

PERFORMANCE EVALUATION OF ALGORITHMS FOR IMAGE SEGMENTATION

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ABSTRACT

Image segmentation is one of the most important steps involved in performing higher level image processing, e.g. Medical Imaging (locate tumors, tissue volumes etc.), Face recognition, Video surveillance. A lot of researches have dedicated to this field because of its intrinsic dilemma, but there still remain a wide range of shortcomings in the current segmentation methods. If used in case of satellite imagery which contains tremendous data volume and very multifarious ground feature distributions, it will encounter even more difficulties in extracting meaningful and valuable patterns. In this paper, satellite imagery is classified into two types: the gray value and surface imagery, and then look for suitable segmentation methods. Various segmentation algorithms are implemented that are also illustrated and validated with typical applications on segmenting and extracting objects of interest from the images.

KEYWORDS: Medical Imaging, Video Surveillance, Gray Value or Surface Imagery