1. # TASK ROUND

Problem statement 1

This PS is regarding dynamic path planning. So in dynamic path planning we find a path particular frame and start moving on determined path(with definite pixel speed) until the next frame appears (detected) and frame speed can be controlled by waitKey.

Then I again searched for the path in next frame and moved onto it. I have done this process in loop and checked whether destination is reached or not.

In the beginning is was using DFS for path finding. But for optimization purpose i changed its algorithm. Algorithm that i am using in code is RRT (Rapidly- exploring Random Tree).

Problem statement 2

This PS is regarding the Disparity map. For plotting the disparity map we have two images which are taken from two cameras. I learned about epipole and epipolar plane for rectification. For each pixel if we find the pixel of same intensity in other image. But if we traverse in full image it takes approximately 4 * 10^ 9 iterations. But in rectified image we need to traverse in only horizontal line(row). But because of time constraint I used different algorithm. That has been described in code. I read various articles for image rectification and those articles are enlisted below.

Reference sites :

1. https://en.wikipedia.org/wiki/Image_rectification

2. https://stackoverflow.com/questions/17607312/difference-between-disparity-map-and-disparity-image-in-stereo-matching?fbclid=IwAR3fcUOMOAsTT1UDcylfh4aE7CJuY9Oa_a1Xb_wKy1hn6biWMozofC9AGDk
3. https://www.hindawi.com/journals/js/2016/8742920/?fbclid=IwAR3TVeD5qbh-TIv-th0cj8Jxhd3v5svvlCNDjlym0bvKvgG6wz-JaOf32xs
4. https://www.youtube.com/watch?v=Opy8xMGCDrE