TECHNOLOGY EDUCATION AND RESEARCH INSTITUTE, KURUKSHETRA

BONAFIDE CERTIFICATE

Certified that this project report **"Electricity Billing System Project**" is a bonafide work of Sonu Kumar [3520210] who carried out the project work under my supervision.

Date: October,2023

Sign of the supervisor

Er. Saurabh Sharma

Sign of the HOD

Deepa Sharma

TECHNOLOGY EDUCATION AND RESEARCH INSTITUTE, KURUKSHETRA

CANDIDATE'S DECLARATION

I hereby declare that the proposed work presented in the report entitled **"Electricity Billing System Project"** in fulfilment of the requirement for the award of the Degree of **Bachelor of Technology** in the Department of **Computer Science & Engineering** of TERII, Kurukshetra University, Kurukshetra, Haryana is an authentic work carried out by me during 7^{th} semester.

I further declare that no material of this report has been copied from any known source and submitted before the award of any certificate.

Date: October, 2023

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Signature of the Student

Sonu Kumar [3520210]

ACKNOWLEDGEMENT

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Signature of the Student

Sonu Kumar [3520210]

ABSTRACT

Purpose

Electricity consumers are often faced with the problem of inaccuracy and delay in monthly billing due to some drawbacks. Thus, it is essential to have an efficient system for such purposes via electronic platform with consideration to proximity. The proposed system automates the conventional process of paying electricity bill by visiting the Electricity Board which is tiresome and time consuming. It is also designed to automate the electricity bill calculation and payment for user convenience. The system is developed with Java swings as the base programming language which can be used to develop websites, web applications and web services. The Microsoft Structured Query Language (SQL) server is also used for creating back-end database. The system would be having two logins: the administrative and user login. The administrator can view the user's account details and can add the customer's information of consuming units of energy of the current month in their account. The admin must feed the system with the electricity usage data into respective user's account. The system then calculates the electricity bill for every user and updates the information into their account every month. Users can then view their electricity bill and pay before the month end.

Scope

Our project aims at Business process automation, i.e. we have tried to computerize various processes of Electricity Billing System. In the sector of electricity board we have computerizes their department and stock maintenance.

Scope of any software depends upon the following things:

1. It satisfy the user requirement
2. Be easy to understand by the user and operator
3. Be easy to operate
4. Have a good user interface
5. Be expandable
6. Delivered on schedule within the budget.

We have tried to make such type of software, which satisfy the above gives requirement.

Technology Used

1. Java
2. Java Swing
3. Adv. Java (JDBC Connectivity)
4. MySQL
5. Apache NetBeans IDE 19
6. Command Prompt

Objectives

This research consists of several objectives as stated below: i. To develop an online system to manage electrical billing for the administrator and customer. ii. To collect the power consumption information and integrate with centralized database system via GSM device. iii. To calculate the electrical bill and generate a report on the power consumption information through online.

Software Requirement

1. Operating system: Window10
2. Coding Platform: Apache NetBeans IDE 19, mysql-connector-j-8.1.0, Matplotlib
3. Coding Database: MYSQL, JDBC

Hardware Requirement

1. System requirements: 8gb RAM, 1 TB HDD, 128/256 GB SDD
2. Processor: Intel i3/i5/i7