Shadow Removal Techniques in an Environment with Moving Light Sources

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ABSTRACT

As more dark environment at night, resulting in images captured by surveillance equipment is less clear, those operations to increase opportunities for criminal intent, intelligent control system for moving object detection, in the night environment, the target may be subject to environmental movement light effects, such as: automotive, machine lights, etc., and cause changes in the shadow, intelligent surveillance system to detect moving objects, likely to cause false positives, leading to follow-up analysis and tracking ineffective. Therefore, in order to make intelligent monitoring system, more accurate detection of moving objects, the study environment for the mobile light source, object shadow removal do related research. First of all, for the night environment, according to the characteristics of mobile light source, light detection position, and then, using bright feature analysis to determine areas of focus light color, and previously trained in the background model, simulate the illumination area. Then, through the shadow of established models were generated for different objects, we conducted an analysis shadow pixel color, foreground objects and shadows removed to reduce the shadow effect, the experimental results obtained Leung good objects detection, verification In order to approach in this study, the feasibility.

Keywords : mobile source environment   region of interest   shadow removal

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