# PRACTICAL 7

**AIM: - TO STUDY & SIMULATE THE THREE PHASE AC VOLTAGE CONTROLLER FED TO INDUCTION MOTOR.**

**THEORY:**

**Variable Terminal Voltage Control**

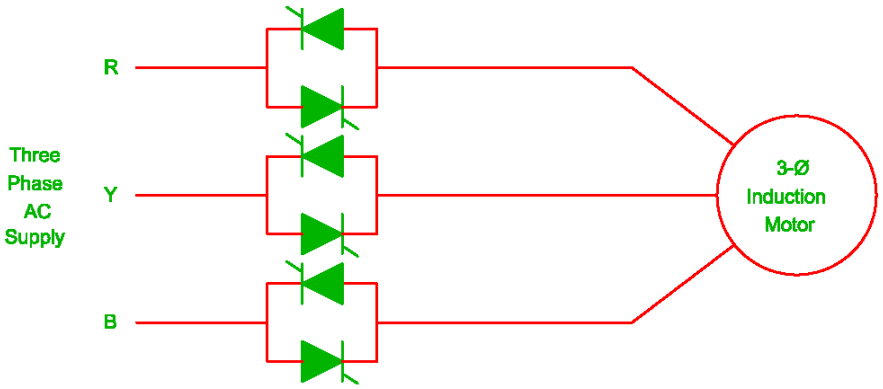


Figure.1: Stator Voltage Control of Induction Motor

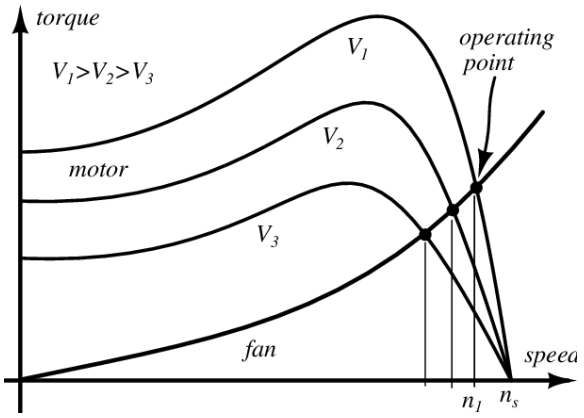


Figure 2: Speed Torque Characteristics of Induction motor with stator voltage control

**Simulink Model of Three phase AC Voltage Controller fed to Induction motor:**

Fig 3 shows the simulink model of three-phase AC Voltage controller with following specification.

**Specification:**

Input three phase AC voltage $V_s$=_____V,

*Machine Rating: Power* =_____ ; *f*=50; Voltage=_____ Rated Speed=_____

*Load Torque*= _____

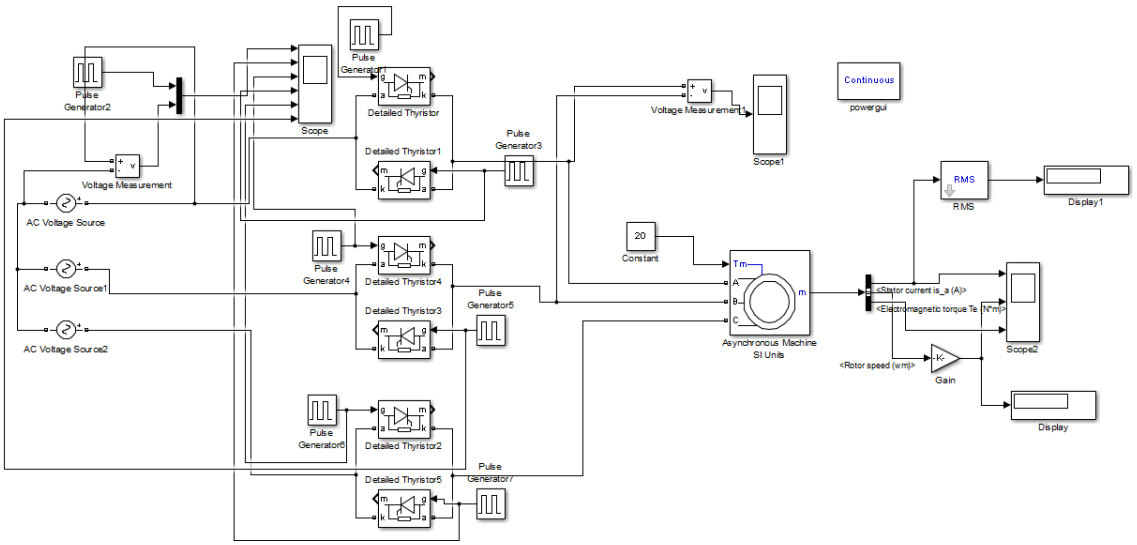


Fig 4 Simulink Model of three-phase AC voltage controller

**Result :**

(a)

Figure 5 Simulated waveform of Three phase AC Voltage Controller (a) Stator Current (b) stator voltage (c) Torque (d)Speed of the macine

**Observation Table: (R Load)**

*Mf*=_____ *R*=_____.

| Sr No | *alpha* | Stator Voltage (RMS) | Stator Current (RMS) | Speed (RPM) |
|---|---|---|---|---|
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**Conclusion:**