Image processing is 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 robotic task. In the Indian agricultural industry, many kinds of activities are conducted like quality inspection, sorting, assembly, painting, and packaging. Above-mentioned activities are done manually. By using Digital Image Processing, these tasks can be done conveniently and easily. Using Digital image processing, many kinds of tasks are fulfilled like object shape, size, color detection, texture extraction, firmness of the 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.

References
6. Stan Sclaroff, Member, IEEE, and Lifeng Liu. ”Deformable Shape Detection and Description via Model-Based Region Grouping” IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, VOL. 23, NO. 5, MAY 2001 475
7. Sanket Rege1, Rajendra Memane2, Mihir Phatak3, Parag Agarwal4 “2d geometric shape and color recognition using digital image processing” IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, VOL. 23, NO. 5, MAY 2001
11. Kutiba Nanaa, 2 Mohamed Rizon, 1 Mohd Nordin Abd Rahman, 3 Yahaya Ibrahim and 1 Azim Zaliha Abd Aziz “Detecting Mango Fruits by using Randomized Hough Transform and Back propagation Neural Network” 2014 18th International Conference on Information Visualisation
15. Li Liu and Paul W. Fieguth, Member, IEEE“Texture Classification from Random Features” Ieee transaction on pattern analysis and machine intelligence, vol. 34, no. 3, march 2012

Index Terms

Computer Science    Software Engineering

Keywords

fruit grading, shape, texture, feature extraction, classification