Lab Sessions 04   **Feedback / Machine Control System (EE-373 / 374)**

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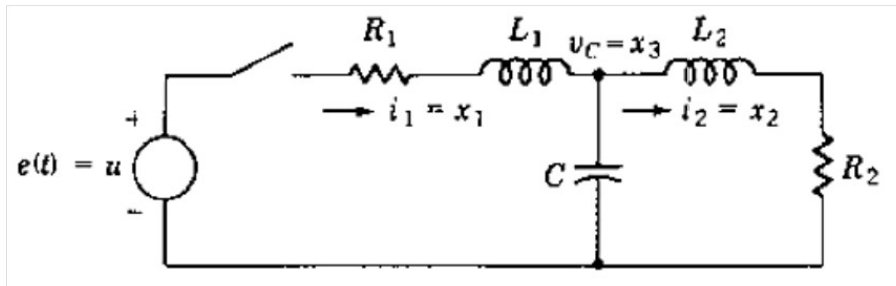Spring Semester 2020   TE-ME / TE-EE / TE-EL

Lab Session 04

Exercise:

Question 1:

Obtain the state space representation for the system shown below. Solve the resulting state equations using MATLAB *ode45* function (write complete script). Plot the inductor current i_1 and i_2 and the capacitor voltage v_c as marked in the figure with respect to time for $t = 0$ to 500 sec considering the following values of R, L and C and write in your words about what you observed by looking at plots.
[*Hint: Refer lecture 3 for the possible observations about this question.*]
[*Use separate A4 sheets for plots and attach it with this document*]

System Parameters:
$R_1 = R_2 = 10$
$L_1 = L_2 = 1$
$C = 5$
$e = 50$

Write your answers below this line

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