



**MANIPAL INSTITUTE OF TECHNOLOGY**  
**MANIPAL**  
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## **MANIPAL INSTITUTE OF TECHNOLOGY**

(A constituent Unit of Manipal Academy of Higher Education)

**MANIPAL**

# **Drives, Controls and Modelling Laboratory Manual (MTE 3161)**

Fifth Semester B.Tech (Mechatronics Engineering)

**NAME: Swaraj Dangare**

**REG NO: 210929156**

**ROLL NO: 37**

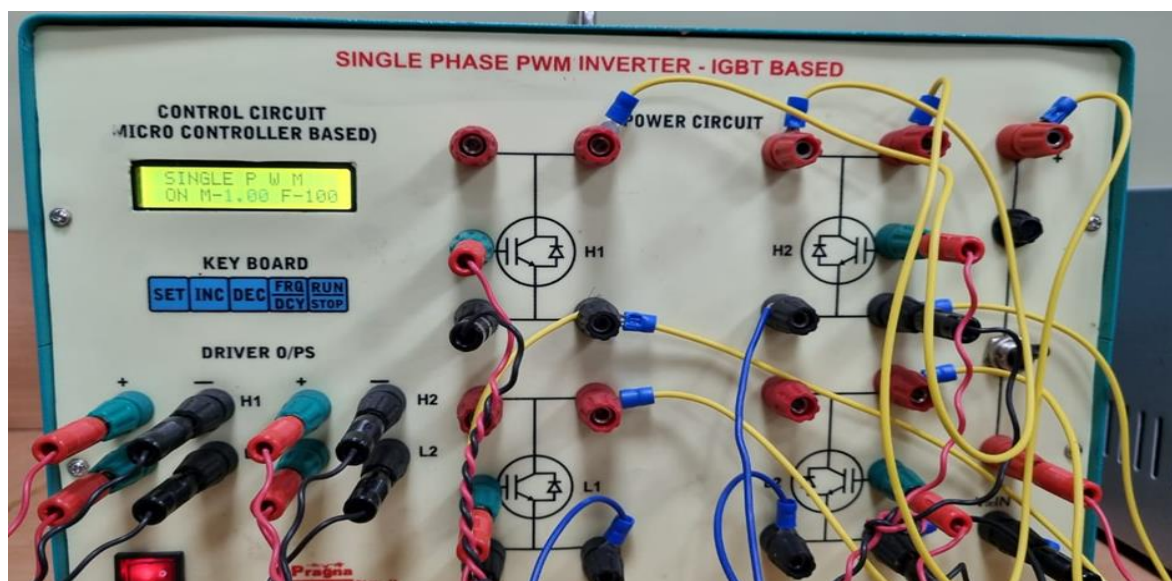
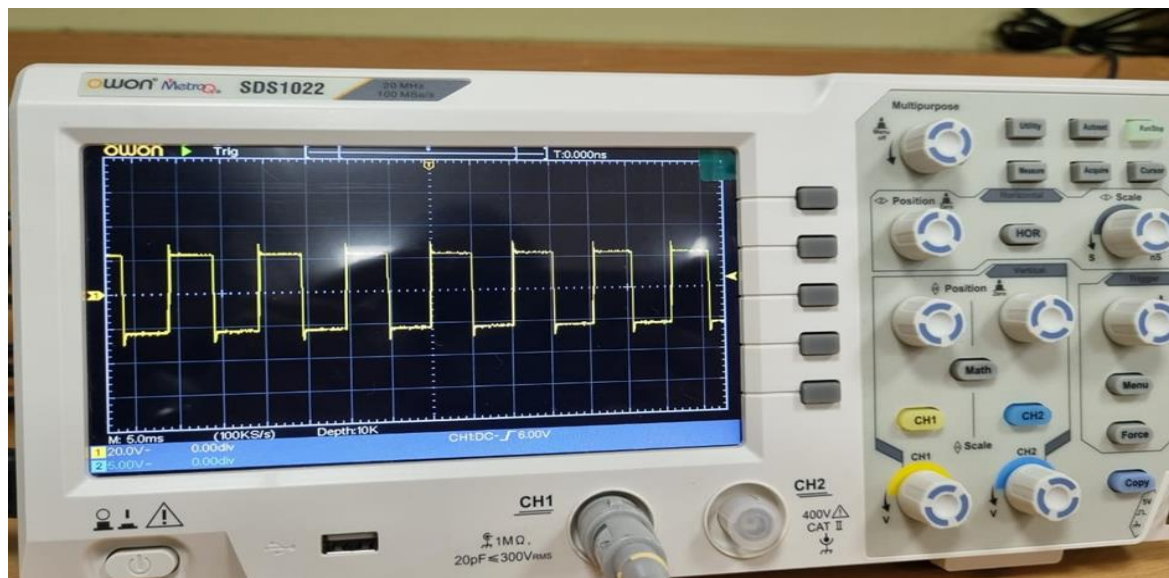
**EXPERIMENT 1:**

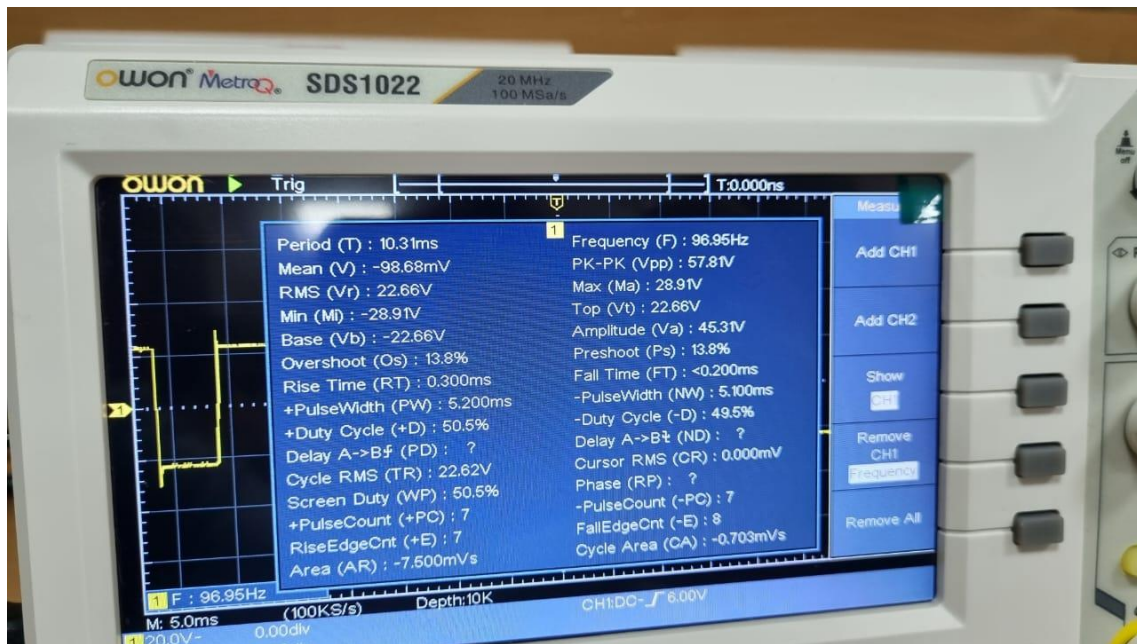
Date: 02/11/2023

## SINGLE PHASE PWM INVERTER

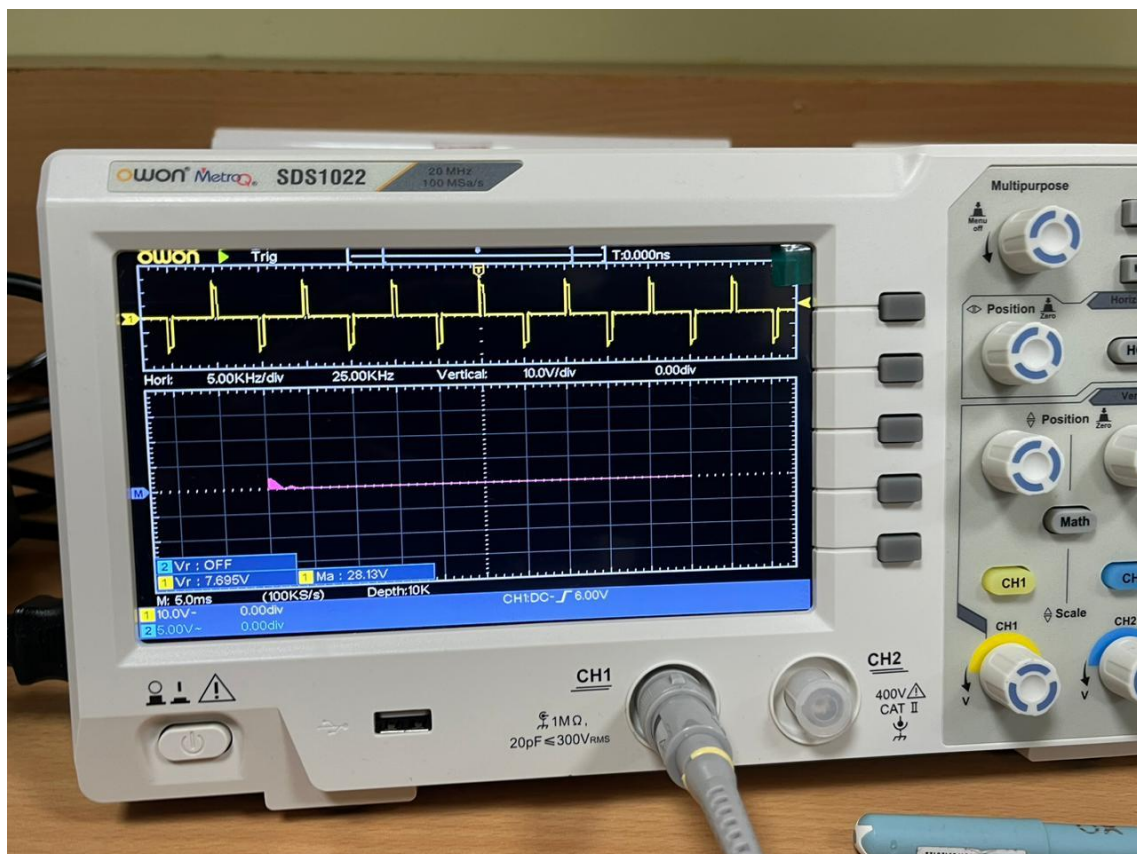
DUTY CYCLE	RMS VOLTAGE
10	7.4
20	10.38
30	12.68
40	14.62
50	16.33
60	17.88
70	19.3
80	20.63
90	21.88
100	22.78

DUTY CYCLE: 100%





DUTY CYCLE: 10%

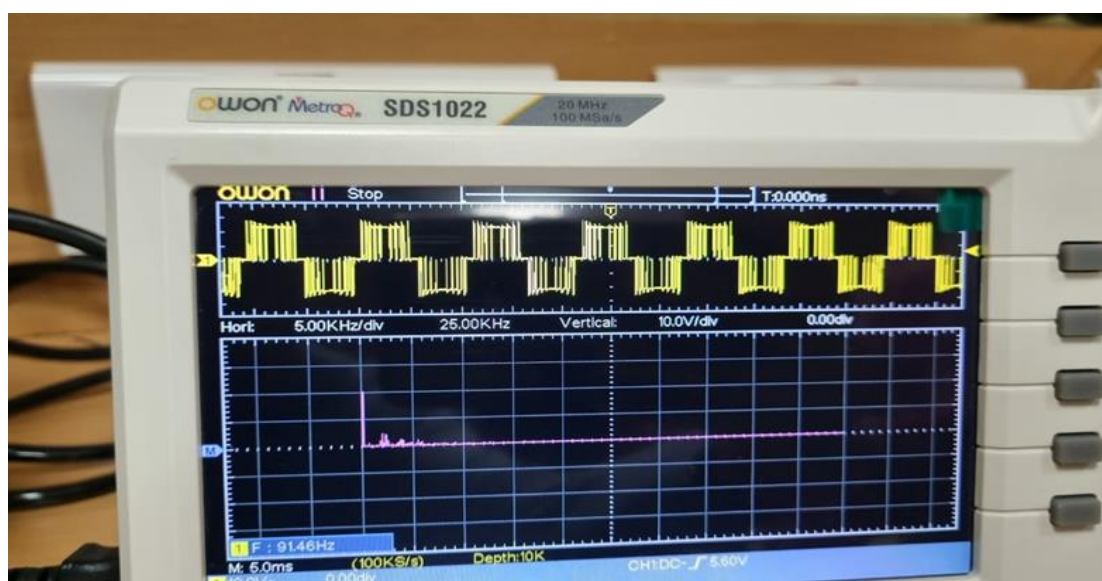
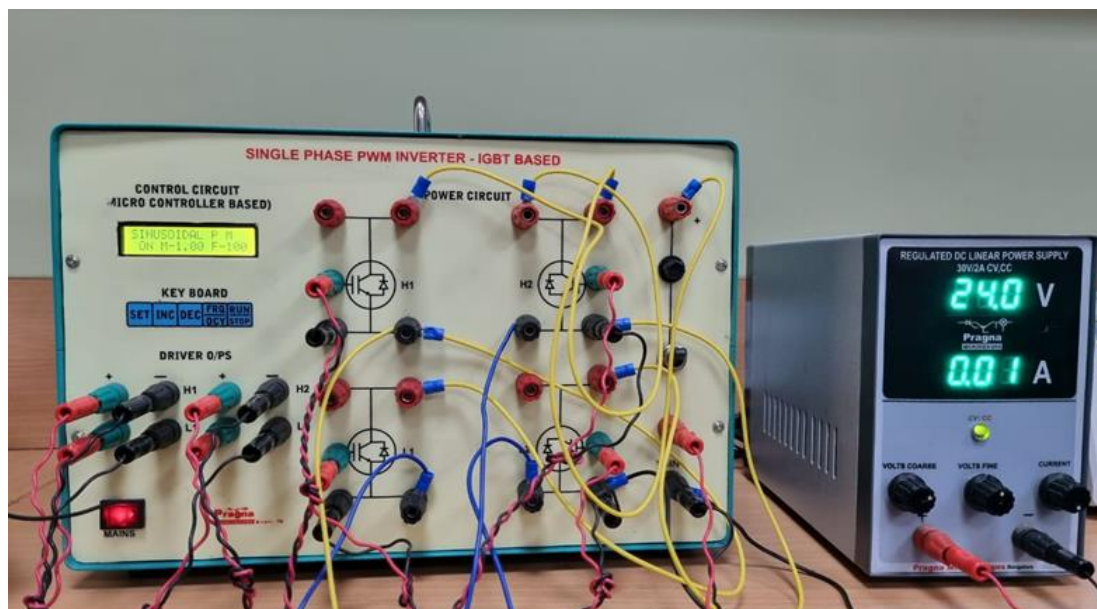


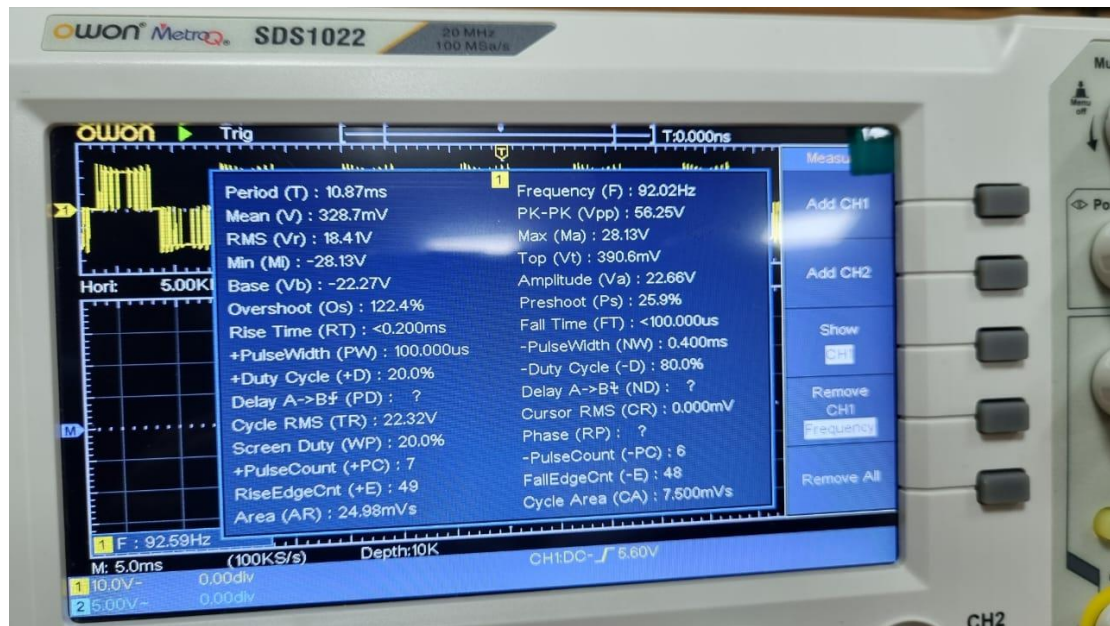


## SINUSOIDAL PWM INVERTER

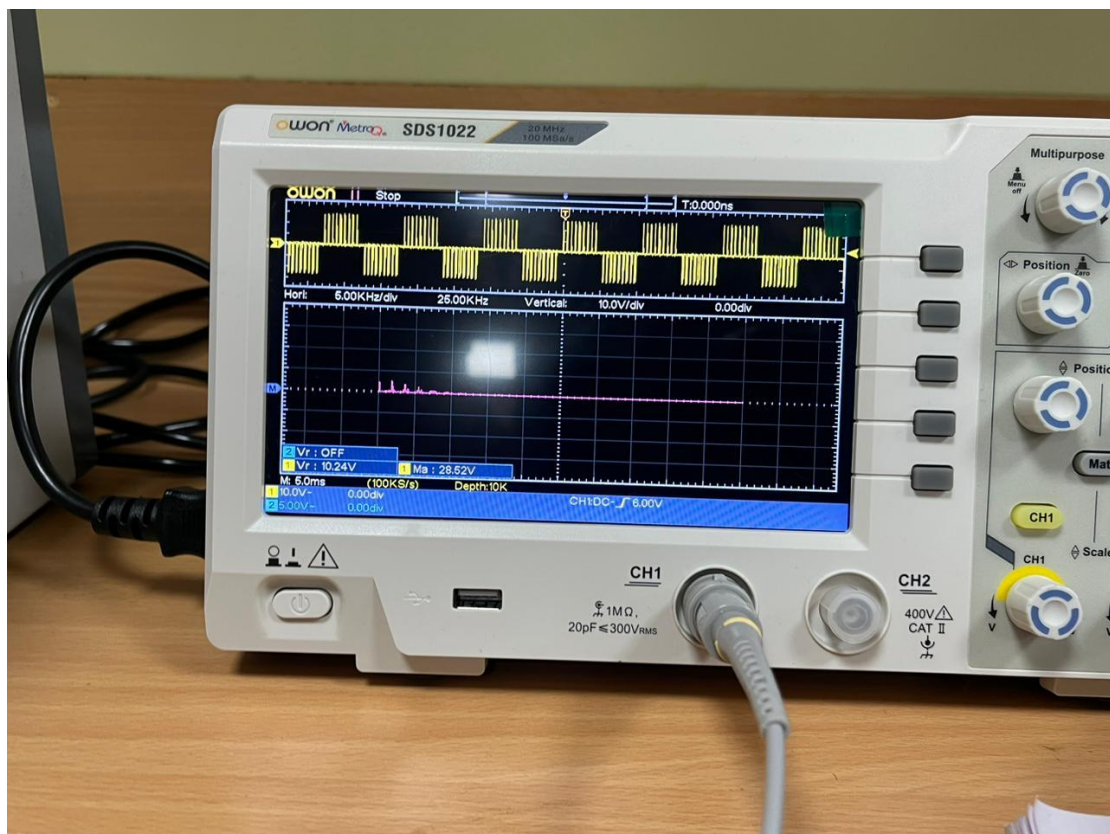
DUTY CYCLE	RMS VOLTAGE
10	7.15
20	8.98
30	10.5
40	11.81
50	12.98
60	14.04
70	15.02
80	15.93
90	16.77
100	17.61

DUTY CYCLE: 100%





DUTY CYCLE: 10%





## EXPERIMENT 2:

### PLC CONTROL

