## **ABSTRACT**

The electrical system is a three-phase electrical systems that have 3 pieces symmetrical output and has the distinction of each phase angle of 120°. In a series of three-phase, there are two kinds of relationships the star circuit and delta circuit. The series of three-phase star circuit using the wire 3 wire 3 phase, while in the circuit of 3 phase 4 wire circuit using the Star, 3-phase and 1 wire to neutral. Neutral current in the circuit is a circuit star circuit point between the third phase. 3 phase system itself is typically used in industries, because the industry itself uses 3-phase power. In contrast to households using electric power 1-phase.

This thesis resulted in a current and voltage monitoring tool. Parameters monitored include voltage, current, active power, reactive power and power factor on each phase at the load side. Current and voltage monitoring tool using a current sensor and a voltage sensor SCT 013-000 ZMPT101B as the measuring sensor.

Keywords: electric power supply system, SCT 013-000, ZMPT101B.