Electrical power protection essays example

The faults are analyzed in different methods. The software tools have been employed to analyze the faults. It has been assumed that all the electric motors are in phase and operating at a nominal voltage. This load usually supply power to the transmission line rather than drawing power from the transmission line. The fault may be occurred by the motor loads. The following calculations are necessary to find the faults.

- Subtrnsient Fault Analysis
- Trasmit arises between sub transient and the steady state
- The steady state arises, when the transient have the time to settle

The asymmetrical fault breaks the three phase line in the power system. It is always possible to use the one time diagram. It is considered that the voltage and the currents as a superimposition of each other. By analyzing the prospective short circuit current, it is always becoming necessary to protect the device from the fuses and the circuit breakers. If the circuit breaker is properly protected, then transmission line will have a safe operation. The protection device must withstand from arching. The motor load with the multiple sources (low voltage) will have the fault levels up to 300, 000 amperes. During the voltage dip, the current in the resistive load decreases and the motor load will continue to supply KVA. Lower the voltage more power they drawn. When transmission line is receiving more reactive power, then it faces sudden power loss in the line; reactive power compensation is necessary to protect the device. The whole power system will be under stress. There is much chance that the main circuit breaker may fail in the system.