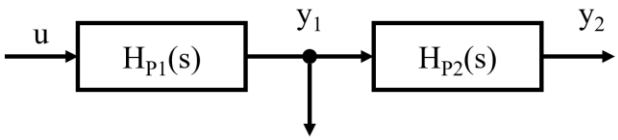
Probleme propuse structura de reglare in cascada

1. Se considera un proces caracterizat prin modelul:



unde:

$$H_{P1}(s) = \frac{5}{(5s+1)(0.1s+1)}$$

$$H_{P2}(s) = \frac{1}{20s+1}$$

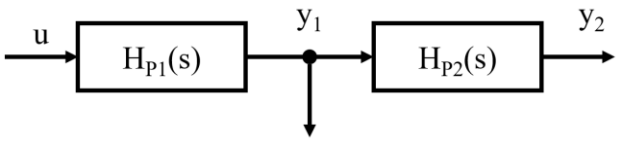
Se cere:

a) Structura sistemului de reglare automata (SRA)

b) Legea de reglare astfel incat sistemul in bucla inchisa sa aiba un raspuns indicial caracterizat de

- $\sigma \leq 5\%$
- $t_t \leq 40$ sec
- $\varepsilon_{st} = 0$

2. Se considera un proces caracterizat prin modelul:



unde:

$$H_{P1}(s) = \frac{1}{12s+1}$$

$$H_{P2}(s) = \frac{1}{50s+1} \cdot e^{-5s}$$

Se cere:

a) Structura sistemului de reglare automata (SRA)

b) Legea de reglare astfel incat sistemul in bucla inchisa sa aiba un raspuns indicial caracterizat de

- $\sigma = 0\%$
- $t_t \leq 120$ sec
- $\varepsilon_{st} = 0$