EFFICIENT AND DATA ACQUISITION IN SMART GRID

A PROJECT REPORT

Submitted by

BOOPATHIRAJA.G	**(710419105009)**
NANDHINI.R	**(710419105025)**
SUGUNADEVI.S	**(710419105036)**

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KARAMADAI, COIMBATORE-641 104

ANNA UNIVERSITY: CHENNAI -600 025

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CHRIST THE KING ENGINEERING COLLEGE COIMBATORE 641 104

Dr.M.JEYAKUMAR, M.E.,Ph.D.
PRINCIPAL
CHRIST THE KING ENGINEERING COLLEGE,
Karamadai, Mettupalayam Taluk,
Coimbatore - 641 104.

BONAFIDE CERTIFICATE

Certified that this project work titled "EFFICIENT AND DATA ACQUISITION IN SMART GRID" is the bonafide work of **BOOPATHIRAJA.G(710419105009), SUGUNA DEVI.S (710419105036), NANDHINI.R (710419105025)** who carried out the project work under my supervision.

.....

Dr. M.ARUMUGA BABU, M.E.,Ph.D.,
HEAD OF THE DEPARTMENT
Department of Electrical and
Electronics Engineering
Christ The King Engineering College,
Karamadai, Coimbatore- 641 104

.....

Ms. M.POORNIMA,M.E.,
SUPERVISOR
Department of Electrical and
Electronics Engineering
Christ The King Engineering College,
Karamadai, Coimbatore- 641 104

Submitted for the project viva-voce held on 22.05.2023

.....

Internal Examiner

.....

External Examiner

Dr.M.JEYAKUMAR. M.E.,Ph.D.
PRINCIPAL
CHRIST THE KING ENGINEERING COLLEGE,
Chikkarampalayam Village,
Karamadai Mettupalayam Taluk,
Coimbatore - 641 104.

ABSTRACT

It's an undeniable fact that things in our lives are getting smarter: from cars, to homes and workplace technology, and even urban infrastructure. The foundation that drives this 'smartening' trend is the inclusion of new technology that connects devices – sensors, controllers, and meters – around us, commonly called the "Internet of Things" (or IoT, for short). IoT applications benefit users by optimizing or creating automated processes. Third party vendors often deliver IoT applications using software as a service -based control application and a pay-as-you-go delivery model. The monitoring devices or systems which are presently used for monitoring distribution transformer exist some problems and deficiencies. Few of them are mentioned below. Ordinary transformer measurement system generally detects a single transformer parameter, such as power, current, voltage, and phase. Many monitoring systems use power carrier communication to send data, but the power carrier communication has some disadvantages: serious frequency interference, with the increase in distance the signal attenuation serious, load changes brought about large electrical 2 noises. So, if use power carrier communication to send data, the real-time data transmission, and reliability cannot be guaranteed According to the above requirements, we need a distribution transformer real-time monitoring system to detect all operating parameters operation, and send to the monitoring center in time. It leads to online monitoring of key operational parameters of distribution transformers which can provide useful information about the health of transformers which will help the utilities to optimally use their transformers and keep the asset in operation for a longer period. This will help to identify problems before any serious failure which leads to a significant cost savings and greater reliability

Dr.M.JEYAKUMAR, M.E.,Ph.D.
PRINCIPAL
CHRIST THE KING ENGINEERING COLLEGE,
Unnikkarampalayam Village,
Karamadai, Mettupalayam Taluk,
Coimbatore - 641 104.

CHAPTER 7

CONCLUSION

This project analysis the method of smart transformer nonitoring using sensors and it is analyzed. In this method the colour of the ilica gel breather can be detected by colour sensor and the moisture content nside the breather can be determined by the humidity sensor. Smart ransformer Monitoring is efficient and it is useful for collecting the data for neman (TNEB). The Transformer bursting can also be reduced. It is the easiest ay of monitoring the transformer without examining the transformer site. It is ompact and user-friendly device. It saves the time of operators and records of ıe data are easily maintained.

Dr.M.JEYAKUMAR, M.E.,Ph.D.
PRINCIPAL
CHRIST THE KING ENGINEERING COLLEGE,
Chikkarampalayam Village.
Karamadai Mettupalayam Taluk,
Coimbatore - 641 104.

CHRIST THE KING ENGINEERING COLLEGE
KARAMADAI
COIMBATORE
641 104