

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY  
BELGAUM**



**A  
PROJECT REPORT  
ON**

**“A SOLUTION TO REMOTE DETECTION OF ILLEGAL ELECTRICITY  
USAGE VIA POWER LINE COMMUNICATION”**

Submitted in partial fulfillment of the requirement for the award of degree of  
Bachelor of Engineering  
In

**ELECTRICAL AND ELECTRONICS ENGINEERING  
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**SUBMITTED BY**

**ALTHAF ABDULLA  
ANOOP RAJ  
DIVYASHREE V  
MONISHA S**

**1JB09EE006  
1JB09EE009  
1JB09EE022  
1JB09EE029**

**UNDER THE GUIDANCE OF**

**Mr. CHANDRASHEKAR M J  
Assoc. Professor  
Dept. of EEE, SJBIT**



**SJB INSTITUTE OF TECHNOLOGY**

BGS Health and Education city  
Kengeri, Bangalore-560060  
Karnataka, India

# ABSTRACT

Power line communication (PLC) presents an interesting and economical solution for automatic meter reading (AMR). If an AMR system via PLC is set in a power delivery system, a detection system for illegal electricity usage may be easily added to the existing PLC network. In the detection system, the second digital energy meter chip is used and the value of energy is stored. The recorded energy is compared with the value at the main kilowatt hour meter. In the case of difference between the two recorded energy data, an error signal is generated and transmitted via PLC network.

The detector and control system is proposed. The architecture of the system and their critical components are given. The measurement results are given. This project describes a prototype of the detector system for illegal electricity usage using the power lines. The target of this project is to discover new and possible solutions concerning this problem.