

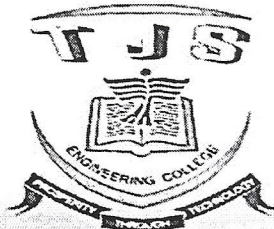
RECOGNIZING GAS METER VALUE AND ANTI-LEAKAGE SYSTEM

A PROJECT REPORT

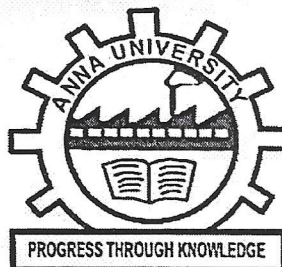
Submitted by

SINDHU.V	112818106031
REVATHI.U	112818106027
SONALI JHA.D	112818106701
KANNAMAIA	112818106013

In partial fulfilment for the award of the degree
of
BACHELOR OF ENGINEERING
In
ELECTRONICS AND COMMUNICATION ENGINEERING



T.J.S ENGINEERING COLLEGE, PERVOYAL, CHENNAI



ANNA UNIVERSITY: CHENNAI 600 025

JUNE, 2022

PRINCIPAL
T.J.S. ENGINEERING COLLEGE
Peruvoyal, Kavaraipeetai,
Gummidipoondi Taluk,
Thiruvailur Dist - 601 206.



ANNA UNIVERSITY: 600 025

BONAFIDE CERTIFICATE

Certified that this project report "RECOGNIZING GAS METER AND ANTI-LEAKAGE SYSTEM" is the Bonafide work of the following students

SINDHU.V	112818106031
REVATHLU	112818106027
SONALI JHA.D	112818106701
KANNAMALA	112818106013

who carried out the project work under my supervision.


SIGNATURE

DR.MS.VELMURUGAN M.E., PhD
HEAD OF THE DEPARTMENT,
Department of Electronics and
Communication Engineering,
T.J.S. Engineering College,
Peruvoyal, Chennai


SIGNATURE

Mrs. C. SHALINI, AP/ECE
SUPERVISOR,
Department of Electronics and
Communication Engineering,
T.J.S. Engineering College,
Peruvoyal, Chennai

Submitted for viva voce held on 22.06.2022


INTERNAL EXAMINER


EXTERNAL EXAMINER

PRINCIPAL
T.J.S. ENGINEERING COLLEGE
Peruvoyal, Kavaraipeetai,
Gummidipoondi Taluk,
Thiruvallur Dist - 601 206.

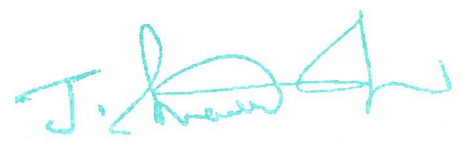


ABSTRACT

Gas plays a major role in our lives. The use of electricity is increasing every day. It is used the world over with different purposes that we can't even imagine our lives without it. The existing gas metering and billing systems in India uses electromechanical and somewhere digital energy meter.

It slow expensive and consumes more time and labor. One of the prime reasons is the custom billing system is incorrect d lack of flexibility over and above reliability. So there is a need to develop an efficient and accurate reading of the digital gas meters by extracting and recognizing the meter reading digits from electric meters. The user can be able to track about the gas/ energy Consumption on daily basis. This paper provides a survey of different existing automated metering systems and gives an abstract view of developing the most optimal automated meter reading system.




PRINCIPAL
T.J.S. ENGINEERING COLLEGE
Peruvoyal, Kavaralpettai,
Gummidipoondi Taluk,
Thiruvallur Dist - 601 206.

EC8551 COMMUNICATION NETWORKS

L T P C
3 0 0 3

OBJECTIVES: The student should be made to:

- Understand the division of network functionalities into layers.
- Be familiar with the components required to build different types of networks
- Be exposed to the required functionality at each layer
- Learn the flow control and congestion control algorithms

UNIT I FUNDAMENTALS & LINK LAYER 9

Overview of Data Communications- Networks – Building Network and its types– Overview of Internet - Protocol Layering - OSI Mode – Physical Layer – Overview of Data and Signals - introduction to Data Link Layer - Link layer Addressing- Error Detection and Correction 62

UNIT II MEDIA ACCESS & INTERNETWORKING 9

Overview of Data link Control and Media access control - Ethernet (802.3) - Wireless LANs – Available Protocols – Bluetooth – Bluetooth Low Energy – Wi-Fi – 6LowPAN–Zigbee - Network layer services – Packet Switching – IPV4 Address – Network layer protocols (IP, ICMP, Mobile IP)

UNIT III ROUTING 9

Routing - Unicast Routing – Algorithms – Protocols – Multicast Routing and its basics – Overview of Intradomain and interdomain protocols – Overview of IPv6 Addressing – Transition from IPv4 to IPv6

UNIT IV TRANSPORT LAYER 9

Introduction to Transport layer –Protocols- User Datagram Protocols (UDP) and Transmission Control Protocols (TCP) –Services – Features – TCP Connection – State Transition Diagram – Flow, Error and Congestion Control - Congestion avoidance (DEC bit, RED) – QoS – Application requirements

UNIT V APPLICATION LAYER 9

Application Layer Paradigms – Client Server Programming – World Wide Web and HTTP - DNS- - Electronic Mail (SMTP, POP3, IMAP, MIME) – Introduction to Peer-to-Peer Networks – Need for Cryptography and Network Security – Firewalls.

TOTAL:45 PERIODS

OUTCOMES: At the end of the course, the student should be able to:

- Identify the components required to build different types of networks
- Choose the required functionality at each layer for given application
- Identify solution for each functionality at each layer
- Trace the flow of information from one node to another node in the network



J. [Signature]

ANNA UNIVERSITY
CHENNAI
SCHOOL OF DISTANCE EDUCATION
108, Anna Salai, Chennai - 600 029
Tel: 044-2619-0124