

# ABSTRACT

**Modern electrical systems require constant attention to monitor their performance. Also they require attention to ensure the stability of the electric system voltage above the level required. To accomplish this objective, this study suggests that the flow of a load be simple and smooth in case of electrical system.**

**The purpose of this dissertation is investigation and evaluation of voltage stability of the Sudan National Electric Grid. The dynamic and static tools for evaluation of voltage stability problem will be discussed and used. In addition we will be aware with the buses and areas where the possible voltage collapse could take place. To do this we use suitable methods as shunt capacitors method.**