Course 2 : Advanced Electronics

Chapter 1 : Advanced Circuit Design

1. **Thevenin's and Norton's Theorems**:
    1. Simplify complex circuits into equivalent models.
2. **RLC Circuits**:
    1. Study circuits with resistors, capacitors, and inductors.
    2. Resonance frequency calculations.

3/Operational Amplifiers (Op-Amps)

1* Ideal Op-Amp Characteristics:
•High input impedance, low output impedance.

2* Basic Configurations:
•Inverting, non-inverting amplifiers.
•Summing amplifier and differential amplifier.

3* Applications:
•Voltage follower, integrator, and differentiator circuits.