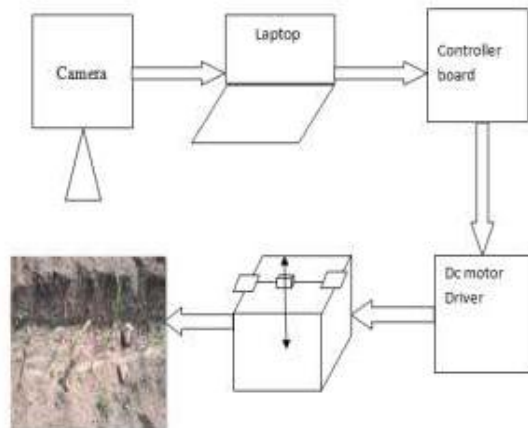


Weed Detection & Automatic Spraying Of Herbicides



MATERIAL AND METHOD

- 1) Image acquisition** -A digital Logitech C270 camera is used for capturing the images. 24 bit colour image is stored in JPG format.
- 2) Excessive Green**-From input image we required only green color information. Soil is removed from the image.
- 3) Image Enhancement**-The image enhancement rgb to gray conversion is required for less computation. 24 bit color image is converted into 8 bit gray image, that is conversion of 3D matrix into 2D matrix. After the rgb to gray conversion median filtering is used to remove the noise from the image.
- 4) Wavelet Transform**- Wavelet is a multi-resolution tool. Advantage of wavelet transform over the Fourier transform is, it having a sharp spikes and signal contain discontinuity.
- 5) Feature Extraction**-After the image intensity adjustment segmentation of crop and weed is done. Area for the crop and weed is calculated.
- 6) Robotic systems**- After detection of crop and weed crop is masked and calculate the co-ordinates of weeds and co-ordinates of weed is given to the controller board through RS232 serial communication cable. After calculating the weed area spraying is done on herbicides.

