

工矿自动化

第 48 卷 第 8 期 2022 年 8 月

目 次

· 青年专家委员学术专栏 ·

液压支架精准推移与快速跟机技术研究现状及发展趋势.....
.....任怀伟 张帅 张德生 周杰 任长忠 苗兴 刘科 侯炜(1)

矿山物联网区块链机制研究..... 张立亚 李晨鑫 刘斌 姜玉峰(10)

· 综述 ·

本质安全低压直流电路放电理论及数值研究综述..... 朱林 刘树林 刘柏清 蒋漳河(16)

· 实验研究 ·

并联式选矸机器人路径规划研究..... 黄金凤 张建喜 于江涛 苗术信(26)

基于深度神经网络的综采工作面视频目标检测..... 杨艺 付泽峰 高有进 崔科飞 王科平(33)

基于 TopHat 加权引导滤波的 Retinex 矿井图像增强算法..... 洪炎 朱丹萍 龚平顺(43)

基于改进反馈神经网络的煤矸石图像分类模型..... 闫洪霖(50)

特厚煤层综放开采底板变形破坏深度研究..... 侯俊华(56)

深部突出煤层采动断裂带发育高度确定研究..... 郭明功 陶云奇 张剑钊(62)

正、逆断层上盘开采冲击地压危险性分析..... 魏世明 王富莹 张泽升 靳梦帆(69)

基于光反射率突变的受力岩石裂纹提取方法..... 高祥 高亚楠(76)

单轴压缩条件下不同含水率煤体裂纹扩展及破坏模式研究..... 卢卫永 刘琦 屈丽娜 张海军(85)

基于 RCMDE 和 KFCM 的煤矿电网故障选线方法..... 韩国国 史小军 王晖 程卫健 穆艳祥(92)

矿用高频隔离型变频调速无速度传感器矢量控制..... 刘文壮 刘建功 王毅颖 伯磊 郝育红(100)

· 经验交流 ·

基于故障树的柔索驱动拣矸机器人系统分拣可靠性研究..... 乔心州 武琛琛 刘鹏 樊红卫 毛清华(107)

基于风险监测预警的非煤矿山安全监管监察模式..... 姜红年 陈小林 王超 胡然 张羽(114)

矿用综合调度管控平台设计..... 陈华颖 杜志刚 宋兴家(122)

智能矿井多元监控数据集成关键技术研究..... 李国民 章鳌 贺耀宜 高文 黄综浏(127)

基于微震监测的厚层散层大采高工作面围岩破坏规律研究..... 衡培国 翟常治 辛崇伟 王延路 陈洋(131)

基于综合赋权的煤层底板突水危险性评价..... 郑剑英(140)

· 广告索引 ·

公益广告(后插一); 华洋通信科技股份有限公司(后插二、三); 天地(常州)自动化股份有限公司(后插四、五);
《工矿自动化》征稿启事(后插六)

期刊基本参数:CN 32-1627/TP * 1978 * m * A4 * 146 * zh * P * ¥30.00 * 2000 * 20 * 2022-08

JOURNAL OF MINE AUTOMATION

Vol. 48 No. 8 August 2022

CONTENTS

• Academic Column of Young Expert Committee •

- Research status and development trend of hydraulic support precision pushing and fast follow-up technology
..... *REN Huaiwei ZHANG Shuai ZHANG Desheng ZHOU Jie REN Changzhong MIAO Xing LIU Ke HOU Wei* (1)
- Research on blockchain mechanism of mine Internet of things *ZHANG Liya LI Chenxin LIU Bin JIANG Yufeng* (10)

• Overview •

- Review of discharge theory and numerical research on intrinsically safe low voltage DC circuits
..... *ZHU Lin LIU Shulin LIU Boqing JIANG Zhanghe* (16)

• Experimental Research •

- Research on path planning of parallel gangue selection robot *HUANG Jinfeng ZHANG Jianxi YU Jiangtao MIAO Shuji* (26)
- Video object detection of the fully mechanized working face based on deep neural network
..... *YANG Yi FU Zefeng GAO Youjin CUI Kefei WANG Keping* (33)
- Retinex mine image enhancement algorithm based on TopHat weighted guided filtering
..... *HONG Yan ZHU Danping GONG Pingshun* (43)
- Coal and gangue image classification model based on improved feedback neural network *YAN Honglin* (50)
- Research on the deformation and failure depth of the floor in fully mechanized top coal caving of extra-thick seam
..... *HOU Junhua* (56)
- Study on determination of development height of mining-induced fissure zone in deep outburst coal seam
..... *GUO Minggong TAO Yunqi ZHANG Jianzhao* (62)
- Analysis of rock burst risk of mining in hanging wall of normal and reverse faults
..... *WEI Shiming WANG Fuying ZHANG Zesheng JIN Mengfan* (69)
- Method for extracting stressed rock crack based on light reflectivity mutation *GAO Xiang GAO Yanan* (76)
- Study on coal crack propagation and failure mode with different moisture content under uniaxial compression
..... *LU Weiyong LIU Qi QU Lina ZHANG Haijun* (85)
- Fault line selection method for coal mine power grid based on RCMDE and KFCM
..... *HAN Guoguo SHI Xiaojun WANG Hui CHENG Weijian MU Yanxiang* (92)
- High-frequency isolated variable frequency speed regulation sensorless vector control in mine
..... *LIU Wenzhuang LIU Jianguo WANG Yiyang BO Lei HAO Yuhong* (100)

• Experience Exchange •

- Research on sorting reliability of cable-driven gangue sorting robot system based on fault tree
..... *QIAO Xinzhou WU Chenchen LIU Peng FAN Hongwei MAO Qinghua* (107)
- Non-coal mine safety supervision mode based on risk monitoring and early warning
..... *JIANG Hongnian CHEN Xiaolin WANG Chao HU Ran ZHANG Yu* (114)
- Design of mine integrated dispatching management and control platform *CHEN Huaying DU Zhigang SONG Xingjia* (122)
- Research on key technologies of multi-element monitoring data integration in intelligent mine
..... *LI Guomin ZHANG Ao HE Yaoyi GAO Wen HUANG Zongliu* (127)
- Research on surrounding rock failure law of large mining height working face in thick loose layer based on microseismic monitoring ..
..... *HENG Peiguo ZHAI Changzhi XIN Chongwei WANG Yanlu CHEN Yang* (131)
- Risk assessment of water inrush from coal seam floor based on comprehensive weighting *ZHENG Jianying* (140)