

TITLE: ANALYSIS OF SELF BALANCING CIRCUIT USING OP AMP FOR SENSOR CALIBRATION

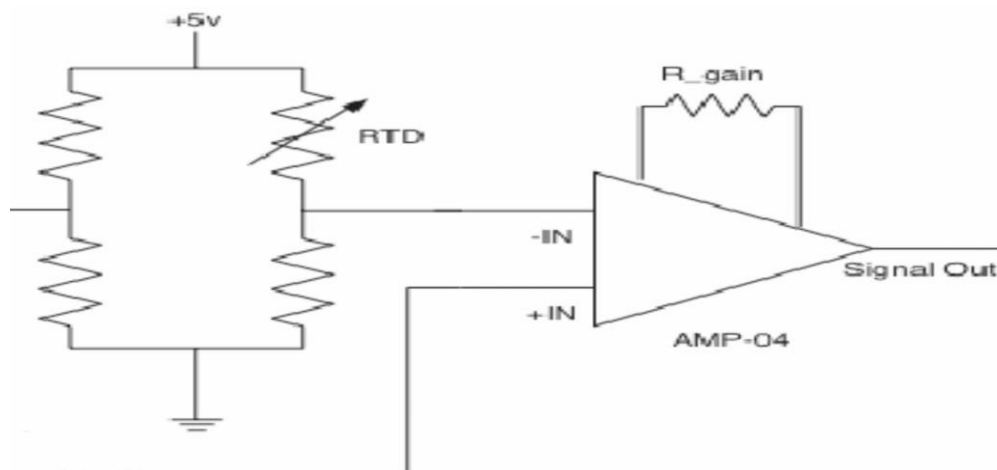
STUDENT NAME: DEVADHARSHINI M

MENTOR NAME: DR. MAHESHWARI RAJA

COLLEGE: RAJALAKSHMI INSTITUTE OF TECHNOLOGY

PROBLEM STATEMENT

The problem statement addresses the need for a self-balancing circuit using operational amplifiers (op-amps) in the context of electronic simulation (E-SIM) for sensor calibration. Traditional calibration methods often fail to adapt to real-time sensor variations and environmental influences, leading to inaccuracies. This project aims to create a simulation model that demonstrates how an op-amp-based self-balancing circuit can automatically adjust sensor outputs, providing continuous calibration without manual intervention. Key considerations include the circuit's performance in various simulated conditions, stability, and noise minimization. The outcome will be a detailed E-SIM model that showcases the effectiveness of the self-balancing approach in enhancing sensor accuracy across different applications.



JOURNAL/PUBLICATION DETAILS

TITLE OF THE PAPER: Voltage calibration of smart temperature sensors

- 1.M.A.P.Pertijis
- 2.A.L.Aita
- 3.A.A.A.Makniwa
- 4.J.H.Huijsing

REFERENCE

https://www.researchgate.net/publication/224360033_Voltage_calibration_of_smart_temperature_sensors