

## **Study, Assessment and Simulation of Automatic Power Factor Correction System for Electrical Power Distribution system at IPR.**

### **Abstract**

Power factor measures a system's power efficiency and is an important aspect in improving the quality of supply. In most power systems, a poor power factor resulting from an increasing use of inductive loads is often overlooked. A power factor correction unit would allow the system to restore its power factor close to unity for economical operation. The advantages of correcting power factor include reduced power system losses, increased load carrying capabilities, improved voltages and much more. The aim of this project is to Study, Assessment and simulates an Automatic Power Factor Correction (APFC) system required for reactive power compensation of the system, which is able to monitor the energy consumption of a system and automatically improve its power factor. The APFC device calculates the reactive power consumed by a system's inductive load and compensates the lagging power factor using capacitance from a capacitor bank.

**Eligibility: Only students of B.E./ B.Tech. Electrical Engineering branch can submit their application at**

**Email: [ckgupta@ipr.res.in](mailto:ckgupta@ipr.res.in) [Guide e-mail address] and [project\\_ee@ipr.res.in](mailto:project_ee@ipr.res.in) [Project Coordinator's e-mail address]**

**Phone Number: 079-2396 2164 [Guide phone number]**