



**Faculty of Engineering and Technology
Electrical and Computer Engineering
Department**

**ENEE2102
CIRCUITS LAB**

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Student's number: 1152325

Pre lab exp#4

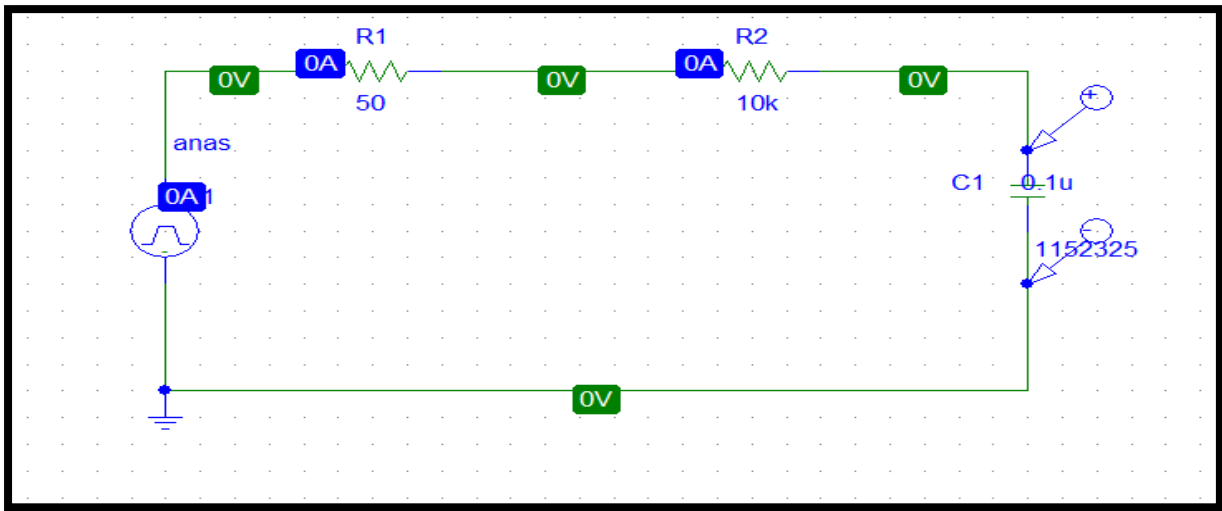
Date 11/10/2017

Eng.: Qais samara

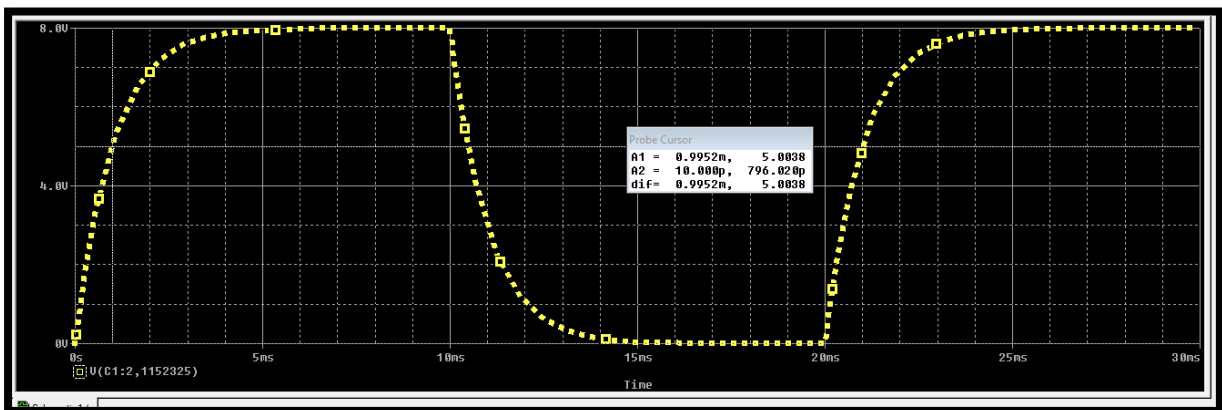
Dr: Hakam shehada

Part one: step response for first order RC circuit:

The circuit:

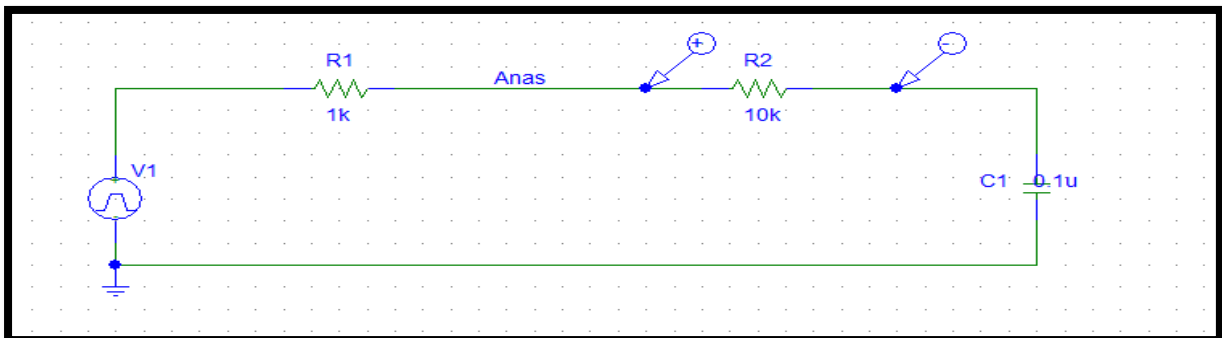


The result:

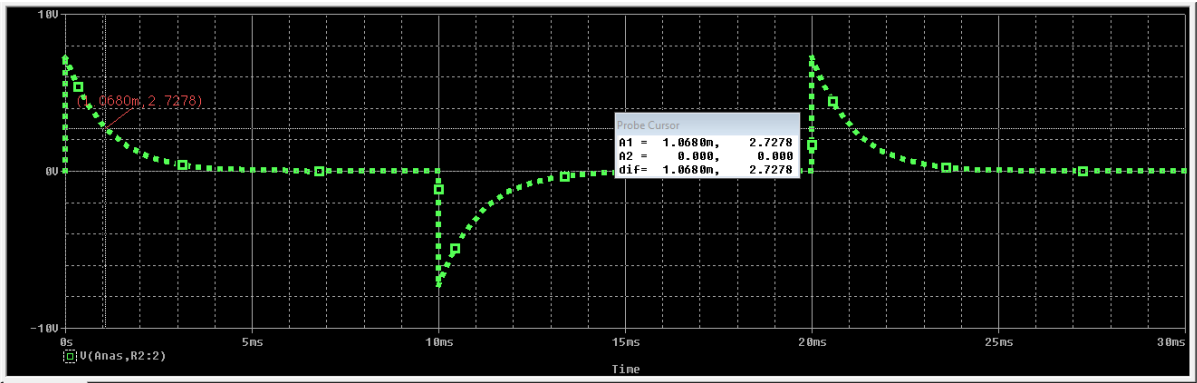


*From the graph, shown above the value of time constant is 1ms.

The circuit:

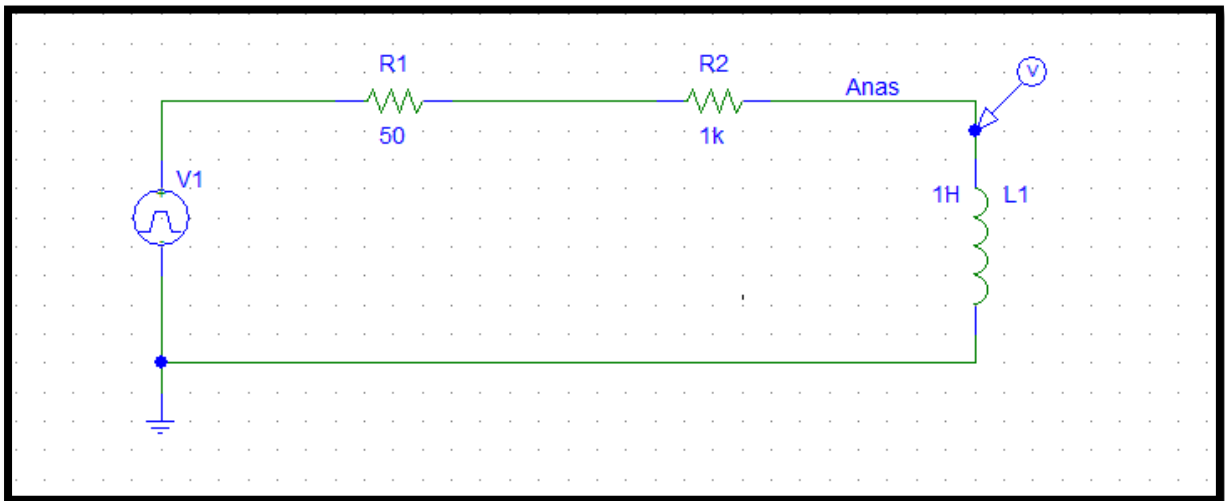


The result:

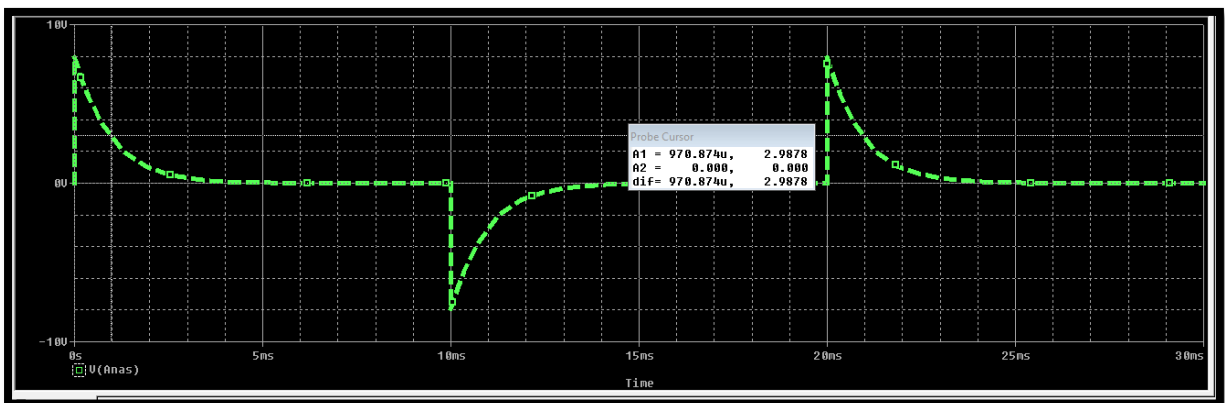


Part two: Step response of First-order RL circuit:

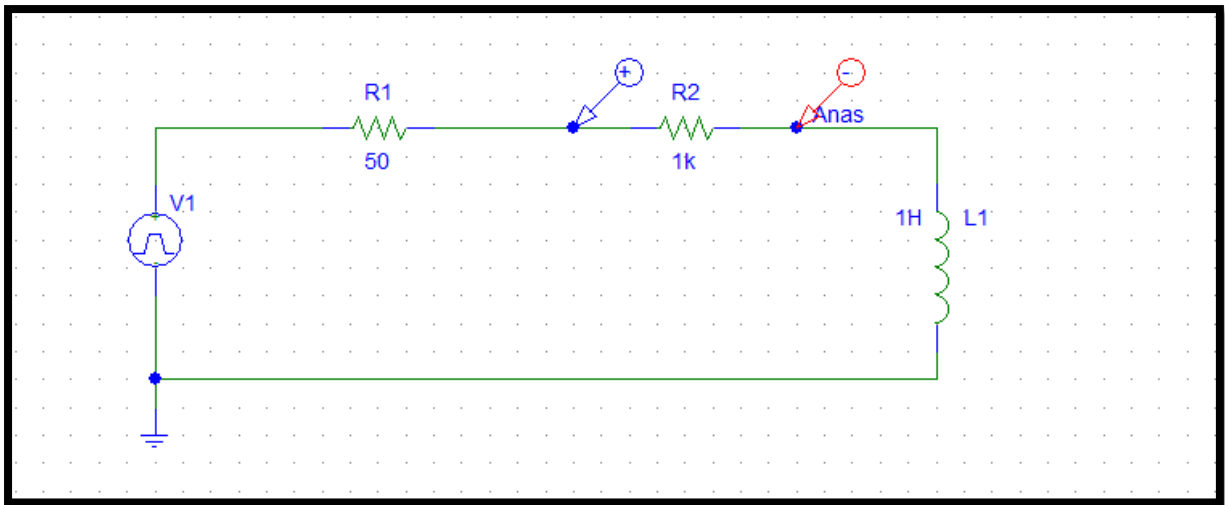
The circuit:



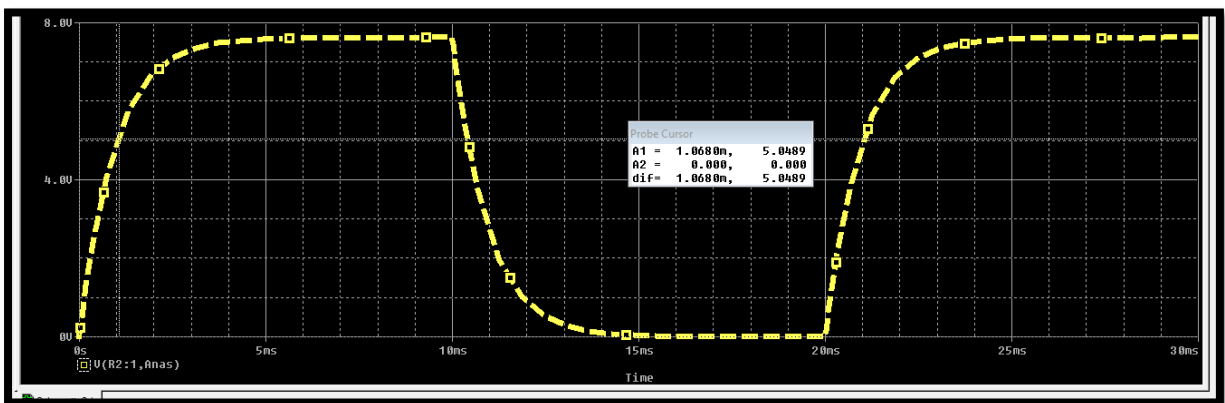
The result:



The circuit:

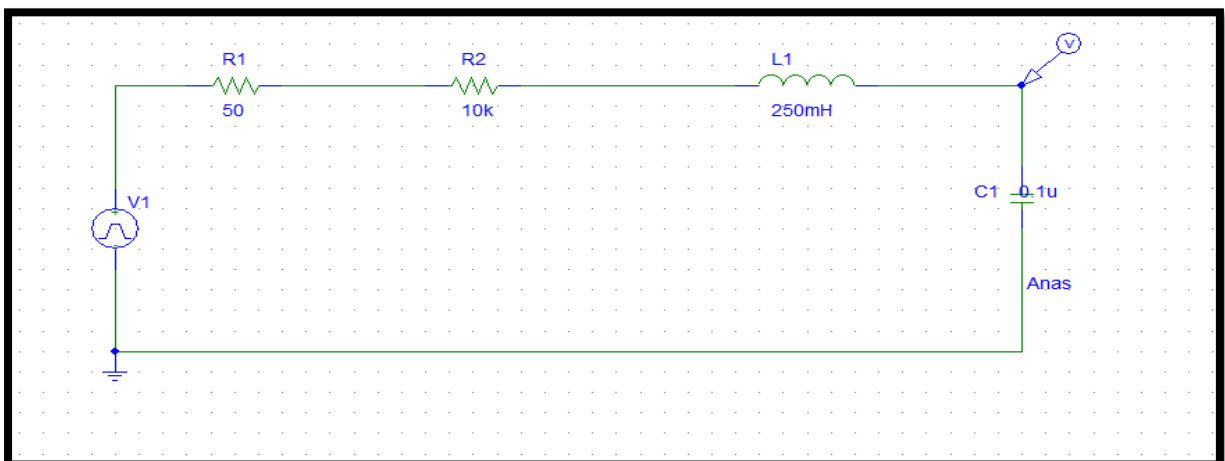


The result:

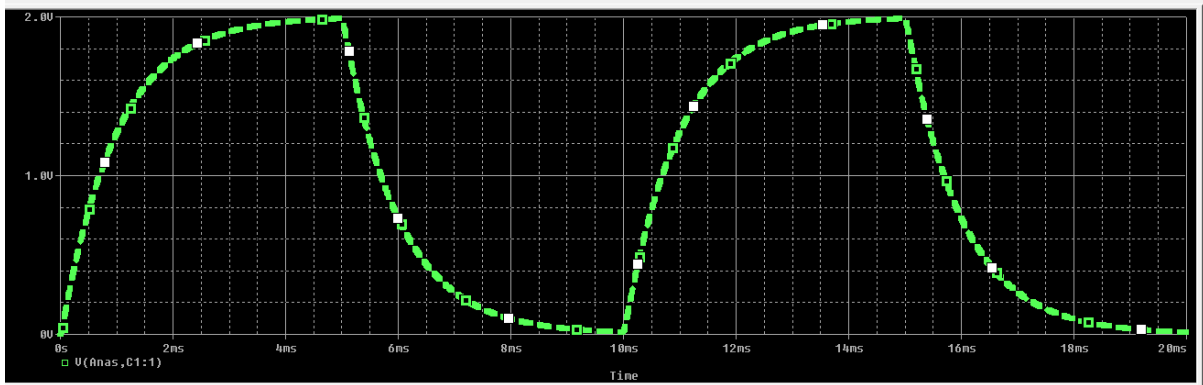


Part c: Step response of second-order Series RLC circuit:

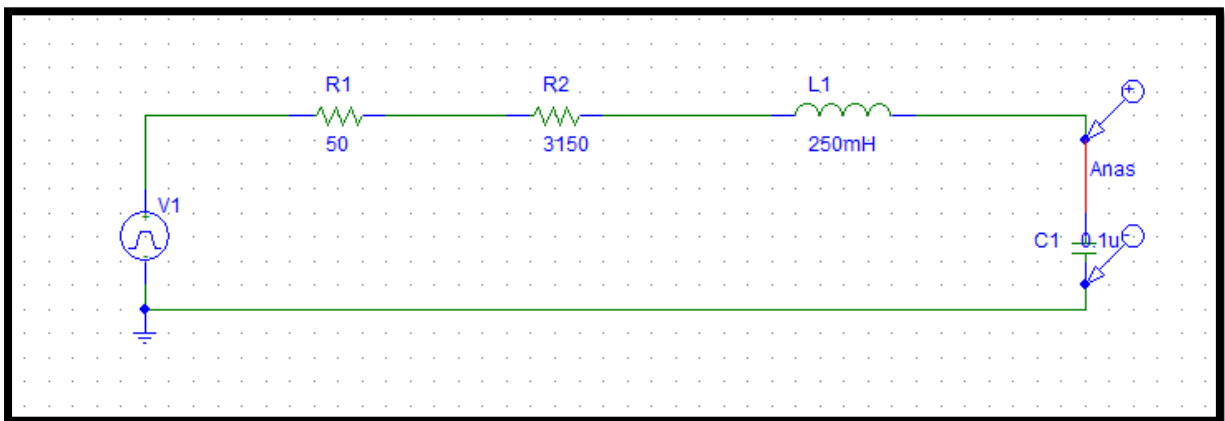
1) The circuit:



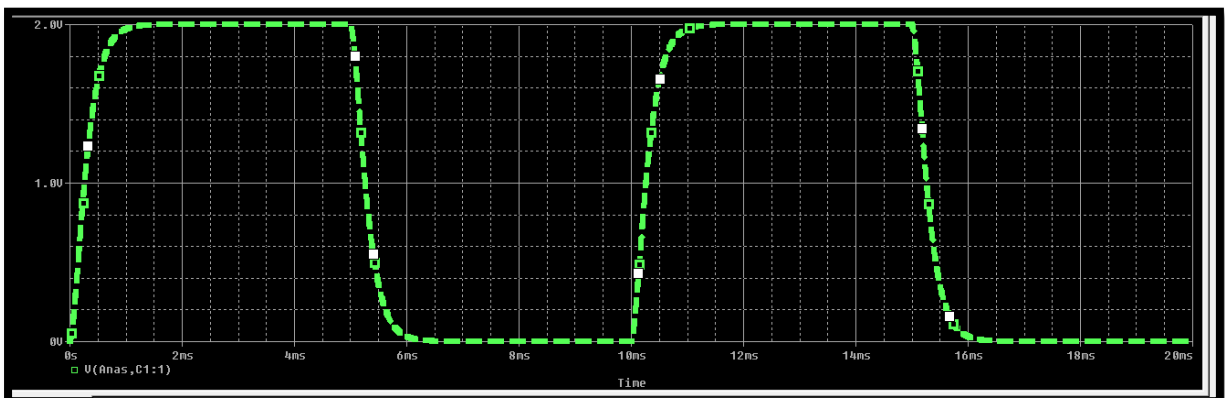
The result:



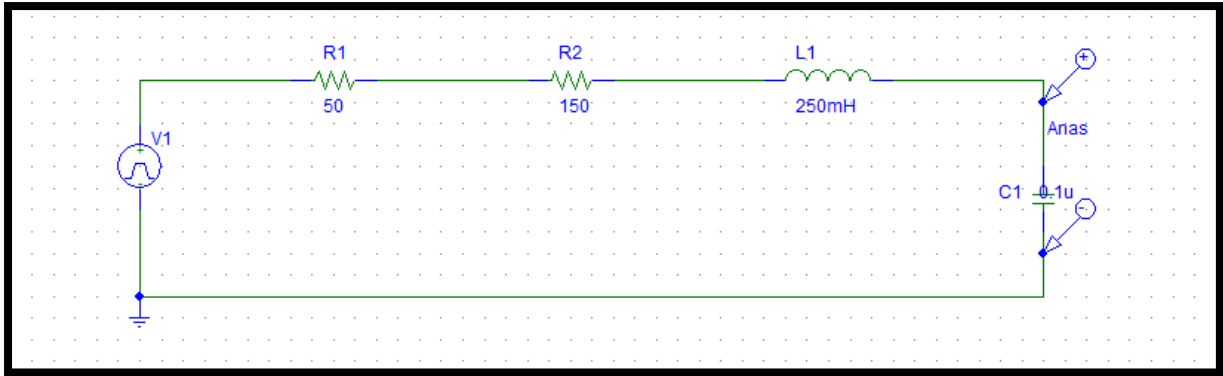
2) The circuit:



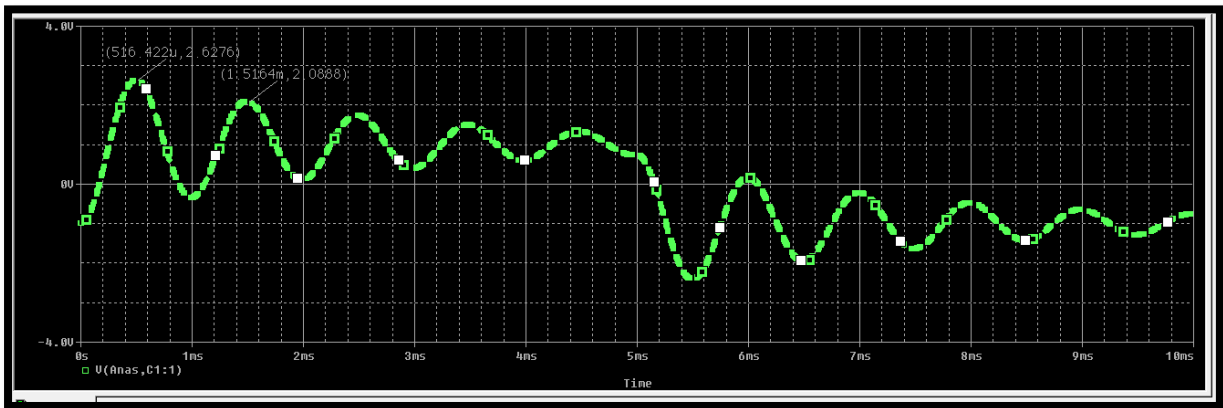
The result:



3) The circuit:

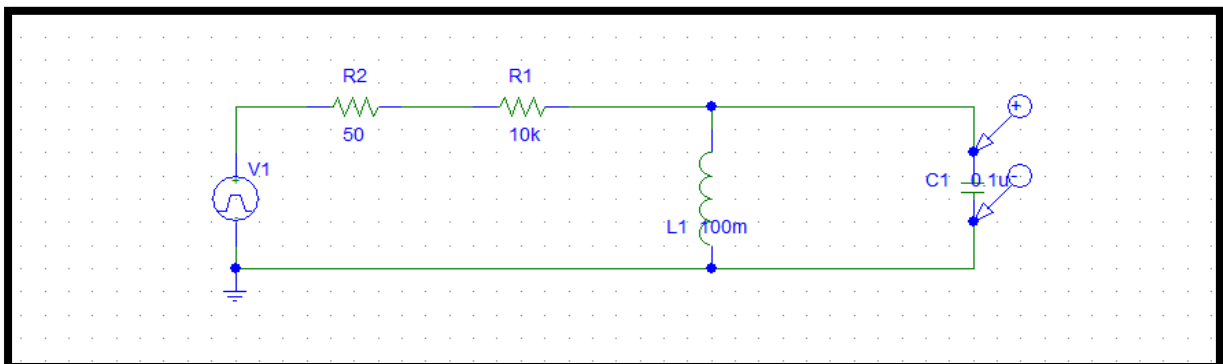


The result:

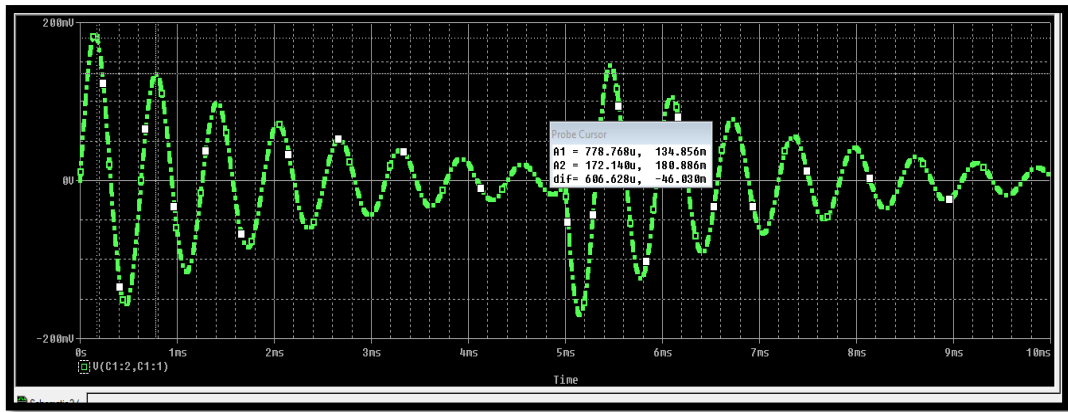


Part D: Step response of second-order parallel RLC circuit

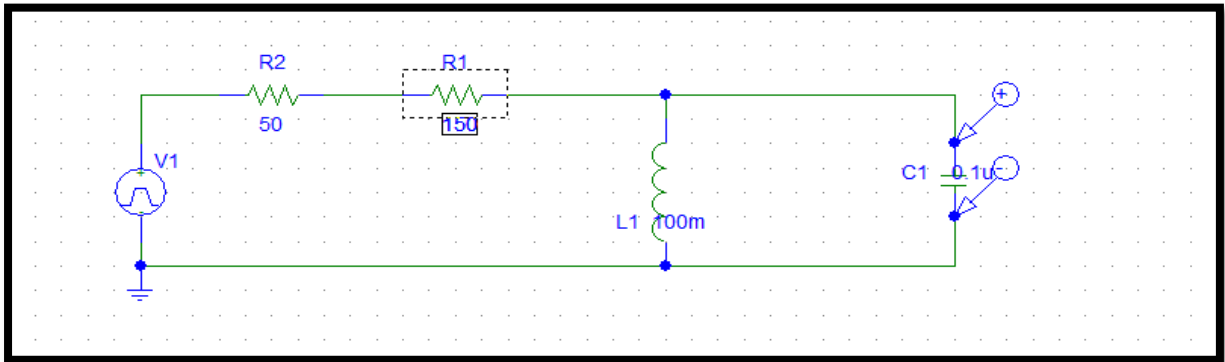
The circuit:



The result:



The circuit:



The result:

