

SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution) COIMBATORE-35 Accredited by NBA-AICTE and Accredited by NAAC – UGC with A++ Grade Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai



23EET104 / ANALOG ELECTRONICS CIRCUITS I YEAR / II SEMESTER



UNIT-IV: MULTIVIBRATOR

BI-ST&BLE MV





BI-STABLE MULTIVIBRATOR



A multivibrator that has two absolute stable state and can stay in one of two states

indefinitely is known as Bi-stable multivibrator.

It changes it state when it gets triggering pulse and stay in that state until it gets another triggering pulse.



BI-STABLE MULTIVIBRATOR





BI-STABLE MULTIVIBRATOR



When VCC is applied, one transistor will start conducting slightly more than that of the other.

Let Q2 be ON and Q1 be OFF.

When Q2 is ON, The potential at the collector of Q2 decreases, which in turn will decrease the potential at the base of Q1 due to potential divider action of R1 and R2.

The potential at the collector of Q1 increases which in turn further increases the base to emitter voltage at the base of Q2.

The voltage at the collector of Q2 further decreases, which in turn further reduces the voltage at the base of

Q1. This action will continue till Q2 becomes fully saturated and Q1 becomes fully cutoff.

Thus the stable state of binary is such that one device remains in cut-off and other device remains at saturation.

It will be in that state until the triggering pulse is applied to it. It has two stable states. For every transition of states triggering is required.

At a time only one device will be conducting. 23EET104/AEC/R.SENTHIL KUMAR/EEE



BI-STABLE - APPLICATION



- Digital operations such as counting and storing binary information.
- Generation and processing of pulse-type waveforms.
- It is widely used in digital logic and computer memory







RECAP....





...THANK YOU

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