

Abstract Details

Title: Effect of Increasing Power Factor in Industries

Authors: Mohamed Osman Widaa Osman and Dr. Muawia Mohammed Ahmed

Abstract: There are number of motors working in industries which are inductive nature so they draws inductive current due to that inductive current power factor goes decreases than specified limit (0.95-1%). If the power factor reduces than this limit then industries get penalty charges and also increases losses or cost. So that this project (paper) is designed to minimize these penalty charges and reduce the losses, also cost, and save power by increasing power factor. This is done by Automatic Power factor Correction Technique using microcontroller. Power factor can be defined as ratio of real power to apparent power. Real power is useful power and also said active power. Reactive power is the non-working power which is generated by magnetic and inductive load to generate magnetic flux. Apparent power is the addition of active and reactive power.

Keywords: Automatic of Power Factor Correction, Apparent Power, Microcontroller, ZCD, Capacitive Bank, Inductive Load.