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NFC based Attendance System

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Abstract: The student get admission in educational institute is always increase every year so as we know attendance system is essential part of our education system attendance are used for determine discipline growth of the student so this system need to be more reliable and accurate
attendance system are used by teacher for word to university for grading and documentation purpose in current scenario attendance are taking into muster and this very time consuming and hectic process so its necessary more reliable and accurate system and NFC is very good option for that NFC based portable attendance remove all the flaws from the typical method of attendance system
General Terms: The NFC technology is faster, secured and reliable to use in IOT (internet of things) device, NFC configuration system is secured in all aspects of software and hardware platforms NFC is easy to use and installation of NFC system is less costly
Keywords: NFC, NFC enabled smartphone, NFC card number

I. INTRODUCTION

A conventional way to taking attendance system is teacher comes in class room and call a roll no. of each and every student and according to reply they mark attendance of the student on muster they simply pass a sheet of paper both practice having there own flaws in first practice entire class strength of student present or not they need to call anyway in second practice student may be mark there friend attendance who was absent so both practices is having disadvantage and they are time consuming process all the data enter manually so we correct these flaws and come with new proposed system we will use NFC technology here every student having one NFC tag contain there information these NFC tag has unique ID which is not duplicated every student having these NFC tag while student enter into classroom they simply tap there NFC tag on teachers NFC enabled smartphone and then enter to the classroom NFC reader app read student information stored in that NFC tag after that these information's send it over the intranet to main database server

II. RELATED WORK

In past few years new technology comes significantly and some older technology like NFC also improves there efficiency past time before Bluetooth NFC used for sending data over two devises in current time a NFC used for charging a devices and online payment system (option for a debit card)[5] NFC is reliable in used in smart phone IOT devises and its proof that NFC data sharing is more secure and trustworthy so NFC based management is best option for conventional method [4] there are several type NFC management system available but this management system has lack off productivity this management system only take attendance and store and its only limited to the class room but our proposed system can acquirute all the college premises and collect all the activity done by student [2] also in other system only limited used of that system but in our system we think student point of view and we provide services to them also we provide attendance can read and with using same application for document uploading and taking printouts from them[1] The main objective of this project is to overcome all the flaws of typical attendance system like save time and avoid manual data entry attendance system make more reliable. [1]

III. PROJECT METHODOLOGY

A. Basic Component of this Management

There three major component included in this management system
NFC TAG:-This NFC tags are stick on your ID cards this tag memory is 888bytes so this NFC tags has students profile information include there ID no.. name branch year
Smartphone:- This smart phone is NFC enabled so NFC tag tap on that smart phone they scan and verify there information and mark there attendance
Server:- This server is connected through intranet smartphone take attendance data and store it server and smart phone connected with server via wifi

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B. Access of data

There are three major login in this management system application

Teacher login:- Teacher login with teacher having there unique id and password with this they will get attendance and data send it to the server using this login account

Student login:-In this section student can also view there attendance history

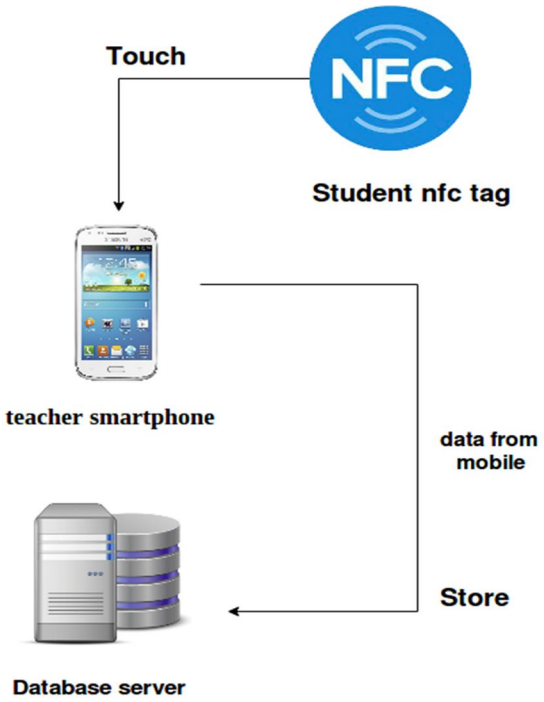
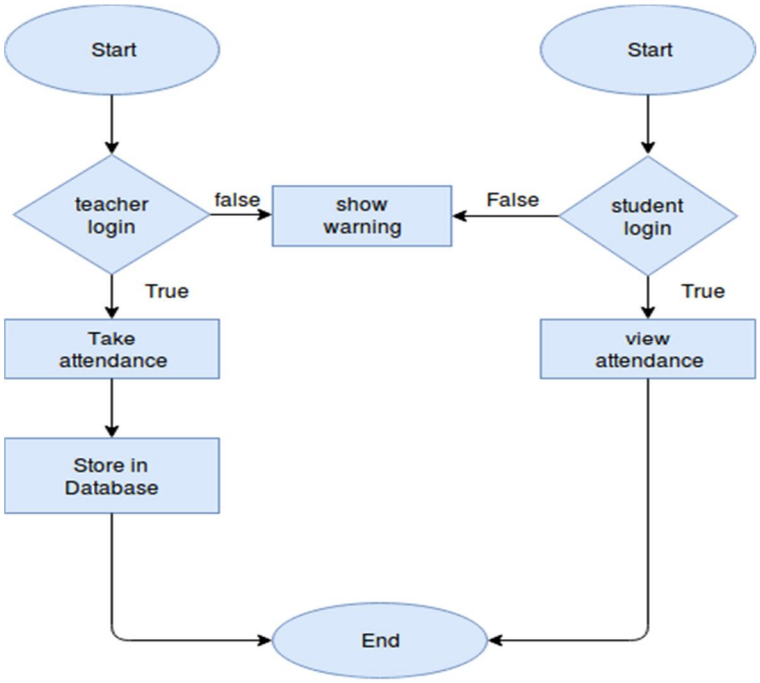


Fig no. 1 architecture of system

Fig No.2 Flow Chart



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C. System flow

When student enter into the class every student has there unique NFC tag this NFC tag tap on teacher's NFC enabled smart phone

Smartphone NFC reader mechanism read that NFC tag store information unique Id branch and year and store them according to time, date and subject

After tap by all students in the class room teacher simply send data via wifi to intranet connected server

Server compared this Id's with there Sqlite database stored data an then update data base and mark corresponding attendance and other will be by default absent

Similarly when student enter into the college premises at entrance they tap on security head smartphone security smart phone collect data about there ID and check in and check out time and store it on the database

When student went to the library they tap librarian smartphone and check in to the library and librarian store the data about fellow student information about student library visit time

At student log in students can watch there attendance they can analyse ther attendance in every lecture they can also upload there document and take printouts

IV. ADVANTAGE

This application help to mark attendance of all student of the classroom[2]

This application rid off all the flaws from attendance system[1]

Teacher don't need attendance sheet to mark attendance so its save the time

Student will analyze there attendance so they can determine there future planning[2]

Its rid off all the conventional method of store record because all data store in server side[3]

As we said data store into server we can access them from any location[6]

All the data store in digital form so no need hard copy so its environment friendly

V. CONCLUSION & FUTURE SCOPE

This project research shown that NFC based system is more flexible and more secure we can enhance his productivity u its installation is very easy and he gives us good return of investment NFC tags coding is more reliable than any other technology and it is very secure and safe we can install this system in any institute NFC also will utilize in other aspects of our daily works

This application use in any educational institute for attendance system Its used in any corporate offices and BPO to attendance purpose

this technology also used in NFC coin based ticketing purpose

These NFC technology used to card less payment method Its also used in shopping center to get information about product and select add to the kart for virtual shopping

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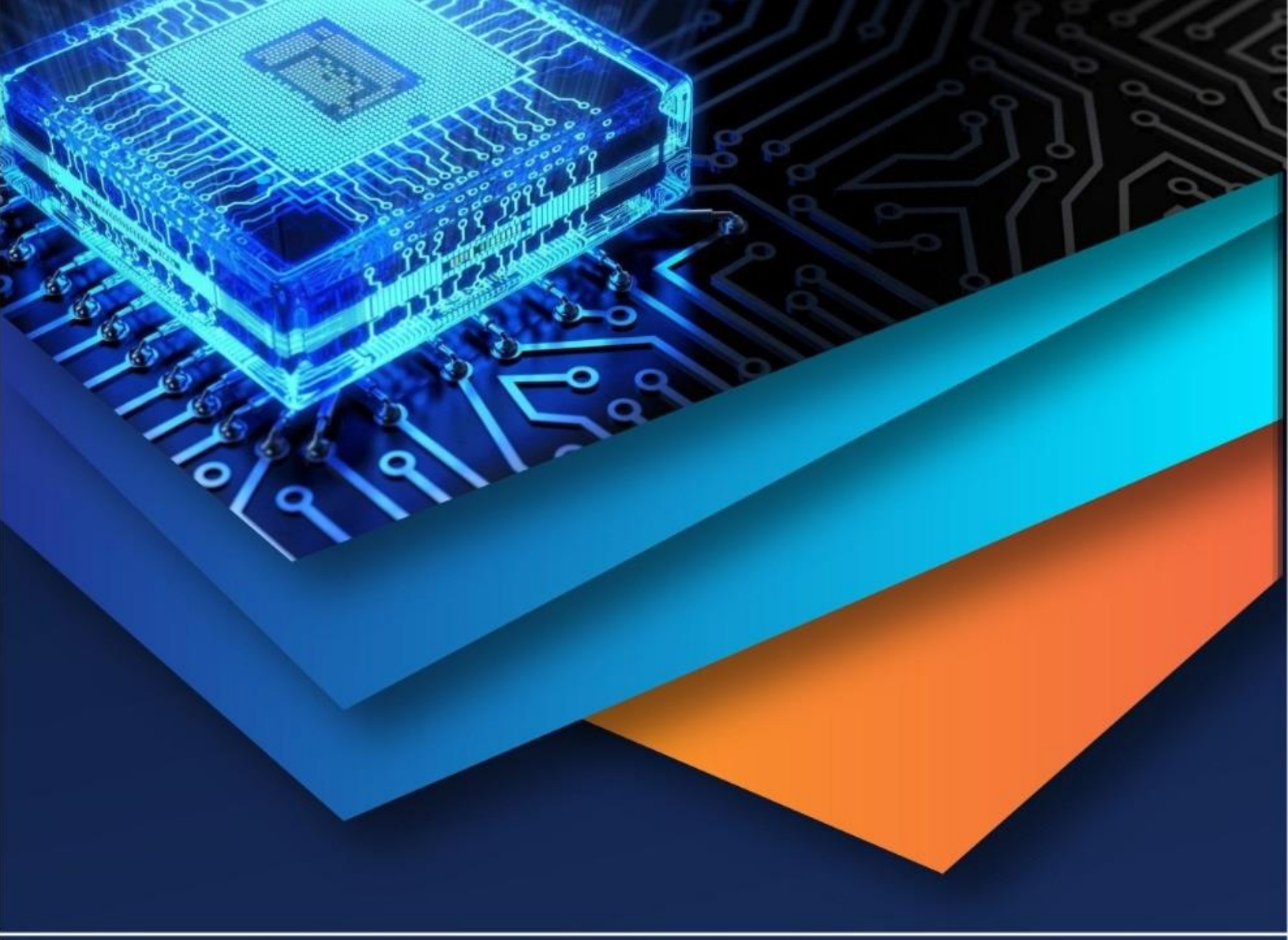

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