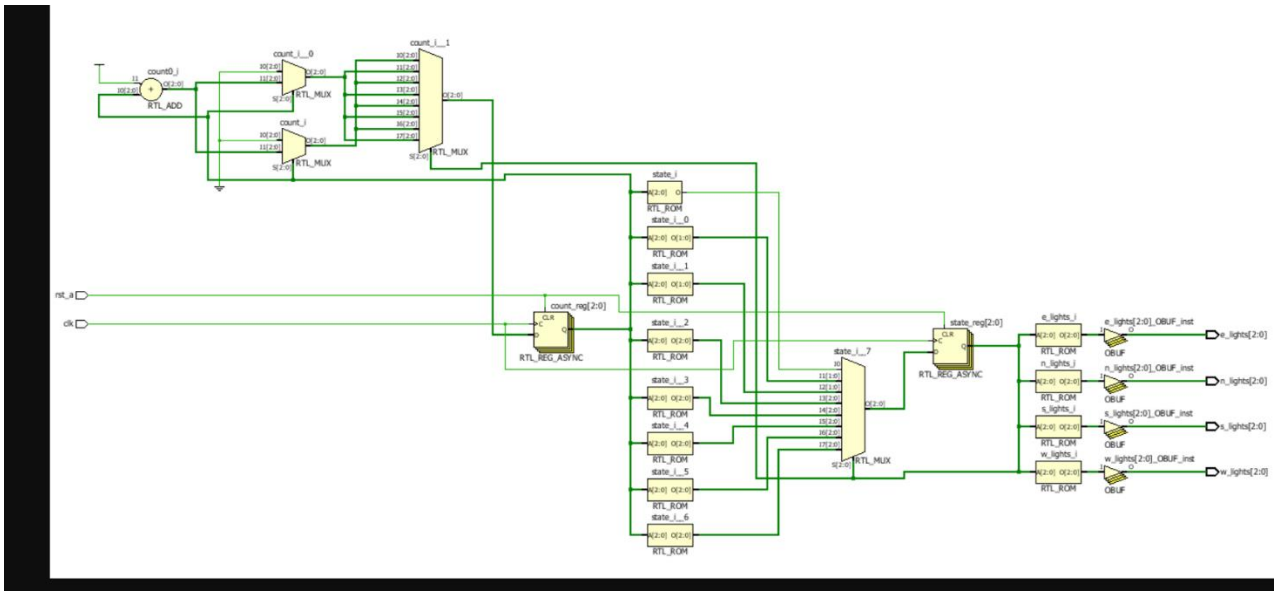
METHODLOGY :

Verilog is hardware descriptive language (HDL) which is generally used to model electronic system. that is, we can design a circuit and the function of circuit can be control by Verilog coding. Thus, design and verification can be done using Verilog designing. Similarly, traffic light signal controlling can be done using Verilog (hardware descriptive language). so now we have design the traffic light signal system with Verilog using sequence detector method. We have considered area where there are two highways one from north-south and other from east-west. And heavy load of traffic present over these highways where we have to control these highways using traffic signal. If we want to keep flow of traffic at north-south end for particular time interval and simultaneously we allowed the traffic flow at east-west end.

The various stages of signalling mode. At each block has different pattern. RYG denotes (RED YELLOW GREEN). (NS) and (EW) denotes (NORTH-SOUTH END) and (EAST-WEST END). At each stage it has six-bit sequence as it can be observed through blocks. for example, at any stage if we have a sequence 100001 that means So, at very 1st stage we have kept the traffic flow at north south end thus, bit signal for north-south will be 001(RYG) and simultaneously east-west end will havb

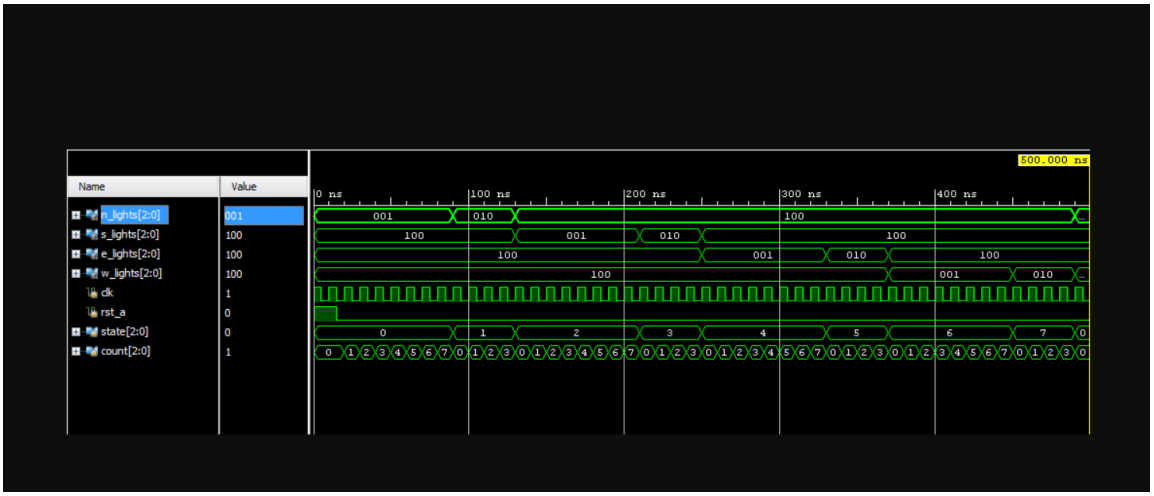
RTL SCHEMATIC OF TRAFFIC SIGNAL DEVICE :



RTL is register-transfer level(RTL) is a design model which gives a description of synchronous digital circuit in terms of the flow digital circuit signals between register which used in hardware combinational logical circuits. Register-transfer level design is used in hardware descriptive language like VHDL and Verilog to obtain high-level .

BEHAVIOURAL WAVEFORM OF A SYSTEM:

Behavioural waveform gives very exact simulation of any hardware description. We can actually observe our output whether it goes right or wrong. From the above given waveform, we can observe that signals which manipulate in perfect coordination as per the code is synthesis. North-south end East-west end Stage 1-Red stage 1- Green Stage 2-Red stage 2- Yellow Stage 3-Green stage 3-Red The above process repeats every cycle which you can observe from above diagram.



RESULT:

In this working model we have observed various stages which describes about every signals. At first stage (north-south end) signals gives some indication. Consider the signal is red that means signal at east-west side gives a green indication and traffic moves to their respective direction. Then after some delay yellow signal is obtain at east-west side and after the red signal arrives at the same time at the north-south end red signal goes off and green signal gets on and traffic moves to their particular direction. In this way process continues in the loop every day

CONCLUSION:

Thus, traffic light control system helps to conduct orderly flow of vehicles. There are lot many issues of obstacles, high level accidents which occurs every day. So, traffic signal controller prevents such occurrences. Still many areas or small towns don't have the traffic light control facilities. And thus, many accident problems occur at those areas. Therefore, it is a primary purpose to have such facility in order to control and maintain the area .