Abstract

The Wireless Multimedia Sensor Network consists cameras at the sensor node in visual data application. These camera sensor devices capture their observations limited by the FoV as an image. There is a correlation between images captured by multiple cameras at a particular area. This leads to the redundant data transmission in the network. As the sensor node are battery powered and resource limited. Hence these scare resources should be used efficiently. This paper focuses on implementation of entropy correlation coefficient model in WMSN for visual data. The implementation of entropy, joint entropy and mutual information is performed to estimate an ECC which describes correlation characteristics of images observed by camera with overlapped sensing area. SIFT algorithm is used to perform the merging operations between two images. Using the RANSAC algorithm features are matched and the homography between two images are found. The results obtained satisfies the relation between ECC and Joint entropy.

Index Terms

Computer Science

Wireless

Keywords
Source image entropy, mutual Information, joint entropy, ECC, SIFT.