

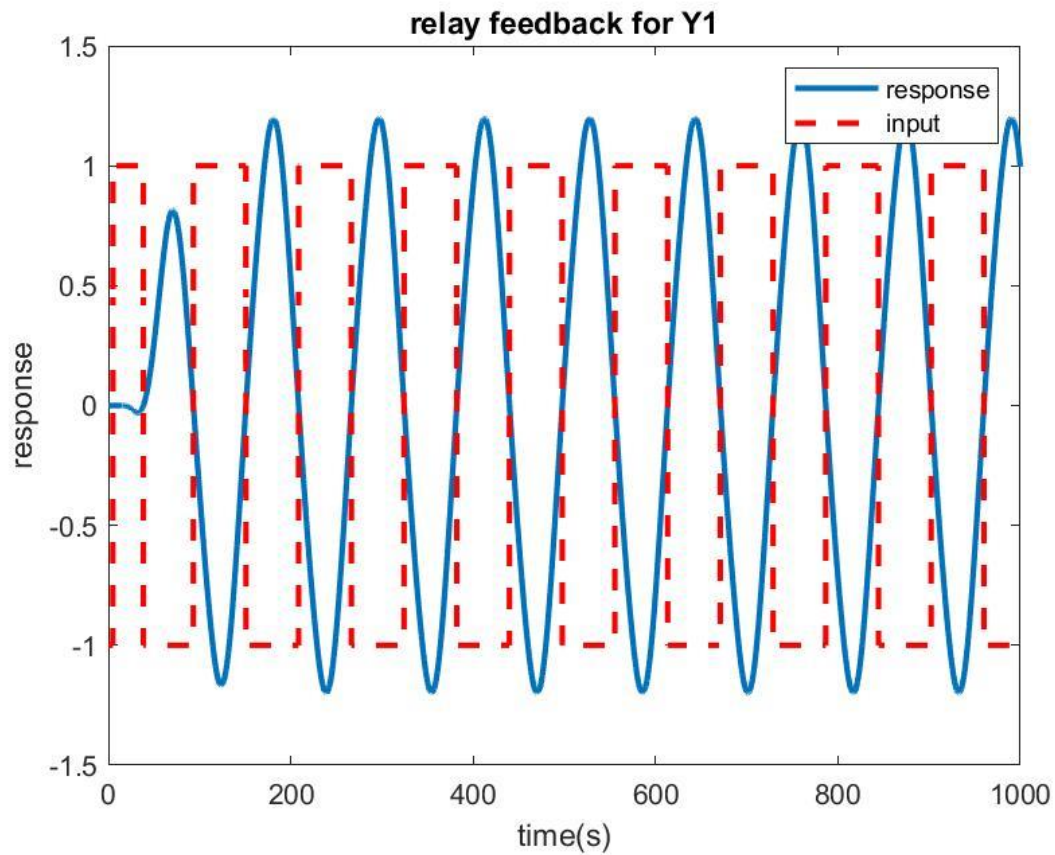
Lab Report 6(170747)

Part A:

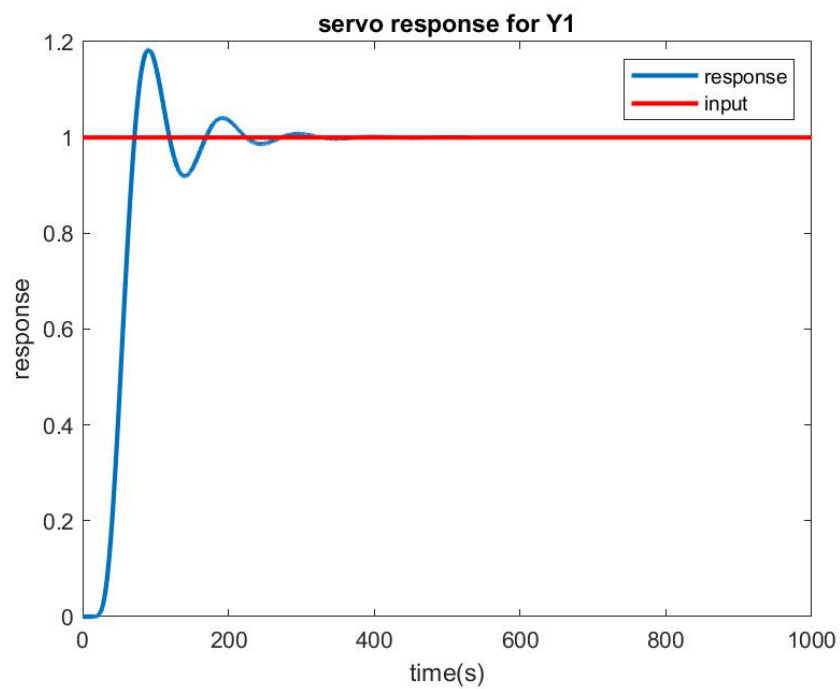
Relay Feedback Test:

$$K_u = 4 h/a\pi = 1.0628$$

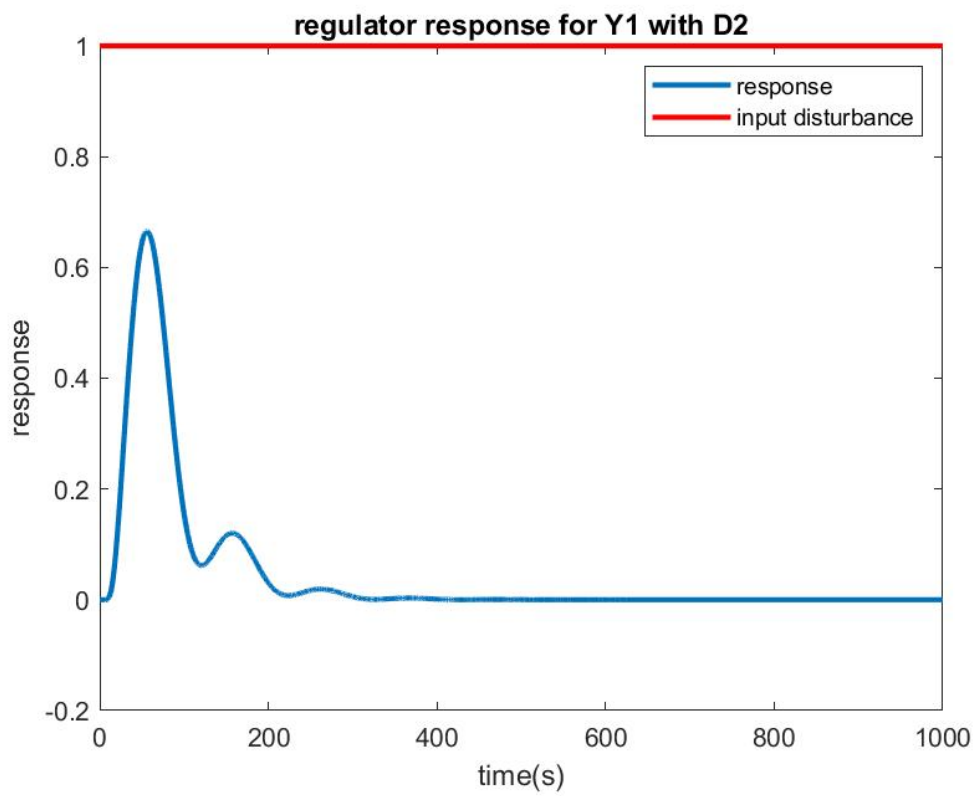
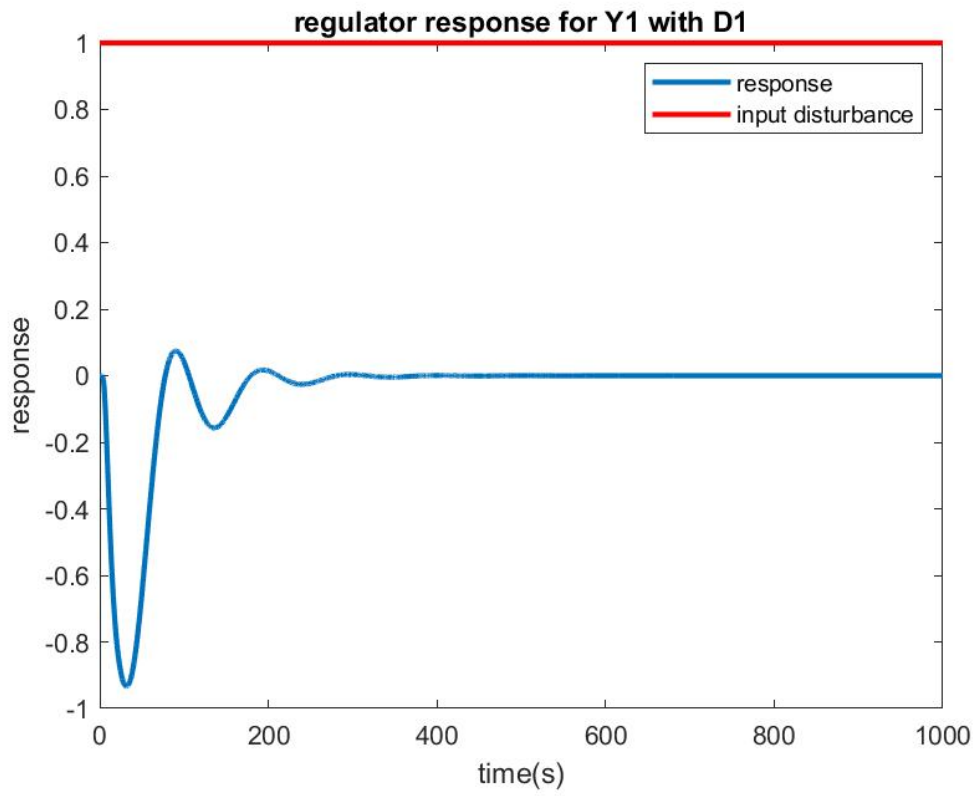
$$P_u = 115.7 \text{ s}$$



Servo Response



Regulator Responses

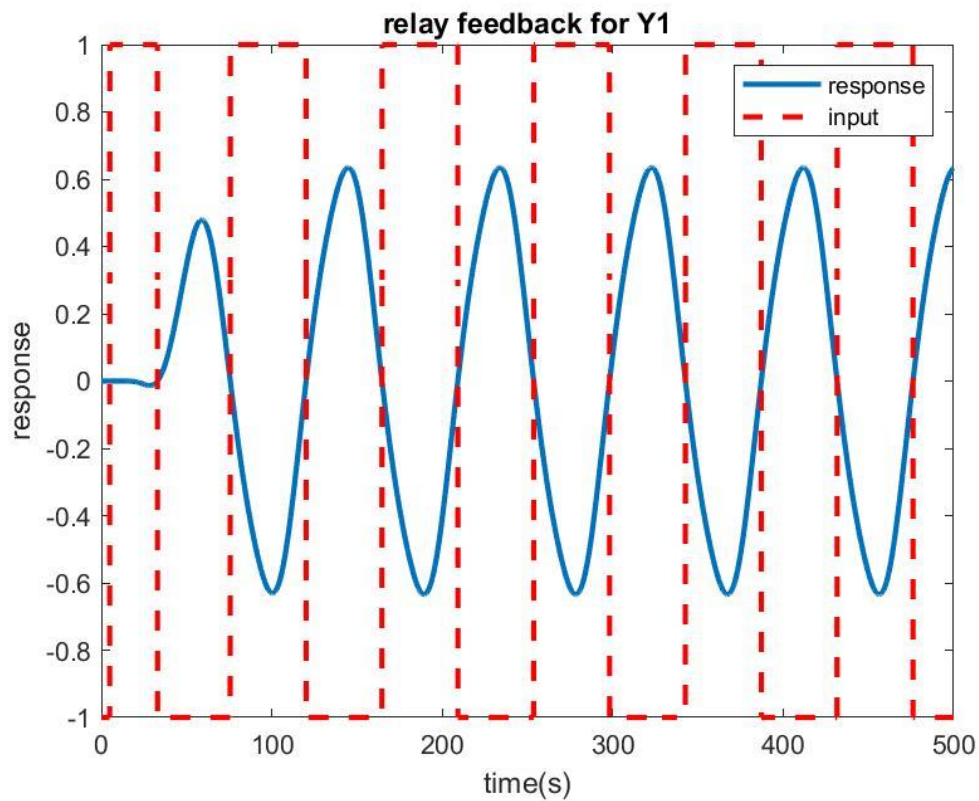


Part: B

Relay feedback for Y1

$$K_u = 4 h/a\pi = 1.6804$$

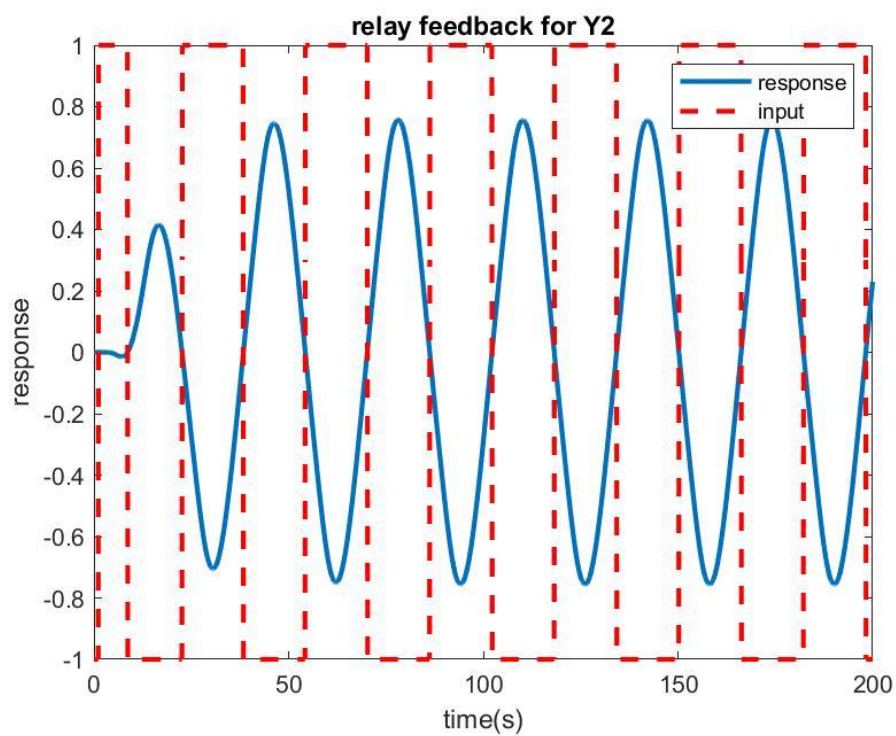
$$P_u = 31.9 \text{ s}$$



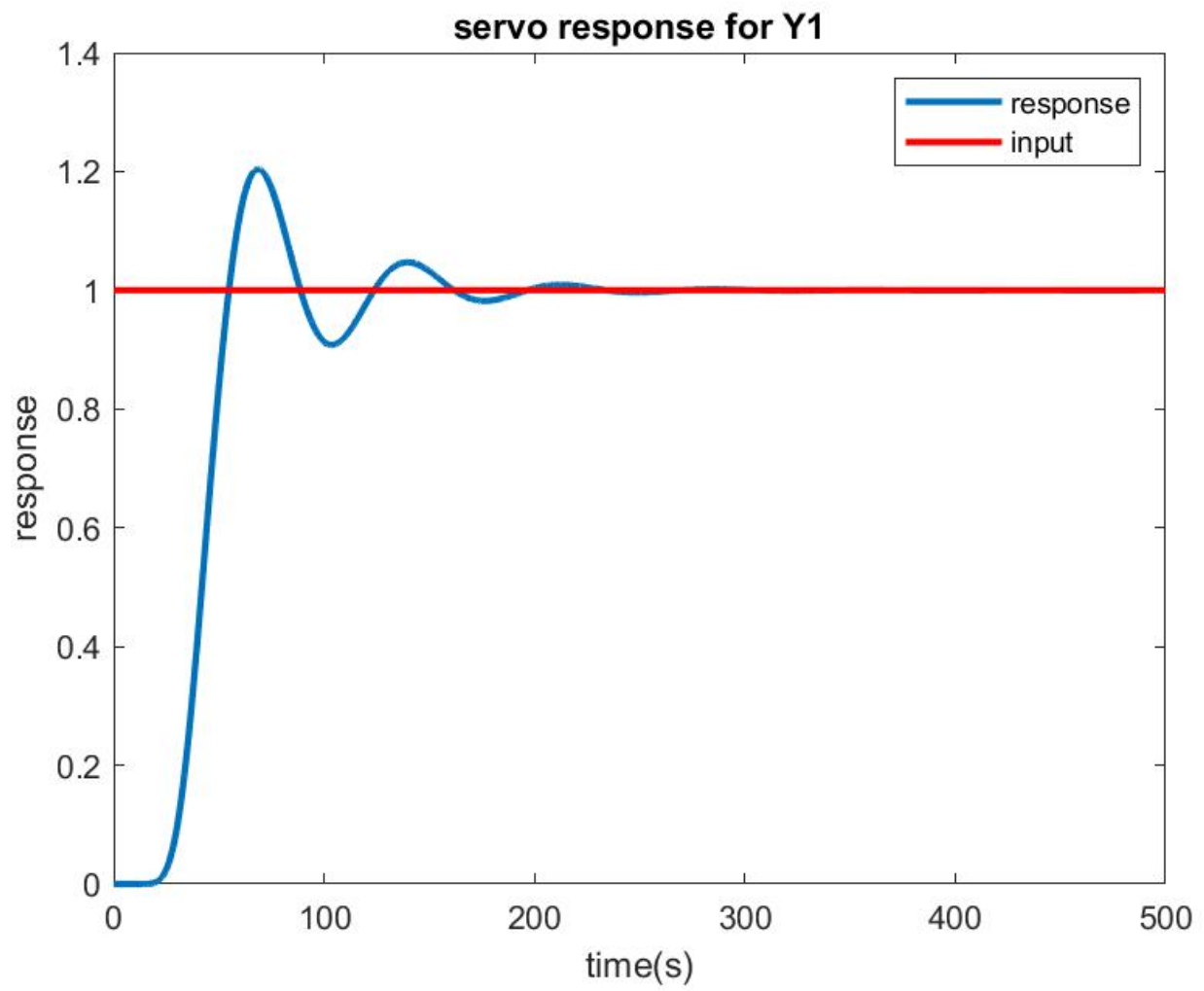
Relay feedback for Y2

$$K_u = 4 h/a\pi = 2.0073$$

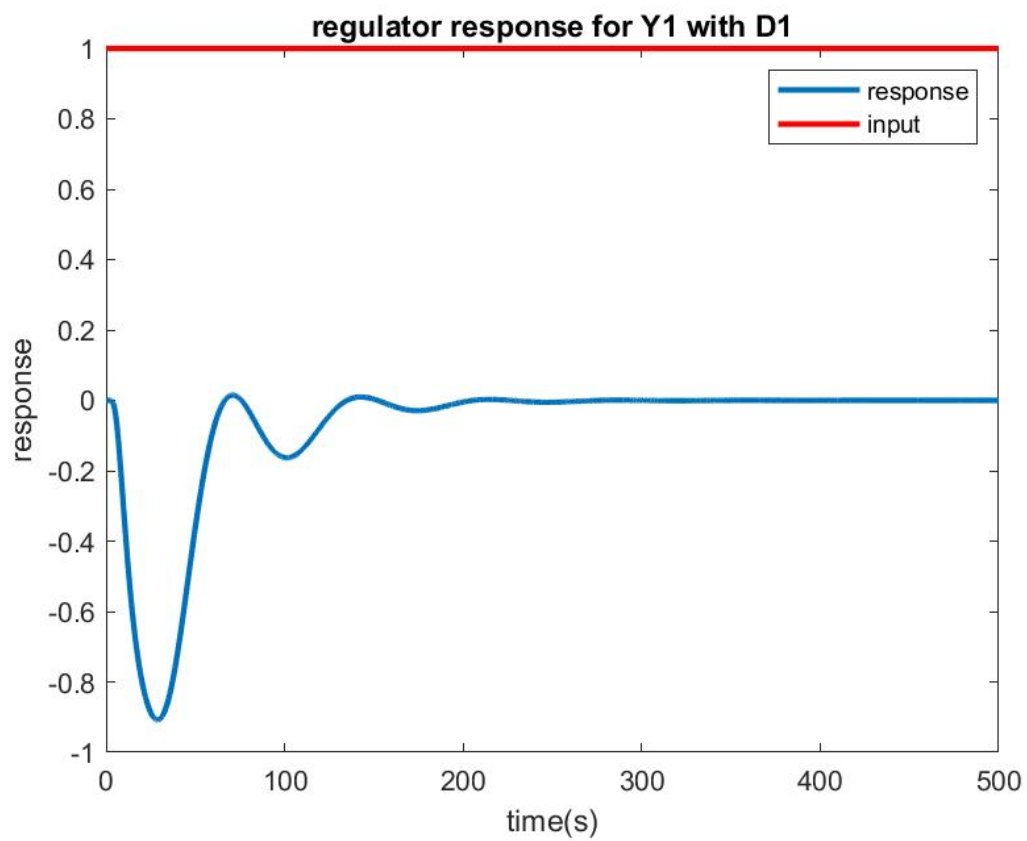
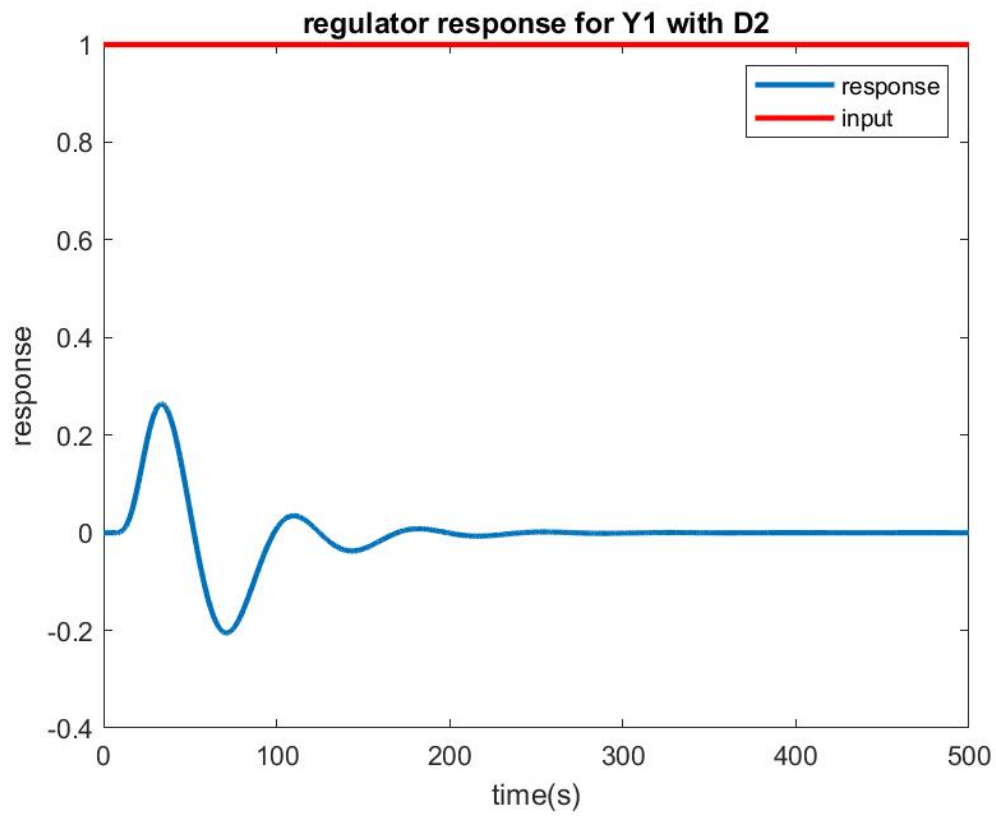
$$P_u = 89.1 \text{ s}$$



Servo Response



Regulator Responses



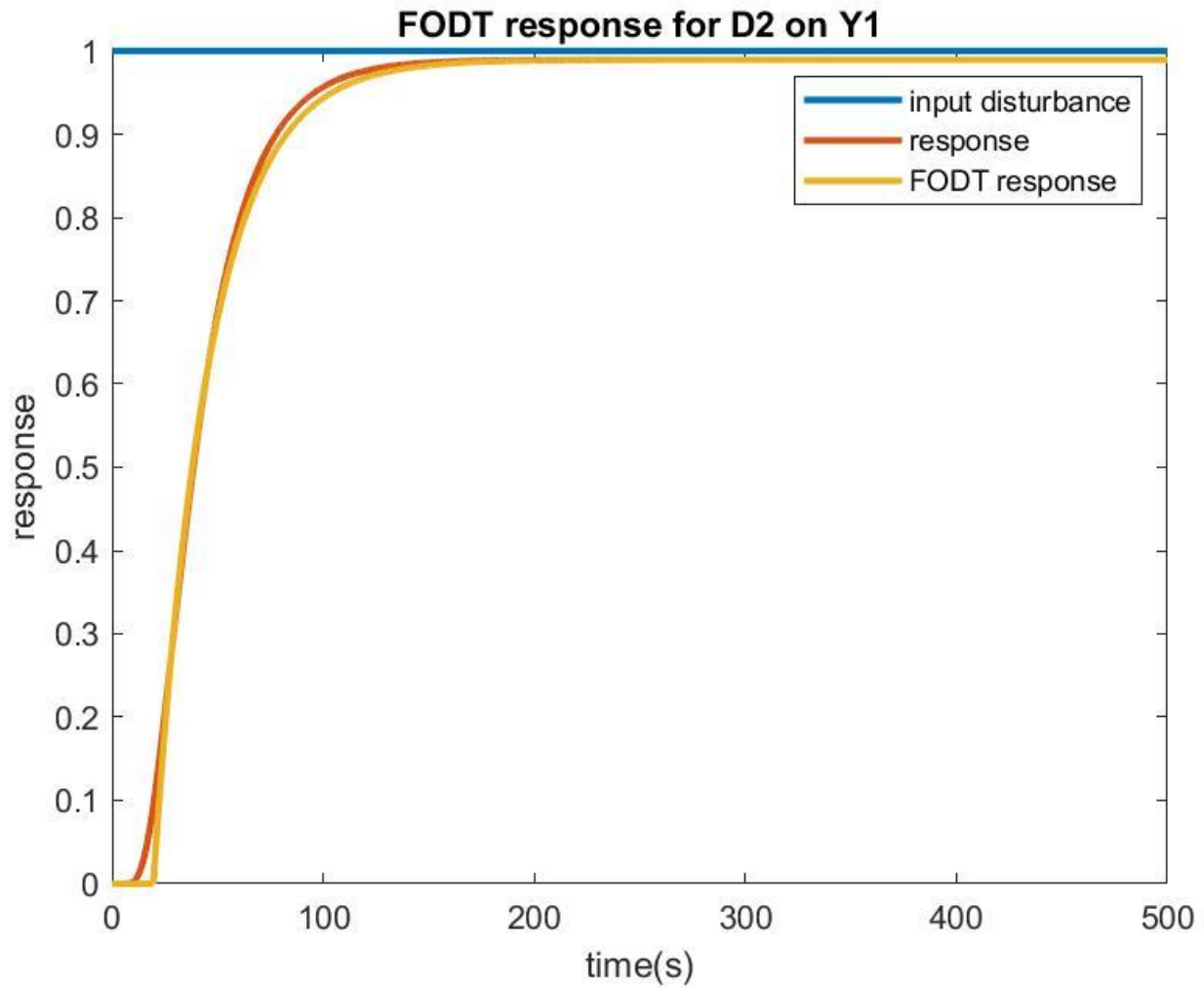
Part: C

FODT model fitting of Y1 w.r.t D2

$K_m=0.9894$

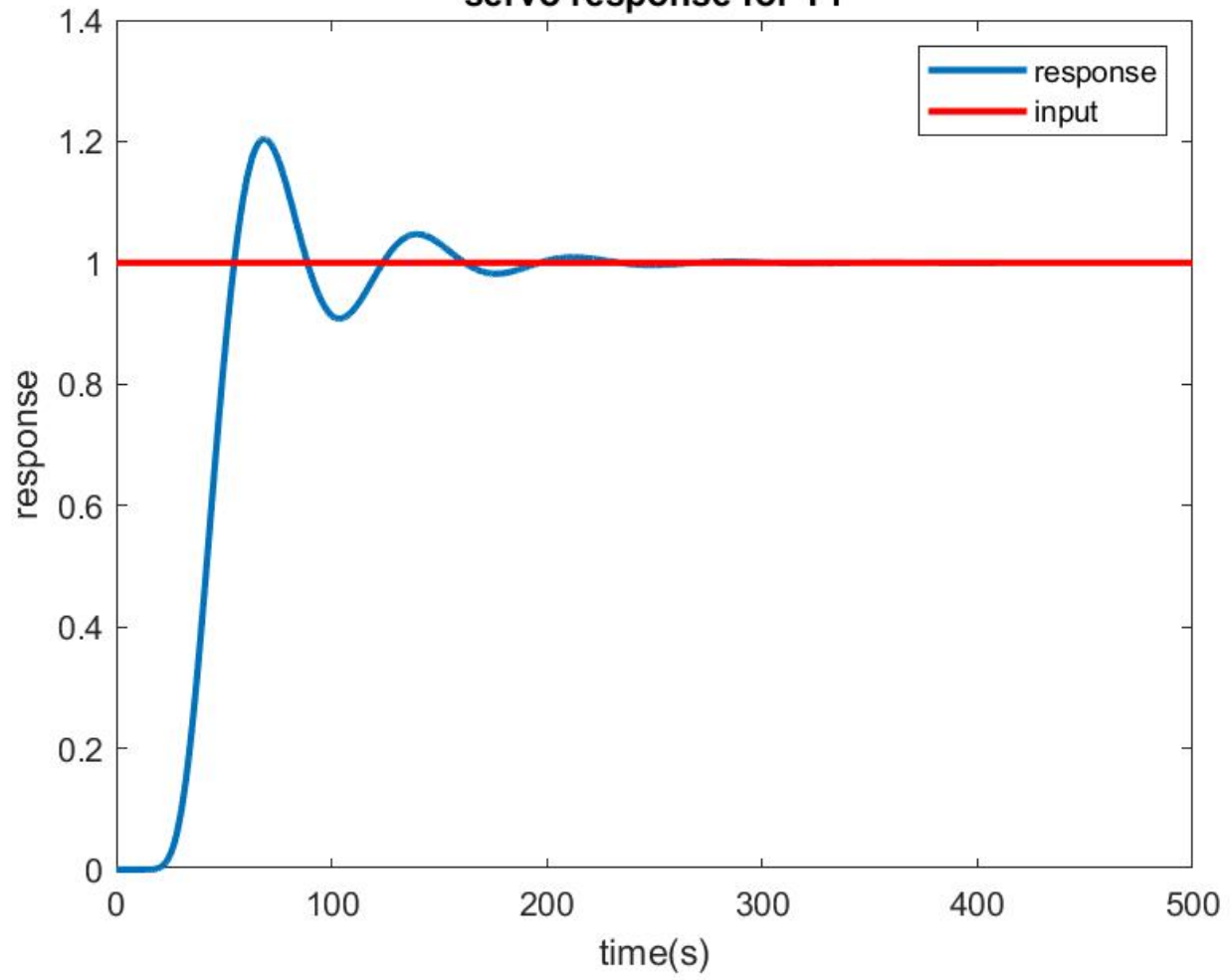
$T_m=26.25\text{ s}$

$D_m=19.55\text{ s}$



Servo Response

servo response for Y1



Regulator Responses

