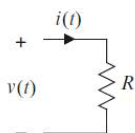


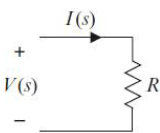
Εφαρμογή του μετασχηματισμού Laplace στα ηλ. Κυκλώματα

ΠΕΔΙΟ ΧΡΟΝΟΥ

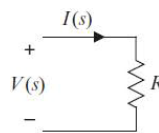


$$v(t) = Ri(t)$$

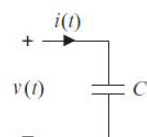
ΠΕΔΙΟ ΜΙΓΑΔΙΚΗΣ ΣΥΧΝΟΤΗΤΑΣ



$$I(s) = V(s)/R$$

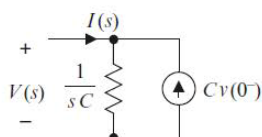


$$V(s) = RI(s)$$

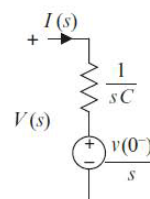


$$i(t) = C \frac{dv(t)}{dt}$$

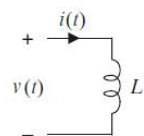
$$v(t) = v(0) + \frac{1}{C} \int_0^t i(\tau) d\tau$$



$$I(s) = sCV(s) - Cv(0)$$

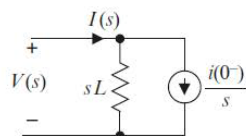


$$V(s) = \frac{I(s)}{sC} + \frac{v(0)}{s}$$

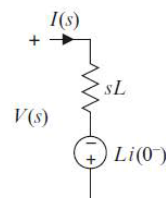


$$v(t) = L \frac{di(t)}{dt}$$

$$i(t) = i(0) + \frac{1}{L} \int_0^t v(\tau) d\tau$$



$$I(s) = \frac{V(s)}{sL} + \frac{i(0)}{s}$$



$$V(s) = sLI(s) - Li(0)$$