**LITERATURE SURVEY**

# 1) EDGE DETECTION TECHNIQUES FOR IMAGE SEGMENTATION

# AUTHORS: Muthukrishnan.R1 and M.Radha2

Interpretation of image contents is one of the objectives in computer vision specifically in image processing. In this era it has received much awareness of researchers. In image interpretation the partition of the image into object and background is a severe step. Segmentation separates an image into its component regions or objects. Image segmentation t needs to segment the object from the background to read the image properly and identify the content of the image carefully. In this context, edge detection is a fundamental tool for image segmentation. In this paper an attempt is made to study the performance of most commonly used edge detection techniques for image segmentation and also the comparison of these techniques is carried out with an experiment by using MATLAB software.

# 2) Subspace Methods for Pattern Recognition in Intelligent Environment

# AUTHORS: ****Chen****, Yen-Wei, ****Jain****, Lakhmi C.

# This research book provides a comprehensive overview of the state-of-the-art subspace learning methods for pattern recognition in intelligent environment. With the fast development of internet and computer technologies, the amount of available data is rapidly increasing in our daily life. How to extract core information or useful features is an important issue. Subspace methods are widely used for dimension reduction and feature extraction in pattern recognition. They transform a high-dimensional data to a lower-dimensional space (subspace), where most information is retained. The book covers a broad spectrum of subspace methods including linear, nonlinear and multilinear subspace learning methods and applications. The applications include face alignment, face recognition, medical image analysis, remote sensing image classification, traffic sign recognition, image clustering, super resolution, edge detection, multi-view facial image synthesis.

# 3) A Study Of Image Segmentation Algorithms For A Study Of Image Segmentation Algorithms For A Study Of Image Segmentation Algorithms For A Study Of Image Segmentation Algorithms For Different Types Of Images Different Types Of Images Different Types Of Images Different Types Of Images

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# In computer vision, segmentation refers to the process of partitioning a digital image into multiple segments (sets of pixels, also known as superpixels).Image segmentation is typically used to locate objects and boundaries (lines, curves, etc.) in images. More precisely, image segmentation is the process of assigning a label to every pixel in an image such that pixels with the same label share certain visual characteristics.The result of image segmentation is a set of segments that collectively cover the entire image, or a set of contours extracted from the image . Each of the pixels in a region are similar with respect to some characteristic or computed property, such as color, intensity, or texture.Due to the importance of image segmentation a number of algorithms have been proposed but based on the image that is inputted the algorithm should be chosen to get the best results. In this paper the author gives a study of the various algorithms that are available for color images,text and gray scale images.

# 4) Butterworth filter and Sobel edge detection to image

**AUTHORS :** **Zhong Zhang,**[**Geng Zhao**](https://ieeexplore.ieee.org/author/37896143200)

# This paper discuss the detection Sobel edge detection prohibit of operator ,The edge detection operator effect solve the problem of positioning. Using the high-pass Butter worth filter and Sobel edge detection operator, which effectively solve this problem. We use DSP programming environment to verify the feasibility of the method and experimental results verify the proposed this method is very effective.

# 5) Remote-sensing and mapping of weeds in crops

# AUTHORS: [David WIlliam Lamb](https://www.researchgate.net/profile/David-Lamb-9)

Airborne remote-sensing has been identified worldwide as a promising technique for identifying and mapping weeds in crops, and potentially offers a solution to the current logjam in precision weed management: namely, the ability to generate timely and accurate weed maps. One of the main advantages of remote-sensing is that synoptic weed data can be acquired virtually instantaneously (within the field of view of the sensor), and a weed map generated within hours of data acquisition. However, because little information is available concerning the scale at which weeds should be managed within fields, the sensing and mapping technology has tended to dictate the resolution at which weeds must be mapped. This paper summarizes the work completed to date to investigate the use of airborne remote-sensing for weed mapping in crops, and discusses application of the technology in precision weed management practices.