

Progetto Diretto

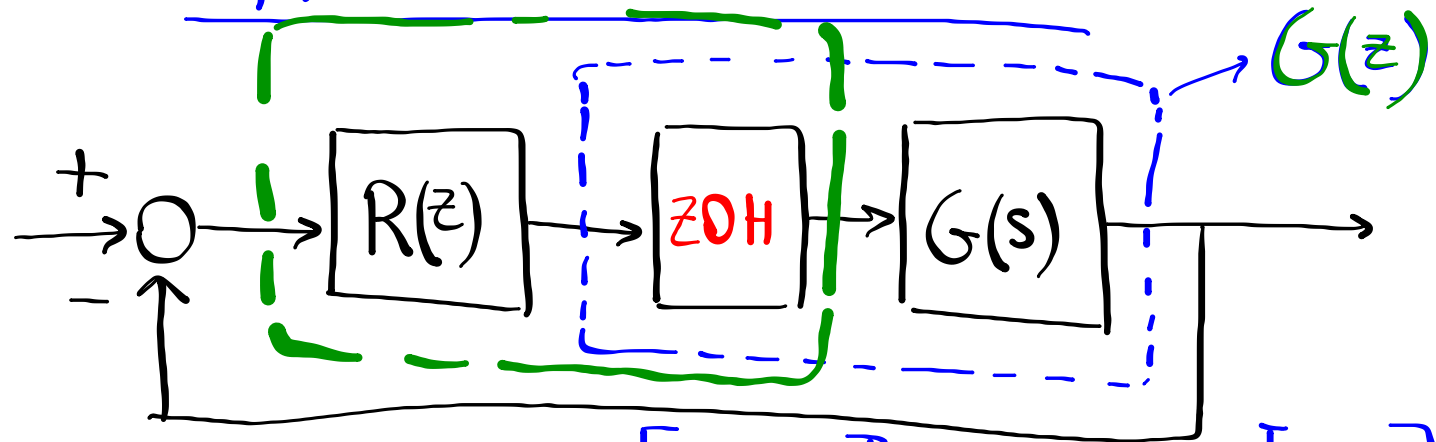
$$G(s) = \frac{1}{s(s+5)}$$

progettare

$$R(z) = K \frac{z - 0.8825}{z - 0.4}$$

$$\left\{ \begin{array}{l} T_a \leq 0.25s. \\ S\% \leq 0.5\% \\ (\delta \geq 0.85) \end{array} \right.$$

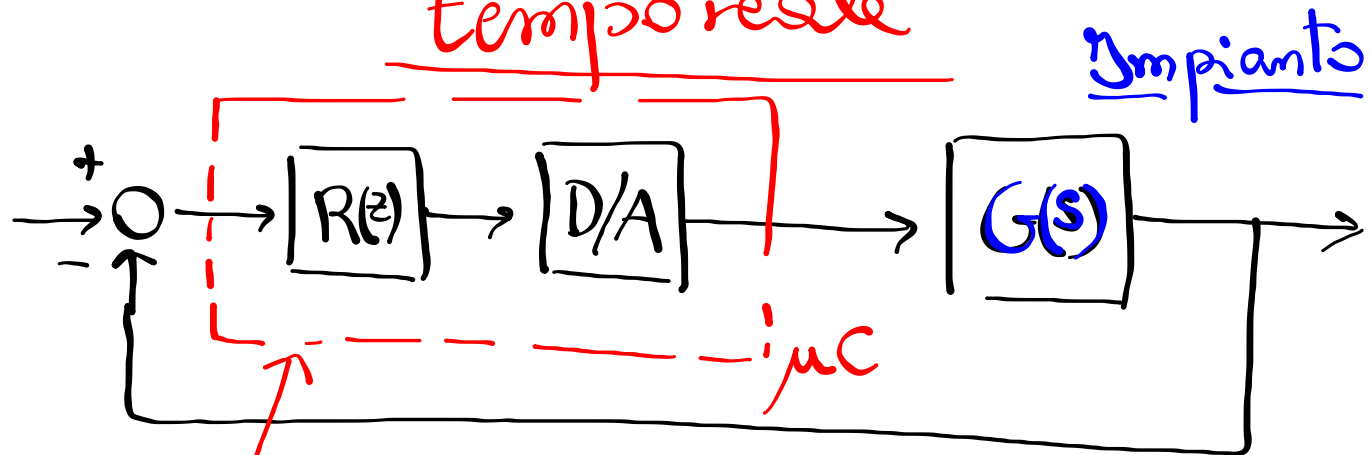
Metodo Diretto



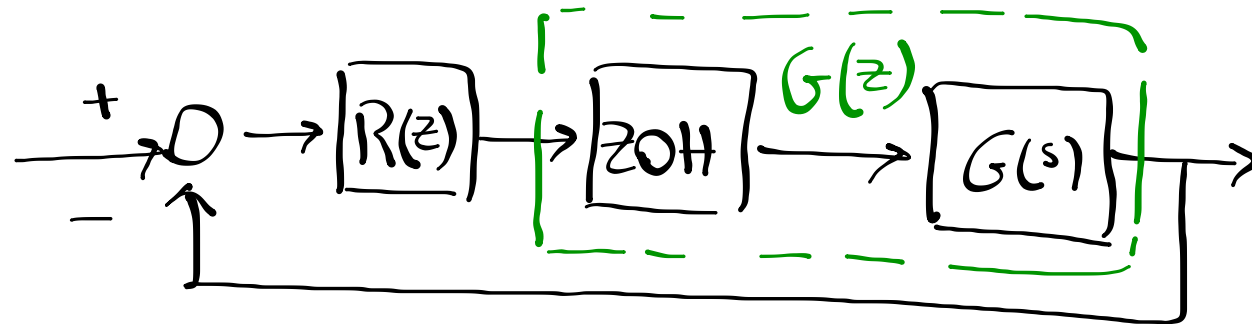
(Hold Equivalence) $G(z) = \mathcal{Z} \left[\frac{1 - e^{-sT}}{s} G(s) \right] = (1 - z^{-1}) \mathcal{Z} \left[\frac{G(s)}{s} \right]$

$$G_a(z) = R(z) \cdot G(z)$$

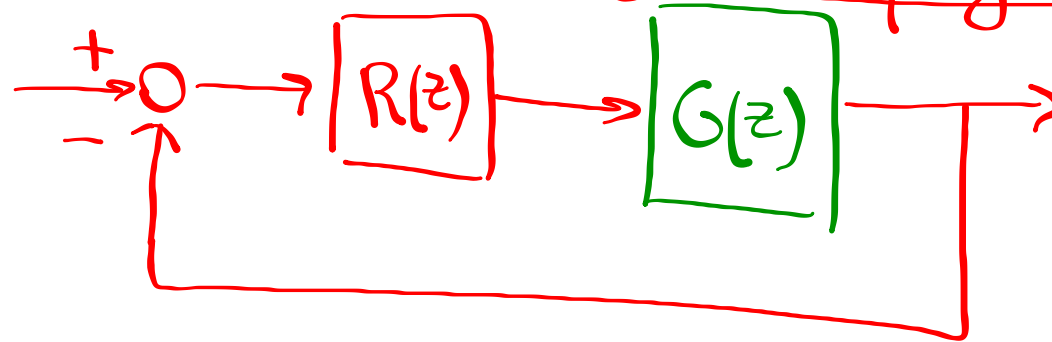
Implementazione a tempo reale



regolatore + convertitore D/A
su micro-controllore



Schema logico di progetto



Metodo *indiretto* vs. metodo *diretto*

