BASIC AMPLIFIER
Lecture-32

TDC PART -3
PAPER
Chapter -6
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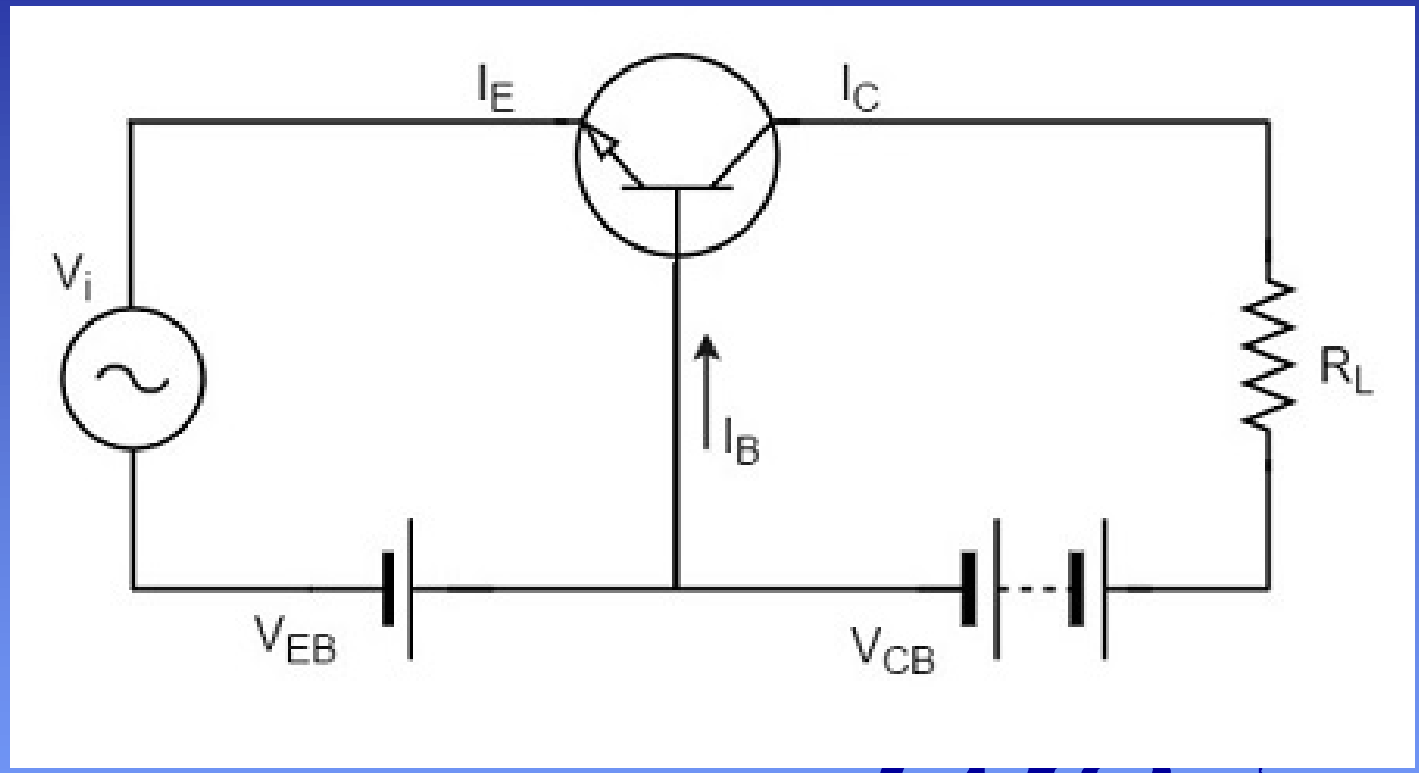
TRANSISTOR (DEFINATION)

- 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.

Transistor Amplifier

- A transistor acts as an amplifier by raising the strength of a weak signal. The DC bias voltage applied to the emitter base junction, makes it remain in forward biased condition.


I_E
I_C
V_i
I_B
R_L
V_{EB}
V_{CB}

- The low resistance in input circuit, lets any small change in input signal to result in an appreciable change in the output. The emitter current caused by the input signal contributes the collector current, which when flows through the load resistor RL, results in a large voltage drop across it. Thus a small input voltage results in a large output voltage, which shows that the transistor works as an amplifier.
- AS SHOWN ABOVE

Transistor and Amplifier

- In this sense, an amplifier modulates the output of the power supply to make the output signal stronger than the input signal. A transistor is a semiconductor device used to amplify and switch electronic signals and electrical power.