

全国中文核心期刊（2004版）
工信部2009-2010年度科技期刊规范化优秀奖
《中国学术期刊影响因子年报》统计源期刊

通信技术[®]

Communications Technology

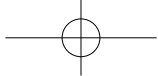
2020 2020年4月 第53卷
第4期 总第340期

ISSN 1002-0802



9 771002 080208
ISSN 1002-0802 CN51-1167/TN

万方数据



通信技术

Tongxin Jishu
(1967 年创刊, 月刊)

第 53 卷 第 4 期 (总第 340 期)

2020 年 4 月

目 次

综 述

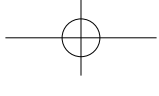
- 小蜂窝网络研究综述·····游 凡, 叶先万, 崔海霞 (791)
- 电台指纹识别技术研究综述·····徐韦佳, 汪泽焱, 宋阿玲, 冯 凯, 姚 佳 (799)

信息处理与传输

- 切比雪夫 II 型模拟高通滤波器的设计及实现·····陈绍荣, 刘郁林, 朱行涛, 徐 舜 (806)
- 面向 5G 三大应用场景的 F-OFDM 系统 PAPR 抑制算法研究·····陈 勇, 王玉文, 洪文军, 屈渲睿, 和小涛 (816)
- 一种改进的频移键控调制信号盲识别方法研究·····席建民, 邱 涛, 吉 磊 (824)
- 机载光纤总线拓扑结构的性能研究·····伊小素, 余楚璇, 曾华蕊 (830)
- 基于侧面抛磨锗芯光纤的折射率传感器·····刘秀浩, 万鲁雪, 马任德, 夏云杰 (838)
- 一种在光纤通信中的偏振稳定系统设计与实现·····王思尧, 张阳安, 袁学光, 黄永清 (843)
- 短波通信频率自优化技术分析研究·····徐 池, 邱楚楚 (848)
- 卫星通信系统对抗性指标体系研究·····喻火根 (854)
- 基于区域谷值双层 EEMD 方法的超宽带雷达生命信息检测 ·····杨国成, 余慧敏 (860)
- 块稀疏广义正交匹配追踪算法·····杨恩蘋, 周 三, 王彦帅, 隋天宇 (867)
- 混合粒子群和差分进化的定位算法·····吴 斌, 金洁丽 (873)
- 基于注意力机制的单通道双人语音分离研究·····周晓东, 陈人楷, 孙华星, 莫钊然 (880)
- 面向文章流量预测的特征筛选与分析·····胡宝灵, 李志涛, 周 燕 (885)

网络与系统

- 面向卫星移动通信的系统级仿真平台设计与实现·····吴承洲, 苏泳涛, 刘剑锋, 余 翔, 李瑞华 (890)
- 基于 SDN 的量子密码通信网络设计与研究 ·····赵 鑫, 李 恺 (898)
- IBA 融合架构建模技术及算法特征 ·····黄 飞, 黄孝斌, 蒋 辉, 王国金, 孙希法, 司博章 (903)
- 5G 与 LTE 无线网络设计差异性分析 ·····龚戈勇 (908)
- 5G 网络传输解决方案 ·····张维东 (913)



浅谈 5G 组网和基站云化	张 浩 (918)
5G 环境下无人机高清视频数据实时传输组网方式研究	郑 杰, 陈高亮, 时海龙, 余庆韶, 杨晓旭, 郭志彬 (923)
一种大带宽低时延业务的 4G 网络承载优化方法研究	夏龙根 (927)
Eth-Trunk 负载分担在通信类设备上的应用	罗 健, 易 欣, 谢永春, 夏安祥 (932)
基于语义分析的政策法规智能审核研究与实现	衡宇峰, 李 俊, 彭望龙, 黄元稳, 房冬丽 (937)

安全与保密

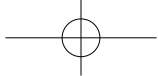
基于 AHP-GRA 的用户身份可信评价方法	梁晓实, 邹福泰, 谭 越 (943)
基于希尔伯特振动分解和卷积神经网络的融合特征心电识别算法	黄润新, 张烨菲, 郭春伟 (952)
基于区块链的防特权账号篡改审计系统	方国强 (963)
基于软件定义的网络准入控制体系	邓永晖, 周 佳, 鹿文杨 (970)
一种加密流量行为分析系统的设计研究	程永新, 张德治, 廖竣锴, 胡华鹏 (976)
一种新型无线传感器网络安全研究	朱春磊, 杨 竞, 王小骥, 刘星江 (981)
基于“软能力”的操作系统可信增强与恢复技术	杨少鹏, 陈 佳, 冯中华 (986)
一种软件源的可信管控模型设计	王效武, 刘 英, 闫 石 (993)
基于可信计算技术的抗恶意代码攻击模型	岳 阳, 郑志蓉, 徐 昆 (998)
一种基于可信时间戳信标的 DTMB 安全防插播方法	李 斌, 郭先会, 周世杰, 沈 宜 (1004)
改进 BP 神经网络对无线信息安全率的优化分析	孙楚原 (1012)

工程与应用

一种基于 LTCC 的吸收式低通滤波器的设计	景玉明, 邢孟江, 张 磊, 李小珍, 徐 珊 (1016)
X 波段 SIW 广义切比雪夫超结构滤波器设计	田松杰, 汪晓光 (1020)
基于 DDS 信号生成原理的压电驱动装置电源设计	韩 硕, 贾丹平, 张 涛, 王海燕 (1024)
一种飞行巡线机器人的设计与实现	李 论, 彭晓燕, 杨程富, 周蔚勇 (1032)
LTE 多场景室内立体深度覆盖综合解决方案与研究	张 磊, 付 康, 王清府 (1039)
地铁 5G 传输网络建设方案探讨	朱 波 (1047)

其 他

征稿启事	(封三)
------------	------



COMMUNICATIONS TECHNOLOGY

(Monthly, Started in 1967)

Vol.53

No.4

(Series No.340)

Apr.2020

CONTENTS

Technical Overview

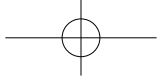
- Review of Small Cell Network *YOU Fan, YE Xian-wan, CUI Hai-xia* (791)
- Survey of Radio Station Fingerprint Identification Technology *XU Wei-jia, WANG Ze-yan, SONG A-ling, FENG Kai, YAO Jia* (799)

Information Processing & Transmission

- Design and Implementation of Chebyshev Type II Analog High-Pass Filter
..... *CHEN Shao-rong, LIU Yu-lin, ZHU Xing-tao, XU Shun* (806)
- PAPR Suppression Algorithm for F-OFDM System Facing Three Major Application Scenarios of 5G
..... *CHEN Yong, WANG Yu-wen, HONG Wen-jun, QU Xuan-rui, HE Xiao-tao* (816)
- Modified Blind Recognition Method for FSK Modulated Signal *XI Jian-min, QIU Tao, JI Lei* (824)
- Research on Performance of Airborne Optical Fiber Bus Topology *YI Xiao-su, YU Chu-xuan, ZENG Hua-song* (830)
- Refractive Index Sensor based on Side Polished Ge-doped Fiber *LIU Xiu-hao, WAN Lu-xue, MA Ren-de, XIA Yun-jie* (838)
- Design and Implementation of Polarization Stabilization System in Optical Fiber Communication
..... *WANG Si-yao, ZHANG Yang-an, YUAN Xue-guang, HUANG Yong-qing* (843)
- Analysis on Frequency Self-Optimization Technology of HF Communication *XU Chi, QIU Chu-chu* (848)
- Exploration on Adversarial Index System of Satellite Communication System *YU Huo-gen* (854)
- Life Information Detection of UWB Radio based on Regional Valley Double-Layer EEMD Method
..... *YANG Guo-cheng, YU Hui-min* (860)
- Block-Sparse Generalized Orthogonal Matching Pursuit Algorithm *YANG En-pin, ZHOU San, WANG Yan-shuai, SUI Tian-yu* (867)
- Localization Algorithm based on Hybrid Particle Swarm Optimization and Differential Evolution *WU Bin, JIN Jie-li* (873)
- Single Channel Dual Voice Separation based on Attention Mechanism
..... *ZHOU Xiao-dong, CHEN Ren-kai, SUN Hua-xing, MO Chao-ran* (880)
- Feature Screening and Analysis for Article Traffic Prediction *HU Bao-ling, LI Zhi-tao, ZHOU Yan* (885)

Network & System

- Design and Implementation of System Level Simulation Platform for Satellite Mobile Communication
..... *WU Cheng-zhou, SU Yong-tao, LIU Jian-feng, YU Xiang, LI Rui-hua* (890)
- Design and Research of Quantum Cryptographic Communication Network based on SDN *ZHAO Xin, LI Kai* (898)
- IBA Fusion Architecture Modeling Technology and Algorithm Features
..... *HUANG Fei, HUANG Xiao-bin, JIANG Hui, WANG Guo-jin, SUN Xi-fa, SI Bo-zhang* (903)
- Difference Analysis of 5G and LTE Wireless Network Design *GONG Ge-yong* (908)
- 5G Network Transmission Solution *ZHANG Wei-dong* (913)



Discussion on 5G Networking and Basestation Cloudification	ZHANG Hao (918)
Networking Method for Real-time Transmission of HD Video Data of UAVs in 5G Environment	ZHENG Jie, CHEN Gao-liang, SHI Hai-long, YU Qing-shao, YANG Xiao-xu, GUO Zhi-bin (923)
4G Network Bearer Optimization Method for Large Bandwidth and Low-Latency Services	XIA Long-gen (927)
Application of Eth-Trunk Load Balancing in Communication Equipment	LUO Jian, YI Xin, XIE Yong-chun, XIA An-xiang (932)
Research and Implementation of Intelligent Review of Policies and Regulations based on Semantic Analysis	HENG Yu-feng, LI Jun, PENG Wang-long, HUANG Yuan-wen, FANG Dong-li (937)

Security & Privacy

User Identity Credibility Evaluation Method based on AHP-GRA	LIANG Xiao-shi, ZOU Fu-tai, TAN Yue (943)
Fusion Feature ECG Identification Algorithm based on Hilbert Vibration Decomposition and Convolutional Neural Network	HUANG Run-xin, ZHANG Ye-fei, GUO Chun-wei (952)
Blockchain-based Anti-privileged Account Tampering Audit System	FANG Guo-qiang (963)
Software-defined Network Access Control System	DENG Yong-hui, ZHOU Jia, LU Wen-yang (970)
Design and Research of Encrypted Traffic Behavior Analysis System	CHENG Yong-xin, ZHANG De-zhi, LIAO Jun-kai, HU Hua-peng (976)
Research on New Type Wireless Sensor Network Security	ZHU Chun-lei, YANG Jing, WANG Xiao-ji, LIU Xing-jiang (981)
Soft Capability-based Trusted Enhancement and Recovery Technology of Operating System	YANG Shao-peng, CHEN Jia, FENG Zhong-hua (986)
Design of Trusted Management Model for Software Sources	WANG Xiao-wu, LIU Ying, YAN Shi (993)
Anti-Malicious Code Attack Model based on Trusted Computing Technology	YUE Yang, ZHENG Zhi-rong, XU Kun (998)
DTMB Safe Anti-insertion Method based on Trusted Timestamp Beacon	LI Bin, GUO Xian-hui, ZHOU Shi-jie, SHEN Yi (1004)
Optimization Analysis of Wireless Information Security Rate based on Modified BP Neural Network Method	SUN Chu-yuan (1012)

Engineering & Application

Design of LTCC-based Absorptive Low-Pass Filter	JING Yu-ming, XING Meng-jiang, ZHANG Lei, LI Xiao-zhen, XU-Shan (1016)
Design of X-band SIW Generalized Chebyshev Super Structure Filter	TIAN Song-jie, WANG Xiao-guang (1020)
Power Supply Design for Piezoelectric Driving Device based on DDS Signal Generation Principle	HAN Shuo, JIA Dan-ping, ZHANG Tao, WANG Hai-yan (1024)
Design and Implementation of Flight Line Inspection Robot	LI Lun, PENG Xiao-yan, YANG Cheng-fu, ZHOU Wei-yong (1032)
Comprehensive Solution and Research of LTE Multi-Scene Indoor Stereo Depth Coverage	ZHANG Lei, FU Kang, WANG Qing-fu (1039)
Discussion on 5G Transmission Network Construction Scheme of Subway	ZHU Bo (1047)

Miscellaneous

Contributions Invited	(Inside Back Over)
-----------------------------	--------------------