Department of Aeronautics and Astronautics
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Fundamentals of Circuits and Electronics

Project 1. Simulation of Electrical Circuits

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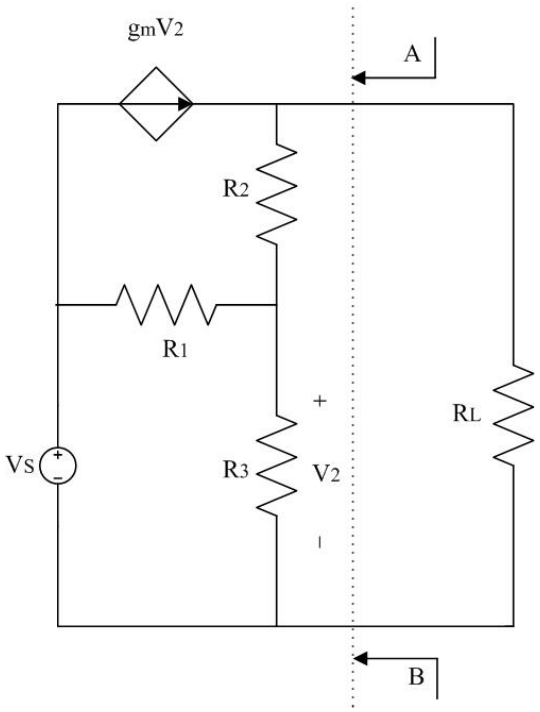

Fig. 1

a) Find the Thévenin equivalent for the circuit at the terminals AB in Figure 1.

b) Determine the voltage V_L across the resistor RL.

c) If the voltage source Vs contains both DC and AC components, i.e., $Vs = V + v$, where V is DC value (offset), and v is the incremental component (so-called small signal). Determine the voltage V_L

across the resistor R_L.

d) Verify your answers using PSpice.

Hint: Circuit in PSpice for DC VS…