

# **HEALTH MONITORING & LINE MAN SECURITY FOR TRANSFORMER**

## **ABSTRACT**

The aim of our project is to design a transformer health monitoring and lineman safety system. The life of the transformer is significantly reduced if they are subjected to overloading, over current, over voltage resulting in unexpected failures and loss of supply to a large number of customers thus affecting system reliability. By monitoring any variations in current, voltage and temperature in the transformer corresponding to the threshold value, the supply will be cut off immediately. It will be stored in cloud for the future analysis. Nowadays, electrical accidents to the line man are increasing, while repairing the electrical lines due to the lack of communication between the electrical substation and maintenance staff. If the lineman wants to repair the power system then the maintenance staff turns off the respective power line in the main station. The main station and the fault detected power lines may be in different areas. Many fatal electrical accidents are happen due to miscommunication between the maintenance staff and the electric substation staff. To avoid electrical accidents, the project is designed in such a way only authorized person can operate circuit breaker with the help of a RFID and password based system. The system is installed at the transformer site and by measuring above parameters it will help the utilities to optimally utilize transformers and identify problems before any catastrophic failure.