Abstract

Currently there is a huge variety of methods that have been developed to determine the location of a moving object using digital image. Multiple approaches have been proposed in the field of computational vision such as: obtaining parameters of position and velocity of an object over time; following suspicious people in a given environment; automating the collection of information of vehicle plates; moving a camera to automatically follow a ball in a soccer match; or deciding whether a product on a production line in the industry is within the quality standards. This article compiles a brief summary of four techniques related to tracking objects in digital videos. The objective of this work is to present some of the main methods developed so far, show the general structure of the algorithm, address the mathematical fundamentals and their characteristics, and list the important papers and applications that use them. The review is based on some of the work and theory of methods performed so far. The progress made so far and the main challenges still unresolved will also be evaluated. Among the several studies, was observed that the various techniques can be used in various combinations to solve a given
problem in computer vision, thus mastering such topics is essential for the development of technology in computer vision systems.

References

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Index Terms

Computer Science Algorithms

Keywords

Visual tracking, visual machine, surveillance