

看得见的放样利器

天越 实景放样RTK

- 5星21频, 1598通道, 信号超强
- 全新SOC平台, 开机秒固定
- 全新增强RTK算法, 抗电离层干扰
- 口袋机身, 加持“云测量”
- 超级惯导, 无感校正
- 放样云协同, 内外业一体化

实景放样:

RTK与影像结合, 放样点
在影像中实地标出, 不用
来回挪杆, 一杆即放



测绘与空间地理信息

KOLIDA 科力达

地址: 广州市天河区思成路39号地理信息产业园8楼 邮箱: kolida@163.com
电话: 020-22131700 传真: 020-22131709 网址: www.kolida.com.cn



主管: 黑龙江测绘地理信息局

主办: 黑龙江省测绘地理信息学会

出版: 《测绘与空间地理信息》编辑部

发行: 全国各地邮局(所)及本刊编辑部

全国优秀测绘期刊

《中国核心期刊(遴选)数据库》收录期刊

中国学术期刊综合评价数据库统计源期刊

《CAJ-CD规范》执行优秀期刊

中国期刊全文数据库全文收录期刊

2023 3

(月刊)

Vol.46 No.3

支撑自然资源管理

服务生态文明建设

目次

2023年第3期(总第46卷第287期)

博士园地

- 以学科竞赛为核心的地理信息科学一流专业建设
…………… 张 驰,王英利,蒋庆丰,等(1)
- 泛在测绘背景下GIS专业虚拟现实课程教学改革与实践
…………… 窦世卿,范冬林,徐 勇,等(4)
- 地籍测量在线学习满意度研究
…………… 贺 鹏,毕如田,韩慧菲,等(8)
- 基于SegNet_CRF的遥感影像水体提取方法
…………… 林 娜,王玉莹,郭 江,等(12)

基金项目专栏

- 测量学教学实习若干问题的思考与实践
…………… 曾绍炳,张求喜,邱小梦,等(16)
- 多特征优选的Sentinel-2A影像随机森林分类研究
…………… 陈 果,李乐林,陈 浩,等(19)
- 工程教育认证背景下测量学课程教学改革实践
…………… 王 颖,严 勇,王 鹏(24)
- 基于SBAS技术的鹤岗市西南地区地面沉降监测研究
…………… 陈 曦,武丽梅,赵 琳,等(28)
- 高空间分辨率遥感影像建筑物自动提取方法综述
…………… 高妙仙,吴新辉(32)
- 无人船测绘系统在矿坑水域测量中的应用
…………… 刘胜震,陈景涛,张德成(35)
- 基于Landsat卫星影像的黄河三角洲盐地碱蓬变化监测
…………… 范璞然,蔡玉林,柳 佳,等(38)
- 微观尺度下城市快递网点空间格局及影响因素
——以成都市中心城区为例
…………… 夏文亮,朱勤东,刘 敏,等(42)
- 结合多源遥感影像与面向对象方法的桑树信息提取
…………… 张家玫,杨绍镠,黄启厅,等(47)
- 基于点云三维重建的参数敏感性分析
…………… 王 康(51)

- 基于重力梯度信号的地下隧道探测方法研究
…………… 金湘博,万晓云,李明岳(55)
- GIS支持下生态敏感性评价
——以济南市长清区为例
…………… 孙文超,谢乾波,李 晴,等(60)
- 基于学习通的“工程测量”混合式教学研究与实践
…………… 孟福军,岳胜如,张冬亚(64)
- 基于POI的成都市核心城区商业空间格局研究
…………… 刘 敏,朱勤东,夏文亮(68)
- 基于多光谱和全色影像的精分波段融合算法研究
…………… 张艳秋,李艳芳(73)
- 基于DEM的坡度数据生产关键技术应用与实践
…………… 申亚斌,周 旋,邱程锦(76)

3S技术与应用

- 基于GIS的国土空间规划“一张图”实施监督系统的设计与实现
…………… 夏勤浩(79)
- 基于遥感影像分层识别法的古村落地理空间景观格局分析研究
…………… 李祖勤(83)
- 基于ArcGIS的30 m地表覆盖数据生产与质检软件研发与应用
…………… 陈 适,田清丰,马文涛,等(87)
- ArcSDE在1:50 000地形数据库更新项目数据接边中的应用
…………… 付洪波,王丽欣,王永澍(91)
- ArcPy在全民所有自然资源资产清查中的应用
…………… 郭文庆,陈鹏洲,孟德彪(94)
- 自然资源西藏遥感影像服务平台的设计与实现
…………… 邓忠军(97)
- 浅谈1:10 000基础地理信息数据库升级技术路线
…………… 闻 静(102)

基于无人机多光谱遥感技术监测松材线虫病的实验研究 周小杰,任广波,陈宗强,等(106)	《广东省海岸线修测图集》的设计与快速成图技术 伍夏怡(165)
BDS三频长基线RTK定位性能分析 杨国庆(110)	基于RTK实时定位的水深测量精度检验方法研究 王开春(168)
地名管理与服务平台的开发应用 梁一(114)	基于车载激光点云的道路全要素地形图生产方法研究 郑海玲(171)
1:2 000基础数字线划图动态更新质检方法研究——以浙江省为例 吴为民(116)	无人机低空倾斜摄影测量产品质量研究 李云星,李俊仪,李如川(175)
大地高转换为正常高的多种算法比较 袁超(120)	大疆无人机在垦造水田竣工验收项目中的应用 郑哲瀚,蒋王军(179)
基于遥感影像的聂拉木县冲堆普冰湖变化研究 崔小芳,李杰,张浩亮(124)	张吉怀高速铁路隧道沉降变形观测与数据处理 张笑凡(182)
面向对象的乌金塘水库水体提取研究分析 刘迎波(128)	房地一体权籍调查方法研究与应用 陈瀚祥(185)
低轨通信卫星增强GNSS定位性能分析 周舒涵,陈明剑,景鑫,等(131)	无人机倾斜摄影与历史数字航空摄影测量技术在征迁测绘中的应用 张宾(189)
基于“天地图”的旅游地理信息服务系统建设研究 李文斌(135)	浅谈探地雷达在上水管线探测中的应用 刘康,李永强,郭程亮(192)
基于Hatch载波相位平滑算法的Galileo双频精密单点定位性能研究 彭嘉浚,石迪迪,王沁(138)	GNSS软件在地质灾害监测中的精度分析及思考 郭倩倩,刘诗云,潘伟锋(194)
国土空间规划管理移动端系统设计与实现 刘子巍(142)	无人机机载LiDAR航测技术道路测绘应用效果分析 杨智文(198)
基于地理国情的城市要素流量变化分析方法研究——以上海市为例 徐琳(145)	基于高光谱数据的土壤速氮含量反演模型比较 王薪宇(201)
广东省年度地理国情监测思路探讨及技术研究 王伟娟,刘明素,徐启恒,等(150)	植被覆盖度监测的比例尺地形图数据整合系统 蔡淑平(205)
城市三维规划管理审批系统设计与实现 徐刚,寿建芳,毛小红(154)	基于国防定制模式的大比例尺地形图测绘 王卓苧,霍爱梅,任丽秋,等(208)
COVID-19疫情期间人类活动减少对植被生长的影响 李扬,朱丹瑶,万鲁河,等(157)	浅析城市遥感影像地图分类制作方法 方焕焕(211)
测绘工程	多元回归模型在同监测面中沉降拟合应用 张邵贺(216)
AutoCAD二次开发在大比例尺地形图更新中的应用研究 许冬亮(162)	建筑面积计算标准统一问题研究 曾翊城,黄杰云,高春辉,等(218)
	建筑物地面变形监测技术及应用 刘璐,谢方,马新莹,等(221)

Doctor Column

The Construction of the First-Class Specialty of Geographic Information Science with Subject Competition as the Core

..... ZHANG Chi, WANG Yingli, JIANG Qingfeng, et al.(1)

Teaching Reform and Practice of Virtual Reality Course in GIS Specialty under the Background of Ubiquitous Geomatics

..... DOU Shiqing, FAN Donglin, XU Yong, et al.(4)

Study on Online Learning Satisfaction of Cadastral Survey

..... HE Peng, BI Rutian, HAN Huifei, et al.(8)

A Method of Water Extraction from Remote Sensing Images Based on SegNet_CRF

..... LIN Na, WANG Yuying, GUO Jiang, et al.(12)

Fund Projects Column

Reflection and Practice on Problems in Surveying Teaching Practice

..... ZENG Shaobing, ZHANG Qiuxi, QIU Xiaomeng, et al.(16)

A Methodology of Random Forest Classification for Sentinel-2A Image Based on Multi-feature Optimization

..... CHEN Guo, LI Lelin, CHEN Hao, et al.(19)

Practice of Comprehensive Reform of Surveying Course under the Background of Engineering Education Certification

..... WANG Ying, YAN Yong, WANG Peng(24)

Research on Land Subsidence Monitoring in Southwest Area of Hegang City Based on SBAS Technology

..... CHEN Xi, WU Limei, ZHAO Lin, et al.(28)

Discussion on Building Automatic Extraction Methods from High Spatial Resolution Remote Sensing Imagery

..... GAO Miaoxian, WU Xinhui(32)

Application of Unmanned Ship Survey System in Bathymetric Surveying for Mine Lakes

..... LIU Shengzhen, CHEN Jingtao, ZHANG Decheng(35)

Monitoring of Suaeda Salsa Changes in the Yellow River Delta Based on Landsat Satellite Images

..... FAN Puran, CAI Yulin, LIU Jia, et al.(38)

Spatial Pattern and Influencing Factors of Urban Express Outlets at Micro Scale:

Take the Downtown Area of Chengdu as an Example

..... XIA Wenliang, ZHU Qindong, LIU Min, et al.(42)

Extraction of Mulberry Tree Information by Combining Multi-source Remote Sensing Images and Object-oriented Method

..... ZHANG Jiamei, YANG Shao'e, HUANG Qiting, et al.(47)

Sensitivity Analysis of Parameters Based on 3D Point Cloud Reconstruction

..... WANG Kang(51)

Research on Underground Tunnel Detection Based on Gravity Gradient Signal

..... JIN Xiangbo, WAN Xiaoyun, LI Mingyue(55)

Ecological Sensitivity Assessment Based on GIS:

Take Changqing District of Jinan as an Example

..... SUN Wenchao, XIE Qianbo, LI Qing, et al.(60)

Research and Practice of Blended Teaching of "Engineering Survey" Based on Superstar Learning APP

..... MENG Fujun, YUE Shengru, ZHANG Dongya(64)

Research on Commerce Spatial Pattern of Core Urban Area in Chengdu Based on POI Data

..... LIU Min, ZHU Qindong, XIA Wenliang(68)

Research on Multi-spectral and Panchromatic Image Fusion Approach Using Precisely Resolved Band

..... ZHANG Yanqiu, LI Yanfang(73)

Application and Practice of Key Technologies in Slope Data Production Based on DEM

..... SHEN Yabin, ZHOU Xuan, QIU Chengjin(76)

3S Technology and Its Application

Design and Realization of Territorial Spatial Planning "One Map" Implementation Supervision System Based on GIS

..... XIA Qinshao(79)

Analysis and Study of Geospatial Landscape Pattern of Ancient Villages Based on Remote Sensing Image Layered Recognition Method

..... LI Zuqin(83)

Development and Application of 30 m Surface Coverage Data Production and Quality Inspection Software Based on ArcGIS

..... CHEN Shi, TIAN Qingfeng, MA Wentao, et al.(87)

Application of ArcSDE in the Data Edge Connection Phase of 1:50 000 Scale Topographic Database Updating Project

..... FU Hongbo, WANG Lixin, WANG Yongshu(91)

Application of ArcPy in the Inventory of National Natural Resources Assets

..... GUO Wenqing, CHEN Pengzhou, MENG Debiao(94)

Design and Implementation of Remote Sensing Image Service Platform for Natural Resources in Tibet

..... DENG Zhongjun(97)

Discussion on the Technical Route of 1:10 000 Scale Basic Geographic Information Database Upgrade

..... WEN Jing(102)

Experimental Study on Monitoring Pine Wood Nematode Disease Based on UAV Multi-spectral Remote Sensing Technology

..... ZHOU Xiaojie, REN Guangbo, CHEN Zongqiang, et al.(106)

Performance Analysis of BDS Tri-band Long Baseline RTK Positioning YANG Guoqing(110)	Research on Accuracy Inspection Method of Real-time Positioning Water Depth Survey Based on RTK WANG Kaichun(168)
The Development and Application of Place Name Management and Service Platform LIANG Yi(114)	Research on Production Method of Road All Element Topographic Maps Based on Vehicle-borne Laser Point Cloud ZHENG Hailing(171)
Research on Quality Inspection Method of 1:2 000 Fundamental Digital Line Graph Dynamic Updating: Taking Zhejiang Province as an Example WU Weimin(116)	Research on Product Quality of UAV Low-altitude Tilt Photogrammetry LI Yunxing, LI Junyi, LI Ruchuan(175)
Comparison of Various Algorithms for Converting Geodetic Height to Normal Height YUAN Chao(120)	Application of Dajiang UAV in Completion Acceptance Project of Reclaimed Paddy Fields ZHENG Zhehan, JIANG Wangjun(179)
Study on the Change of Chongduipu Glacial Lake in Nyalam County Based on Remote Sensing Images CUI Xiaofang, LI Jie, ZHANG Haoliang(124)	Tunnel Settlement Observation and Data Processing of Zhangji-huai High Speed Railway ZHANG Xiaofan(182)
Research and Analysis of Object-Oriented Water Extraction in Wujintang Reservoir LIU Yingbo(128)	Research and Application of Integrated Cadastral Survey Method of Land and House CHEN Hanxiang(185)
Augmented GNSS Positioning Performance Analysis of LEO Communication Satellite ZHOU Shuhan, CHEN Mingjian, JING Xin, et al.(131)	Application of UAV Oblique Photography and Historical Digital Aerial Photogrammetry Technology in Demolition Measurement ZHANG Bin(189)
Research on the Construction of Tourism Geography Information Service System Based on "Map World" LI Wenbin(135)	Application of Ground Penetrating Radar in Detection of Water Supply Pipeline LIU Kang, LI Yongqiang, GUO Chengliang(192)
Research on Galileo Dual-frequency Precise Single Point Positioning Performance Based on Hatch Carrier Phase Smoothing Algorithm PENG Jiajun, SHI Didi, WANG Qin(138)	Accuracy Analysis and Thoughts on GNSS Software in Geological Disaster Monitoring GUO Qianqian, LIU Shiyun, PAN Weifeng(194)
Design and Implementation of Mobile Terminal System for Territorial Space Planning and Management LIU Ziwei(142)	Analysis of Application Effect of UAV Airborne LiDAR Aerial Survey Technology in Road Mapping YANG Zhiwen(198)
Research on the Analysis Method of Urban Element Flow Change Based on National Geographical Conditions: Illustrated by the Case of Shanghai City XU Lin(145)	Comparison on Inversion Models of Soil Rapid Nitrogen Content Based on Hyperspectral Data WANG Xinyu(201)
Discussion on the Thought and Technology of Annual National Geographic Conditions Monitoring in Guangdong Province WANG Weijuan, LIU Mingsu, XU Qiheng, et al.(150)	Data Integration System of Scale Topographic Map for Vegetation Coverage Monitoring CAI Shuping(205)
Design and Implementation of Urban Three-dimensional Planning Management and Approval System XU Gang, SHOU Jianfang, MAO Xiaohong(154)	Large-scale Topographic Map Surveying and Mapping Based on the National Defense Customization Mode WANG Zhuoning, HUO Aimei, REN Liqiu, et al.(208)
Impacts of Reduced Human Activities on Vegetation Growth During COVID-19 Epidemic LI Yang, ZHU Danyao, WAN Luhe, et al.(157)	Analysis of Classification and Production Methods of Urban Remote Sensing Image Map FANG Huanhuan(211)
S/M Engineering	Application of Multiple Regression Model in Settlement Fitting of the Same Monitoring Surface ZHANG Shaohe(216)
Research on the Application of AutoCAD Secondary Development in Updating Large Scale Topographic Maps XU Dongliang(162)	Research about the Unification of Building Area Calculation Standards ZENG Yicheng, HUANG Jieyun, GAO Chunhui, et al.(218)
The Design and Rapid Mapping Technologies of "The Atlas of Guangdong Province Coastline Revision Survey" WU Xiayi(165)	Building Ground Deformation Monitoring Technology and Application LIU Lu, XIE Fang, MA Xinying, et al.(221)