

# Distribution Transformer Protection and Recloser System Using PLC

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**Abstract:** Protection of transformers is a very challenging problem in power system relaying. Since it is very important to minimize the overcurrent and duration of unwanted outages, this is a high demand imposed on power transformer protective relays. Various relaying principles have been proposed and used to protect transformers against different types of faults. Relays that use over current, over flux and overheating principles protect the transformers against overloads and externally applied conditions. Differential relays protect the transformers against internal fault. In this research, software and hardware of microcontroller based relay system has been explained and designed. The design implementation and testing of the system are also presented. Today the world is facing the most critical problem of not getting the sufficient power. In many countries including India, people are not getting their primary need of electricity because people are consuming more power than the given limit of the sanctioned load given by MSCBE. Instead, we can use available power in such a way that the specific user will only use the power which is allocated to the user according to the limit of sanctioned load provided by MSCBE. A properly installed and configured monitoring system is a valuable advantage to almost any type of energy consumer. Energy consumers have a wide variety of considerations and concerns where energy usage is involved.

**Keywords:** PLC

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