World Academy of Science, Engineering and Technology International Journal of Mathematical and Computational Sciences Vol:9, No:11, 2015

Detect Circles in Image: Using Statistical Image Analysis

Authors: Fathi M. O. Hamed, Salma F. Elkofhaifee

Abstract : The aim of this work is to detect geometrical shape objects in an image. In this paper, the object is considered to be as a circle shape. The identification requires find three characteristics, which are number, size, and location of the object. To achieve the goal of this work, this paper presents an algorithm that combines from some of statistical approaches and image analysis techniques. This algorithm has been implemented to arrive at the major objectives in this paper. The algorithm has been evaluated by using simulated data, and yields good results, and then it has been applied to real data.

Keywords: image processing, median filter, projection, scale-space, segmentation, threshold **Conference Title:** ICPS 2015: International Conference on Probability and Statistics

Conference Location: London, United Kingdom Conference Dates: November 27-28, 2015