SC-4. Se consideră structura de SRA-c din fig. C-4. Sunt cunoscute regulatoarele:

PDT1: $H_{RG}(s) = \dfrac{2(1+2s)}{1+0.1s}$, PI: $H_{RG}(s) = \dfrac{2(1+2s)}{s}$.

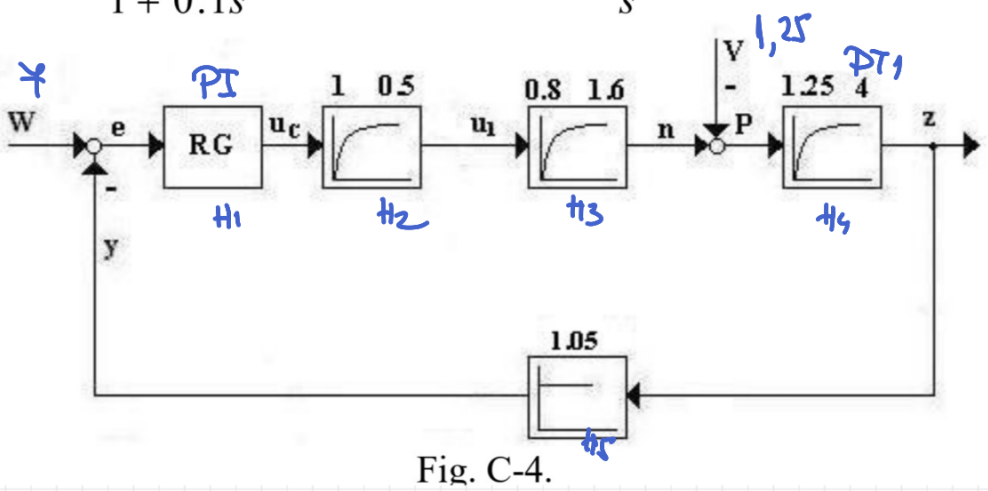

Fig. C-4.

1-5p :2
2
1

2-2p

1p

I.

H_1: PTD1: $u_{c\infty} = e_\infty \cdot 2 \Rightarrow$

$\Rightarrow e_\infty = 0{,}934.$

H_4: $\mathcal{E}_\infty = 1{,}25 \cdot P_\infty \rightarrow P_\infty = 0$

deoarece $P_\infty = n_\infty - V_\infty \rightarrow n_\infty = 1{,}25$

H_3: $n_\infty = 0{,}8 \cdot u_{1\infty} \Rightarrow u_{1\infty} = \dfrac{1{,}25}{0{,}8} = 1{,}2975$

H_2: $u_c = u_1 = \dfrac{1{,}25}{0{,}8} = 1{,}8445$

II.

$e_\infty = w_\infty - y_\infty \Rightarrow y_\infty = w_\infty - e_\infty = 0.$

H_5: $y_\infty = 1{,}05 \cdot \mathcal{E}_\infty \rightarrow \mathcal{E}_\infty = 0$

H_4: $\mathcal{E}_\infty = 1{,}25 \cdot P_\infty \rightarrow P_\infty = 0$

deoarece $P_\infty = n_\infty - V_\infty \rightarrow n_\infty = 1{,}25$

H_3: $n_\infty = 0{,}8 \cdot u_{1\infty} \Rightarrow u_{1\infty} = \dfrac{1{,}25}{0{,}8} = 1{,}5625$

H_2: $u_c = u_1 = \dfrac{1{,}25}{0{,}8} = 1{,}5625$