTRONICS TECHNOLOGY

- 1 **Approach to blind estimation of the PN sequence in DS-SS signals with residual carrier**  
Tianqi Zhang, Shaosheng Dai, Guoning Ma, Wei Zhang, and Pu Miao
- 9 **High-resolution algorithm based on temporal-spatial extrapolation**  
Xueya Yang, Baixiao Chen, and Feilin Qi
- 16 **Design of an anti-jamming GPS receiver based on orthogonal projection method**  
Youguo Hou, Wei Guo, and Xiaozhang Jin
- 20 **Design and realization of synchronization circuit for GPS software receiver based on FPGA**  
Xiaolei Yu, Yongrong Sun, Jianye Liu, and Jianfeng Miao
- 27 **Method for determining number of coherent signals in the presence of colored noise**  
Jiaqi Zhen, Xicai Si, and Lutao Liu

### DEFENCE ELECTRONICS TECHNOLOGY

- 31 **Fast segmentation approach for SAR image based on simple Markov random field**  
Xiaogang Lei, Ying Li, Na Zhao, and Yanning Zhang
- 37 **Fast and accurate analysis of electromagnetic scattering from targets situated in dielectric half space**  
Yongpin Chen, Zaiping Nie, and Jun Hu
- 41 **Rotational parameters estimation of maneuvering target in ISAR imaging**  
Wenchen Li, Jin Liu, Xuesong Wang, Shunping Xiao, and Guoyu Wang

### SYSTEMS ENGINEERING

- 47 **Fuzzy Nash equilibrium of fuzzy  $n$ -person non-cooperative game**  
Xiaohui Yu and Qiang Zhang
- 57 **Condition-based maintenance policy for gamma deteriorating systems**  
Lin Tan, Zhijun Cheng, Bo Guo, and Shiyu Gong
- 62 **Rough law energy and measurement of  $\bar{F}$ -decomposition rough law**  
Shunliang Huang, Huafeng Yang, and Kaiquan Shi
- 67 **Hybrid ant colony optimization for the resource-constrained project scheduling problem**  
Linyi Deng, Yan Lin, and Ming Chen

## **CONTROL THEORY AND APPLICATION**

- 72 Kernel matrix learning with a general regularized risk functional criterion**  
Chengqun Wang, Jiming Chen, Chonghai Hu, and Youxian Sun
- 81 Output-feedback adaptive stochastic nonlinear stabilization using neural networks**  
Weisheng Chen
- 88 Second-order consensus in networks of dynamic agents with communication time-delays**  
Bo Yang, Huajing Fang, and Hua Wang
- 95 Research on robust mean square stability of networked control systems with packet dropout**  
Dexiao Xie, Xiaodong Han, He Huang, and Wang Zhiquan
- 102 INS/CNS/GPS integrated navigation algorithm based on UKF**  
Haidong Hu and Xianlin Huang
- 110 Robust reliable guaranteed cost control for uncertain singular systems with time-delay**  
Qixun Lan, Yuxiao Liu, Huawei Niu, and Jiarong Liang

## **SOFTWARE ALGORITHM AND SIMULATION**

- 118 Person-independent expression recognition based on person-similarity weighted expression feature**  
Huachun Tan, Yujin Zhang, Hao Chen, Yanan Zhao, and Wuhong Wang
- 127 Image retrieval based on color features integrated with anisotropic directionality**  
Jing Bai, Xiaohua Wang, and Licheng Jiao
- 134 Ruling out small stopping sets and small girth in Tanner graph of QC-LDPC code**  
Lingjun Kong and Yang Xiao
- 138 Hooke and Jeeves algorithm for linear support vector machine**  
Yeqing Liu, Sanyang Liu, and Mingtao Gu
- 142 Modelling method with missing values based on clustering and support vector regression**  
Ling Wang, Dongmei Fu, Qing Li, and Zhichun Mu
- 148 Bayesian sequential state estimation for MIMO-OFDM systems**  
Maoge Xu and Yaoliang Song

## **COMPUTER DEVELOPMENT AND APPLICATION**

- 154 Confidentiality-aware message scheduling for security-critical wireless networks**  
Wei Jiang, Guangze Xiong, Xuyang Ding, Zhengwei Chang, and Nan Sang
- 161 Malicious code passive propagation model and vaccine distribution model of P2P networks**  
Xiaolong Xu, Ruchuan Wang, and Fu Xiao
- 168 Quorum systems for intrusion-tolerance based on trusted timely computing base**  
Hua Zhou, Xiangru Meng, Li Zhang, and Xiangdong Qiao