Readme

<Document Descrption>

//Lab4_questions_answer.pdf
PDF file that answers to the questions on Lab4 asignment.

//Lab4_1.m
matlab file that I used for Question1.
This code measures the running time and accuracy of several conditions of particle filter.
Currently, the average of running time and accuracy are from 30 results.

//Lab4_2.m
matlab file that I used for Question2.
This code estimates the final pose of the robot.
Currently, the average answer is from 30 results.

//Lab4_3.m
matlab file that I used for Question3.
This code display a figure that shows the distribution of the paricles at the end.

//imputs.txt
Input Parameters given by professor.

//sensor_reading.txt
Sensor Reading Parameters given by professor.

//sample_motion_model_velocity.m
matlab file that contains the function for Algorithm 1 in Lab4 asignment paper.

//beam_range_finder.m
matlab file that contains the function for Algorithm 2 in Lab4 asignment paper.

//EKFparameter.m
matlab file that contains the estimated data that we got by using Extended Kalman Filter.

<How to Run>

//Lab4_1.m
Just implement the file.

//Lab4_2.m
Just implement the file.

//Lab4_3.m
Just implement the file.