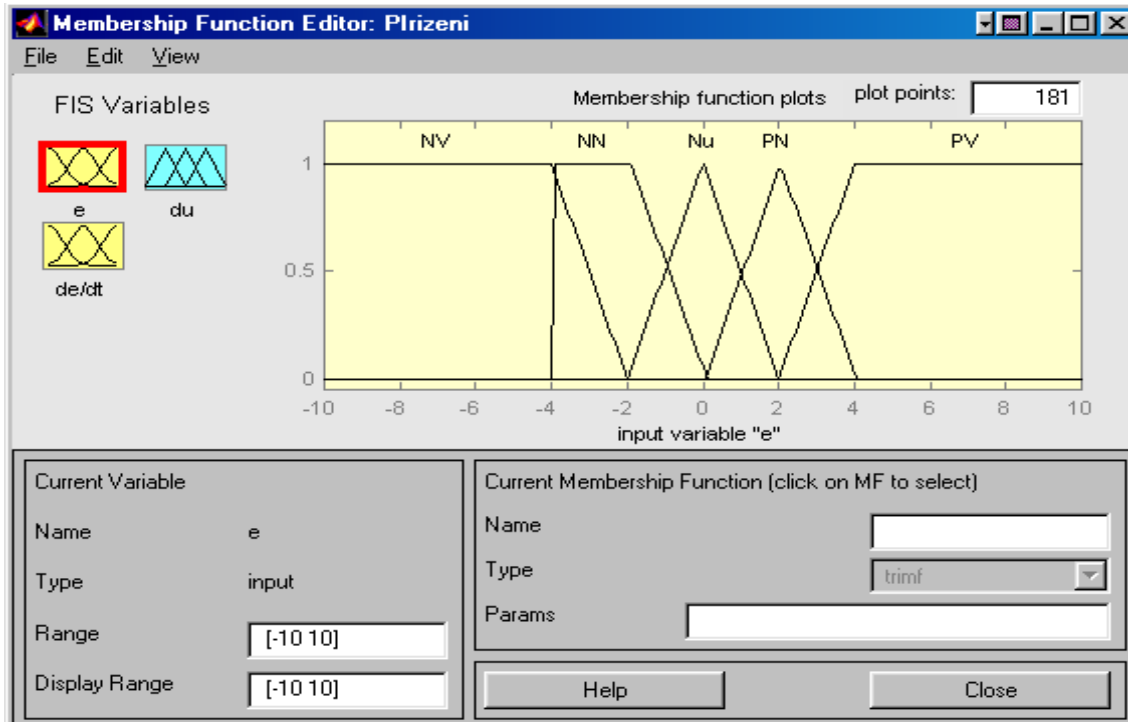


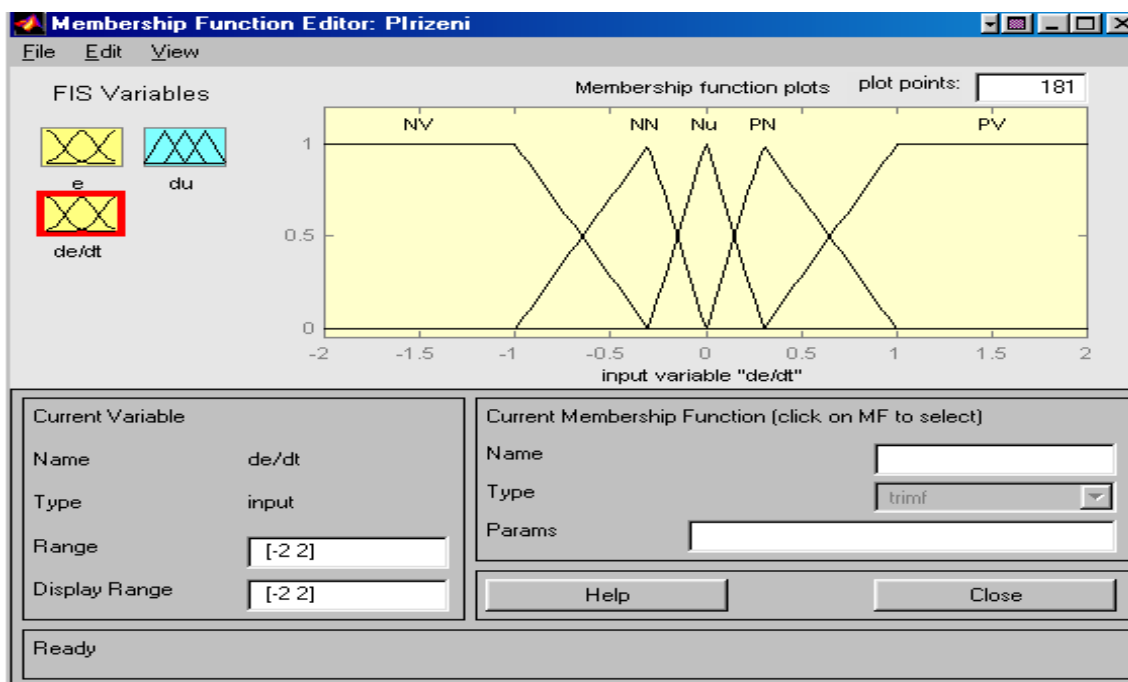
**Soustava:**  $G(s) = Y(s) / U(s) = (-0.4 s + 1) / (0.2 s^2 + 1.2 s + 1)$ .

**Fuzzy regulátor typu PI:**

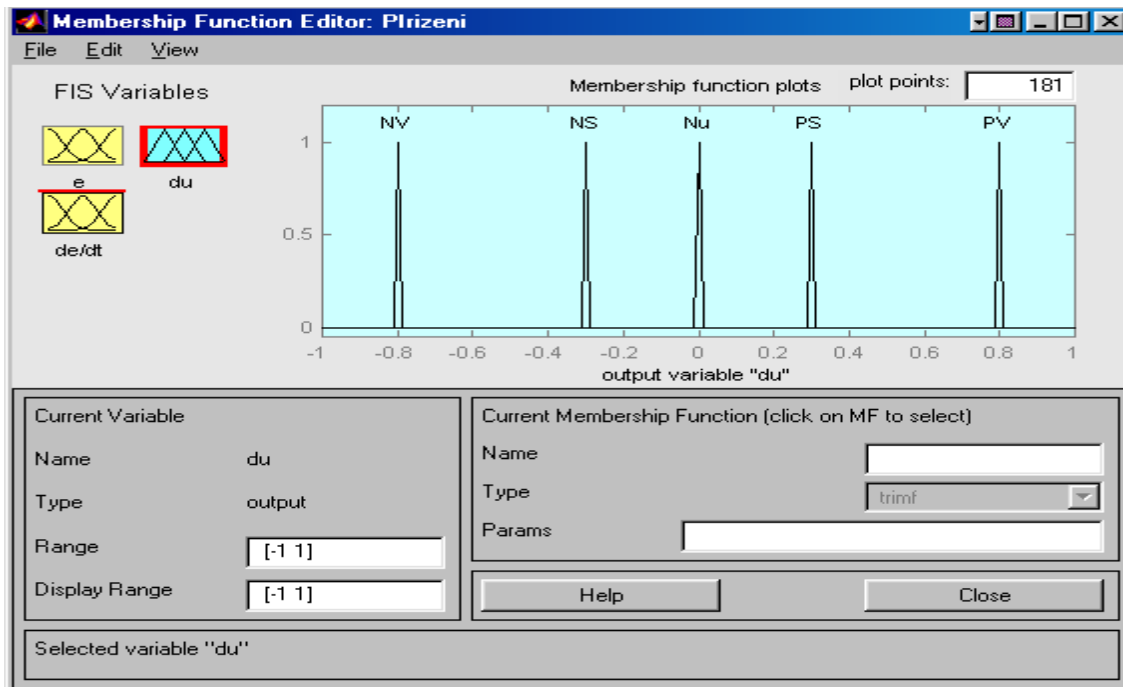
**Funkce příslušnosti proměnné  $e(k)$ :**



**Funkce příslušnosti proměnné  $\Delta e(k)$ :**



## Funkce příslušnosti proměnné $\Delta u(k)$ :

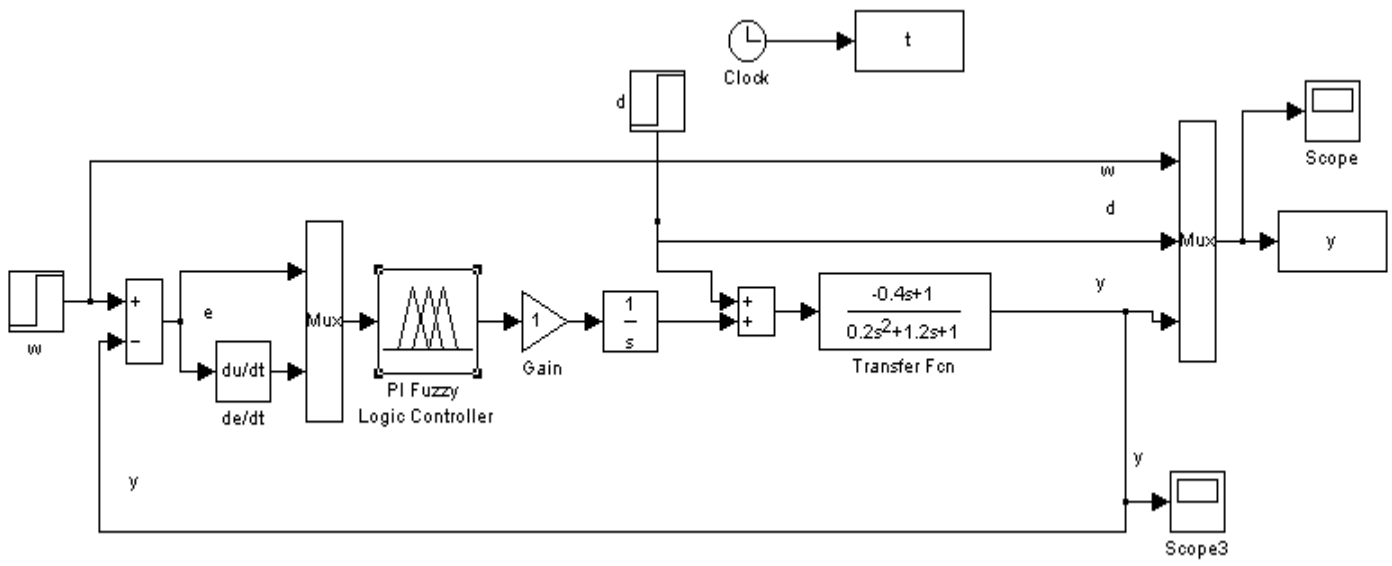


## Pravidla:

1. If (e is NV) and (de/dt is PV) then (du is Nu) (1)
2. If (e is NN) and (de/dt is PV) then (du is PS) (1)
3. If (e is Nu) and (de/dt is PV) then (du is PS) (1)
4. If (e is PN) and (de/dt is PV) then (du is PV) (1)
5. If (e is PV) and (de/dt is PV) then (du is PV) (1)
6. If (e is NV) and (de/dt is PN) then (du is NS) (1)
7. If (e is NN) and (de/dt is PN) then (du is Nu) (1)
8. If (e is Nu) and (de/dt is PN) then (du is PS) (1)
9. If (e is PN) and (de/dt is PN) then (du is PS) (1)
10. If (e is PV) and (de/dt is PN) then (du is PV) (1)
11. If (e is NV) and (de/dt is Nu) then (du is NS) (1)
12. If (e is NV) and (de/dt is Nu) then (du is NS) (1)
13. If (e is Nu) and (de/dt is Nu) then (du is Nu) (1)
14. If (e is PN) and (de/dt is Nu) then (du is PS) (1)
15. If (e is PV) and (de/dt is Nu) then (du is PS) (1)
16. If (e is NV) and (de/dt is NN) then (du is NV) (1)
17. If (e is NN) and (de/dt is NN) then (du is NS) (1)
18. If (e is Nu) and (de/dt is NN) then (du is NS) (1)
19. If (e is PN) and (de/dt is NN) then (du is Nu) (1)
20. If (e is PV) and (de/dt is NN) then (du is PS) (1)
21. If (e is NV) and (de/dt is NV) then (du is NV) (1)
22. If (e is NN) and (de/dt is NV) then (du is NV) (1)
23. If (e is Nu) and (de/dt is NV) then (du is NS) (1)
24. If (e is PN) and (de/dt is NV) then (du is NS) (1)
25. If (e is PV) and (de/dt is NV) then (du is Nu) (1)

**Save to workspace !!!**

## Simulační obvod s vnějšími poruchami:



## Simulace:

