

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Faculty Name: Dr.G.C.Jagan

Course Name: EC3451-Linear Integrated Circuits

Academic Year: 2022-23

Semester/Year: IV/II

Type: Virtual Lab Demo

Simulation of Inverting and Non-Inverting Amplifiers using Op-Amp (IC 741)

Objective

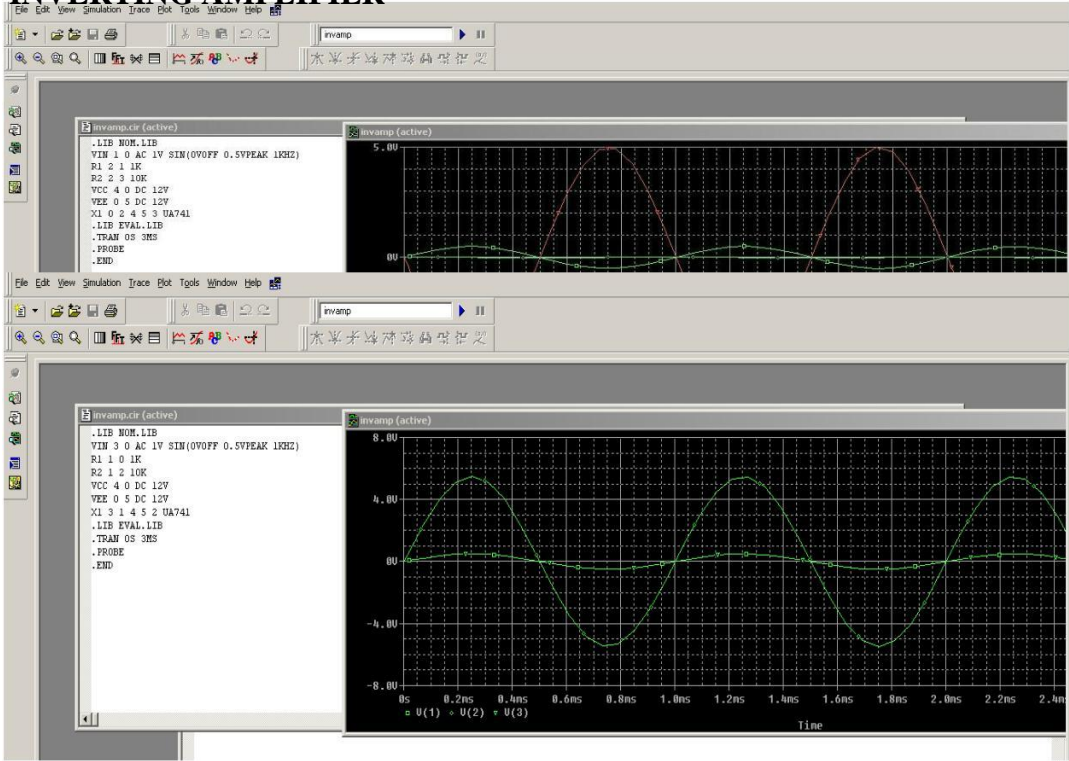
Simulate and analyze the **voltage gain** and **phase relationship** of Inverting amplifier Non-inverting amplifier Using IC 741 in a virtual environment.

Software Tool: LTSpice / Multisim / TINA-TI (Free and academic versions available)

☐ **PO / PSO Mapping**

PO/PSO	Description
PO1	Applies engineering fundamentals to LIC circuits
PO2	Analyzes voltage gain and output behavior
PO5	Uses modern simulation tools (LTSpice, Multisim)
PSO1	Understands analog circuit performance through simulation

INVERTING AMPLIFIER



NON INVERTING AMPLIFIER

Learning Outcomes

Understand the Behavior of Op-Amp Configurations

Calculate and Validate Voltage Gain

Interpret Phase Relationship

Develop Simulation Skills

Bridge Theory with Practice

Sample Feedback

It helped the students to understand how Op-Amp circuits work and made the concepts easier to learn..