

Simulation Work: Buck Converter « Hacheur Série »

1. Simulate in MATLAB/Simulink a buck converter with following specifications:

- Dc voltage source: 50 V
- Switching frequency: 2 kHz
- Duty cycle $D=0.5$

Plot the input voltage, output voltage, and the load current?

Case1: Load $R=10\ \Omega$

Case2: Load $R=10\ \Omega$, $L=1\ \text{mH}$

Case3: Filter $L=0.5\ \text{mH}$, $C=0.1\ \text{mF}$





