ABSTRACT

Detecting and tracking objects are main processes in automation video analysis. Most of studies in object detection and tracking are obtained from separating foreground and background by relying on information from limited temporal. However, when the video was taken in the outdoor video scene, noisy obstacles frequently perturb our effort to detecting object. This resulted, background is very dynamic and object is not success detected. In addressing the problem of dynamic background, we need evaluate of patterns movement objects continuously. The related studies of moving object detection until now are focused on improving the segmentation foreground and background. So the system will require additional significant process to track the object. In this study, we tried to improve functionality of the moving object detection to tracking the object by proposing a procedure for evaluation of spatio-temporal. Spatio-temporal will be evaluated from two directions: vertical and horizontal. By utilizing the information from the vertical and horizontal directions, our procedures managed to reduce the evaluation process, which use the whole pixel on each frame. In addition, the results of the experiment showed that our procedures are able to detect and also get a trajectory of an object with the recall:0.65, precision:0.75, f-measure:0.64 and recognition rate about 0.76.

Keywords: Moving Object Detection, Object Tracking, Dynamic Background, Spatio-Temporal