Quarterly, since 1995

www. hitech863. com

Contents

227 Design of 5GHz low noise amplifier with HBM SiGe 0.13µm BiCMOS process

Xu Jian(徐 建), Xi Chen, Li Ma, Yang Zhou, Wang Zhigong

- 232 Research on fault diagnosis method of piston rod based on harmonic wavelet and manifold learning Jiang Zhinong(江志农), Zhu Lina, Zhang Jinjie, Zhou Chao
- 241 Federal extended Kalman filter based on reconstructed observation in incomplete observations *Hu Zhentao* (胡振涛), *Liu Jie*, *Yang Yanan*
- 249 Application of improved back-propagation algorithms in classification and detection of scars defects on rails surfaces

Shi Tian(石 甜), Kong Jianyi, Wang Xingdong, Liu Zhao

257 Impacts of feedback delay and estimation error on secrecy performance of MISO single eavesdropper cognitive radio networks

Lin Zhi(林 志), Wang Lei, Cai Yueming, Yang Weiwei, Yang Wendong

- 266 Surface registration algorithm for rapid detection of surface thermal deformation of paraboloid antennas Ma Kaifeng(马开锋), Huang Guiping, Hu Qingfeng, He Peipei
- 272 Experimental research on daily deformation monitoring of steel box girder bridge based on BDS/GPS

Chen Jian(陈 健), Yue Dongjie, Liu Zhiqiang, Zhu Shaolin, Chen Hao

- **279** Research on virtual node placement optimization strategy of cloud platform for information acquisition Shuai Yuyan(帅愉燕), Wei Gaofeng, Zhang Zhaoxin, Zhang Lizhe
- 287 OvBNN authentication based on cooperative signature for wireless sensor networks

Qin Danyang(秦丹阳), Zhang Yan, Ma Jingya, Ji Ping

296 Influence of feature size of micro-scale channel on ink flow characteristics

Chu Hongyan (初红艳), Lin Xuecong, Zhao Pile, Cai Ligang

303 Control characteristics of D + A combined multi-pump controlled system

Yao Jing (姚 静), Wang Pei, Cao Xiaoming, Zhang Yang, Kong Xiangdong

- 313 Stroke optimization of a novel multi-station rotary polishing robot based on workspace analysis Li Dongjing(李东京), Wei Wang, Wang Qilong, Hao Daxian, Jin Hui
- 322 Reliability evaluation of bladder accumulator with no failure data

Guo Rui(郭 锐), Zhang Rongbing, Zhao Jingyi, Zhou Jinsheng, Zhang Zhenmiao

330 Strategic information perception methods and practices in the open source intelligence

Zeng Wen(曾文), Li Hui