

SOFTWARE ENGINEERING PROJECT:

WEEKLY REPORTS-FOR 2 WEEKS

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I. SUMMARY OF THE WEEK

Last week, because of final week ,I could not study on this project. This week, I tried to figure out descriptor of one on feature based method for point cloud registration. k-nearest neighbour algorithm. To use and see this result I checked <https://github.com/gvd/kdtree> algorithm. I will work on the article that I uploaded 2 weeks ago. I hope I will implement it as soon as possible. Registration part includes not only cpp knowledge but also some mathematical talent to understand and to convert it into a language such as Cpp. According to this article there are 3 tasks to be done. First one is to feature selection method. Second one is to find local neighbours of all points in a point cloud efficiently. Third one is to find corresponding points in Point Clouds being registreted. Also under three situations this method worked well. These are : (M and P are point clouds) (1)M and P are PCs of the whole model. (2) M is the PC of a whole model and P is a randomly selected subset of M containing 1/4 of points in M. (3) M and P have overlapping regions of varying ratio, but P is not a subset of M.