

Design of Single phase Half wave and Full wave Rectifiers

Aim: To verify and obtain the output wave form of single phase half-wave and full-wave rectifier circuit in Capture CIS software.

Apparatus/Tool required:

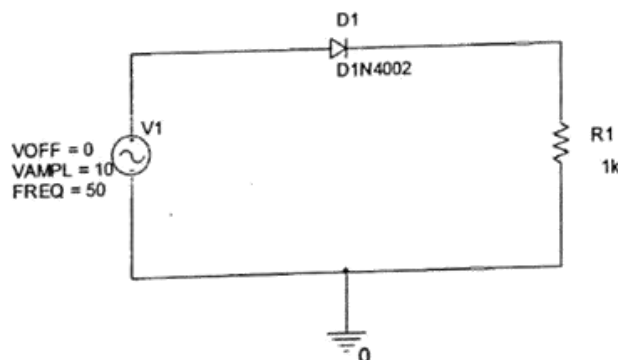
ORCAD / PSpice simulator -> Diode Library - D1N4002/4007,
Source Library - Vsin & Ground (GND) - 0(zero)
Analog Library - R

Simulation Settings: Analysis Type - Time Domain

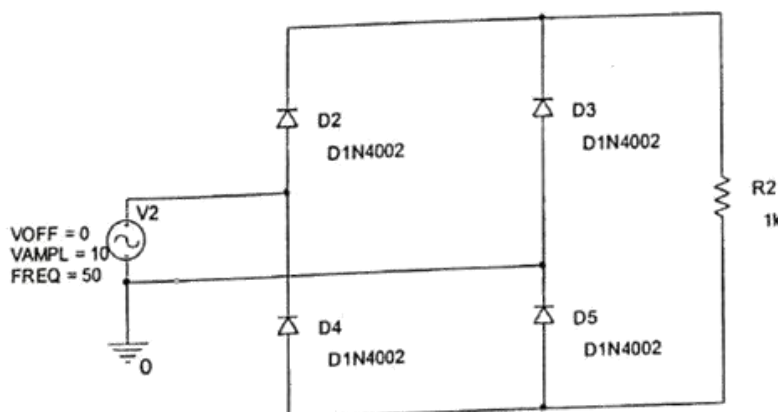
Run to time: 40ms (for 2 cycles)

Circuit Diagram:

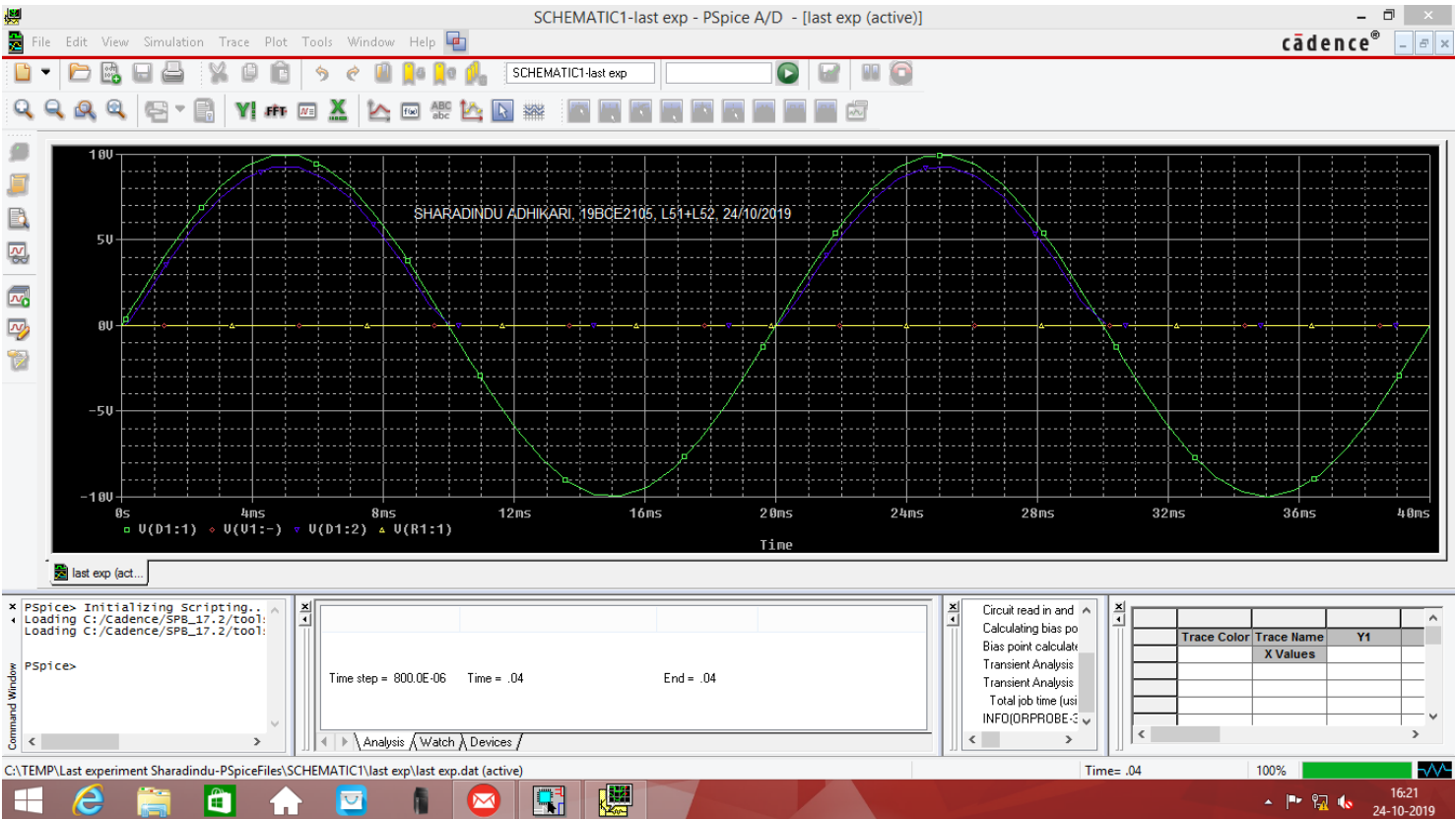
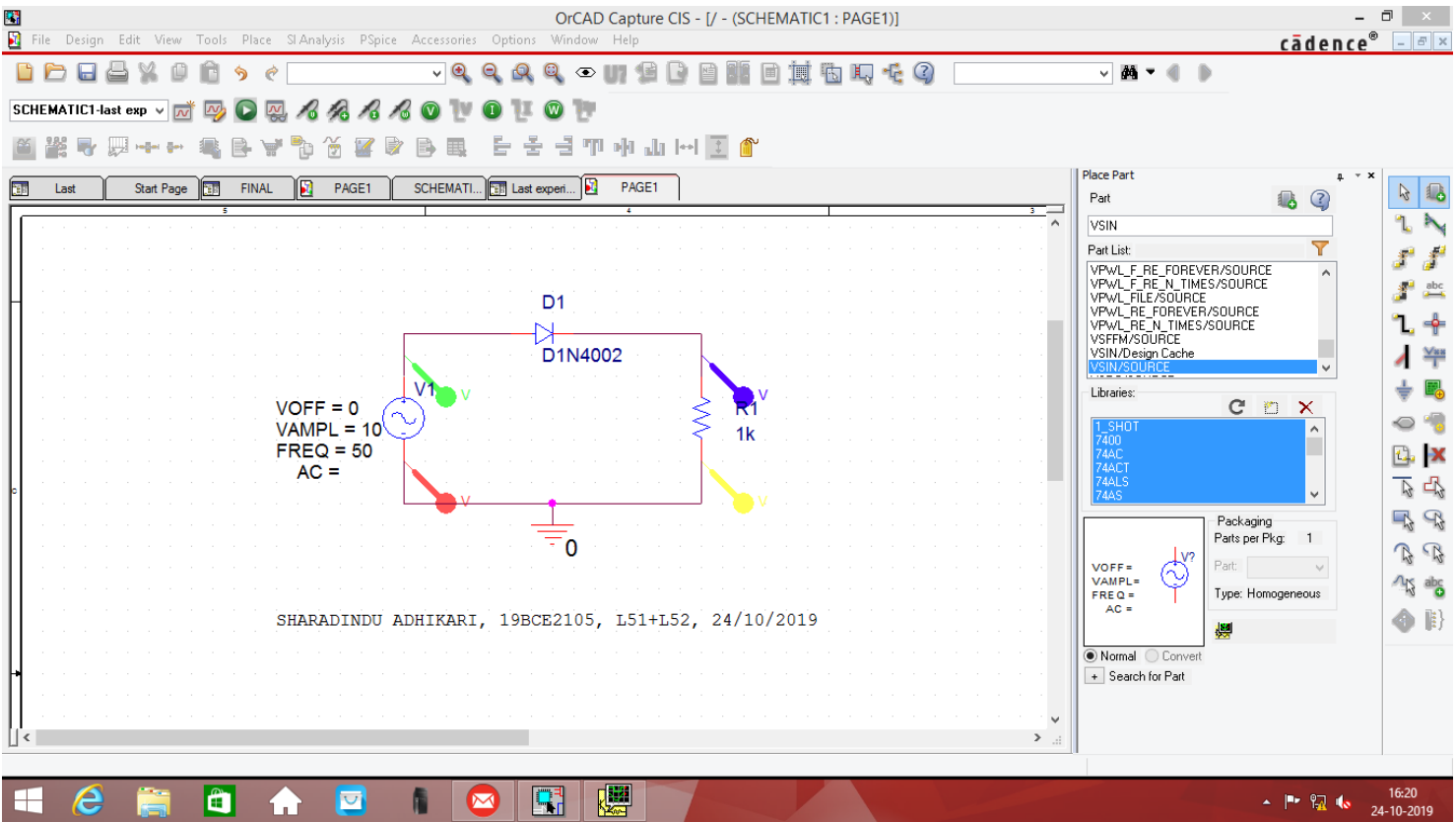
Single phase Half - wave Rectifier



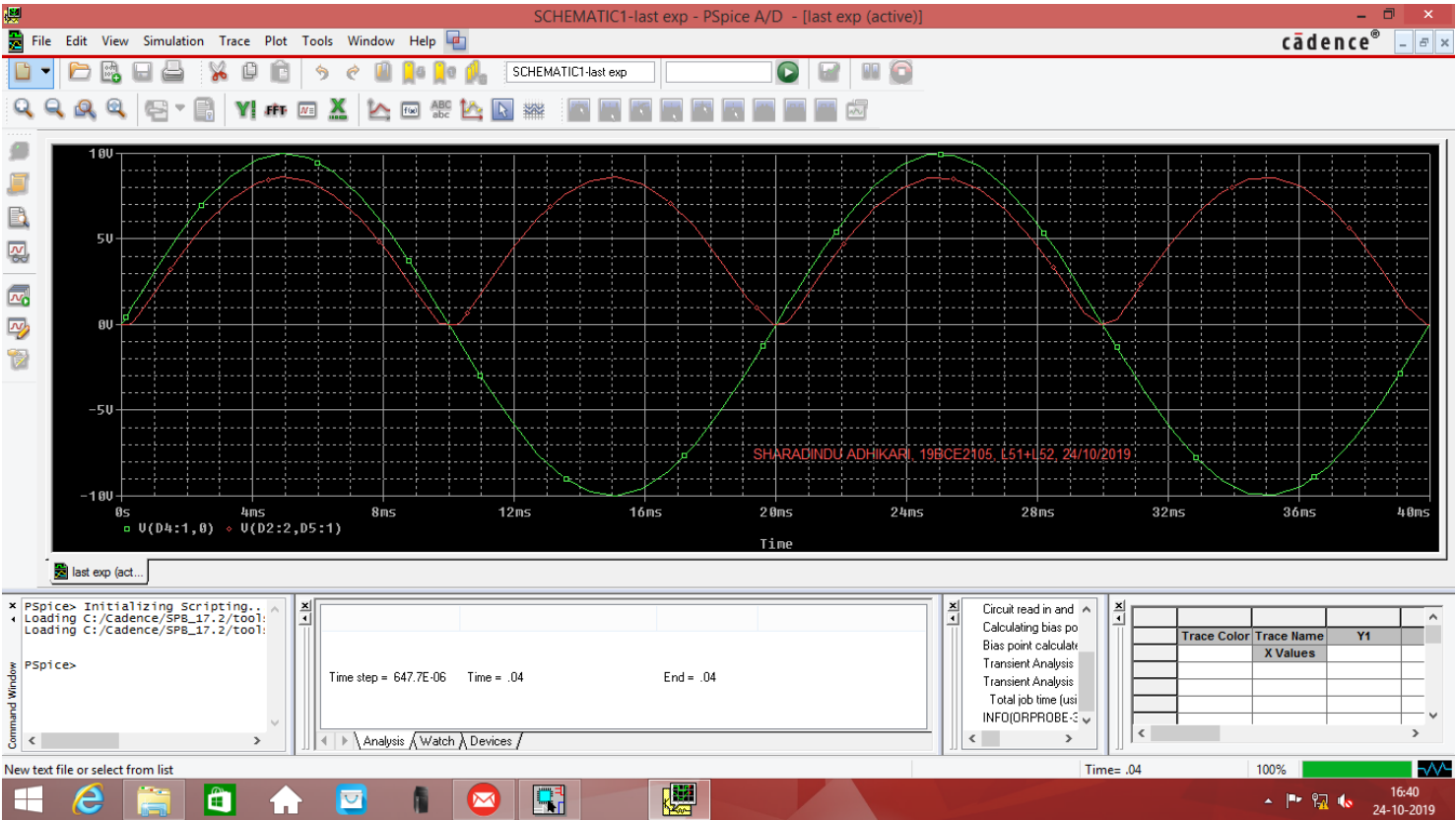
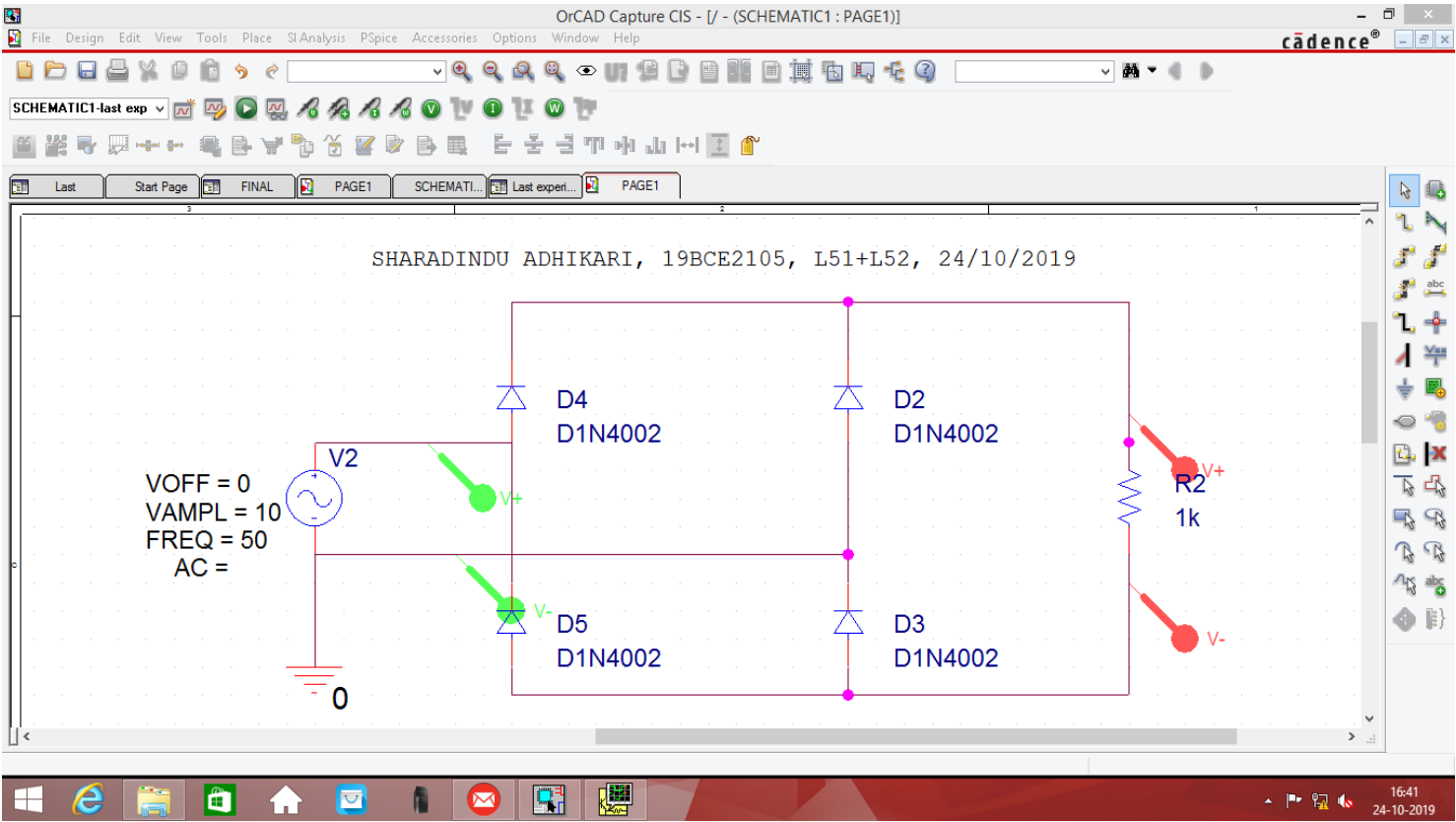
Single phase Full - Wave Rectifier



Single phase Half-wave Rectifier:

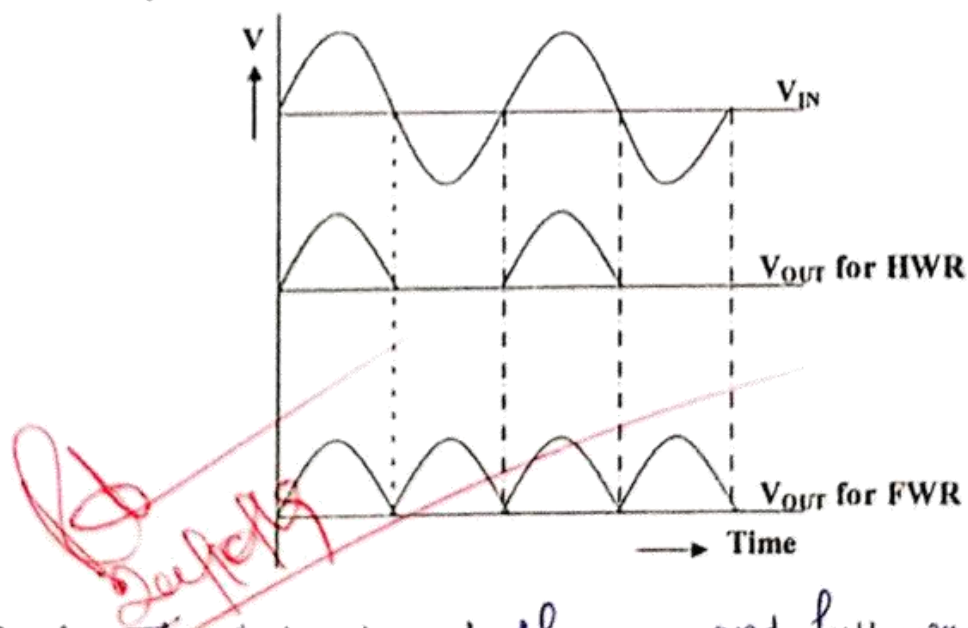


Single phase Full-wave Rectifier:



Procedure:

Model Graph:



Result The single phase half-wave and full-wave rectifier circuit output waveforms have been obtained and verified in simulation [Capture CIS] experiment.

Inference

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