Design & Simulation of Full Wave Rectifier

https://esim.fossee.in/circuit-simulation-project

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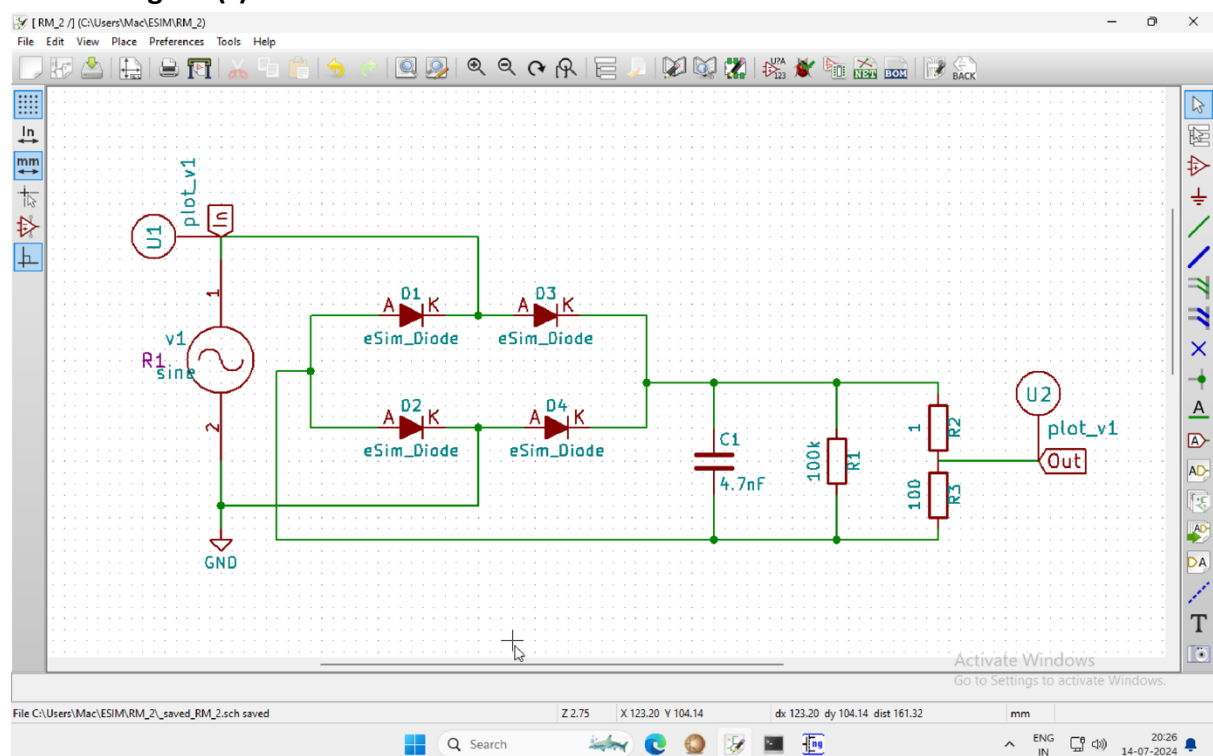**University :** Swami Ramanand Teerth Marathwada University

Title of the circuit : Design & Simulation of Rectifier through Multisim

Problem Statement : Develop an accurate simulation model for a Full Wave Rectifier to enhance student learning by providing a virtual environment that closely mirrors real-world experimental outcomes
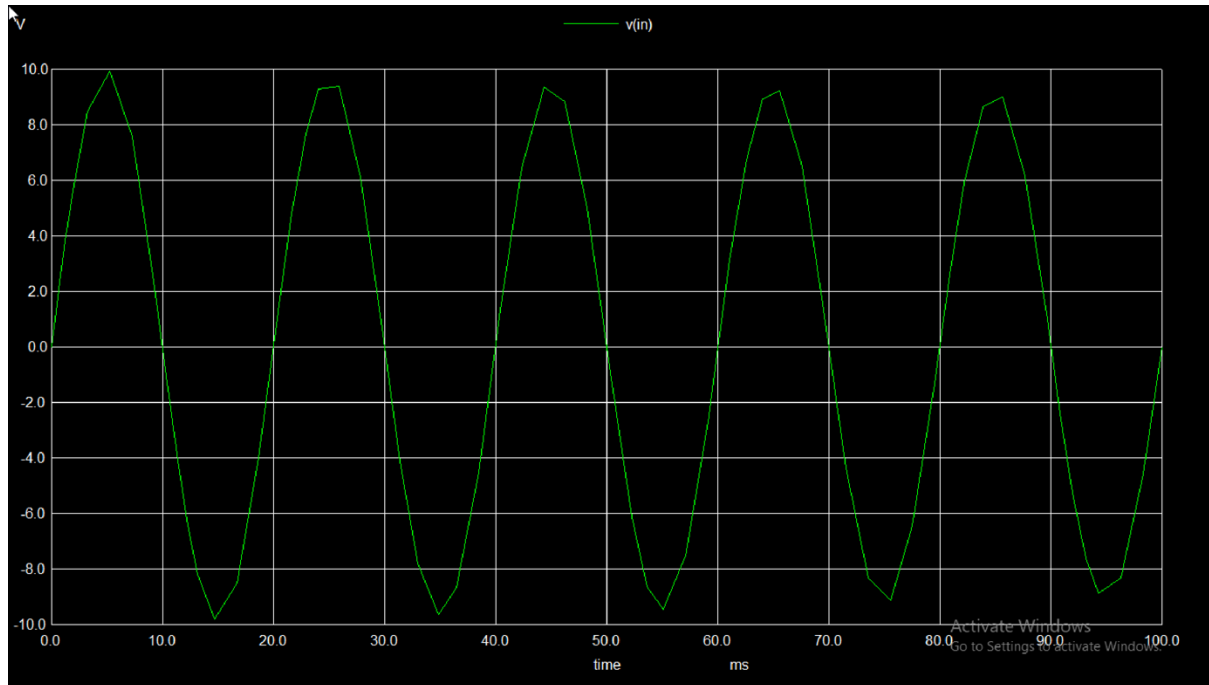
Theory/Description :

This study focuses on simulating a Full Wave Rectifier using circuit simulation software. The design involves a set of four diodes configured in a bridge structure to achieve full-wave rectification. The simulation accurately represents the input and output waveforms, allowing students to perform virtual experiments and understand the behaviour of the rectifier without constant faculty supervision. This method effectively enhances the learning experience by closely mimicking real-world results.
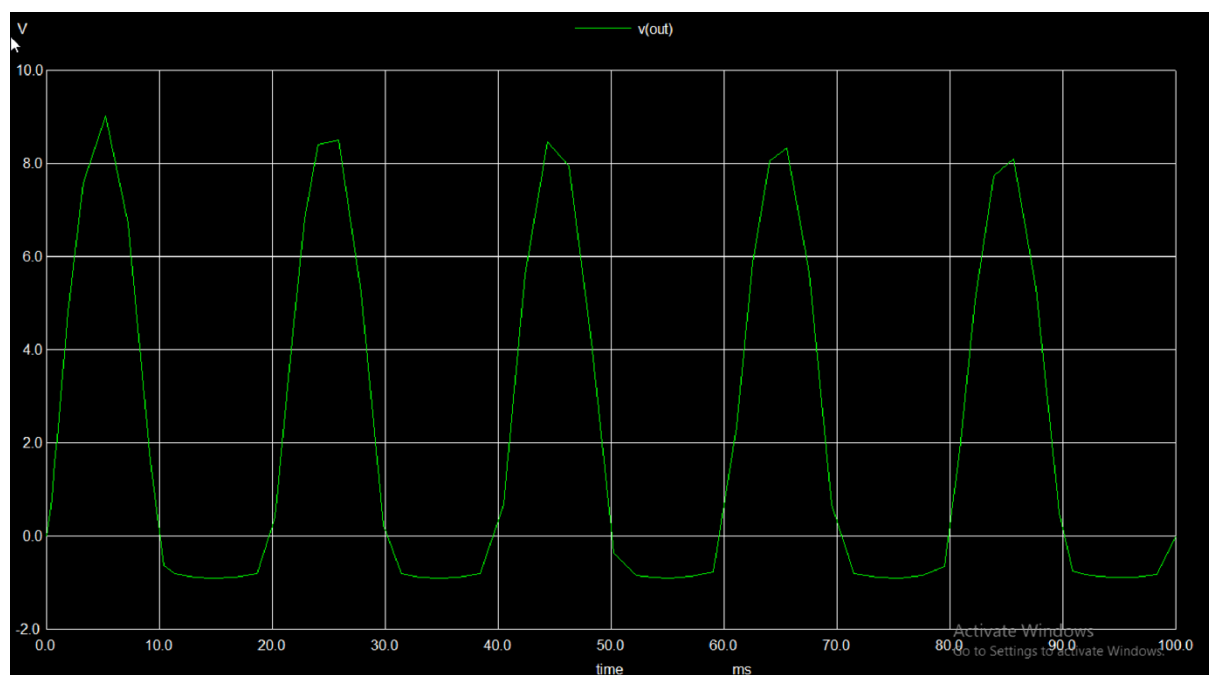
Circuit Diagram(s) :

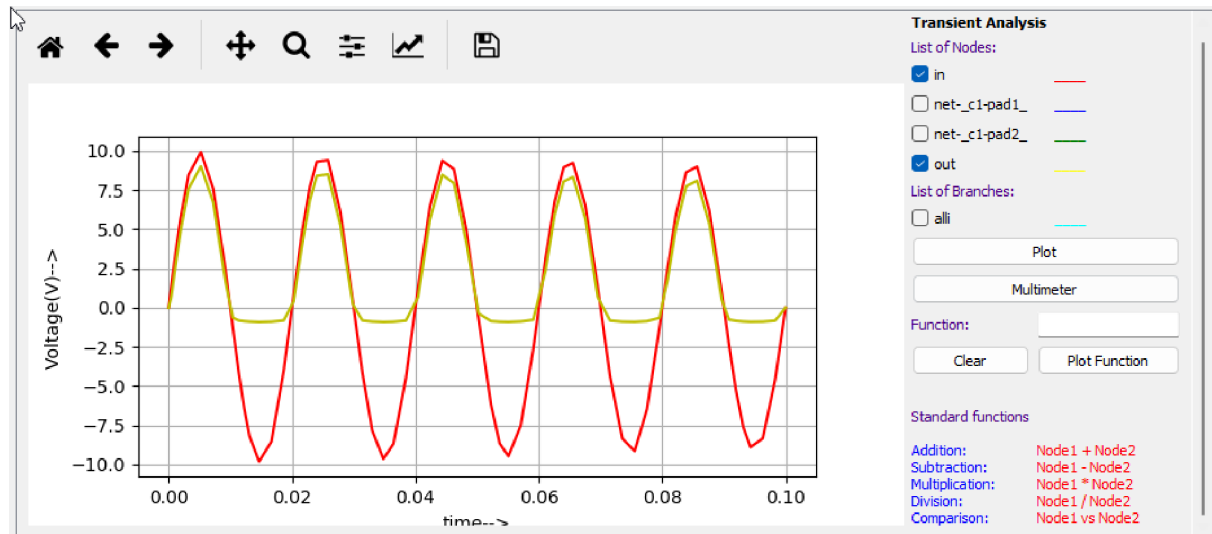# NGSPICE Waveforms

1) Input Waveform :

2) Output Waveform :

Python Plotting

3) Input & Output Waveform :

Source/Reference(s) :

- **Title of the paper :** Design & Simulation of Rectifier through Multisim
- **Name of the journal/publication :** International Journal of Computer & Mathematical Sciences
- **Author(s) :** Udit Mamodiya, Deepak Purohit, Goverdhan Singh (Poornima College of Engineering,Jaipur)
- **Chapter volume pages :** IJCMS ISSN 2347 – 8527 Volume 6,10 October 2017
- **Link:**https://www.researchgate.net/publication/342707012_Design_Simulation_of_Rectifier_through_Multisim