Transistor Biasing Lecture-33

TDC PART -3
PAPER 6(GROUP B)
Chapter -6
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Transistor

- A **transistor** is a semiconductor device used to amplify or switch electronic signals and electrical power. It is composed of semiconductor material usually with at least three terminals for connection to an external circuit.

BIASING

- **Biasing** is the setting of initial operating conditions (current and voltage) of an active device in an amplifier.
- Many electronic devices, such as diodes, transistors and vacuum tubes, whose function is processing time-varying (AC) signals, also require a steady (DC) current or voltage at their terminals to operate correctly.

Transistor Biasing

- **Biasing** is the process of providing DC voltage which helps in the functioning of the circuit.

- A **transistor** is based in order to make the emitter base junction forward **biased** and collector base junction reverse **biased**, so that it maintains in active region, to work as an amplifier

TYPES OF BIASING

- Base Resistor method
- Collector to Base bias
- Biasing with Collector feedback resistor
- Voltage-divider bias

MOST EFFICIENT

- Out of all these configurations voltage divider **bias** is the **best**, as the stability of this circuit with respect to change in beta, change in saturation current, change in base emitter voltage is more as compared to other configurations.