Result of Simulink Experiment 7-Lab4

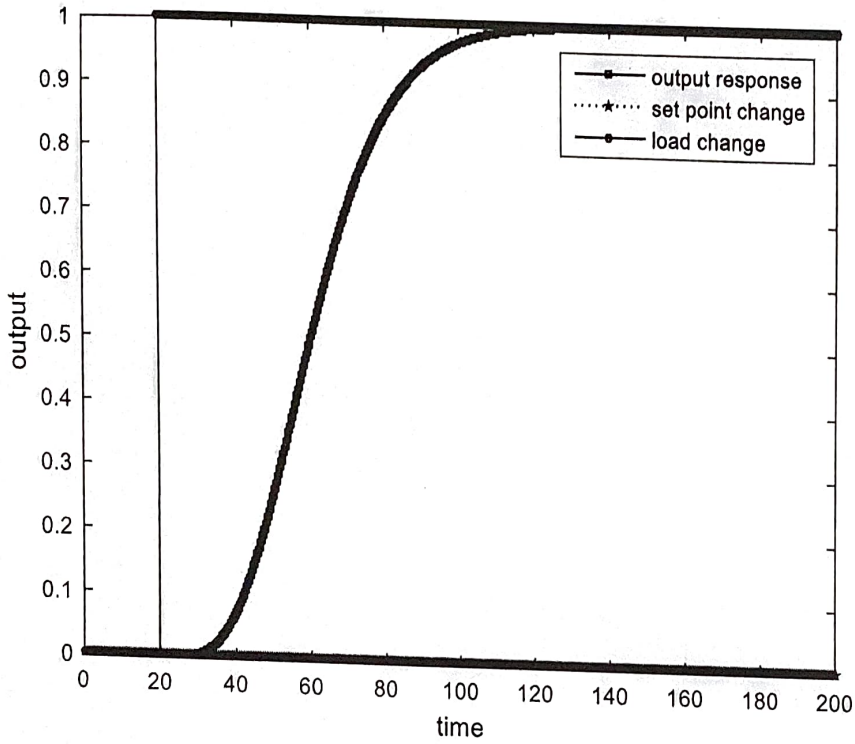


Figure (1): Open loop Response of High Order-Unit step change in load/ Gain =1.

Result of Simulink Experiment 7-Lab4

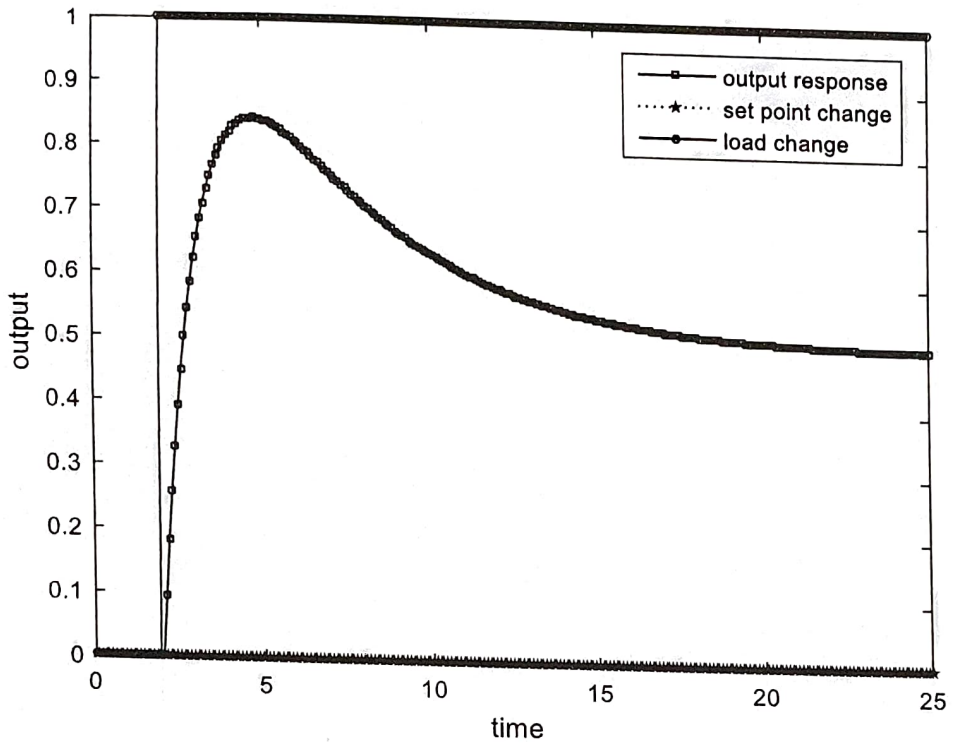


Figure (2): First Order Process P-Controller-Unit step change in load/ Gain =1.

Result of Simulink Experiment 7-Lab4

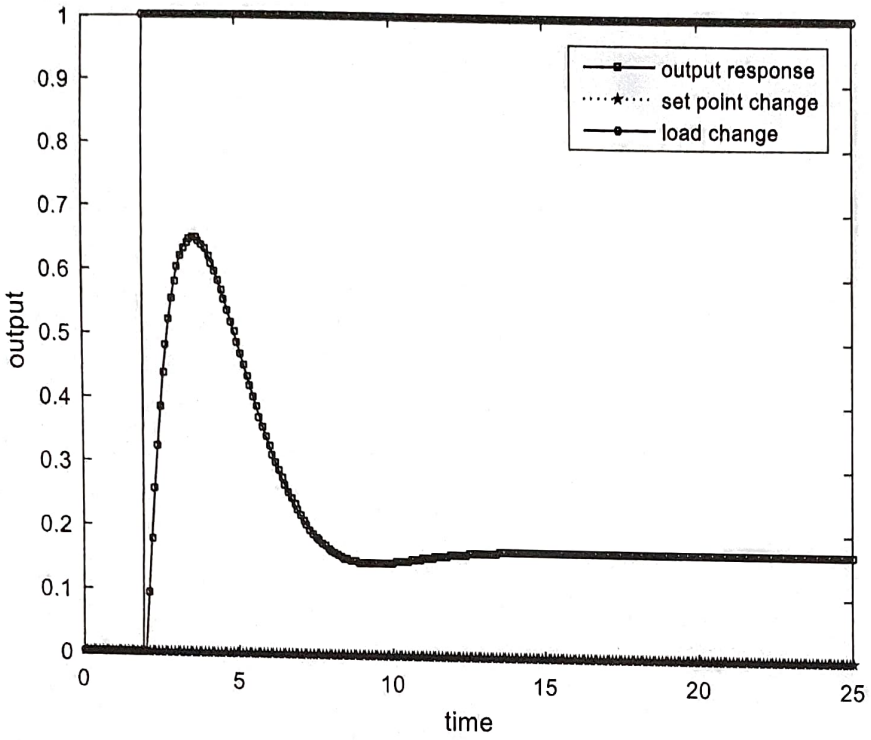


Figure (3): First Order Process P-Controller-Unit step change in load/ Gain =5.

Result of Simulink Experiment 7-Lab4

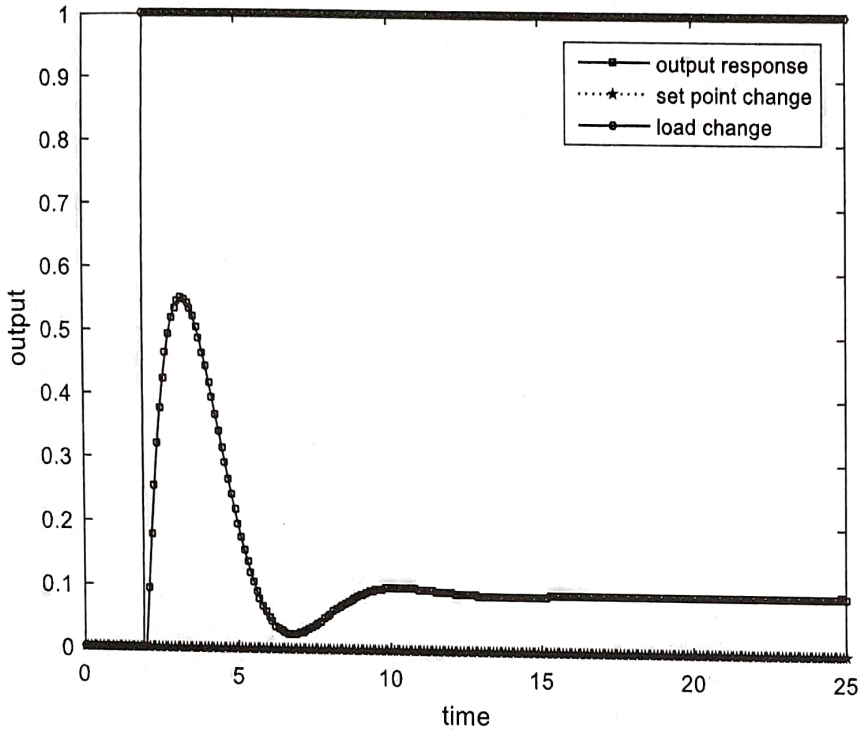


Figure (4): First Order Process P-Controller-Unit step change in load/ Gain =10.

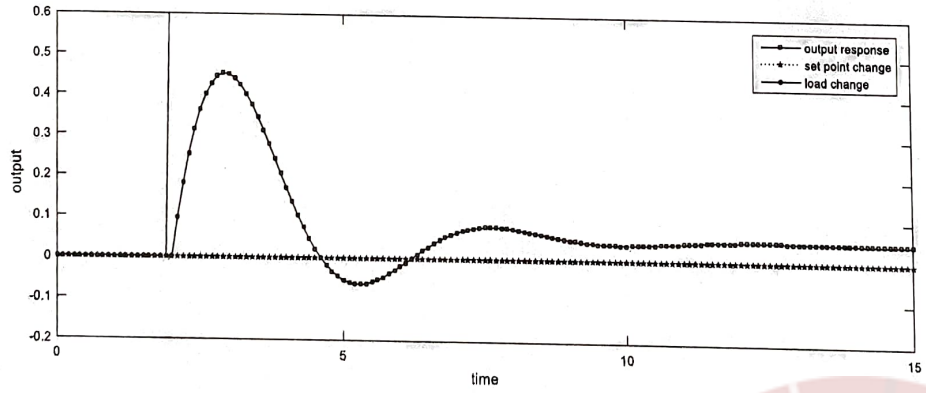


Figure (5): First Order Process P-Controller-Unit step change in load/ Gain =20

Result of Simulink Experiment 7-Lab4

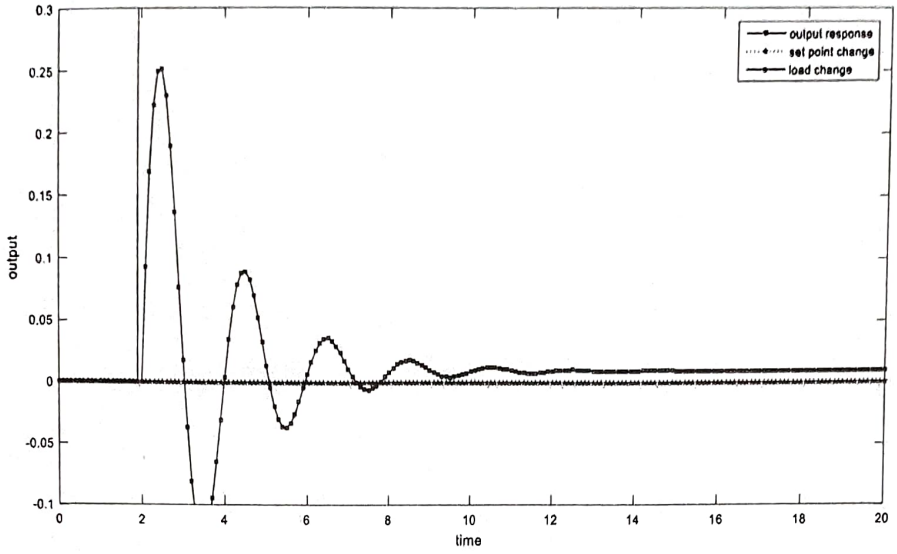


Figure (6): First Order Process P-Controller-Unit step change in load/ Gain =100

Note that offset become around 0.01

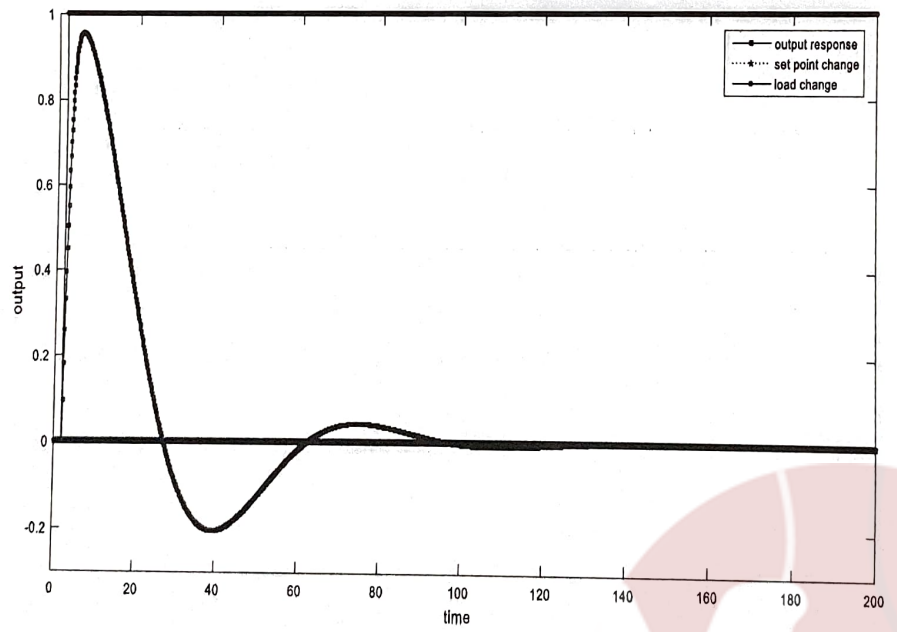


Figure (7): First Order Process PI-Controller-Unit step change in load/ Gain =1/tau-I =10.

Note the Offset value.

Result of Simulink Experiment 7-Lab4

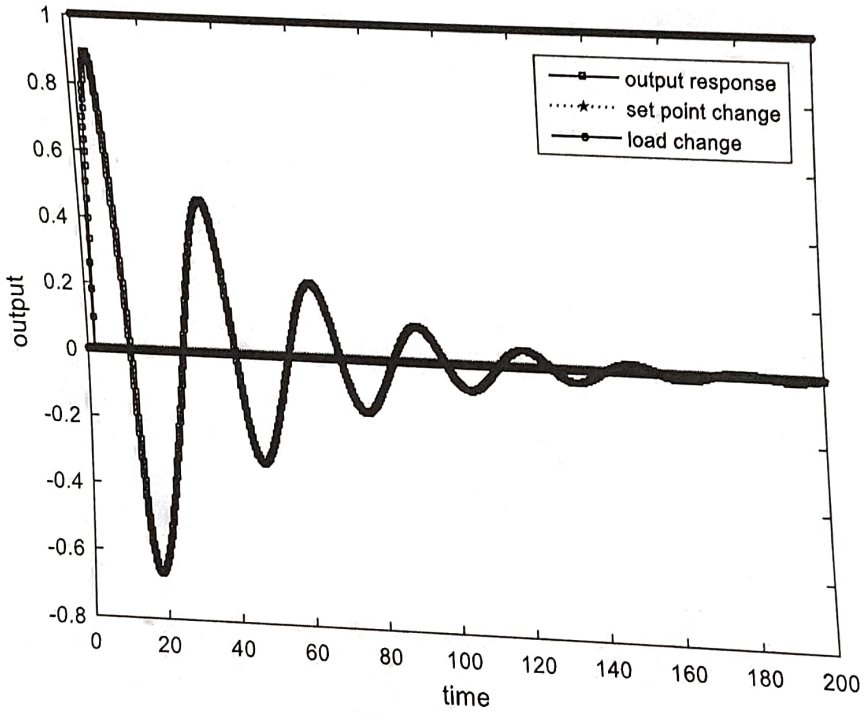


Figure (8): First Order Process PI-Controller-Unit step change in load/ Gain =5/tau-I =10.

Result of Simulink Experiment 7-Lab4

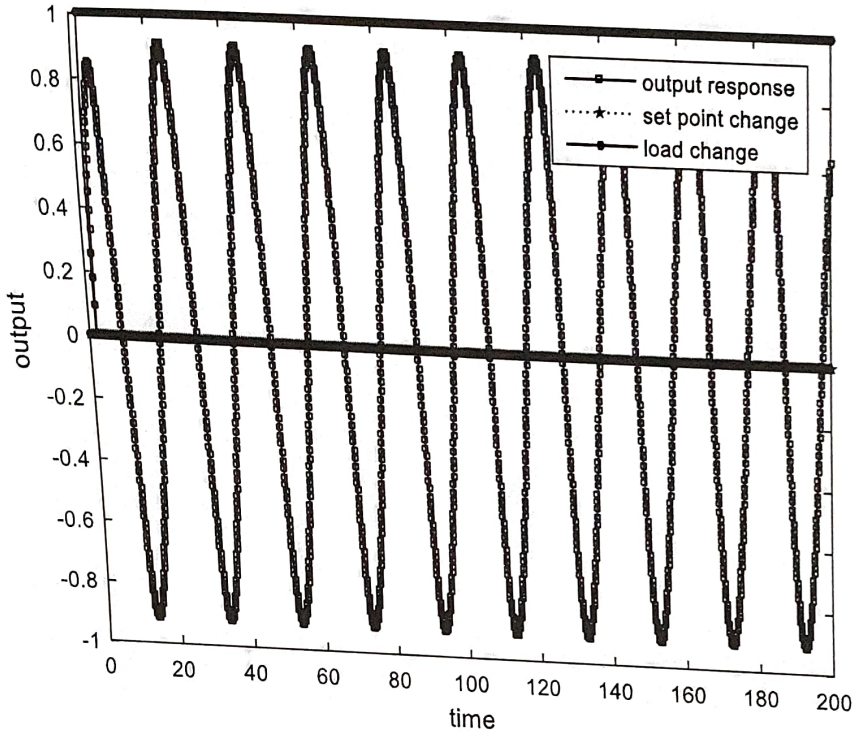
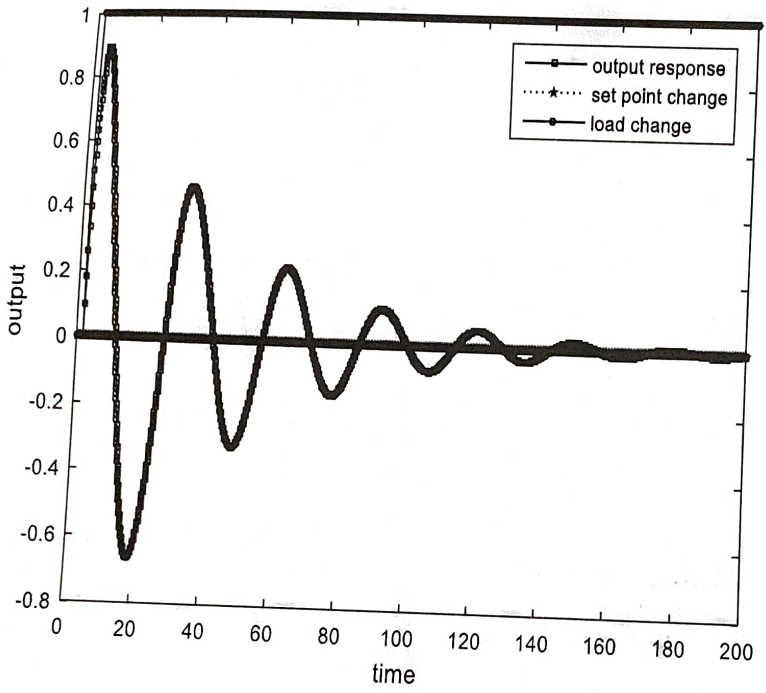


Figure (9): First Order Process PI-Controller-Unit step change in load/ Gain =11/tau-I =10. Note the continuous oscillation.

Result of Simulink Experiment 7-Lab4



ure (10): First Order Process PI-Controller-Unit step change in load/ Gain =1/tau-I =2.

Result of Simulink Experiment 7-Lab4

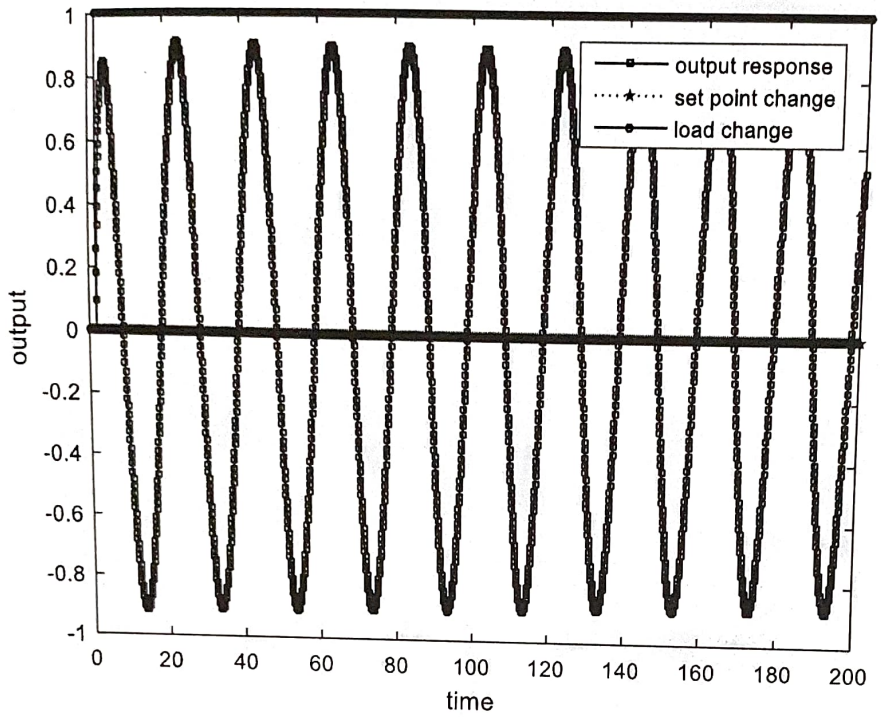


Figure (11): First Order Process PI-Controller-Unit step change in load/ Gain =2.2 /tau-I =2. Note the continuous oscillation.

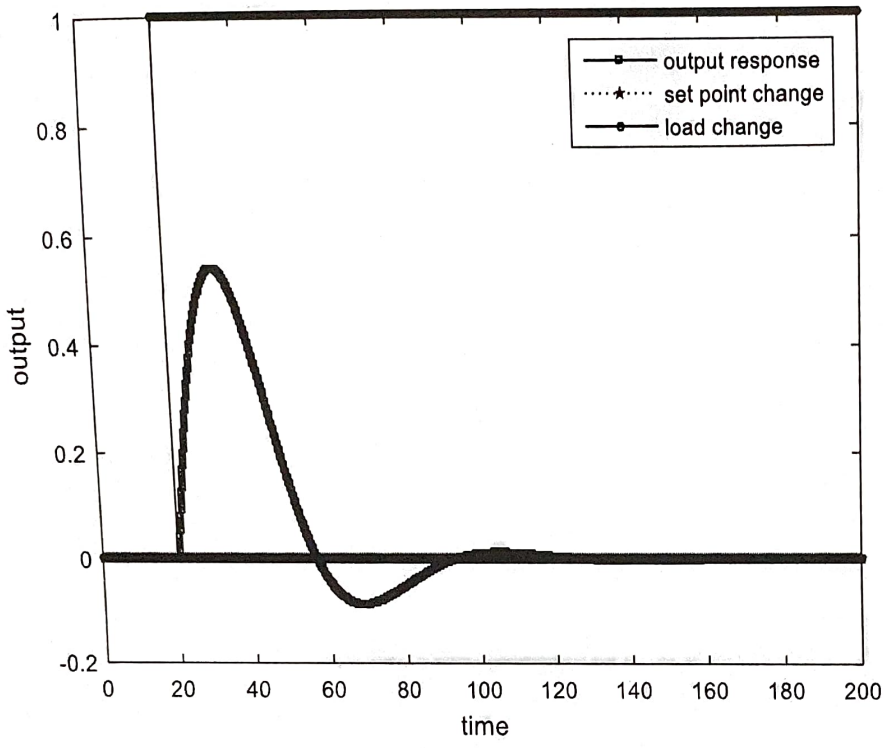


Figure (12): First Order Process PID-Controller-Unit step change in load with dead time=0.25/ Gain =1 /tau-I =10/tau-d=1.5.

Result of Simulink Experiment 7-Lab4

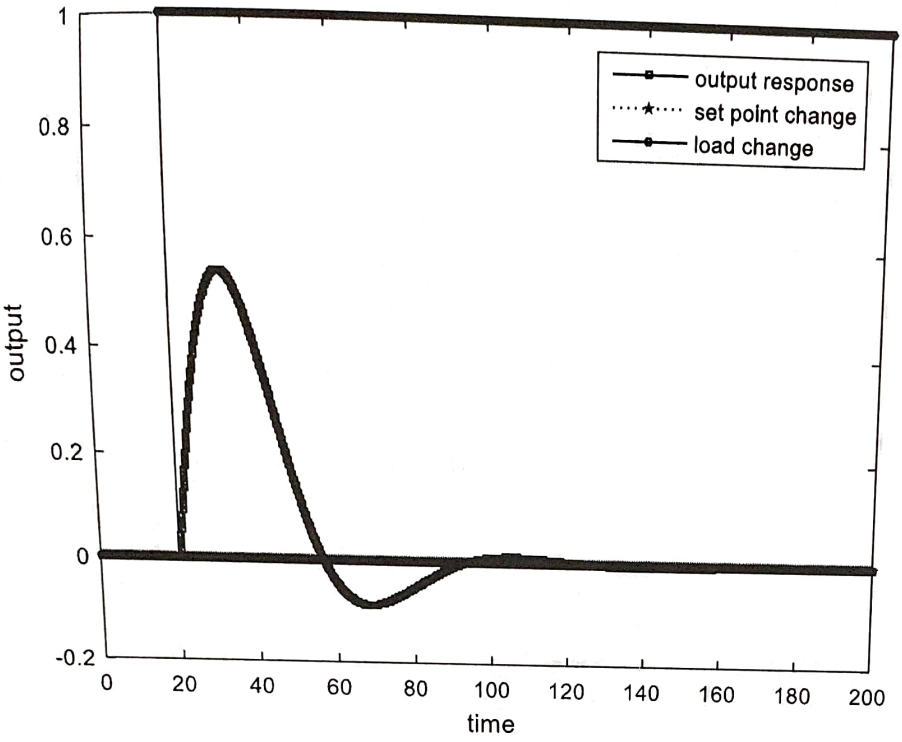


Figure (13): First Order Process PID-Controller-Unit step change in load with dead time=0.25/ Gain =1 /tau-I =10/tau-d=3.

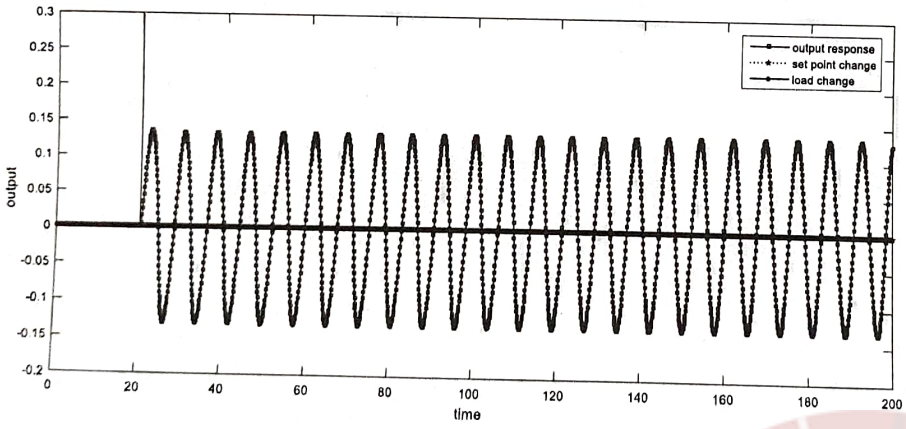


Figure (14): First Order Process PID-Controller-Unit step change in load with dead time=0.25/ Gain =54.7 /tau-I =10/tau-d=1.5. Note the continuous oscillation.

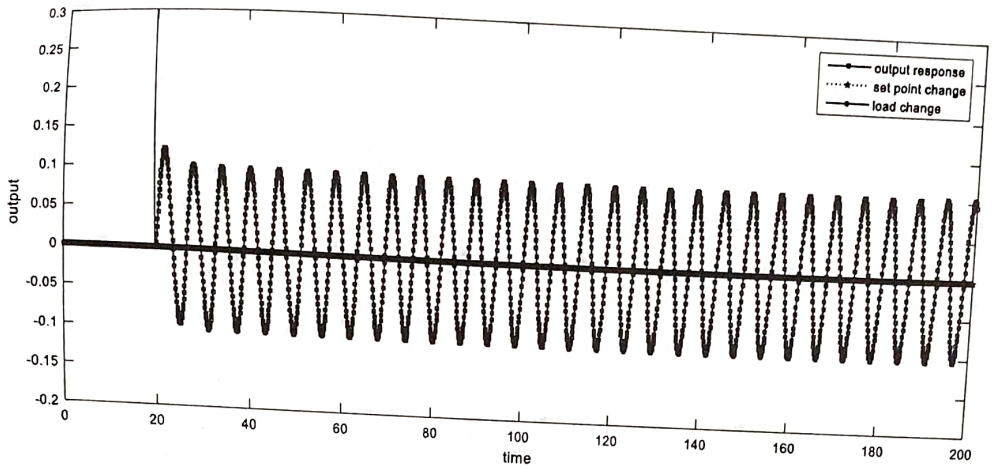


Figure (15): First Order Process PID-Controller-Unit step change in load with dead time=0.25/ Gain =49.1 /tau-I =10/tau-d=3. Note the continuous oscillation.

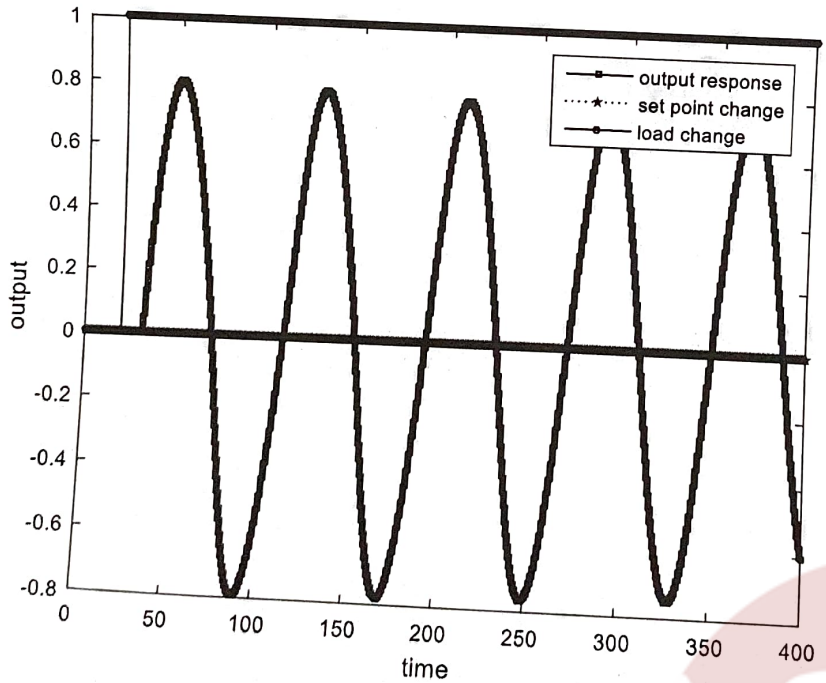


Figure (16): First Order Process PID-Controller-Unit step change in load with dead time=11.7/ Gain =1 /tau-I =10/tau-d=1.5. Note the continuous oscillation.

Result of Simulink Experiment 7-Lab4

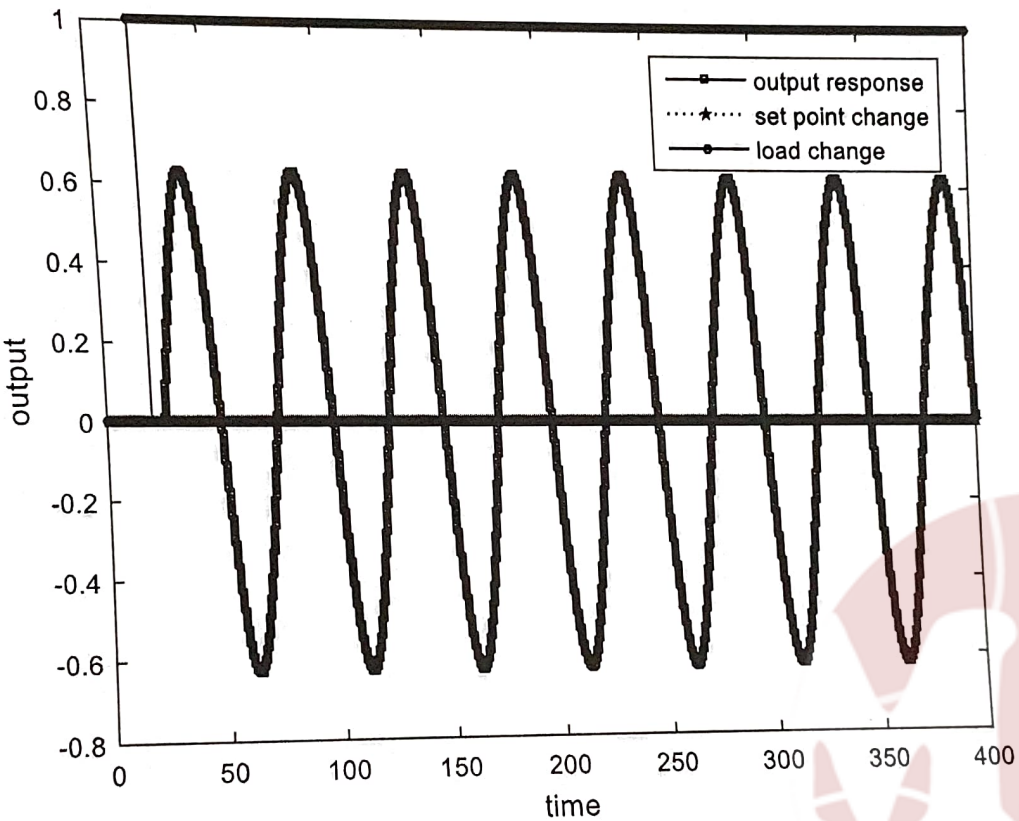


Figure (17): First Order Process PID-Controller-Unit step change in load with dead time=5.68/ Gain =1 /tau-I =5/tau-d=1.5. Note the continuous oscillation.