

Objectives

Compute the depth map from given left and right images.

Data given

Images captured from left and right cameras of the robot

Methodology

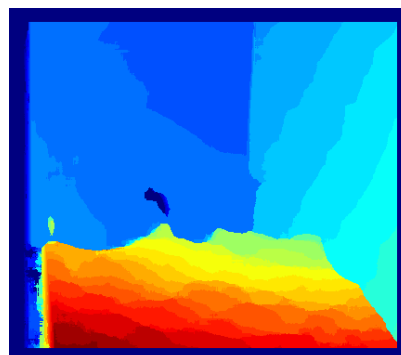
1. Convert the images to gray scale.
2. Decide a block size (here, 15x15) to extract small patch from left image.
3. Search for the corresponding similar patch in the right image by computing Sum of Squared Differences (SSD) between 2 patches with in a range of disparity = 48 pixel.
4. In the disparity map array assign the disparity with lowest SSD for each pixel.
5. Normalize the disparity map (scale the disparity from 0 - 255).
6. Produce a heatmap from the normalized disparity map



Left.png



right.png



Dept map img