**FXP0034**

Sinusoidal PWM has been a very popular technique used in AC motor control. This relatively unsophisticated method employs a triangular carrier wave modulated by a sine wave and the points of intersection determine the switching points of the power devices in the inverter. However, this method is unable to make full use of the inverter’s supply voltage and the asymmetrical nature of the PWM switching characteristics produces relatively high harmonic distortion in the supply.

**(SPWM)** is a more sophisticated technique for generating a fundamental sine wave that provides a higher voltage to the motor and lower total harmonic distortion (THD). It is also compatible for use in AC motors. This abstract describes the theory of SPWM and the project shall be made using a programmed microcontroller of 8051 family duly interfaced to 3 phase inverter with 6 nos MOSFET or IGBTs from DC derived from a single phase or 3 phase, 50 Hz supply. The load shall be a star connected three phase 50 Hz, 440volt, 0.5 to 1 HP motor. Alternatively a star lamp load can be used to view the waveform only.