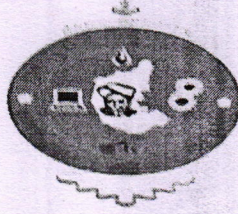


VISHVESVARAYA TECHNOLOGICAL UNIVERSITY "JNANA
SANGAMA", BELAGAVI-590018,



2022-2023

A MINI PROJECT REPORT
ON

"SMART ENERGY METERING AND POWER THEFT CONTROL
USING ARDUINO AND GSM"

SUBMITTED IN PARTIAL FULFILLMENT FOR THE REQUIREMENT OF
THE AWARD OF DEGREE OF

BACHELOR OF ENGINEERING

IN

ELECTRICAL & ELECTRONICS ENGINEERING

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CERTIFICATE

This is to certify that the technical seminar report entitled "SMART ENERGY METERING AND POWER THEFT CONTROL USING ARDUINO AND GSM" successfully carried out by SHWETHA N (ISV20EE006), YOGANANDA M (ISV20EE007) the bonafide students of SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY TUMKUR-572106, in partial fulfilment for the award of degree of Bachelor Of Engineering In Electrical And Electronics Engineering Of The Visvesvaraya Technology University, Belagavi-560014 during the year 2022-2023. All the corrections/suggestions indicated for the internal assessments have been incorporated in report. The technical seminar report has been approved as it satisfies the academic requirements in respect to the technical seminar workprescribed for the said degree.

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ABSTRACT

Energy providers measuring energy consumption in residential and commercial buildings are essential for billing, control and monitoring of energy consumption. Conventional metrology methods used for energy measurement are inconvenient and lead to many kinds of inconsistency. These crimes include miss payment due to human error, electricity theft, loss of money due to corruption, etc. This study presents the design and construction of a microcontroller-based power meter using the Global Mobile Communications System (GSM) network. The system provides a solution to the inconsistencies of traditional energy systems by allowing energy providers to remotely monitor capacity, complete management of customer load, and respond to energy theft in case of energy theft. The system has been tested to take remote energy readings, provide full control over the customer's load, and remotely connect in case of energy theft. The system provides high performance and high precision in electronic monitoring and power management.

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