Waveform Generation

Lecture - 18

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B.Sc (Electronics)
TDC PART - III
Paper – 6
Unit – 8
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➢ Transistor Bi-Stable Multivibrator Output Waveforms (PART – 4)

⇨ The output waveforms of **BMV (Bi-Stable Multivibrator)** are obtained at the **collector terminal** of **transistor Q1 at Point A (V_{C1})** or the **collector terminal** of **transistor Q2 at Point B (V_{C2})**. The **Inputs Trigger 1 (SET)** given at the **base terminal** of **transistor Q1** through **capacitor C1** and the **Inputs Trigger 2 (RESET)** given at the **base terminal** of **transistor Q2** through **capacitor C2** are shown below in the following **Figure (6)**. **Figure (6) shown below BMV output waveforms** with **Negative Input trigger Pulses** and **Figure (7) Shown below BMV output waveforms** with **Positive Input trigger Pulses.**
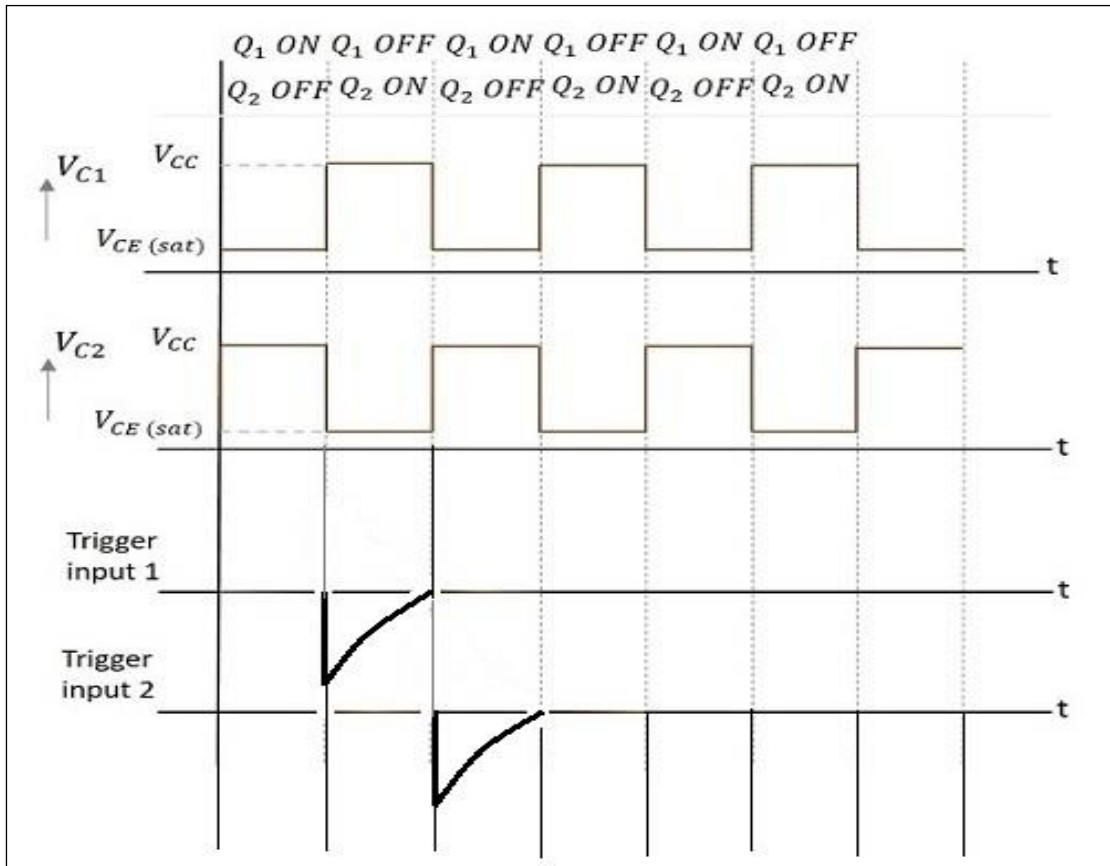
Fig. (6) Shown BMV Output Waveforms with Negative Input Trigger Pulses.
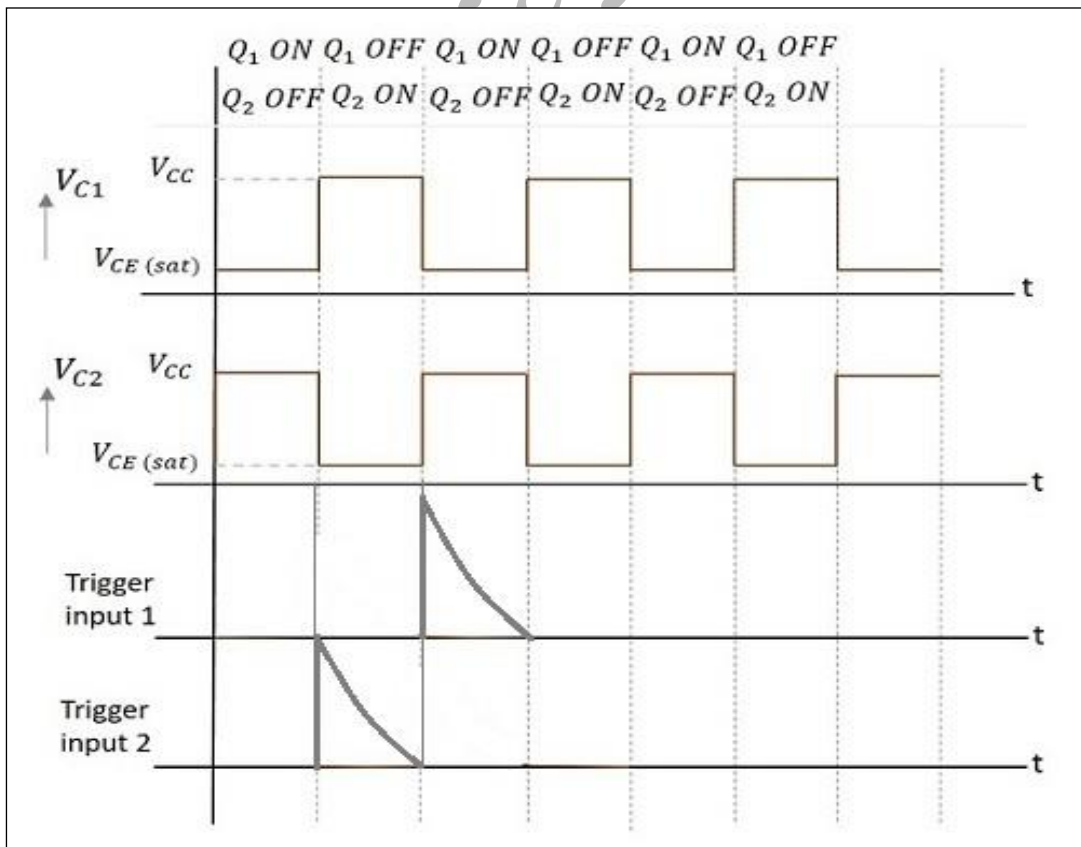

Fig. (7) Shown BMV Output Waveforms with Positive Input Trigger Pulses.

➤ Advantages of Bi-Stable Multivibrator

⇨ The advantages of a Bi-stable Multivibrator are as follows :-

(1) It has the ability to store previous output until no any input trigger is provided.

(2) The circuit design is not complex.

➤ Disadvantages of Bi-Stable Multivibrator

⇨ The drawbacks of a Bi-stable Multivibrator are as follows :-

(1) Two kinds of trigger pulses are required.

(2) Every time in order to have transition from one stable state to another, triggering pulse is required.

(3) A bit costlier than other Multivibrators. It is somewhat costly than Astable and Monostable multivibrator.

➤ Applications of Bi-Stable Multivibrator

⇨ The applications of a Bi-stable Multivibrator are as follows :-

(1) These are widely used in the circuits of Latches and Counters.

(2) It is used in Frequency Divider Circuits.

(3) Bi-stable Multivibrators are used in Pulse Generation.

(4) It is used in digital operations like Counting and Storing of Binary Information.

THE END

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