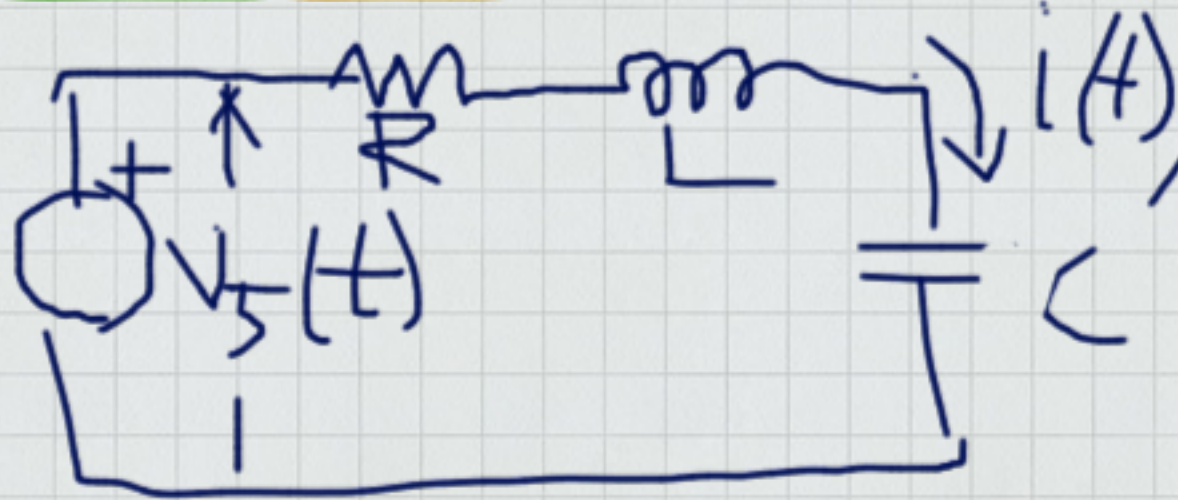


* Contoh ELEKTRIK

Rangkaian Pemuaian Kapasitor (RLC-seri)



Hukum Ohm

$$(1) \quad i(t) = C \frac{dv_C(t)}{dt}$$

$$(2) \quad V_s(t) - V_C(t) = Ri(t) + L \frac{di(t)}{dt}$$

Dari (1) $\Rightarrow \frac{dv_C(t)}{dt} = \frac{1}{C} i(t)$

$$(2) \Rightarrow \frac{di(t)}{dt} = \frac{1}{L} (V_s(t) - V_C(t) - Ri(t))$$

$$\left. \begin{aligned} V_C(t) &= \int \left(\frac{dv_C(t)}{dt} \right) dt \\ i(t) &= \int \left(\frac{di(t)}{dt} \right) dt \end{aligned} \right\} \Rightarrow \text{Bagian Kötak}$$