ENEE2360 Project1

Dear students

The report consists of the following parts:

Part1: Description of the circuit function and peration

Part2: Simulation

a) Replace the lamp by a resistance between 100Ω and 10000Ω

b) Using Orcad , simulate the Circuit for three different values for the sensor resistor (the selected values of the resistance must cover the two states of the lamp.

c) Plot the waveform of the capacitor voltage and calculate the ripple factor for the three simulations

d) Indicate the settings of the center tapped transformer

e) Depending on the current through the lamp determine the state of the lamp (on or off) in the three simulations

Part3 : Analysis
 Circuit analysis for the same values of the resistances of the sensor in part2.(use Vcc obtained in part 2)

Part4 : Conclusion

The project is due to 24-4-2021