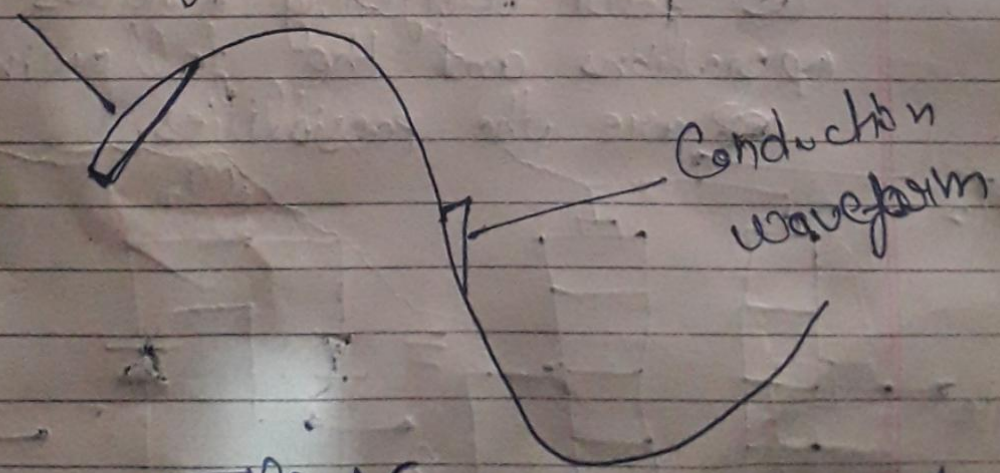


2-2

The TRIAC is the three terminal Semiconductor device and used for controlling the current. From the name of the TRIAC, of words ~~The~~ Triode is alternative current and it is effectively developed with the help of the SCR or Thyristor. But the thyristor is able to conduct the device of one direction and TRIAC is bidirectional. The Triac for alternative current are able to switch high voltage and level of current and on both the part of A.C waveforms. This device is used widely in

input waveform

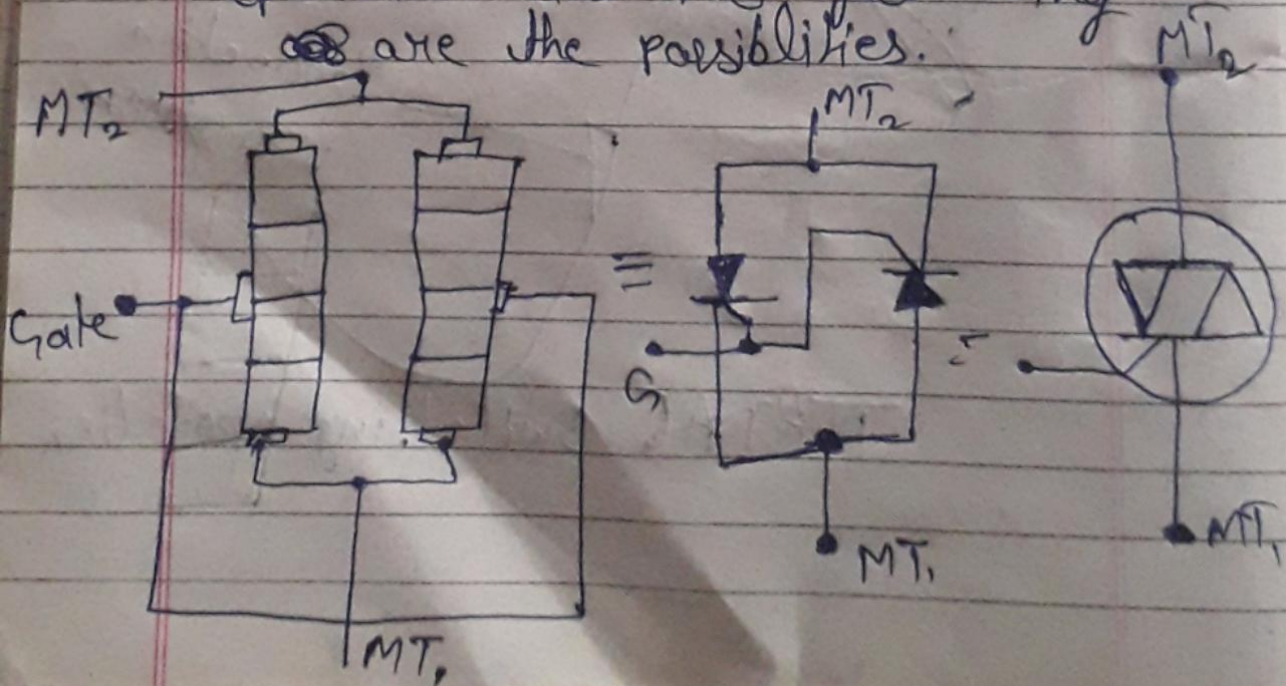


TRIAC Switching operation

## Construction of TRIAC

The TRIAC consists of four layers like PNPN in the positive direction and the negative direction consists of NPNP as we can see in the figure. The three-terminal bidirectional device blocks the current in the OFF state and it will act as an open circuit switch.

But for the distinct conventional thyristor, this device can conduct the current in both directions when it is triggered by a single gate pulse. The TRIAC operations as four triggering modes of operations and the following are the possibilities.



# VI Characteristics

The following figure show the typical TRIAC characteristic. The Triode for Alternating Current consists of ON and OFF state characteristics which are similar to SCR. Now characteristics are application of both the voltage of positive and negative

