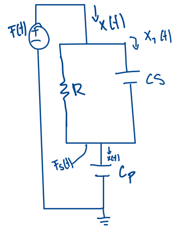
23-Oct-2025

$x(t) = x_1(t) + x_2(t)$

Función de transferencia

Analisis Apagado Fo



Nodos Derivadas

Malla Integrales

$$x(t) = x_1(t) + x_2(t)$$

$$x(t) = \frac{d[F_s(t)]}{dt}$$

$$x_2(t) = \frac{F(t) - F_s(t)}{R}$$

$$x_1 = C_s \frac{d[F(t) - F_s(t)]}{dt}$$

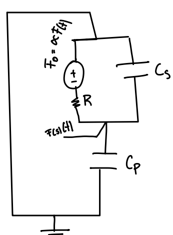
$$C_p \frac{dF_s(t)}{dt} = C_s \frac{d[F(t) - F_s(t)]}{dt} + \frac{F(t) - F_s(t)}{R}$$

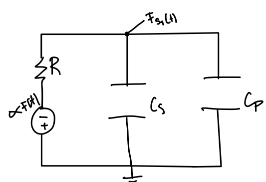
$$C_p\, S\, F_s(s) = C_s\, S\,[F(s) - F_s(s)] + \frac{F(s) - F_s(s)}{R}$$

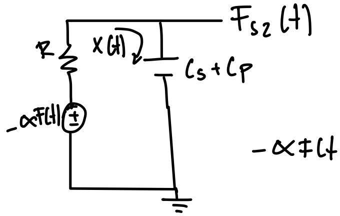
$$\left(C_p S + C_s S + \frac{1}{R}\right) F_s(s) = \left(C_s S + \frac{1}{R}\right) F(s)$$

$$\frac{F_s(s)}{F(s)} = \frac{C_s R S + 1}{(C_p R + C_s R) S + 1}$$

$$F_{s1}(s) = \frac{(C_s R + 1)\, F(s)}{R(C_s + C_p) S + 1}$$







$$-\alpha F(t) = R x(t) + \frac{1}{C_s + C_p} \int x(t)\,dt$$

$$F_s(t) = \frac{1}{C_s + C_p} \int x(t)\,dt$$

$$-\alpha F(s) = R X(s) + \frac{X(s)}{(C_s + C_p)s}$$

$$F_s(s) = \frac{X(s)}{(C_s + C_p)s}$$

$$F(s) = -\frac{R(C_s + C_p)s + 1}{\alpha (C_s + C_p)s} X(s)$$

$$\frac{F_s(s)}{F(s)} = \frac{\frac{X(s)}{(C_s + C_p)s}}{\frac{R(C_s + C_p)s + 1}{\alpha (C_s + C_p)s} X(s)} = -\frac{\alpha}{R(C_s + C_p)s + 1}$$

$$F_{s2}(s) = \frac{-\alpha F(s)}{R(C_s + C_p)s + 1}$$

$$F_s(s) = F_{s2}(s) + F_{s2}(s)$$

$$F_s(s) = \frac{(C_s R s + 1)F(s) - \alpha F(s)}{R(C_p + C_s)s + 1}$$

$$\frac{F_s(s)}{F(s)} = \frac{C_s R s + 1 - \alpha}{R(C_p + C_s)s + 1}$$