



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

**NITTE MAHALINGA ADYANTHAYA MEMORIAL INSTITUTE
OF TECHNOLOGY, NITTE**

(Affiliated to Visvesvaraya Technological University, Belgaum)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

A PROJECT REPORT ON

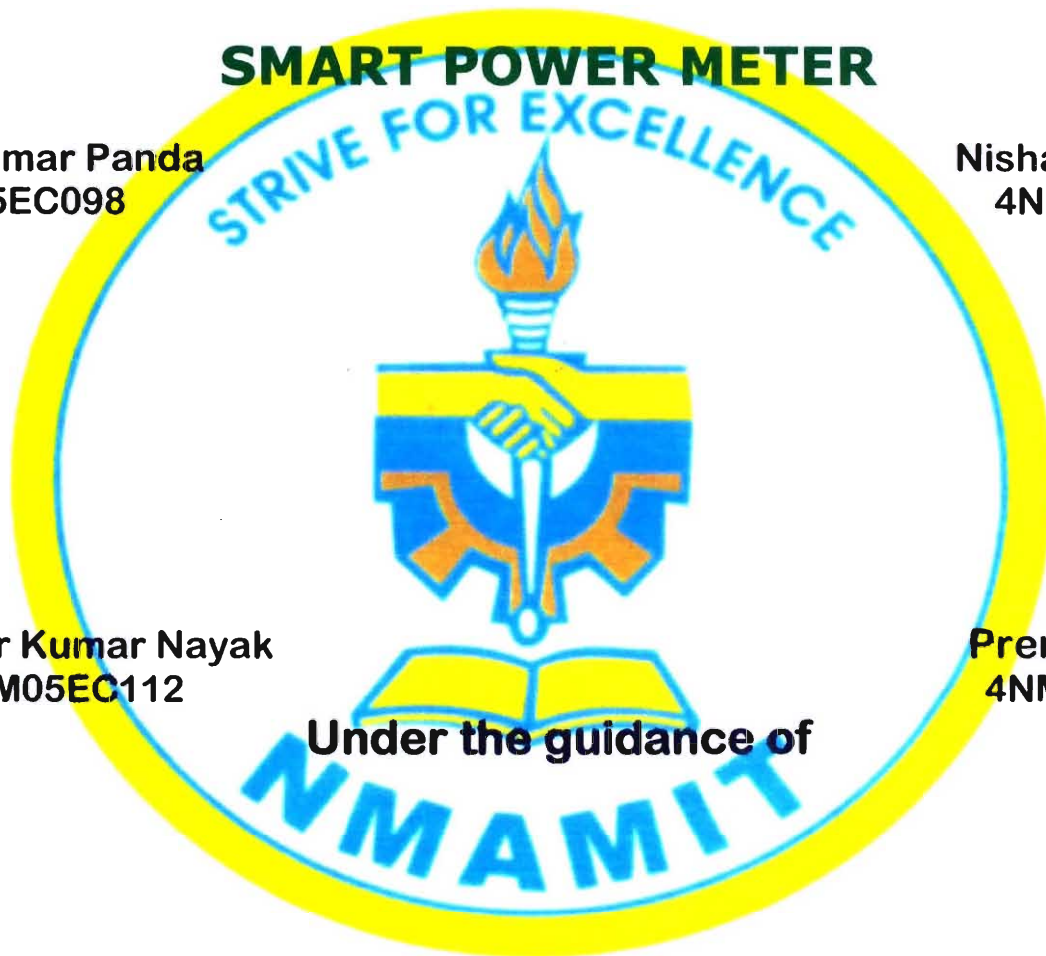
SMART POWER METER

**Sanat Kumar Panda
4NM05EC098**

**Nishanth S Shetty
4NM05EC057**

**Sudheer Kumar Nayak
4NM05EC112**

**Prem Poudyal
4NM05EC073**



Under the guidance of

**Dr. M. K. Parasuram
HOD ELECTRONICS AND COMMUNICATION ENGINEERING**

Co-guided by

**Mr. SUKESH RAO M
DEPARTMENT OF E&C NMIT, NITTE.**

ABSTRACT

Electricity is a power source for all the equipments which we use daily for the smoothing functioning of our day today life. But in countries especially in India power cuts are more frequent which interrupts our daily work. Some of the reasons for this are firstly consumption more than availability, poor power management and unchecked pilferage of power. Hence to solve some of the problems of pilferage of power we have designed a Smart Power Meter. Smart Power Meter is a single phase digital electronic energy meter used to measure the active power and energy consumption in houses.

The meter not only does the calculation of energy consumption but also has many advanced and futuristic features like Tampering Detection unit, which is able to detect and restrict major tampering methods. The meter also consists of a GSM module for communication purpose. The monthly readings in units are directly sent to the electricity board periodically, hence there is no need of manual meter reading. Any attempt to tamper is immediately detected and informed to the office by sending a message. If bills are not paid timely the power connection can be easily disconnected by issuing the command to the meter from office itself through a message. Similarly it can be reconnected also after the bills are paid. The meter itself informs the electricity office in case of continuous power failure for a certain period of time due to the line faults. The meter also has a LCD display for convenient viewing of units consumed and also wattage reading. Hence this meter will not only benefit the electricity board but also the customers hence increasing the standard of power management in India.