Abstract

Edge is an abrupt change that occurs in an image. Edge detection is one of the most prevalent problems in image processing. Edge Detection is the approach used most frequently for segmenting images based on abrupt changes in intensity. It is a concept that covers a number of fields in today’s environment. In this paper, a state-of-the-art review of the conventional Edge Detection Techniques is presented. The paper also presents a state-of-the-art review of Soft Computing Techniques such as Fuzzy Logic, Genetic Algorithm, Neural Networks, Evolutionary Computation, Swarm Intelligence etc. for Edge Detection Problem. Further, an analysis of the review is also presented.

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Index Terms

Computer Science          Software Engineering

Keywords

Edge, Hysteresis Threshold Methods, Image Segmentation, Otsu, Fuzzy Logic, Soft Computing,
Genetic Algorithm, Swarm Intelligence, Evolutionary Computation, Neural Network.