Weekly Report

Name: Nilesh Hampiholi

Matriculation No.: 54811

Topic: Robot Guided Surface Scanning with Ultrasound

Date: 29|11|2021

Tasks Done:

- I took new image from different angles last week.
- Processed them and matched with the wire phantom
- I adjust the scaling values and the average pose estimation error is about 0.5mm
- I also solved AX=XB but I think I am getting it wrong.
- I am using the following scheme

A = Forward kinematics

B = Inverse of the pose estimation computed from ICP (Also tried without taking the inverse)

This the resulting matrix I am getting. It does not make much sense to me.

- I am also attaching the code I use to solve it.

  1.0e+08 *

  -0.0000 -0.0000 -0.0000   5.5497

  -0.0000 -0.0000   0.0000   1.7082

  -0.0000   0.0000   0.0000   2.8169

       0   0   0   0.0000