

- ❖ 英国《科学文摘》(INSPEC) 来源期刊
- ❖ 俄罗斯《文摘杂志》(AJ) 来源期刊
- ❖ 美国《乌利希期刊指南(网络版)》(Ulrichsweb) 收录期刊
- ❖ 2017—2019年中国国际影响力优秀学术期刊(自然科学与工程技术)
- ❖ 第二届国家期刊奖百种重点科技期刊
- ❖ 中国科技核心期刊 ❖ 全国中文核心期刊
- ❖ 中国科技论文统计源期刊
- ❖ 中国学术期刊综合评价数据库来源期刊
- ❖ RCCSE 核心学术期刊 ❖ 中国期刊方阵双效期刊
- ❖ 《日本科学技术振兴机构数据库》(JST) 来源期刊
- ❖ 美国《艾博思科学数据库》(EBSCO) 全文来源期刊
- ❖ 美国《剑桥科学文摘(自然科学)》(CSA (NS)) 核心期刊
- ❖ 波兰《哥白尼索引》(IC) 来源期刊
- ❖ 中国科学引文数据库(CSCD) 来源期刊
- ❖ 《中文科技期刊数据库》来源期刊
- ❖ 《中国期刊网》《中国学术期刊(光盘版)》来源期刊
- ❖ 中国精品科技期刊顶尖学术论文(F5000)项目来源期刊
- ❖ 《电子科技文献数据库》来源期刊
- ❖ 《中国工程技术电子信息网》来源期刊

计算机应用研究
Jisuanji Yingyong Yanjiu
第 41 卷 第 4 期 2024 年 4 月
目 次

综述评论

- | | |
|----------------------|------------------------------|
| 卷积神经网络的正则化方法综述 | 陈琨,王安志(961) |
| 车联网安全标准综述 | 底晓强,曹金辉,魏心悦,李旭生,戴维一,李木犀(970) |

区块链技术

- | | |
|--------------------------------|----------------------------|
| 一种监管友好的可编辑区块链方案 | 俞望年,赵赫,谭海波,程昊天,赵越,马志宇(981) |
| 基于节点动态评分机制的分组共识算法 | 沈学利,李欣儒(989) |
| CS-Raft:适用于联盟链的拜占庭容错共识算法 | 翟社平,聂浩楠,陆娴婧,杨锐(995) |

故障诊断专题

- | | |
|---------------------------------|-------------------|
| 基于特征增强与时空信息嵌入的涡扇发动机剩余寿命预测 | 李勇成,李文骁,雷印杰(1001) |
| 模型未知的离散事件系统故障诊断方法 | 张志恒,王德光(1008) |
| 基于申威 NMII 的锁死故障监测与诊断 | 郜晨,何升,杭晓骞(1015) |

算法研究探讨

- | | |
|--------------------------------------|---------------------------|
| 基于图嵌入编码形态信息的非均匀多任务强化学习方法 | 贺晓,王文学(1022) |
| 基于 Informer 算法的网联车辆运动轨迹预测模型 | 赵懂宇,王志建,宋程龙(1029) |
| TRGATLog:基于日志时间图注意力网络的日志异常检测方法 | 陈旭,张硕,景永俊,王叔洋(1034) |
| 基于周期图卷积与多头注意力 GRU 组合的交通流量预测模型 | 钟林岚,张安勤,田秀霞(1041) |
| 一种基于信息熵加权的属性约简算法 | 罗帆,蒋瑜(1047) |
| 基于任务权重自动优化的多任务序数回归算法 | 曾梦岳,肖燕珊,刘波(1052) |
| 基于网格近邻优化的密度峰值聚类算法 | 刘继,杨金瑞(1058) |
| 基于时效性和相关性约束的周期模式挖掘 | 闫海博,荀亚玲,任姿芊,侯亚飞,胡晓莹(1064) |
| 基于可重构阵列的 CNN 数据量化方法 | 朱家扬,蒋林,李远成,宋佳,刘帅(1070) |
| 融合小生境机制的增强麻雀搜索算法及其应用 | 李大海,李鑫,王振东(1077) |
| 融入武装部队的鲸鱼优化算法用于社区发现 | 张其文,关定坤(1086) |

MCI 患者高阶动态功能连接的图论网络构建方法及分类	王 霞,王 勇,吴海锋,张 珊,王卓然(1094)
二级垃圾回收中转设施选址问题的降阶回溯算法	刘书傲,宁爱兵,林道晗,刘睿石,张惠珍(1104)
基于双分支注意力 U-Net 的语音增强方法	曹 洁,王宸章,梁浩鹏,王 乔,李晓旭(1112)
改进双向动态 JPS 算法的移动机器人全局路径规划	刘荣华,王 欣,吴 迪,谢春圆(1117)

系统应用开发

基于对比学习的心电信号情绪识别方法	龙锦益,方景龙,刘斯为,吴汉瑞,张 佳(1123)
基于模态语义增强的跨模态食谱检索方法	李 明,周 栋,雷 芳,曹步清(1131)
面向降雨预报的雷达回波预测序列外推方法	罗健文,邹茂扬,杨 昊,陈 敏,杨康权(1138)

网络与通信技术

移动边缘计算中的无人机三维部署和内容缓存优化方法	唐焕博,陈 星,张建山(1143)
基于联邦共识机制的多视频流带宽分配策略	张春阳,杨志刚,刘亚志,李 伟(1150)
智能反射面辅助的 OFDM 系统稀疏信道估计研究	朱俊杰,彭 玲(1159)
基于进化多任务多目标优化的边缘计算任务卸载	孔 珊,郑玉琦(1164)

信息安全技术

一种基于联邦学习参与方的投毒攻击防御方法	刘金全,张 锋,陈自东,曹 晟(1171)
基于 JPEG 图像的模块化可逆信息隐藏方法	张 成,欧 博,廖 鑫(1177)
多级敏感区域室内定位中的隐私保护算法	宋威燃,黄芯怡,乐燕芬(1184)
适用于智能家居的基于身份多方认证密钥协商协议	倪 亮,刘笑颜,谷兵珂,张亚伟,周恒昇,王念平(1191)
面向电力物联网流数据的一种具有隐私保护的 KNN 查询方法	易叶青,易颖杰,刘云如,毛伊敏(1198)
边缘辅助群智感知位置隐私保护多任务分配机制	敖 山,常 现,王 辉,申自浩,刘 琦,刘沛骞(1208)

图形图像技术

结合注意力机制与多尺度特征融合的视频彩色化方法	周柯明,孔广黔,邓周灰(1214)
TCSNGAN: 基于 Transformer 和谱归一化 CNN 的图像生成模型	钱惠敏,毛邱凌,陈 实,韩怡星,吕本杰(1221)
基于可靠性集成的无监督域自适应行人重识别	文 锐,孔广黔,段 迅(1228)
基于形变估计与运动补偿的医学 CT 图像层间超分辨率算法	郑智震,郑茜颖,俞金玲(1234)
基于二重语义相关性图卷积网络的跨模态检索方法	刘佳楠,范晶晶,赵建光,朱 杰(1239)
基于多传感信息融合的语义词袋 SLAM 优化算法	袁 鹏,谷志茹,刘中伟,焦龙飞,毛麒云(1247)
改进视觉 Transformer 的视频插帧方法	石昌通,单鸿涛,郑光远,张玉金,刘怀远,宗智浩(1252)
AF-CenterNet: 基于交叉注意力机制的毫米波雷达和相机融合的目标检测	车 俐,吕连辉,蒋留兵(1258)
基于卷积胶囊编码器和多尺度局部特征共现的图像分割网络	秦辰栋,王永雄,张佳鹏(1264)
基于视觉强化学习的数字芯片全局布局方法	徐樊丰,全明磊(1270)
基于颜色编码和图像隐写术的可逆灰度方法	林焕然,朱姗姗,彭凌西,彭绍湖,林煜桐,谢 翔(1275)

信息集萃

下期期目	(1269)
------	--------

期刊基本参数:CN51-1196/TP * 1984 * m * A4 * 320 * zh * P * ￥50.00 * 3840 * 47 * 2024-04 * n

本期责任编辑 黄 莉 何 俐

Application Research of Computers

Vol. 41 No. 4 Apr. 2024

Contents

Survey

- Survey on regularization methods for convolutional neural network Chen Kun, Wang Anzhi(961)
Overview of security standard for Internet of Vehicles Di Xiaoqiang, Cao Jinhui, Wei Xinyue, *et al.* (970)

Technology of Blockchain

- Regulatory-friendly redactable blockchain solution Yu Wangnian, Zhao He, Tan Haibo, *et al.* (981)
Group consensus algorithm based on node dynamic scoring mechanism Shen Xueli, Li Xinru(989)
CS-Raft: Byzantine fault tolerant consensus algorithm for consortium chains Zhai Sheping, Nie Haonan, Lu Xianjing, *et al.* (995)

Special Topics in Fault Diagnosis

- Remaining useful life prediction of turbofan engines based on feature enhancement and spatio-temporal information embedding Li Yongcheng, Li Wenxiao, Lei Yinjie(1001)
Fault diagnosis of discrete event systems with unknown models Zhang Zhiheng, Wang Deguang(1008)
Lockup fault monitoring and diagnosis based on Sunway NMII Gao Chen, He Sheng, Hang Xiaoqian(1015)

Algorithm Research & Explore

- Method for inhomogeneous multi-task reinforcement learning based on morphological information encoding by graph embedding He Xiao, Wang Wenxue(1022)
Model of predicting motion trajectory of connected vehicles based on Informer algorithm Zhao Dongyu, Wang Zhijian, Song Chenglong(1029)
TRGATLog: log anomaly detection method based on log time relation graph attention network Chen Xu, Zhang Shuo, Jing Yongjun, *et al.* (1034)
Traffic flow prediction model based on combining periodic graph convolution network and multi-head attention GRU Zhong Linlan, Zhang Anqin, Tian Xiuxia(1041)
Novel method to attribute reduction based on information entropy weighting Luo Fan, Jiang Yu(1047)
Multi-task ordinal regression with task weight discovery Zeng Mengyue, Xiao Yanshan, Liu Bo(1052)
Density peak clustering algorithm based on grid neighbor optimization Liu Ji, Yang Jinrui(1058)
Periodic pattern mining based on recency and correlation constraints Yan Haibo, Xun Yaling, Ren Ziqian, *et al.* (1064)
CNN data quantization method based on reconfigurable array Zhu Jiayang, Jiang Lin, Li Yuancheng, *et al.* (1070)
Enhanced sparrow search algorithm by integrating niche mechanism and its application Li Dahai, Li Xin, Wang Zhendong(1077)
Whale optimization algorithm incorporating armed forces collaboration for community discovery Zhang Qiwen, Guan Dingkun(1086)
Graph theory network construction method and classification of high-order dynamic functional connections in MCI patients Wang Xia, Wang Yong, Wu Haifeng, *et al.* (1094)
Backtracking algorithm with reduction for location problem of second level waste recycling and transfer facilities Liu Shu'ao, Ning Aibing, Lin Daohan, *et al.* (1104)

Speech enhancement method based on two-branch attention and U-Net Cao Jie, Wang Chenzhang, Liang Haopeng, *et al.* (1112)

Improved bidirectional dynamic JPS algorithm for global path planning of mobile robot Liu Ronghua, Wang Xin, Wu Di, *et al.* (1117)

System Development & Application

ECG-based emotion recognition based on contrastive learning Long Jinyi, Fang Jinglong, Liu Siwei, *et al.* (1123)

Cross-modal recipe retrieval method based on modality semantic enhancement Li Ming, Zhou Dong, Lei Fang, *et al.* (1131)

Research on extrapolation of radar echo prediction sequence for rainfall prediction Luo Jianwen, Zou Maoyang, Yang Hao, *et al.* (1138)

Technology of Network & Communication

UAV 3D deployment and content caching optimization for mobile edge computing Tang Huanbo, Chen Xing, Zhang Jianshan (1143)

Multi-video stream bandwidth allocation strategy based on federated consensus mechanism Zhang Chunyang, Yang Zhigang, Liu Yazhi, *et al.* (1150)

Research on sparse channel estimation for intelligent reflecting surface aided OFDM system Zhu Junjie, Peng Ling (1159)

Task offload in edge computing based on evolutionary multi task multi-objective optimization Kong Shan, Zheng Yuqi (1164)

Technology of Information Security

Defense method on poisoning attack based on clients in federated learning Liu Jinquan, Zhang Zheng, Chen Zidong, *et al.* (1171)

Reversible data hiding method for JPEG images based on modularized optimization Zhang Cheng, Ou Bo, Liao Xin (1177)

Privacy preserving algorithm in indoor localization of multilevel sensitive areas Song Weiran, Huang Xinyi, Le Yanfen (1184)

Identity-based multiparty authenticated key agreement protocol for smart homes from lattice Ni Liang, Liu Xiaoyan, Gu Bingke, *et al.* (1191)

Privacy-preserving KNN query method for streaming data in power Internet of Things Yi Yeqing, Yi YingJie, Liu YunRu, *et al.* (1198)

Edge-assisted crowdsensing location privacy protection multi-task allocation mechanism Ao Shan, Chang Xian, Wang Hui, *et al.* (1208)

Technology of Graphic & Image

Video colorization method combining attention mechanism and multi-scale feature fusion Zhou Keming, Kong Guangqian, Deng Zhouhui (1214)

TCSNGAN: image generation model based on Transformer and CNN with spectral normalization Qian Huimin, Mao Qiuling, Chen Shi, *et al.* (1221)

Unsupervised domain adaptive person re-identification based on reliability integration Wen Rui, Kong Guangqian, Duan Xun (1228)

Medical CT images inter-slice super-resolution algorithm based on deformation estimation and motion compensation
..... Zheng Zhizhen, Zheng Qianying, Yu Jinling (1234)

Dual semantic correlation graph convolutional networks for cross-modal retrieval Liu Jianan, Fan Jingjing, Zhao Jianguang, *et al.* (1239)

Multi-sensor information fusion SLAM based on semantic word bags Yuan Peng, Gu Zhiru, Liu Zhongwei, *et al.* (1247)

Video frame interpolation method based on improved visual Transformer Shi Changtong, Shan Hongtao, Zheng Guangyuan, *et al.* (1252)

AF-CenterNet: object detection with fusion of millimeter-wave radar and camera using cross-attention mechanism
..... Che Li, Lyu Lianhui, Jiang Liubing (1258)

Medical image segmentation network based on convolution capsule encoder and multi-scale local feature co-occurrence
..... Qin Chendong, Wang Yongxiong, Zhang Jiapeng (1264)

Visual-based reinforcement learning for digital chip global placement Xu Fanfeng, Tong Minglei (1270)

Invertible grayscale method based on color coding and image steganography Lin Huanran, Zhu Shanshan, Peng Lingxi, *et al.* (1275)