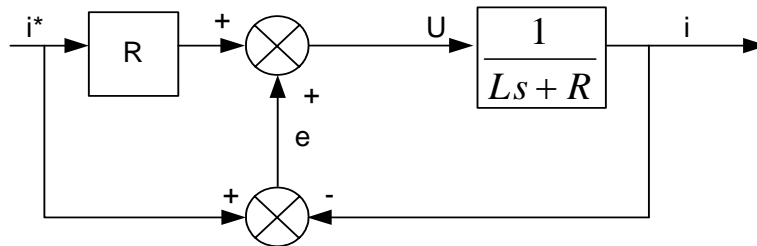


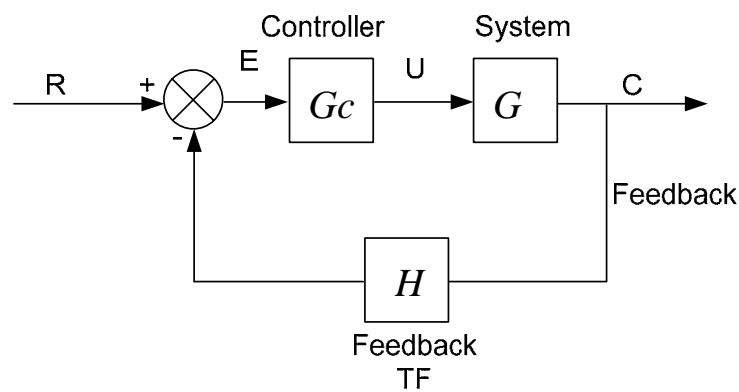
## Automatic Control – EEE 2002 Tutorial Exercise V

1. The RL circuit described during the lectures is to be controlled by



Simulate the system for a unit step and ramp response and crosscheck the results using the final value theorem. Monitor the value of the error and the control signal  $U$ .

2. Change the control strategy to:



with  $G(s) = \frac{1}{Ls + R}$ ,  $H(s) = 1$ ,  $G_c(s) = k$

For  $k=1, 10$  and  $100$  simulate the system for a unit step and ramp response and crosscheck the results using the final value theorem. Monitor the value of the error and the control signal  $U$ .