

## INNOVATION

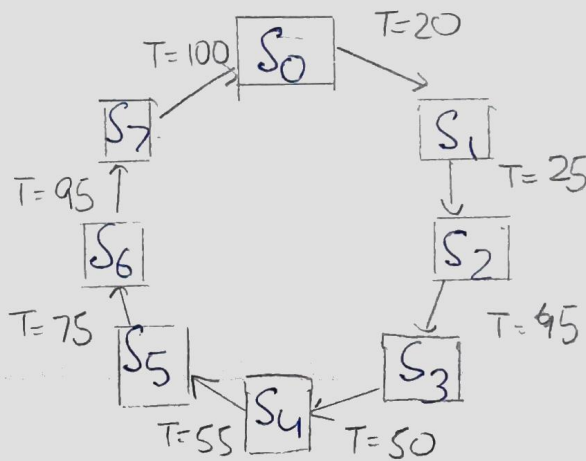
Aim:- To design a traffic light controller using VHDL

Software Used: MODEL SIM

### Theory :-

A simple traffic light controller can be implemented by a state machine that has a state diagram as shown.

### Finite State Machine



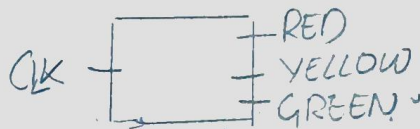
It states progress according the value of the timer used. When the value of the timer reaches a specific value, that state of system changes.

The states are defined in terms of output. Timer goes from 0 to 100 and is reset to 0. Each light is programmed to run as follows:

1. It is Green for 20s
2. It is yellow for 5s

During this time all other lights remain RED.

Block Diagram



A set of 4 traffic lights have been designed for a 4 junction

Physical REPRESENTATION

