



Transformerless DC-DC Converters With High Step-Up Voltage Gain

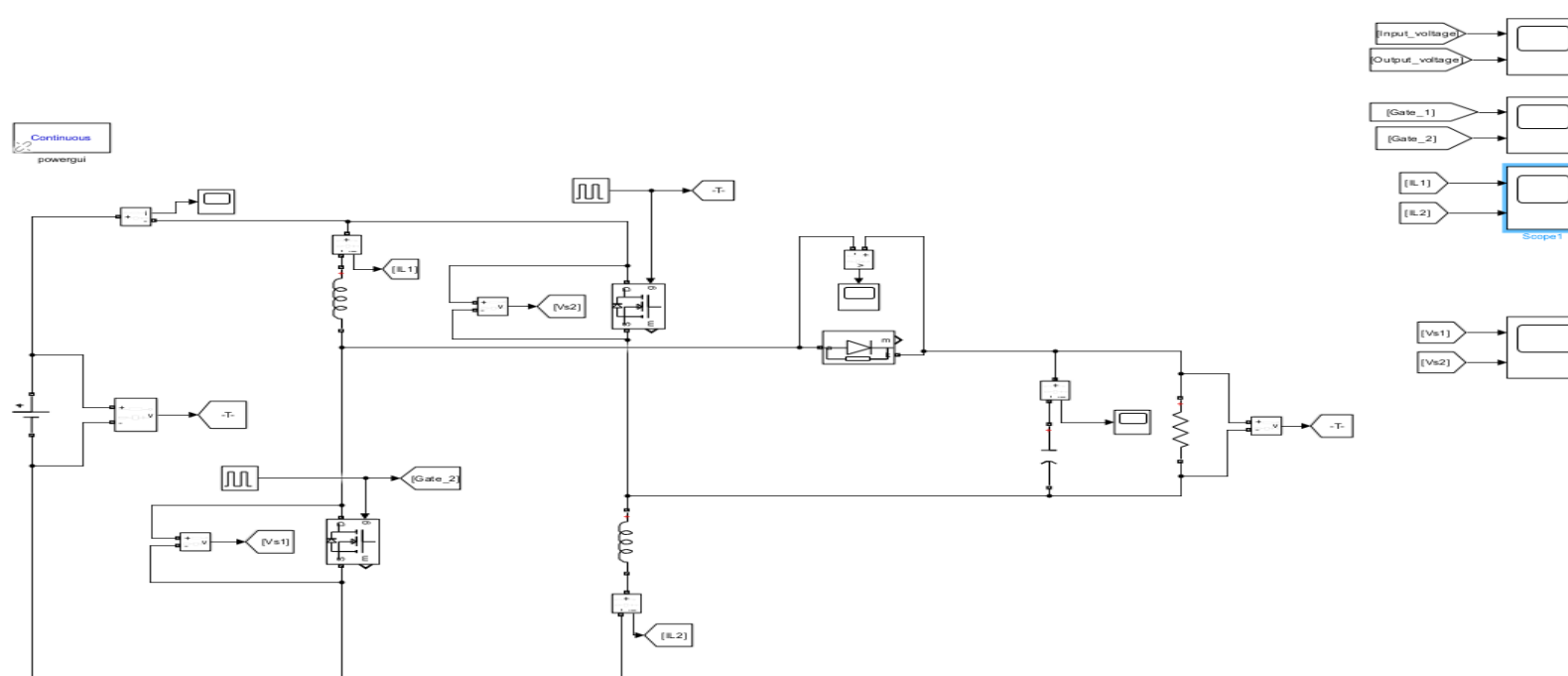
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Objective:

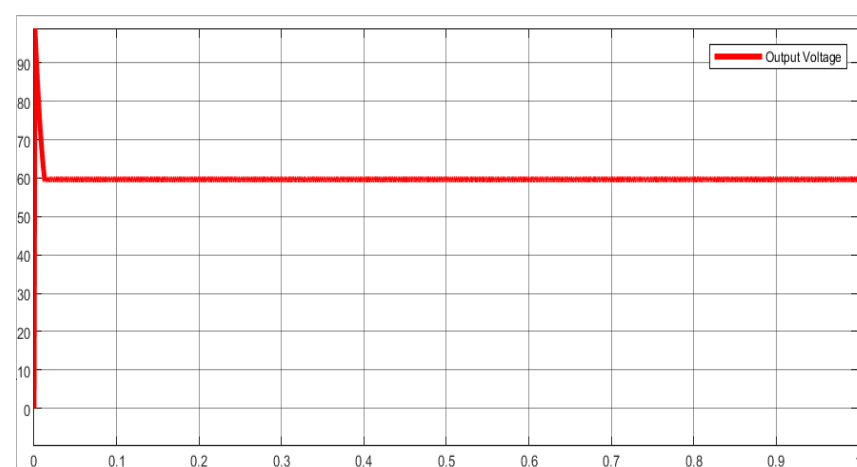
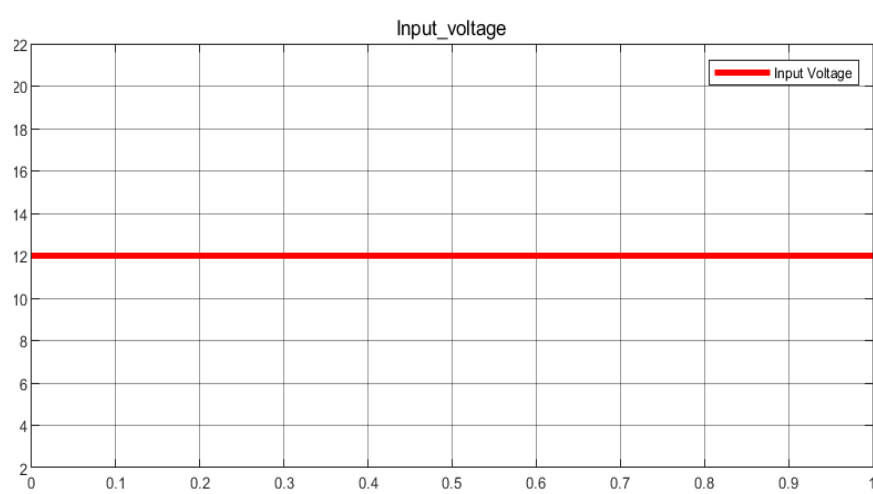
The aim of the project is

- *To develop transformer less DC-DC boost converter with higher gain*
- *To implement in MATLAB*
- *To develop a hardware model.*

Circuit/Block Diagram:



Output Images/Simulation Results:



Summary:

- *The voltage stresses on the active switches are less than the output voltage*
- *The current stress on the active switch during the switch-on period is very less.*
- *The voltage stresses on the active switches are equal to $\frac{v_0 + v_{in}}{2}$*
- *The voltage gain of the power converter is equal to $\frac{1+D}{1-D}$*