Team: Borca Paul, Campean Tudor, Kelemen Sandor

# Lab1

## Exercise 1

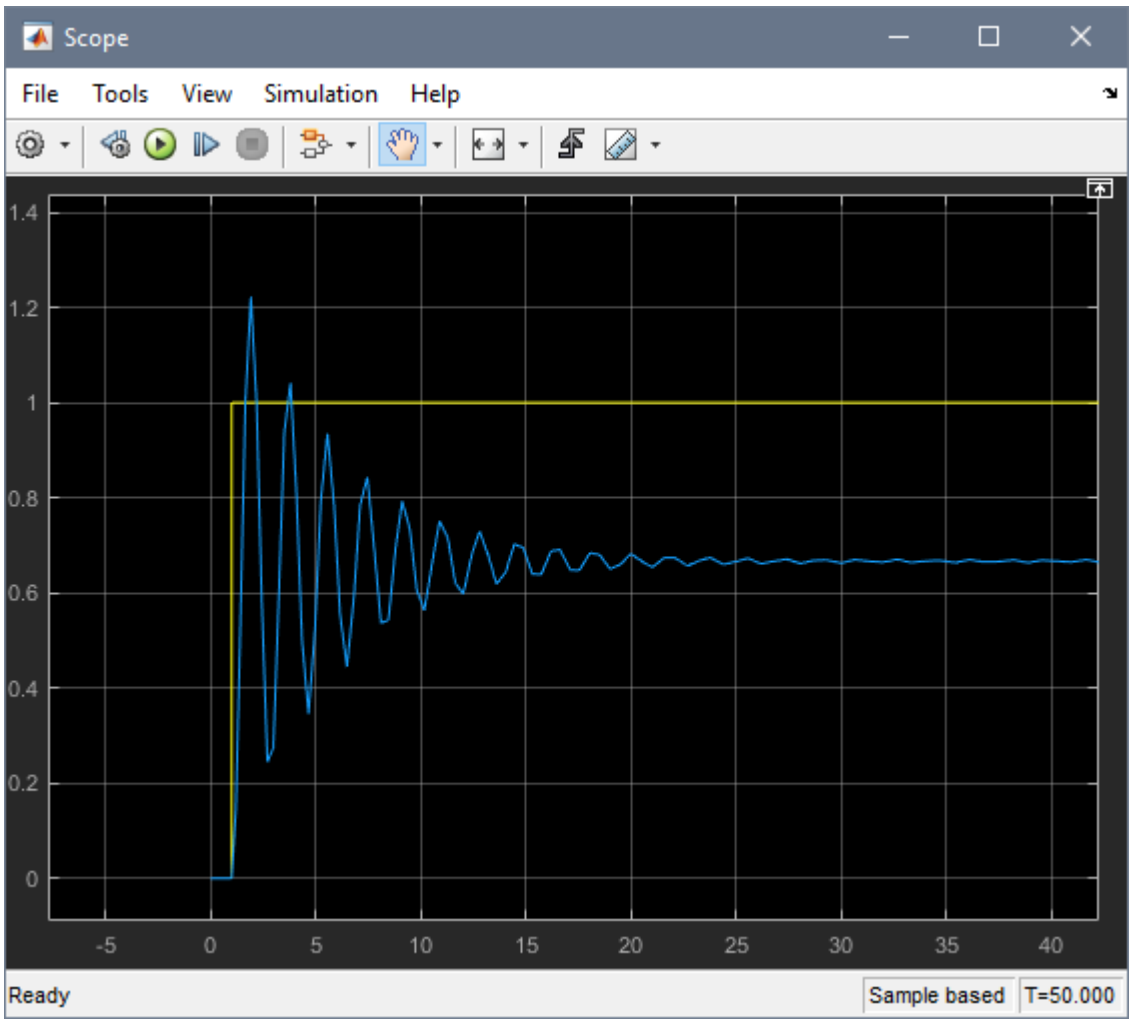



**Table 1.1** Overall performances for the open-loop system

| | |
|---|---|
| *Overshoot – σ [%]* | **83.3854** |
| *Rise Time – $t_r$ [sec]* | **0.3146** |
| *Peak Time – $t_p$ [sec]* | **1.2226** |
| *Settling Time – $t_s$ [sec]* | **1.2226** |
| *Steady-state error – $e_{ss}$* | **0.3527** |

## Exercise 2:

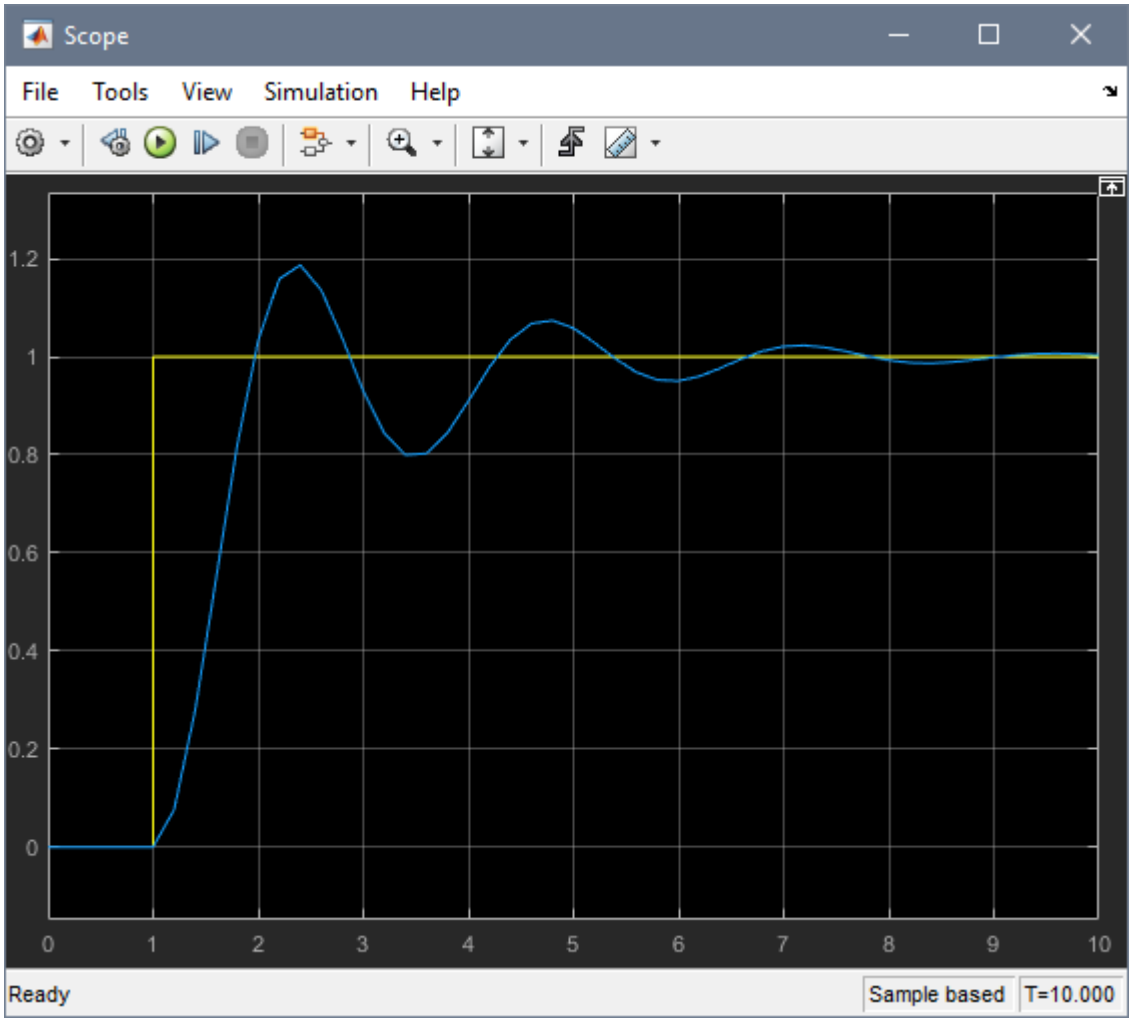
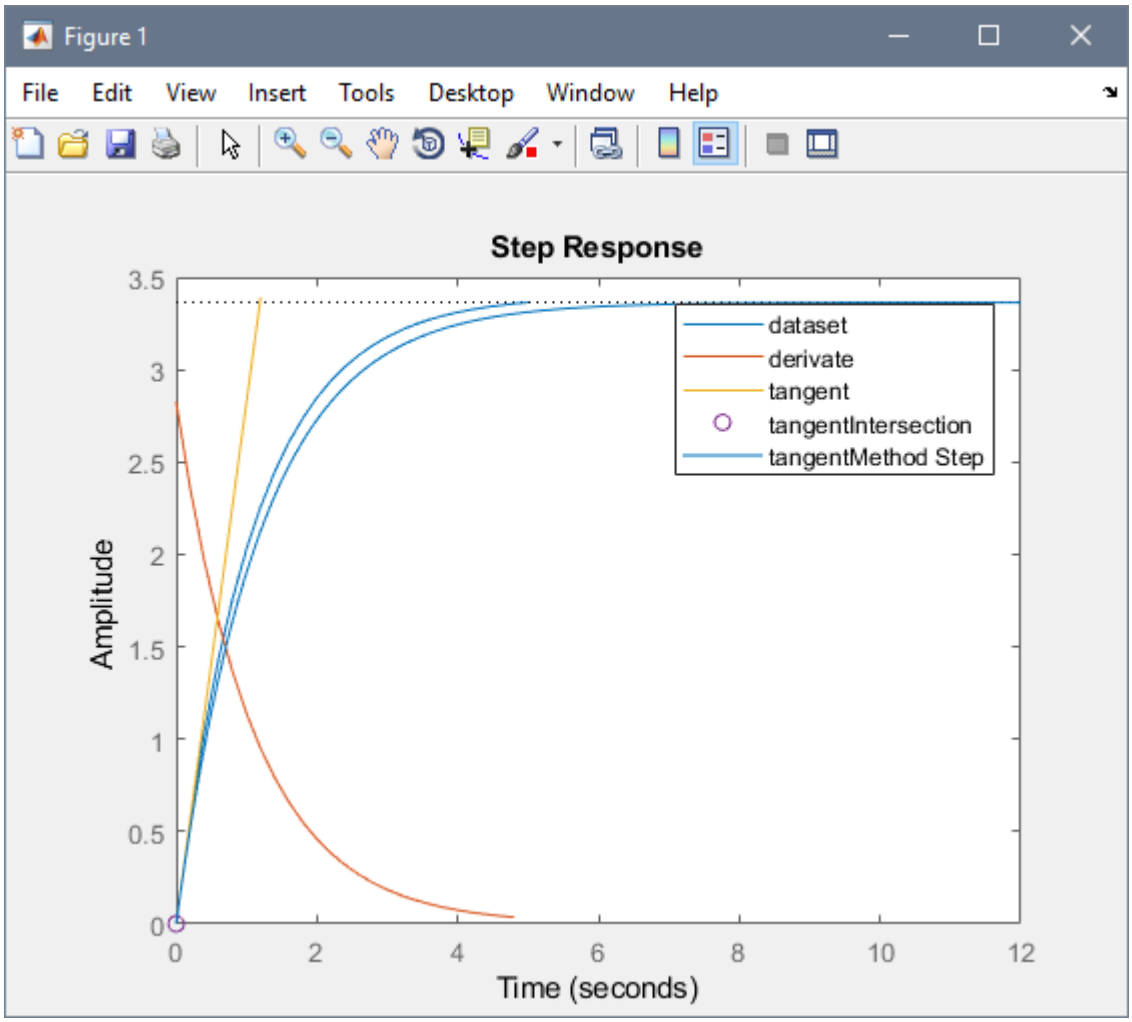



**Table 1.2** Overall performances for the closed-loop control system

| | |
|---|---|
| *Overshoot – σ [%]* | **18.64** |
| *Rise Time – $t_r$ [sec]* | **0.6414** |
| *Peak Time – $t_p$ [sec]* | **1.3184** |
| *Settling Time – $t_s$ [sec]* | **1.1864** |
| *Steady-state error – $e_{ss}$* | **0** |

# Lab2

## Exercise 1:



## Exercise 2:

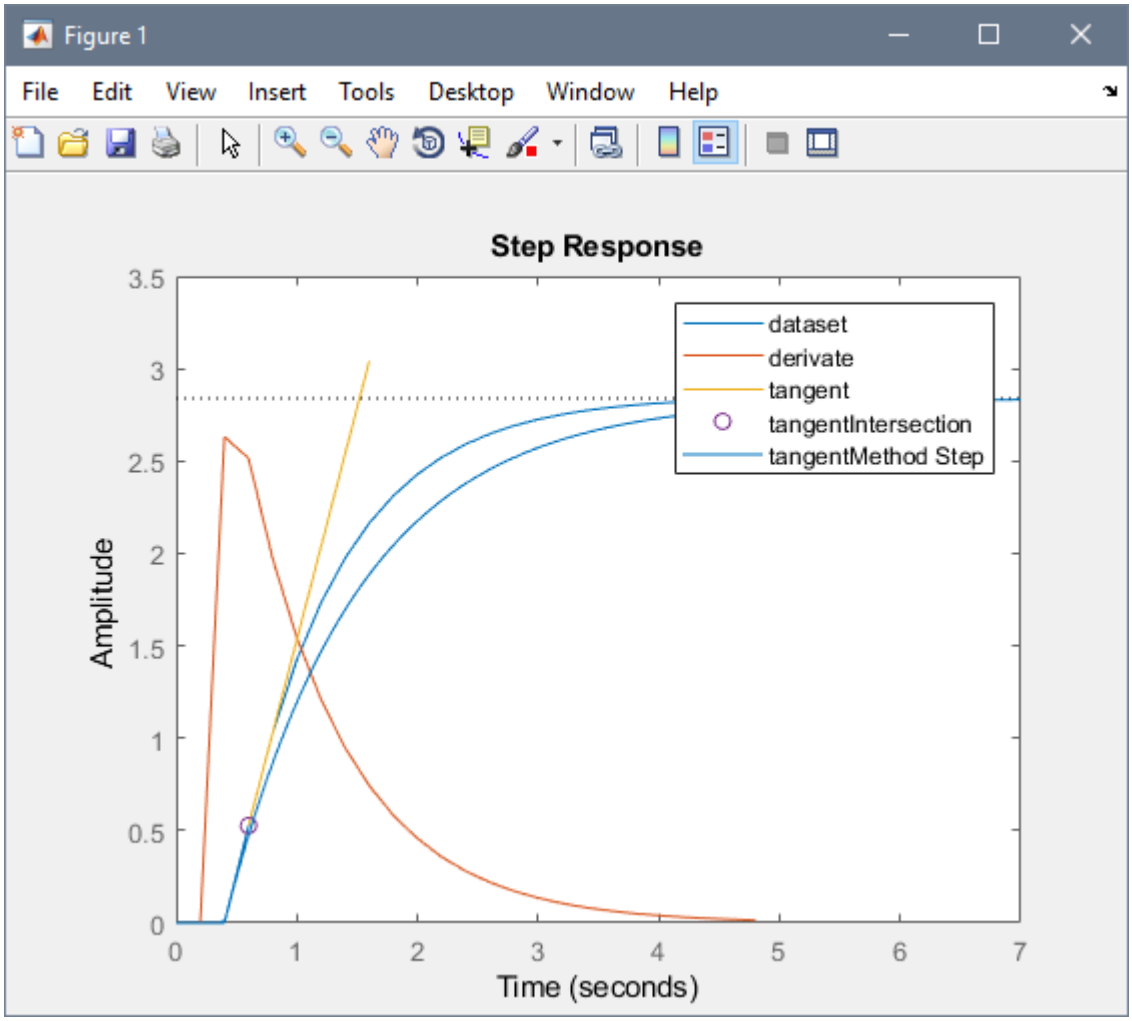
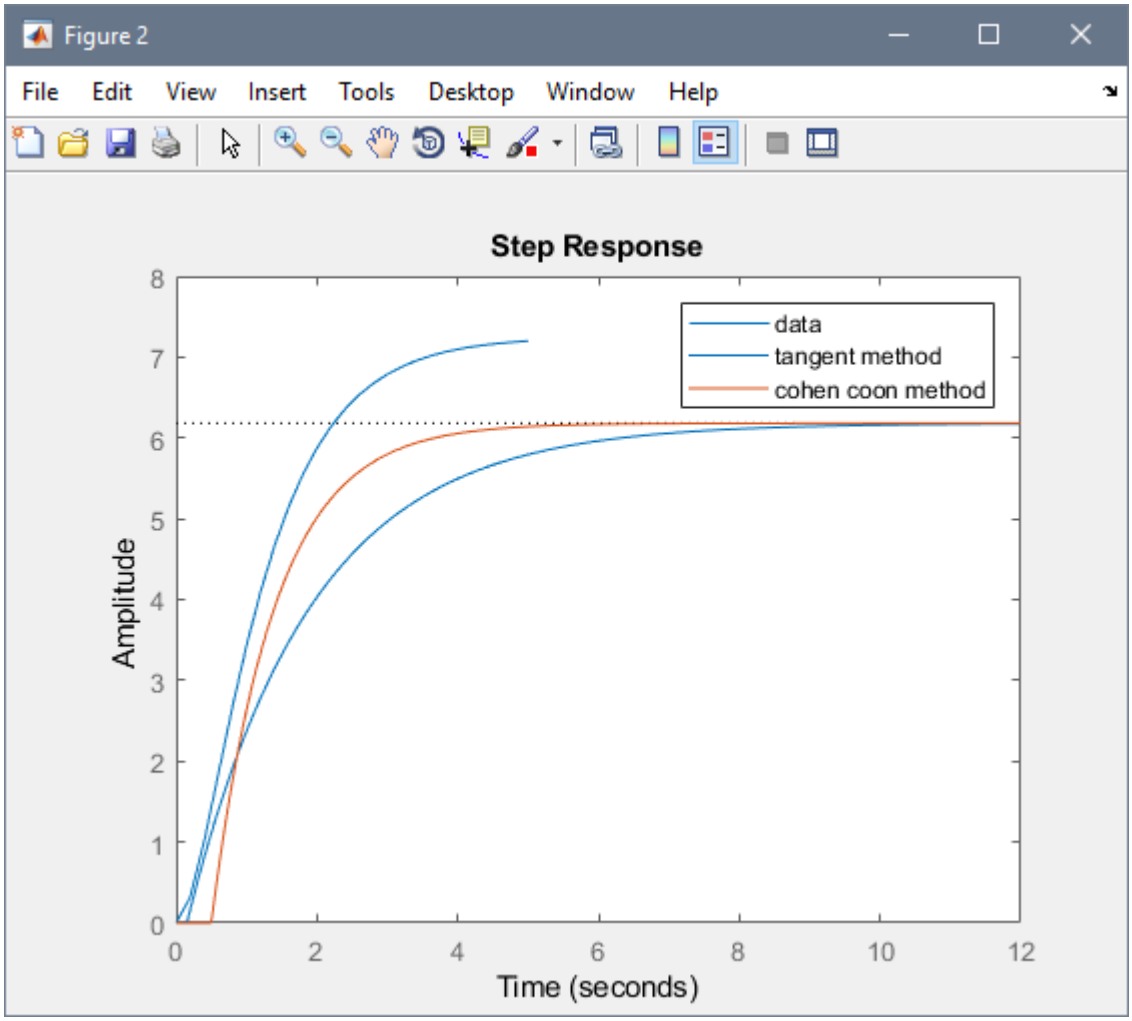


Figure 1
File Edit View Insert Tools Desktop Window Help
Step Response
dataset
derivate
tangent
tangentIntersection
tangentMethod Step
Amplitude
Time (seconds)
0
0.5
1
1.5
2
2.5
3
3.5
0
1
2
3
4
5
6
7

## Exercise 3:




## Source code:

https://github.com/SandorKelemen/IPC-Lab