Carlos Arguedas Barahona

Ing. Eléctrica

Análisis de Sistemas Lineales

Calcular el Kp, Kv, Ka y su respectivo e_{ss} para G(s).

$$G(s) = \frac{7}{S^2 + 8}$$

$\boldsymbol{kp}$	$\boldsymbol{kv}$	$\boldsymbol{ka}$
$kp = \lim_{s\to 0} G(s)$	$kv = \lim_{s\to 0} s * G(s)$	$ka = \lim_{s\to 0} s^2 * G(s)$
$\lim_{s\to 0} \frac{7}{S^2 + 8} = \frac{7}{8}$	$\lim_{s\to 0} s * \frac{7}{S^2 + 8} = 0$	$\lim_{s\to 0} s^2 * \frac{7}{S^2 + 8} = 0$
$e_{ss} = \frac{1}{1 + kp}$	$e_{ss} = \frac{1}{kv}$	$e_{ss} = \frac{1}{ka}$
$e_{ss} = \frac{1}{1 + \frac{7}{8}} = \frac{8}{15}$	$e_{ss} = \frac{1}{0} = \infty$	$e_{ss} = \frac{1}{0} = \infty$