基于物联网的旅游人群密集区踩踏风险图像监控方法研究

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摘 要：旅游人群密集区踩踏的行为存在很大的突发性和随机性，关键反映特征易受到遮挡，存在监控死角，传统监控方法缺少独立行为识别能力.由于受到遮挡的影响，对一些疑似行为的识别不够准确，对此提出一种基于物联网的旅游人群密集区踩踏风险图像监控方法，分析了物联网监控平台，提取旅游人群密集区踩踏风险图像的Hu不变矩特征，将其输入RBF神经网络中进行学习和分类，获取各种类型的旅游人群密集区踩踏行为，将测试样本输入建立的RBF神经网络模型中进行测试，与RBF网络输出相应的测试样本即为旅游密集区踩踏风险图像，从而实现旅游密集区踩踏风险图像监控.仿真实验结果表明，采用所提方法对旅游人群密集区踩踏风险图像进行监控，识别准确率及效率均较传统方法有很大的改善.

关键词：物联网；旅游人群密集区；踩踏风险；监控
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Image Monitoring Method Research Based on the Internet of Things Crowded Areas Tourism Trampling Risk

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Abstract: The behavior that the crowded areas tourism is quite sudden and randomicity, key to reflect the characteristics of susceptible to keep out, there is monitoring blind Angle, the traditional approach to monitoring recognition ability, lack of independent behavior is affected by the block, on some suspected behavior lack of accurate identification, puts forward a kind of based on Internet of things crowded areas tourism trampling risk image monitoring method, analyzes the Internet monitoring platform, to extract the crowded areas tourism trampling risk Hu moment invariant features of the image and the input of RBF neural network learning and classification, crowded areas for various types of tourism trampling behavior, will test samples in the input of RBF neural network model is established to test, and the RBF network output corresponding test sample trample risk image is the tourism concentration areas, so as to realize tourism cluster trample image monitoring risk. The simulation results show that the proposed method in crowded areas tourism trampling risk monitor image, accuracy and efficiency than traditional methods have greatly improved.

Key words: the Internet of things; tourism crowded areas; stamp on risk; monitoring

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