

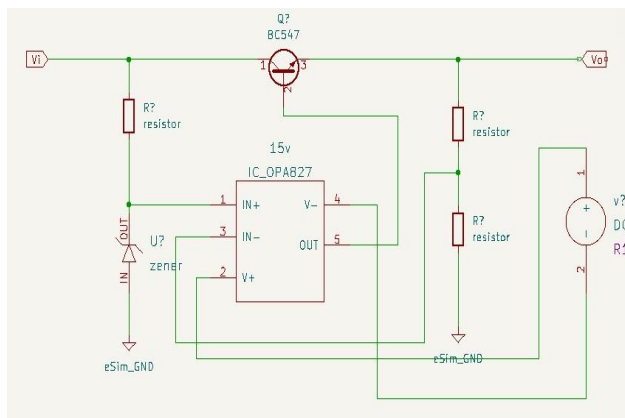
TITLE: Design and Analysis of an Op-Amp Shunt Regulator with Zener Reference

STUDENT NAME: CHEBOINA BHANU TEJA

COLLEGE NAME : PRESIDENCY UNIVERSITY ,BENGALURU

ABSTRACT:

Design a voltage reference and shunt regulator circuit using an operational amplifier to provide a stable output voltage for a varying input voltage or load conditions. The circuit must meet the following requirements. Maintain a stable reference voltage derived from a Zener diode, even if the input voltage fluctuates. Use a resistive feedback network to achieve accurate control of the output voltage. Ensure minimal variation in under different load conditions Utilize standard components such as resistors



JOURNAL/PUBLICATION DETAILS:

TITLE OF THE PAPER: Design of Precision Voltage Reference Circuits Using Operational Amplifiers

AUTHORS:

1. Robert L. Boylestad and Louis Nashelsky

(Authors of Electronic Devices and Circuit Theory; widely referenced for circuit design and analysis.)

2. Robert F. Coughlin and Frederick F. Driscoll

(Authors of Operational Amplifiers and Linear Integrated Circuits; foundational for op-amp-based circuits)

REFERENCE:

<https://ieeexplore.ieee.org/document/6325338>