Module name: Electrical Circuits 2

Module ID: IS-FEE-10085S

Module type: Class

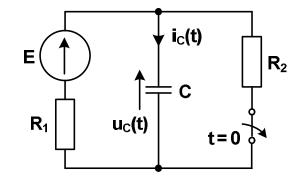
Semester: summer 2024/2025

Instructor: Jarosław Forenc, j.forenc@pb.edu.pl

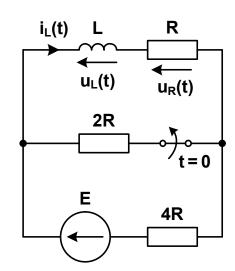
## Class 11 (27.05.2025)

The circuit shown in the figure has been in a steady-state. The switch was open at t = 0. Calculate and plot i<sub>C</sub>(t) and u<sub>C</sub>(t) for t < 0, t = 0 and t > 0.

E = 100 V, 
$$R_1$$
 = 20  $\Omega$ ,  $R_2$  = 40  $\Omega$ ,  $C$  = 10 mF.



2. The circuit shown in the figure has been in a steady-state. At t = 0 the switch was open. Find and plot  $i_L(t)$ ,  $u_L(t)$ , and  $u_R(t)$  for t < 0, t = 0, and t > 0.



3. The circuit shown in the figure has been in a steady-state. The switch was open at t = 0. Plot  $i_1(t)$  and  $i_2(t)$  for t < 0, t = 0 and t > 0.

E = 100 V, L = 0.1 H, 
$$R_1$$
 = 25  $\Omega$ ,  $R_2$  = 75  $\Omega$ .

