



## April 02 - April 08 Weekly Report

### 1 Progress

- Step response of the car is tried to be obtained to find the model of the vehicle.
- Kalman Filter is integrated to image processing code to smooth out turn angle measurements. *Figure 1 and 2* shows measured angle and Kalman predicted angle. The drive with Kalman prediction is realized. It is observed that prediction responds late to road curvature. This will be tuned by changing Kalman matrix parameters.

### 2 Plans

- Further PID controller design parameter tuning for controller subsystem with varying base speed.



Members :

Enes Taştan, 2068989, 0543 683 4336

Sarper Sertel, 2094449, 0542 515 6039

Erdem Tuna, 2167419, 0535 256 3320

Halil Temurtaş, 2094522, 0531 632 2194

İlker Sağlık, 2094423, 0541 722 9573

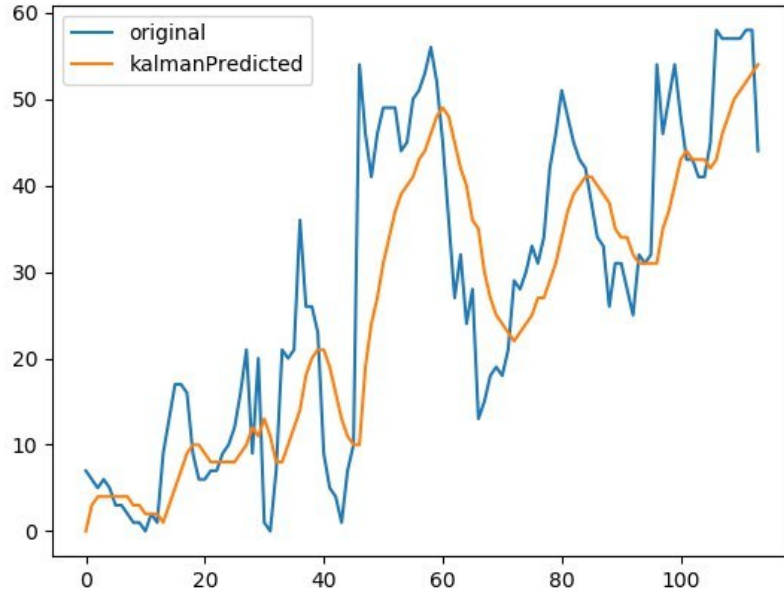


Figure 1: Measured Turn Angle vs Kalman Prediction (1)

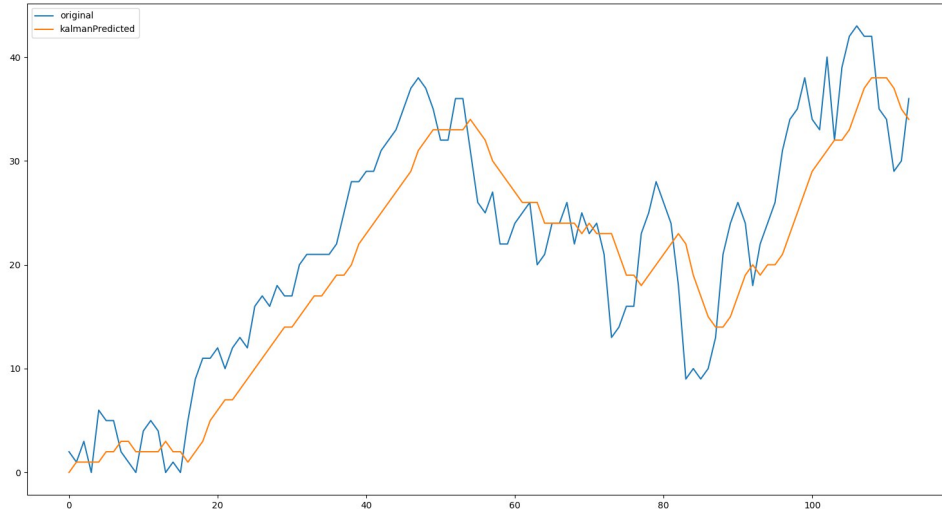


Figure 2: Measured Turn Angle vs Kalman Prediction (2)

