

PROJECT UNDERTAKEN

Project Name: Automatic Human following Robot

Description:

The goal of the project is to present the development of the robot following the target, capable of identifying its leader and following to its position relative to the leader. We have learnt the working of Arduino board with programming knowledge. This project can be designed and developed at low cost. In this project, we learnt additional skills such as circuit design, assembling the components and also the team work handling.

Project Name: Object Detection using Color Attributes

Description:

Project mainly focuses on detecting the objects present in the given image. Initially specified images are imported from its location. Then by using open-cv respective images are subjected to color detection process. Converting the input image into HSV format gives the chance of detecting the required color of the object. Once the color is detected, a rectangle box is bounded around the object and labelled.

Project Name: Performance analysis of 2D transforms in Image Processing

Description:

In our project, we are looking at images both in the time domain and the frequency domain. We make an effort to demonstrate how different Fourier and Wavelet transforms relate to the reconstruction of an image in relation to the number of samples used. The performance of each transform is examined using the peak signal to noise ratio, the signal to noise ratio, and the root mean square error. According to the results, wavelet is superior to the Fourier transform, and the RMSE rises as the number of samples decreases.