



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

**ENEE2102  
CIRCUITS LAB**

**Student's name: Anas abedelhalim tomaizeh**

**Student's number: 1152325**

**Pre lab exp#4**

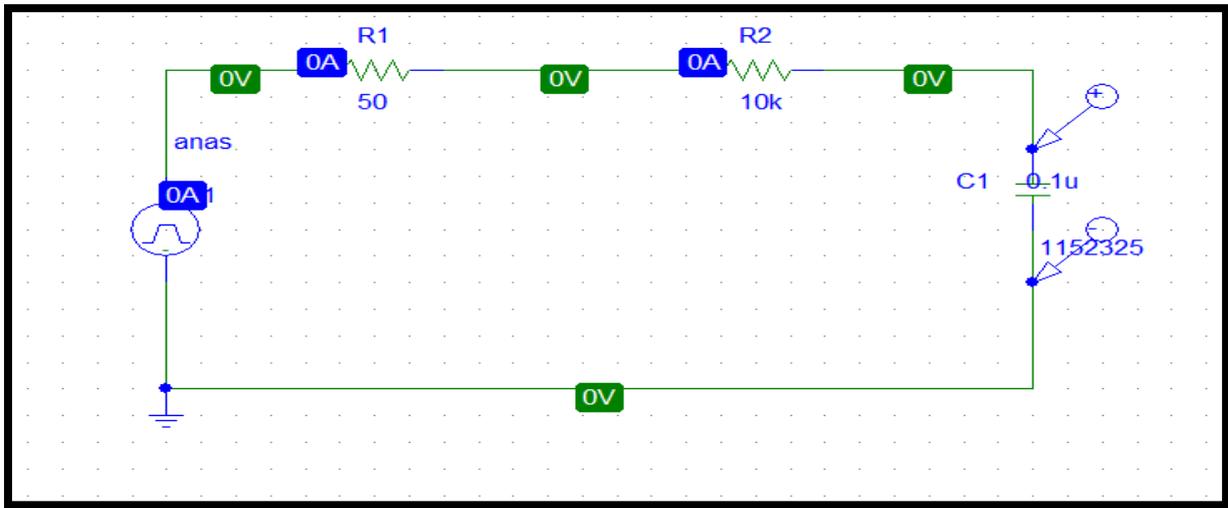
**Date 11/10/2017**

**Eng.: Qais samara**

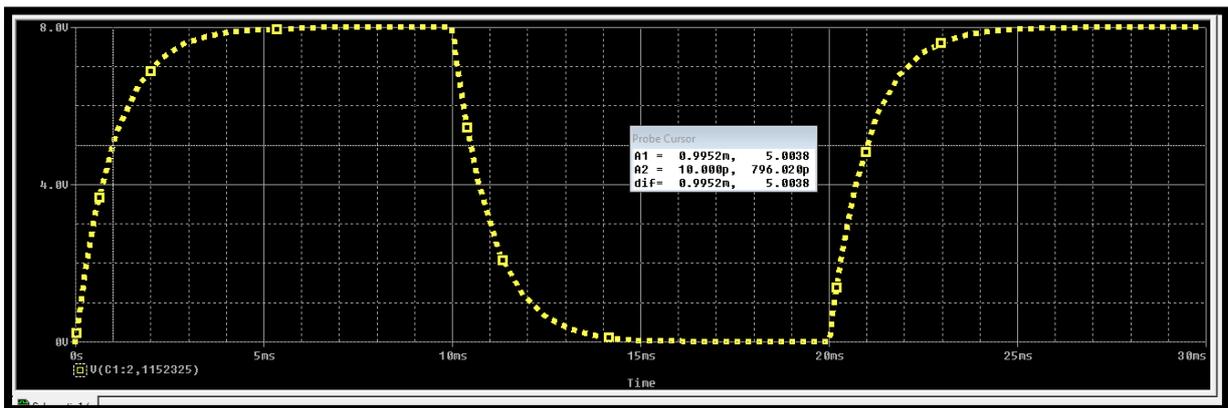
**Dr: Hakam shehada**

**Part one: step response for first order RC circuit:**

**The circuit:**

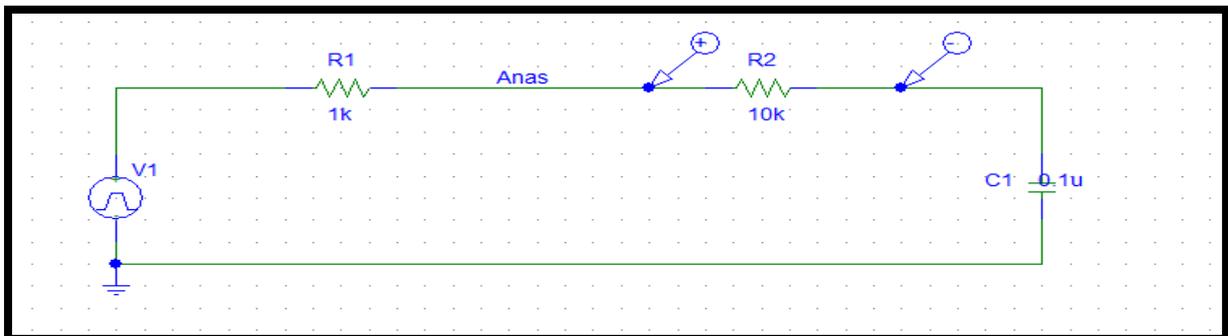


**The result:**

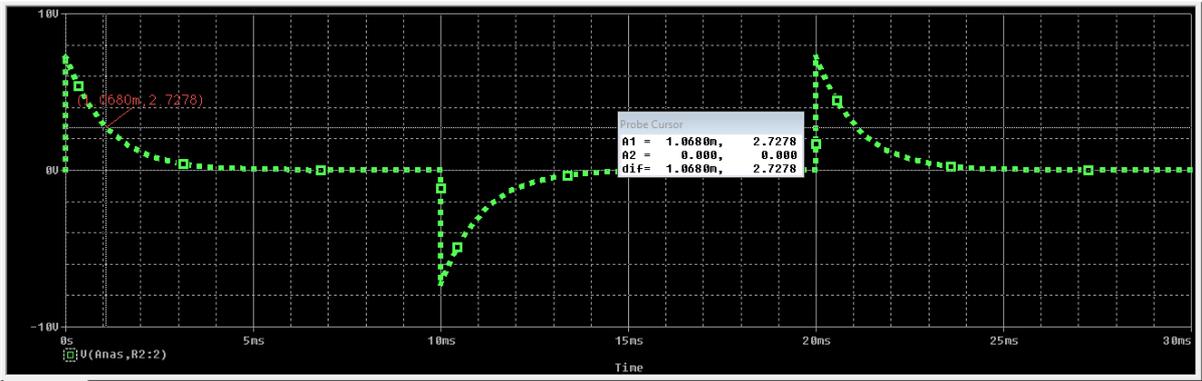


\*From the graph, shown above the value of time constant is 1ms.

**The circuit:**

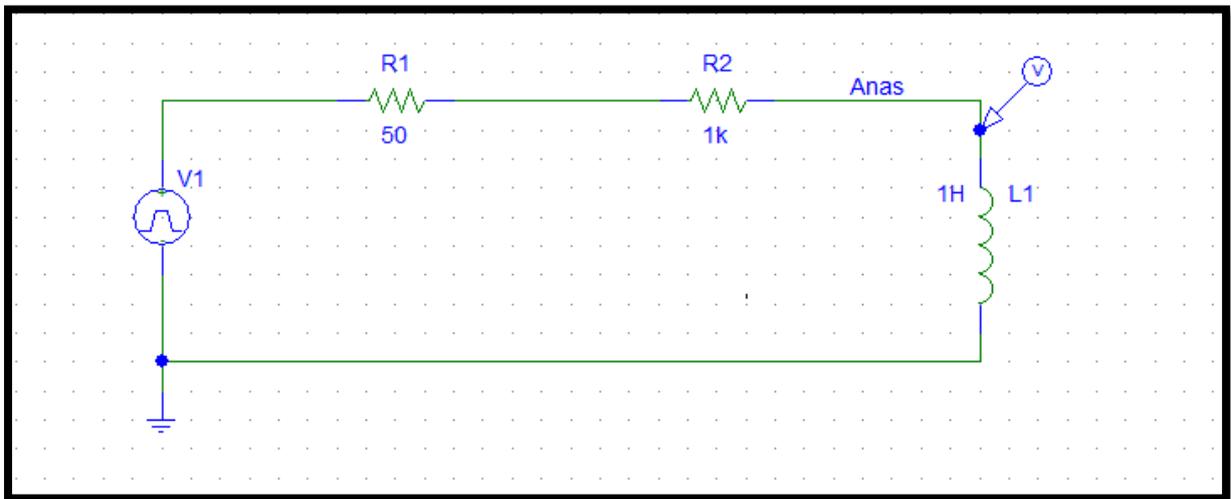


**The result:**

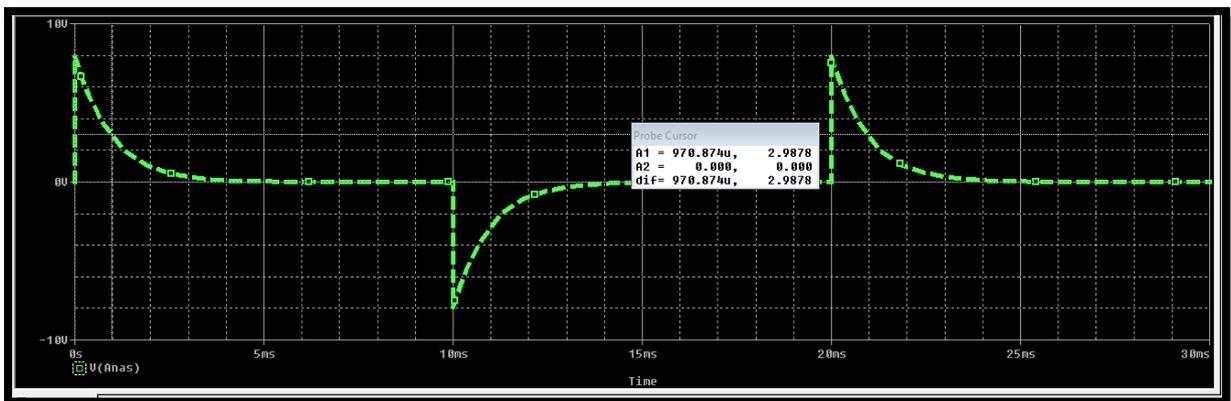


**Part two: Step response of First-order RL circuit:**

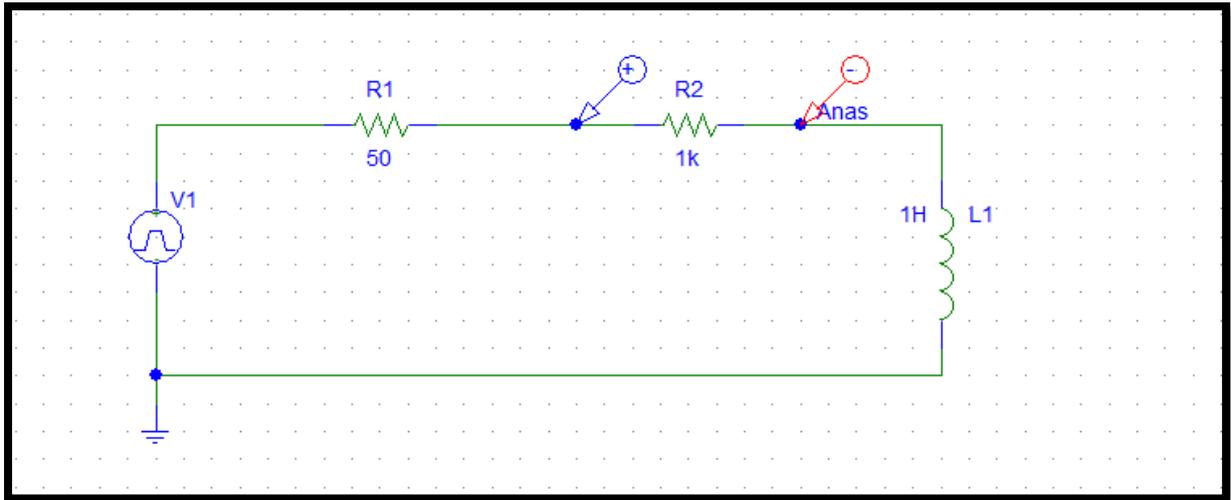
**The circuit:**



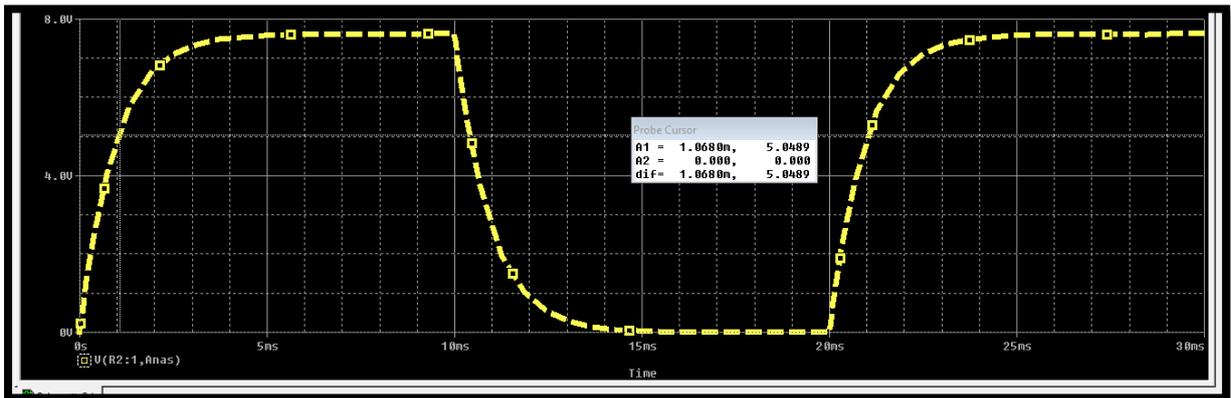
**The result:**



The circuit:

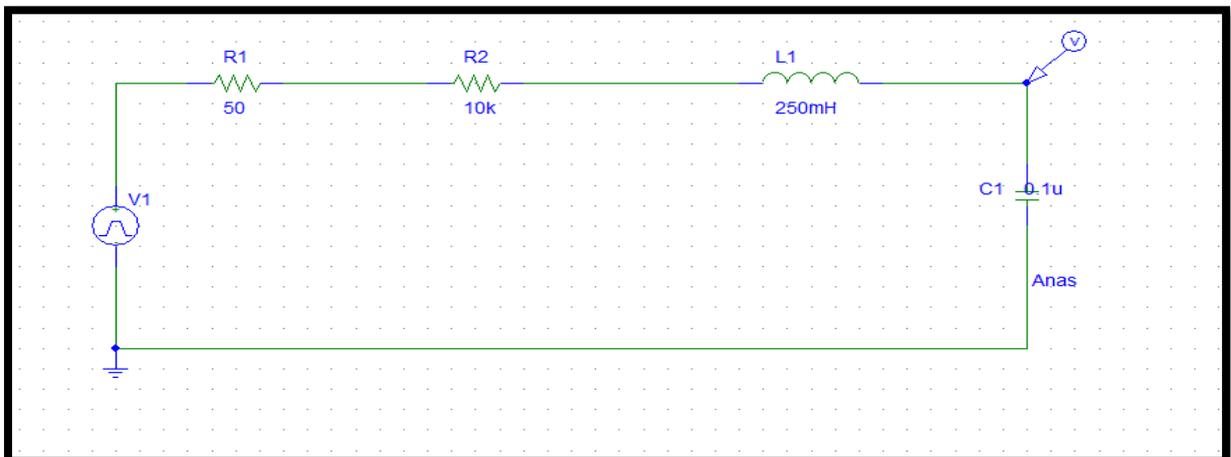


The result:

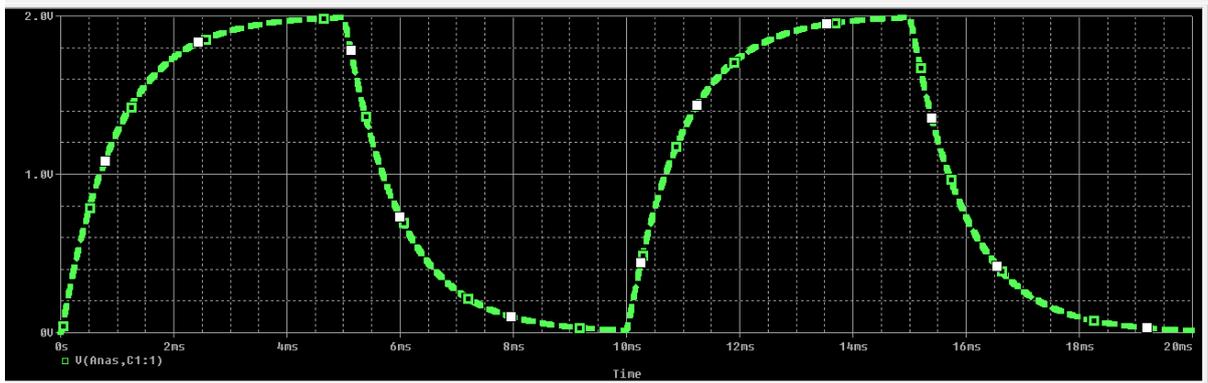


Part c: Step response of second-order Series RLC circuit:

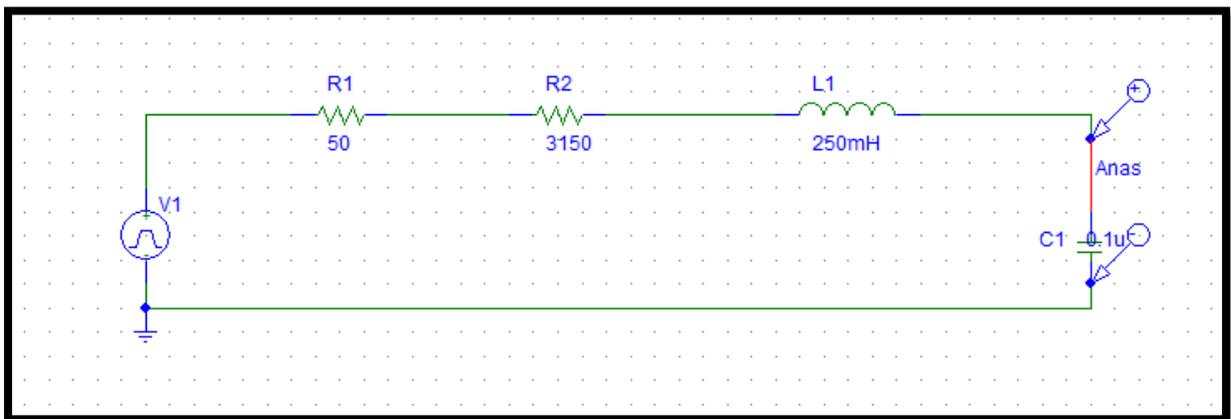
1) The circuit:



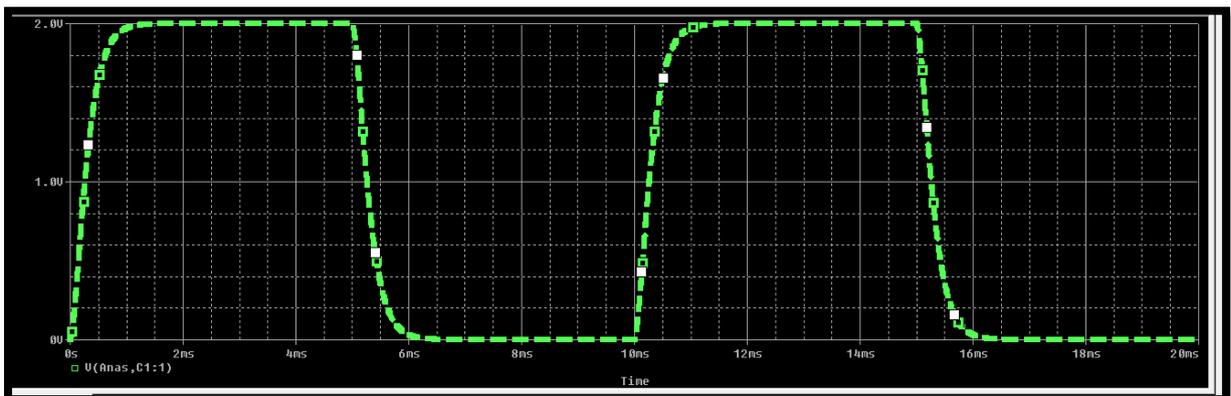
The result:



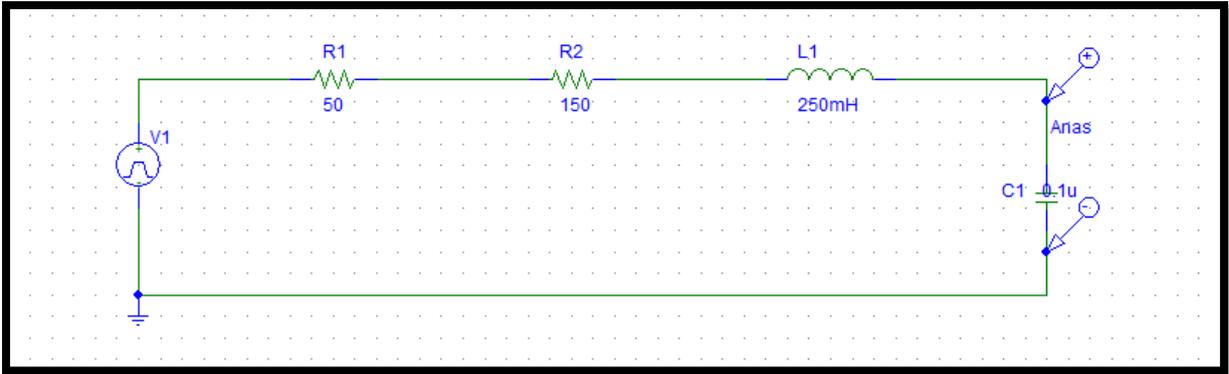
2) The circuit:



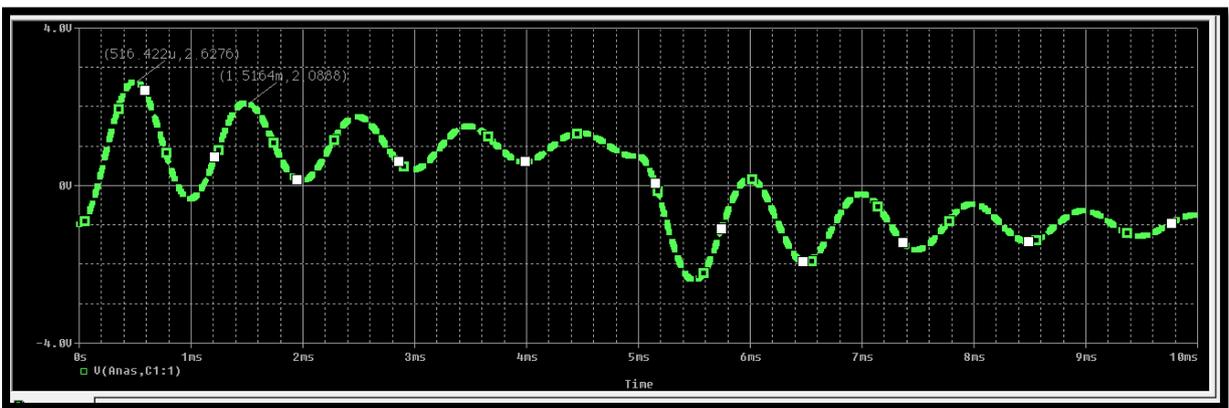
The result:



3) The circuit:

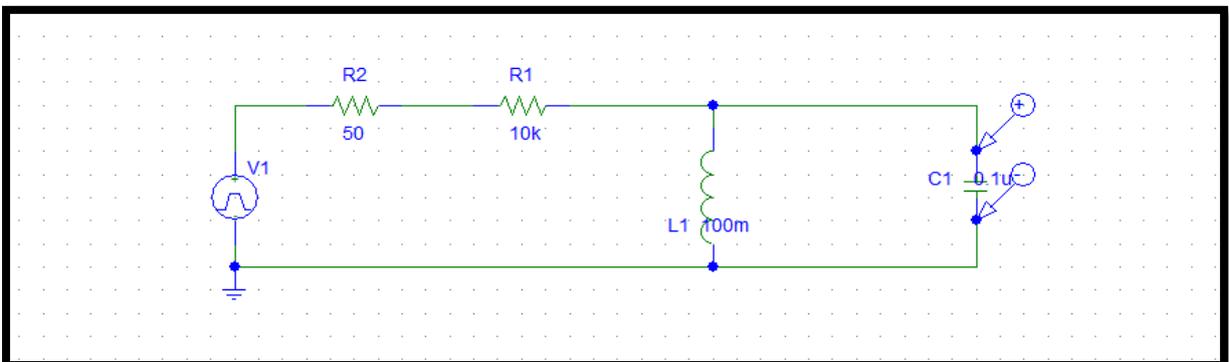


The result:

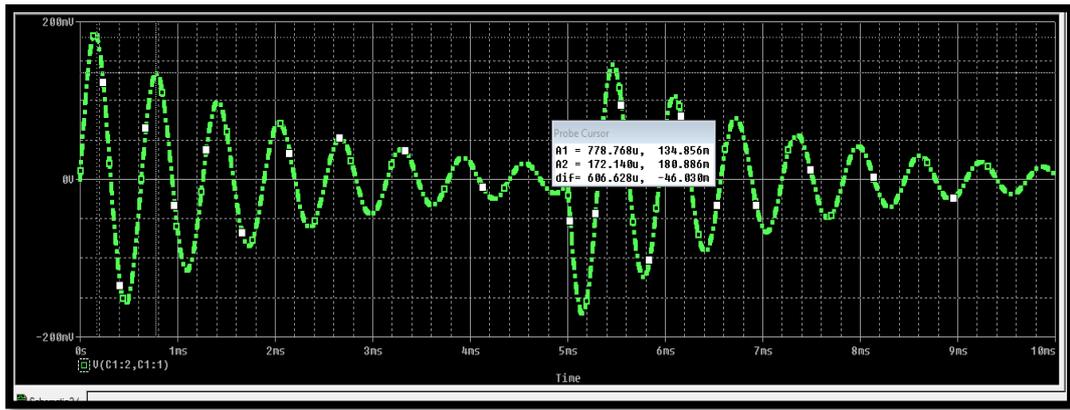


Part D: Step response of second-order parallel RLC circuit

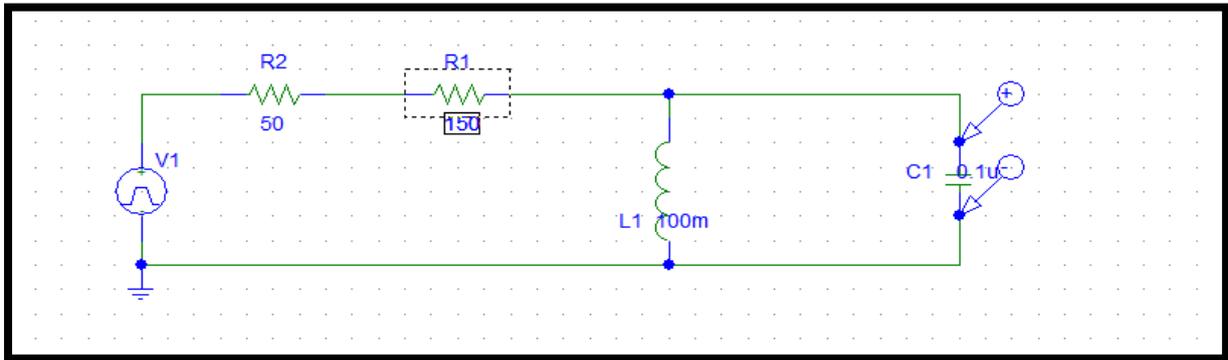
The circuit:



The result:



The circuit:



The result:

