Importance of Automation and It's Application to Optimize Energy

Abstract

Automation is basically the delegation of human control function to technical equipments.
Modern process control systems are used in industrial automations for flexibility, modularity and reliability, employing state of the art technology based on three concepts: Distributed control System (DCS), Programmable Logic Controller (PLC) and monitoring system; Supervisory and Data Acquisition (SCADA). Power consumption is an important constraint in the design of induction heater. Regarding hardware point of view concern, a bunch of heater is arranged in sequential manner and using a property of temp heaters are shut off or shutdown at different time sharing mode, with the help of intelligent controller and transducers. The basic idea behind power management project is to manage the power in various loads. When any one load increases then one of the loads that is connected out of many is disconnected, in this priorities is assigned to various loads and with the help of hardware and relay logic we will try to manage the load automatically.

References

- Grill Ashrae, Improving the Efficiency of Chilled Water Plants – Avery Journal 2005, pp 1-10
- Stuart A. Buyer, SCADA: Supervisory Control and Data Acquisition, 3rd ed, North Calolina: ISA, 2004, pp. 9-21
- M Zima, T Krause, G Andersson, Evaluation of system protection schemes, wide area monitoring and control systems parsimony, in Proc. 2003, Sixth International Conference on Advances in power system control, operation and management. pp. 754-759.

Index Terms

Computer Science
Emerging Trends in Technology

Keywords
Plc  Scada  Dynamic Power Managements  Heater  Automation