**EXPERIMENT-**

1. OBJECTIVES:
2. Develop a QSS Simulink model of EV, which parameters are mentioned below:
   * 1. Mass=300
     2. Cd=0.5
     3. Frontal area=1.5
     4. µrr = 0.015 (Radial Ply Tyre)
     5. Tyre radius = 0.3
     6. Gear ratio = 2
     7. Gearbox efficiency =98%
     8. Road Gradient = 0
     9. Motor Torque = 50 Nm
3. NEDC Drive Cycle
4. Consider map based Motor model 'qss\_em\_original\_map'
5. Consider Battery model of 48V and 96Ah rating cell (keep initial SOC =80%)
6. Display Vehicle Speed, SOC, Battery Voltage and Energy Consumed)
7. Observe following parameters in Data inspector
   1. Traction Force
   2. Battery Current
   3. Motor Electric Power
   4. Motor Torque
   5. Motor Speed
8. SOFTWARE REQUIRED
   1. Simulink \_\_\_\_\_\_\_\_
9. PROCEDURE
   1. Open Matlab
   2. Open Simulink  
      Open new \*.slx file
   3. Develop a model with QSS TB Library
   4. Save in current directory
   5. Run the program
   6. Capture the plot
10. SIMULATION MODEL
11. OUTPUT

*Sample output*

**