Abstract

Image processing is an effective tool for analysis in various fields and applications in agriculture. Today’s very advanced and automated industries use more accurate methods for different inspection processes of agricultural objects. This task is known as robotics task. In the Indian agriculture industry, many kinds of activities are done like quality inspection, sorting, assembly, painting, and packaging. Activities mentioned above are done manually. By using Digital Image processing tasks done conveniently and easily. Using Digital image processing many kinds of task fulfill like object shape, size, color detection, texture extraction, firmness of object, aroma, maturity, etc. In this paper, various algorithms of shape detection are explained, and conclusions are provided for the best algorithm, even merits and demerits of each algorithm or method are described precisely.

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**Index Terms**

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**Keywords**

fruit grading, shape, texture, feature extraction, classification