Abandoned Object Detection using Temporal Consistency Modeling

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 164
Number 10

Year of Publication: 2017

Authors:
Divya C. Patil, Pravin S. Patil

10.5120/ijca2017913707

Abstract

In this paper an effective approach for detecting the abandoned object/luggage for video surveillance is present. Here the long-term and short-term background models are combined to extract foreground objects, where each pixel in an input is classified as two bit code. To identify the static foreground regions, a framework is used based on the temporal transition of code pattern and it also determines whether the candidate regions contain the abandoned object by analyzing the back traced trajectories of luggage owner. This paper also introduces the real-time application of proposed method. The real-time application is performed by using raspberry-pi processor and the raspberry-pi camera. The experimental results show that, the proposed approach is effective for detecting abandoned object/luggage.

References

Abandoned Object Detection using Temporal Consistency Modeling

2. Int. Workshop PETS,
19. S. Agarwal, A. Awan, and D. Roth, “Learning to detect objects in images via a sparse,

Index Terms

Computer Science  Image Processing

Keywords

Abandoned object detection, long-term background model, short-term background model, visual surveillance, pixel based finite state machine, image processing.