

Tarea #12

Daniel Aleman Saborio

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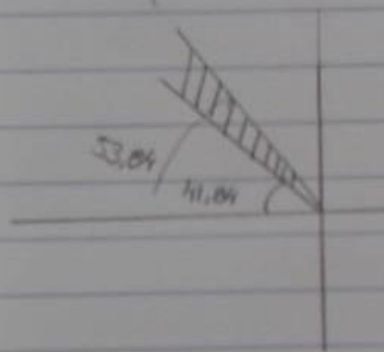
-7 Regulador ante una entrada Escalón

→ Sobreimpulso $M_p = 3\%$ al 10%

→ Estabilización $T_s \leq 3s$

$$\zeta = \frac{\ln\left(\frac{0.03}{\pi}\right)}{\sqrt{1 + \ln\left(\frac{0.03}{\pi}\right)^2}} = 0.745 \quad \zeta = \frac{\ln\left(\frac{0.1}{\pi}\right)}{\sqrt{1 + \ln\left(\frac{0.1}{\pi}\right)^2}} = 0.9$$

$$\theta = 41.84^\circ \quad \theta = 53.84^\circ$$



$$T_s = 5s < 3s$$

$$\frac{3}{\zeta \omega_n} < 3 \rightarrow 1 < \zeta \omega_n$$

$$\zeta \omega_n$$

$$b = -1.15 \pm j 1.25 = 47.38^\circ \checkmark$$