

Lab 5

No	Digital Controller	Steady-state error	Overshoot (%)	Settling time	Control signal variation
1	Kalman	zero	zero	6 min	+73.83 -63.17
2	Without pole closest to -1	zero	17.3	19.5	+43.25 -26.05
3	Without pole closest to -1 and complex poles	zero	39.8	49.5	+13.45 -14.5
4	Saturated and modified	zero	31.5082	100.3706	-0.5 +0.5

Lab 6

Initial data:

Nominal power of the generator [MW]: **P=259**

Nominal pressure of the living steam in the boiler [bar]: **p=127**

Thermic specific consumption [Mcal/MWh]: **R_T=2332**

Steam enthalpy [Mcal/tone]: **i2=814**

Model 1:

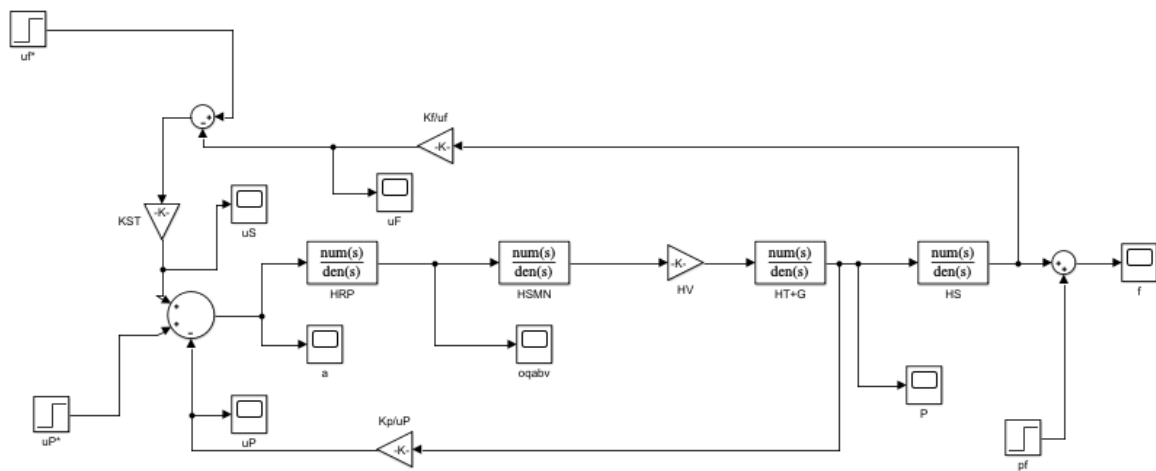


Figure 1 Simulink Implementation of Model 1

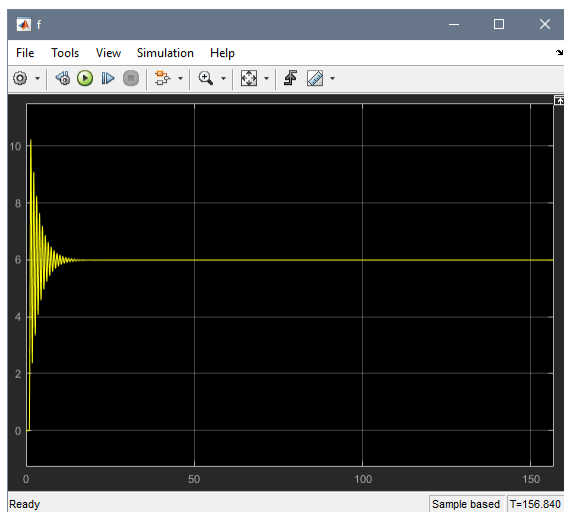


Figure 2 Model 1 output

Model2:

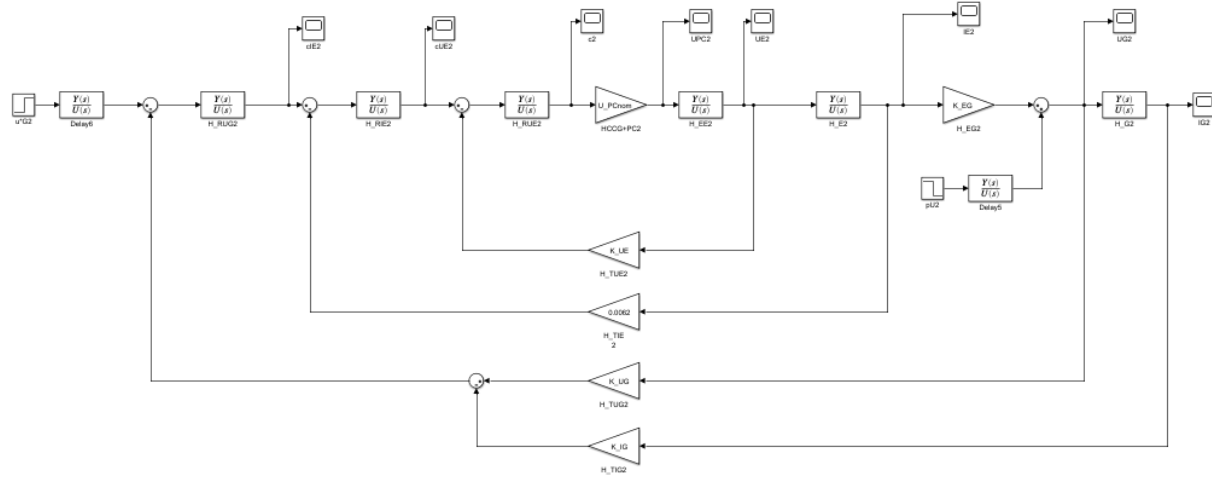


Figure 3 Simulink Implementation of Model 2

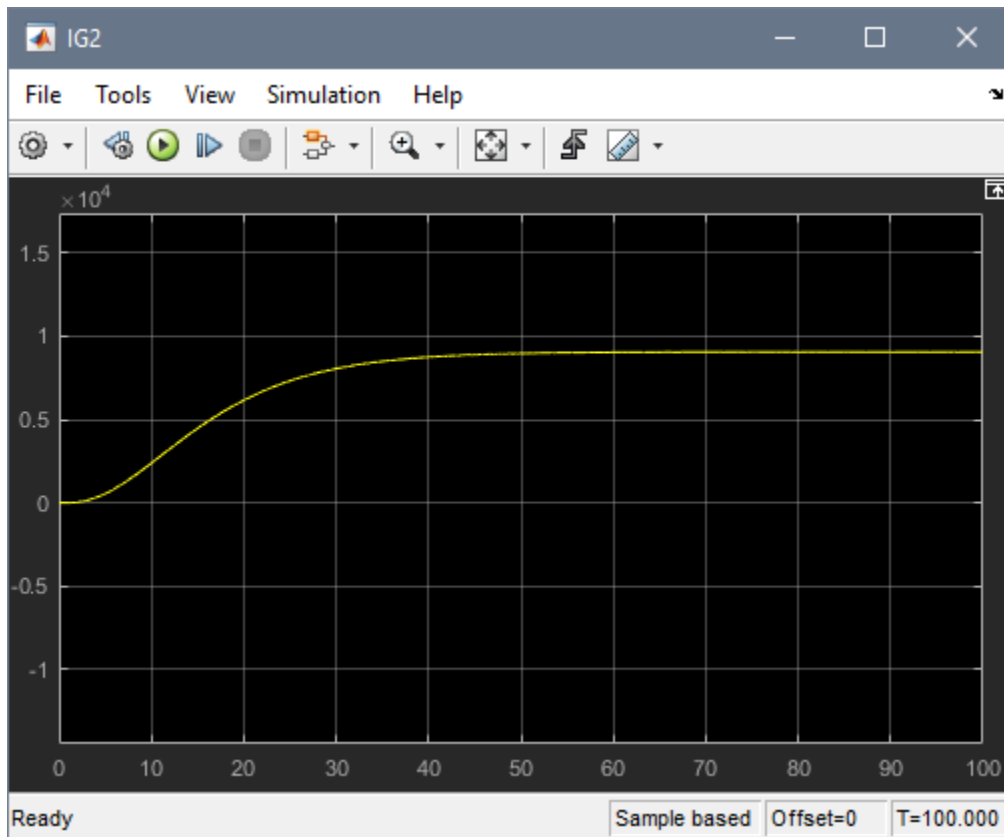


Figure 4 Model 2 output