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遥感、GIS结合与区域天然滑坡调查 [点此下载全文](#)

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摘要:

以香港大屿山岛中部为试验研究区, 探讨了遥感与GIS结合在区域滑坡调查中应用的可能性。在详细分析滑坡与环境因子关系后, 将岩土类型、地貌、侵蚀、坡度等环境因子引入到影像中, 与影像组成多源复合图像, 可使地物的空间属性信息得到补充。同时采用适合高维复合数据的BP神经网络对研究区天然滑坡进行识别, 结果表明, 区域滑坡的识别能力有较大提高。该方法的应用, 将为大区域滑坡调查与监测奠定基础。

关键词: [遥感](#) [GIS](#) [环境因子](#) [BP神经网络](#) [区域滑坡识别](#) [地理信息系统](#) [地貌](#) [侵蚀](#) [坡度](#)

Integration of RS and GIS and Its Application to the Investigation of Regional Natural Landslides [Download Fulltext](#)

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Abstract:

The middle part of the Lantau Island is selected as the experimental area in the study. The potential application of remote sensing and GIS are discussed and the relationship between landslide and environmental factors is analyzed. In the study, geological, geomorphological and erosion maps and DEM etc. are input to images, in which the information of surface objects are strengthened. Multi - original data Fusion images are created. The BP neural network classification is applied in the study area to recognizing regional natural landslides. The results show that the recognizing ability has been markedly improved. The method will provide an important scientific basis for the investigation and monitor of regional landslides.

Keywords: [integration of Remote Sensing and GIS](#) [environmental factor](#) [BP Neural Network](#) [recognition of regional landslide](#)

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