

1. Mini-assignment – Kalman filter

Design a Kalman filter to track the following measurement points.

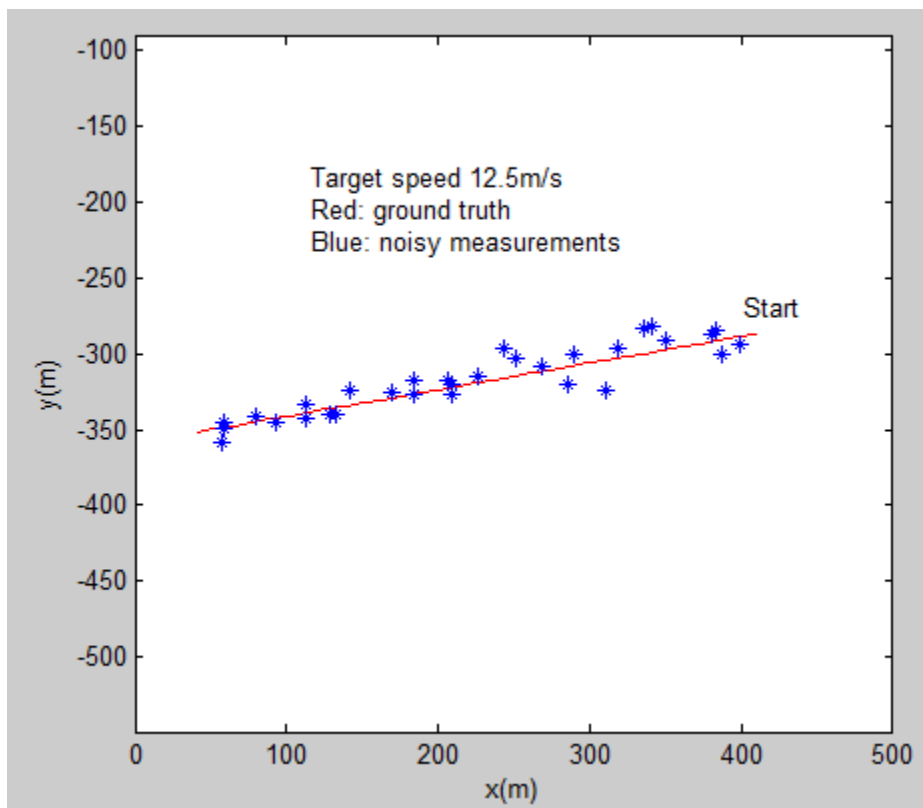


MeasGT.csv

Note that file MeasGT.csv has 5 columns represent the following fields:

time (second), measurement x (m), measurement y (m), ground truth x (m), ground truth y (m)

The target is moving in Constant Velocity with speed 12.5m/s, measurement error standard deviation is 10m for both x and y.



To submit latest by week 4 (dateline: 10th September 2023, 2359hrs). Report in pdf format. Codes to be placed in the report annex.

Marking scheme:

1. Design of the Kalman filter; details of all the necessary equations (25%)
2. The code; include proper layout and comments. Correctness of the code (25%)
3. Plot and label the tables and figures of the results and its correctness (25%)
4. Mini-assignment report layout, clarity, structure and grammatically correctness (25%)