

BIGSYNC

**PMU Data Compression in
Wide Area Monitoring Systems (WAMS)**

BTP Phase - 1 Report submitted towards the partial fulfilment of

the degree of

Bachelor of Technology

in

Electrical Engineering

by

Pavan Kumar Dakore

Roll No. 122001034

Under the guidance of

Dr. Manas Kumar Jena



IIT PALAKKAD

Department of Electrical Engineering

INDIAN INSTITUTE OF TECHNOLOGY, PALAKKAD

KERELA

Contents

1. Problem Statement	1
2. Introduction	1
3. Possible Approaches for PMU Data Compression	2
4. Methodology	3
4.1. Statistical change Detection	4
4.2. Principal Component Analysis	4
4.2.1. Standardization	5
4.2.1. Covariance Matrix	6
4.2.3. Principal Components	7
4.3. Discrete Cosine Transform	9
5. Conclusions and Future Work	10
6. References	11