Control System Laboratory Report

Name and ID no. of the Student:

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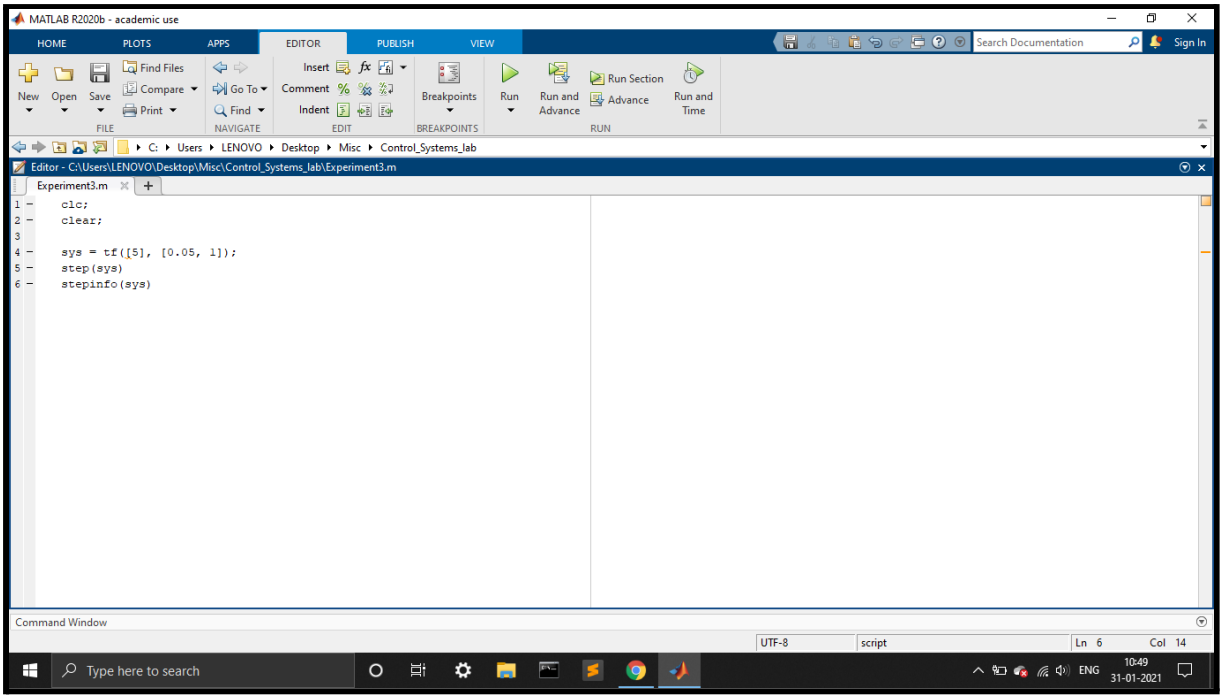
Title of the Experiment:

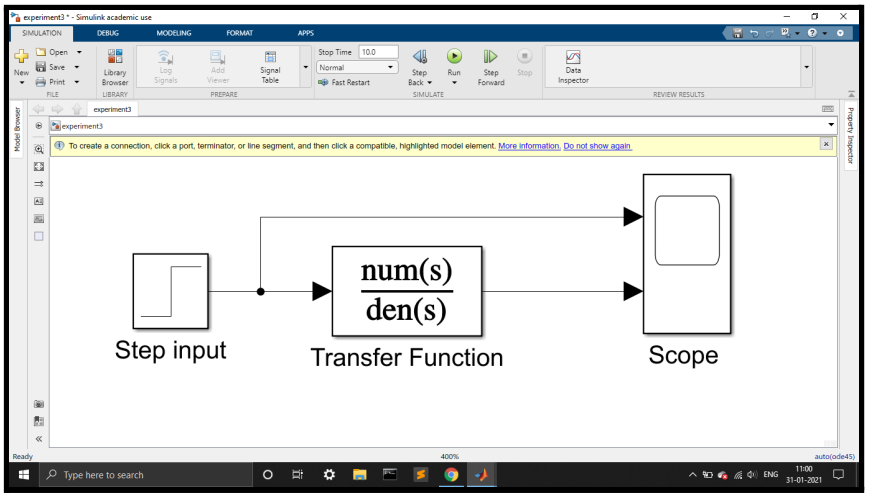
Bump Test Modeling

Model/Simulation:

The image below shows the MATLAB code for obtaining the step response of the first order system and getting the step response information from it.

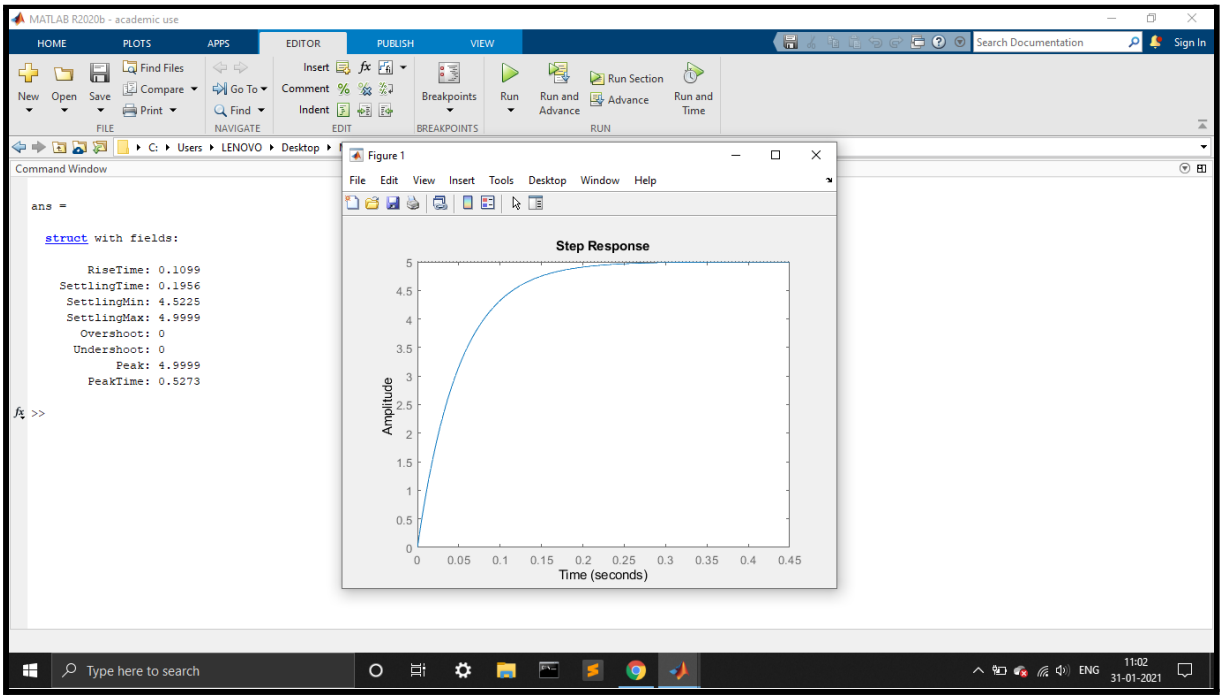


The image below shows the Simulink model for obtaining the step response of the first order system.

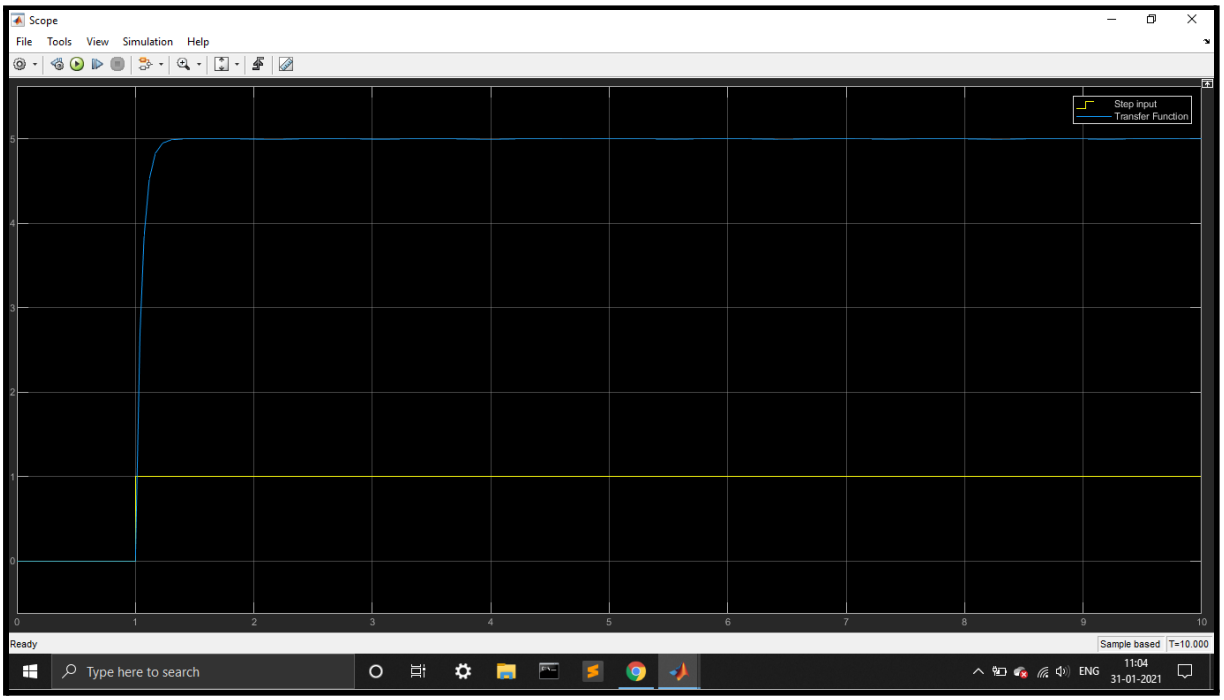


Results:

The below is the plot and the step response information obtained when the MATLAB code was run.



The below plot is the step response from the simulink model along with the step input.



Conclusive remarks:

The step response of a transfer function is useful in understanding the stability of the system. The above implemented first order system is stable since the step response settles to a steady state value. This can also be seen in the stepinfo given in the result part.