

CONTENTS

ELECTRONICS TECHNOLOGY

- 325 **Dynamics in small worlds of tree topologies of wireless sensor networks**
Qiao Li, Baihai Zhang, Zhun Fan, and Athanasios V. Vasilakos
- 335 **Construction of time-frequency codes based on protograph LDPC codes in OFDM communication systems**
Kaiyao Wang, Yang Xiao, and Kiseon Kim
- 342 **DBS imaging based on Keystone transform**
Jing Tian, Wei Cui, Lin Ma, and Siliang Wu
- 349 **Mobile channel estimation for MU-MIMO systems using KL expansion based extrapolation**
Donghua Chen and Hongbing Qiu

DEFENCE ELECTRONICS TECHNOLOGY

- 355 **Robust detector for range-spread targets in non-Gaussian background**
Tao Jian, You He, Feng Su, Dianfa Ping, and Xiaodong Huang
- 364 **Multiple-model Bayesian filtering with random finite set observation**
Wei Yang, Yaowen Fu, and Xiang Li
- 372 **Simultaneous range and radial velocity estimation with a single narrowband LFM pulse**
Chunmao Yeh, Jian Yang, Xiuming Shan, and Yingning Peng
- 378 **Compressive sensing for small moving space object detection in astronomical images**
Rui Yao and Yanning Zhang
- 385 **Performances of improved Tent-chaos-based FM radar signal**
Shaobin Xie, Zishu He, Jinfeng Hu, Lidong Liu, and Jichun Pan

SYSTEMS ENGINEERING

- 391 **Gravity-based heuristic for set covering problems and its application in fault diagnosis**
Yun Li and Zhiming Cai
- 399 **Fuzzy data envelopment analysis approach based on sample decision making units**
Muren, Zhanxin Ma, and Wei Cui

CONTROL THEORY AND APPLICATION

- 408 **Packet-loss-dependent stabilization of NCSs with network-induced delay and packet dropout**
Yan Song, Jingcheng Wang, Yuanhao Shi, and Chuang Li
- 414 **Impulsive controller design for nonlinear networked control systems with time delay and packet dropouts**
Xianlin Zhao, Shumin Fei, and Jinxing Lin
- 419 **Iterative learning based fault detection and estimation in nonlinear systems**
Wei Cao, Wang Cong, and Ming Sun

SOFTWARE ALGORITHM AND SIMULATION

- 425 **Top-level modeling theory of multi-discipline virtual prototype**
Tingyu Lin, Xudong Chai, and Bohu Li
- 438 **Improved adaptive pruning algorithm for least squares support vector regression**
Runpeng Gao and Ye San
- 445 **Clustering algorithm based on density function and nichePSO**
Chonghui Guo and Yunhui Zang
- 453 **Spectral matching algorithm based on nonsubsampling contourlet transform and scale-invariant feature transform**
Dong Liang, Pu Yan, Ming Zhu, Yizheng Fan, and Kui Wang
- 460 **Fuzzy smooth support vector machine with different smooth functions**
Chuandong Qin and Sanyang Liu