

#### 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** 

# MONOST&BLE MV



23EET104 / AEC / R.SENTHIL KUMAR / EEE





A Multivibrator which has one stable state and one temporary quasi-

stable state and level transition depends on external triggering pulse is known

as Monostable Multivibrator.





### **MONOSTABLE MULTIVIBRATOR**











When the circuit is switched ON, transistor  $Q_1$  will be OFF and  $Q_2$  will be ON.

 $\Box$  Capacitor C<sub>1</sub> gets charged during this state.

 $\Box$  When a positive trigger is applied to the base of transistor  $Q_1$  it turns ON, which turns OFF the transistor  $Q_2$ 



## Contd.,



Capacitor C<sub>1</sub> starts discharging during this state.
Transistor Q<sub>1</sub> remains in ON state due the positive voltage from the collector of transistor Q<sub>2</sub> which is in OFF state.

 $\Box$  Transistor  $Q_2$  remains in OFF state until the capacitor  $C_1$  discharges completely.

 $\begin{tabular}{ll} \hline $\square$ When the capacitor $C_1$ discharged completely, transistor $Q_2$ turns ON, which turns transistor $Q_1$ OFF. \end{tabular}$ 





## **APPLICATION - MONOSTABLE**



Analog systems to control an output signal frequency.

To synchronize the line and frame rate of television broadcasts.

To hold output voltages in its unstable state for a certain period .

To moderate the tunes of different octaves with electronic organs.







## **RECAP....**





## ...THANK YOU



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