

The Trajectory of the Ball in Football Game

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Abstract : Tracking of moving and flying targets is one of the most important issues in image processing topic. Estimating of trajectory of desired object in short-term and long-term scale is more important than tracking of moving and flying targets. In this paper, a new way of identifying and estimating of future trajectory of a moving ball in long-term scale is estimated by using synthesis and interaction of image processing algorithms including noise removal and image segmentation, Kalman filter algorithm in order to estimating of trajectory of ball in football game in short-term scale and intelligent adaptive neuro-fuzzy algorithm based on time series of traverse distance. The proposed system attain more than 96% identify accuracy by using aforesaid methods and relaying on aforesaid algorithms and data base video in format of synthesis and interaction. Although the present method has high precision, it is time consuming. By comparing this method with other methods we realize the accuracy and efficiency of that.

Keywords : tracking, signal processing, moving targets and flying, artificial intelligent systems, estimating of trajectory, Kalman filter

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