

**EMPLOYEE TRACKING SYSTEM****<sup>1</sup> Sonia Sharma, <sup>2</sup> Prabhat Kumar, <sup>3</sup> Roshni kumari, <sup>4</sup> Abhinav Kumar Gautam****<sup>1</sup> PROFESSOR & HEAD, DEPARTMENT OF CSE, M.I.M.I.T, MALOUT, INDIA****<sup>2,3,4</sup> Student, DEPARTMENT OF CSE, Malout Institute of Management & Information Technology(MIMIT), Punjab**

-----\*\*\*-----

**ABSTRACT**

Every association, whether big or small, has human resource challenges to overcome. Every organization has different employee management needs, therefore an attempt is made to design exclusive employee management systems that are adapted to managerial requirements. This is designed to assist in strategic planning and will help to ensure that the organization is equipped with the right level of human resources for future goals. Also, for those busy executives who are always on the go, these systems come with remote access features, which will allow managing the workforce anytime, at all times. These systems will ultimately allow for better management of resources.

One of the main features of an employee management system is a time tracking for employees. An effective time-tracking mechanism saves both time and money for the organization<sup>[1]</sup>.

Employee monitoring and tracking system give a device to track their employee and supervisor can be able to track the locations of their employee.

**I. INTRODUCTION**

Managing human resources in the present environment is becoming more and more sensitive as well as important in any association. This is evident in procedures such as leave guidance where a jobholder is claimed to fill in the form which may take several weeks or months to be approved. The use of paperwork in handling some of these processes could lead to mortal error, papers may end up in the wrong hands, and not forgetting the fact that this is further time-consuming.

A number of current systems lack jobholder self-service meaning workers aren't capable to access and manage their particular information directly without having to go through their HR of departments or their administrators or association heads. Another challenge is that multi-national companies will have all the jobholder information stored at the headquarters of the company making it difficult to access the jobholder information when demanded at short notice or time. The forenamed problems can be dived by designing and applying an application for the HR administration system.

This system will maintain employee information in a database with complete privacy and authorized access and security. The design end is to set up an employee information system about the status of the jobholders, the educational background, and the work experience in order to help monitor the performance and achievements of the employee through password secured system<sup>[2]</sup>.

**II. LITERATURE SURVEY**

Employee Tracking System helps employers in a variety of forms. It ensures no illegal action, accelerating your business productivity, keeping track of your budget, and boosting your company's cost.

Sonal et al (2016), worked on an Employee Tracking and Monitoring System Using Android. In their study, they provided different security profiles on the same smartphone. They used a dynamic database utility that retrieves data or information from a centralized database. They provided a separate mode to the employee when he enters company premises. Through smartphones, all information about the employee's phone like their SMS history, Incoming calls, Outgoing calls, Employee Locations, Data usage, Web browser history,

web-based phone whereas Manager Activities are also monitored <sup>[3]</sup>.

Shermin et al (2015)[1], worked on a Smart, Location Based Time and Attendance Tracking System Using Android Application. They proposed a smart location-based time and attendance tracking system which is implemented on the android mobile application on smartphones reducing the need for additional biometric scanner devices. The location of organization has a specific location, which can be determined by GPS. Each employee's location can be determined by the GPS using a web base<sup>[4]</sup>.

Nirmal, et al, (2016), worked on Employee Surveillance System Using Android Smart Phone, Their system integrates Employee monitoring and a GPS location Tracking System using an Android phone. All the activities of the Employee will be monitored using this system. The system works on 3G communication between the terminal ends<sup>[5]</sup>.

Ashwini et al (2015), worked on Employee Monitoring System Using A WEB-BASED. In their study, all activities such as incoming, outgoing, missed calls, SMS history, web history, data usage, and unauthorized call list/website list are stored on a centralized database. Managers can see that history by logging into the centralized server. Managers can also trace out employees' current location (through GPS). The employee is going outside of company premises then the manager gets an alert message in SMS format. They analyze employee behavior by using a number of unapproved calls and exceeding data usage (good/bad/average/loyal). The device which is given to employees should be an Android-based device. The manager does not need an android device. It may be any device. This system is very helpful for the manager to find out the activities which are done by employees<sup>[6]</sup>.

Shoewu, et al (2015) worked on the Design and Implementation of An Employee Monitoring System InLasuEpe Campus, Lagos State University, The employee monitoring system is an android application used to monitor the call logs, sent and receive messages and the GPS location of an employee. The application is implemented using Javascript, the application interface was designed with Xml and Php for the automatic mailing system. The organization's success depends on employees' performance; poor performance is detrimental to the company's success. It is necessary for an employer to keep track of his employees at all times to ensure the quality of service from the employees and maximum output from them. This paper deals with the design and development of an employee monitoring system using android which will be accessed from the company email account<sup>[7]</sup>.

Avinash et al (2015), worked on Mobile Attendance Management and Employee Registration. Staff attendance management and employee registration is a mobile application that can be used by the staff to log in their attendance through mobile phones and track other staffs location through mobile phones. Manual registration in biometric systems and entering the attendance catalogs in different physical locations is the current system used in all the college's Android which will be accessed from the company's email account.. The staff will get updates regarding their attendance regularly from the admin as they log in and log out so that they can keep track of their attendance by using this application<sup>[8]</sup>.

### III. EXISTING SYSTEM

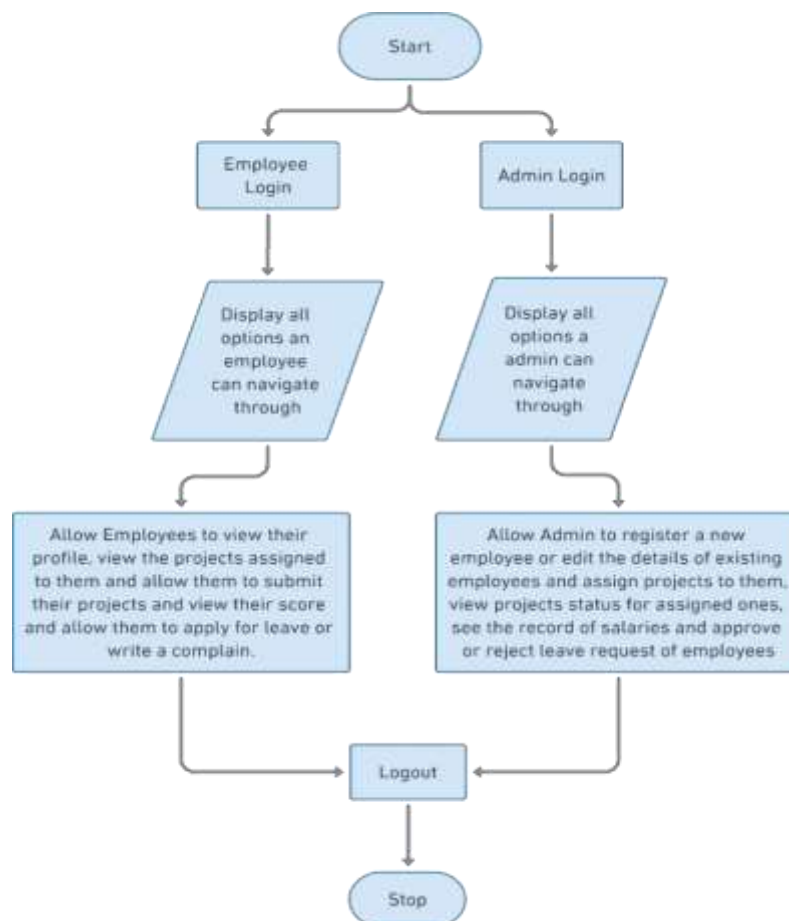
Different people have different personalities and work ethics. So in order to manage their work efficiently and ethically. there has to be a system in place to allocate tasks to different work employees. For example- Nowadays, two types of attendance systems are available:

- 1) Manual
- 2) Automated

oversee for accuracy. However, time and attendance information is subject to natural error when various employees such as workers, supervisors, and payroll administrators all perform tasks that involve recording the figures. This system avoids wasting human efforts and time navigating through multiple platforms. In short, this project will be helpful for various industries and companies in maintaining employee records. It helps to eliminate manual processes. It saves a lot of amount and time. Also, in terms of security, it's trustable.

#### IV. PROPOSED ARCHITECTURE

This research paper will be an Employee Tracking website for various companies or offices for maintaining the records of their employee, allotting projects to them, editing and managing their profiles easily, giving them marks for their projects, etc. It will be a convenient way for employees and company admin to interact with one another. This project helps various companies for maintaining records, and various activities of their employees in a systematic way, and even employee can submit their projects, can view their projects status, and profiles, and can apply for leave easily which is actually an interesting way of interaction between both of them.



**Figure 1:** Proposed Architecture Diagram<sup>[9]</sup>

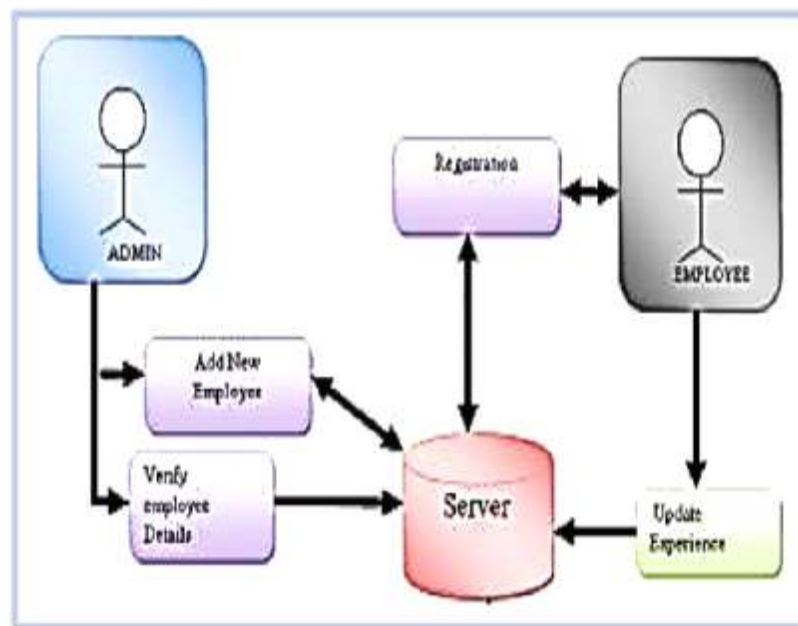
The objectives of this system include:

- Design a web-based HR management system to fulfill requirements such as project management, leave management, and report generation to assist in performance appraisal, ESS, and employee training.
- Tracking the location of the employee whether he/she is present at the work site or not.
- A user-friendly front-end for the user to interact with the system.

## V. SYSTEM ARCHITECTURE

Google maps API (Application programming interface) is used here for finding a personal meaning location, based on the GPS readings, the application can perform geo-locationing to estimate the current location of the user.

Then the application sends the location and user id to the software for further processing. After processing the data the management software store the information in the database.



**Figure 2:** System Architecture Diagram

## VI. RESULT

Employee Tracking System is designed with a new implementation to look over and mark the activities of your employees. It helps to observe all the work done by an employee to seek out whether it's fruitful for the company or not. Employee Tracking Software is nothing but software with a new implementation to look over and mark the activities of employees.

When it comes to working and when provided free internet, many times rather than involving in work, employees start wasting their time surfing the internet. With the installation of such a device, one can track and control all such activities that hamper a company's productivity. Irrespective of what business any company runs, employee tracking applies in every relationship.

Especially companies that handle a large part of sensitive information are at risk of getting caught in such malicious activities. While running an MNC tracking the productivity of every employee is impossible. With the assistance of an employee tracking system, it can be easy to track the time your employees spend on any project.

Google maps API (Application programming interface) is used here for finding a personal meaning location, based on the GPS readings, the application can perform geo-locationing to estimate the current location of the user.

- If an employee is not within a radius of the destination but he/she still tries to scan the QR code then an alert notification with a message will be showing on the screen of the user.



**Figure 3:** Without Reaching the Destination

- If the employee is close to the destination then a notification show on their screen.



**Figure 4:** Within Destination Radius

## VII. CONCLUSION

The main purpose of coming up with this project is to create an easy-to-use and efficient platform on which employees can easily monitor their daily work. The outcomes of this paper are, better employee supervision at the work site, guaranteed work efficiency as a result of automatic time scheduling, maximum reduction of employee truancy, and efficiency in terms of time, cost, and effort for employers.

Utilizing this system it is feasible for the supervisor to track an employee's location in the association. It will be useful for various companies or offices for maintaining the records of their employee, allotting projects to them, editing and managing their profiles easily, giving them marks for their projects, etc.

- [1] Prof. P. Toke, A. Gole, A. Khair, A. Kushinagar, S.Khunte, “ Employee Tracking System”, International Journal of advanced research in Computer and Communication Engineering, ISSN(Online)2278-1021, Vol.5, Issue 12, December 2016
- [2] S. Kuldharan, S. Bhabad, S. Shirsath, S. Borhade, “Employee Tracking and Monitoring System”, International Research Journal of Engineering and Technology, e-ISSN:2395-0056, Volume:07 Issue:02|Feb 2020
- [3] S. Kasliwal, S. Kotkar and H.D. Gadade(2016), Employee Tracking and Monitoring System Using Android International Journal of Innovative Research in Advanced Engineering(IJIRAE)SSN:2349-2763, Issue 03, Volume 3, page 1-4
- [4] S. Sultana 1, Asma Enayet 1 and Ishrat Jahan Mouri (2015), A Smart, Location Based Time and Attendance Tracking System Using Android Application International Journal of Computer Science, Engineering and Information Technology (Ijcseit), Vol.5, No.1
- [5] M.D.Nirmal, R. Koul, H. Atul, G.Tejaswita and K.Mayura(2016), Employee Surveillance System Using Android Smart Phone, IJARIE-ISSN(O)-2395-4396, Vol-2 Issue-2
- [6] A.Jaybhave, P. Kokare, B. Toradmal and T. Kulkarni (2015), Employee Monitoring System Using Android Smartphone, International Engineering Research Journal (IERJ) Volume 1 Issue 2 Page 32-35, ISSN 2395-1621
- [7] Shoewu, O, Makanjuola, N.T and Amisu, A.A, (2015) Design and Implementation of An Employee Monitoring System in Lasu Epe Campus, Lagos State University, Journal of Advancement in Engineering and Technology, Volume 4, Issue 1, ISSN: 2348-2931
- [8] S.P. Avinaash Ram and J. A. Mayan (2015), Mobile Attendance Management and Employee Registration Arpn Journal of Engineering and Applied Sciences, Vol. 10, No. 8, Issn 1819-6608, page 3727- 3730
- [9] C. Narang, Z. Shaikh, L. Sharma, R. Gupta, S. Wankhade,” Employee Tracking System”, International Research Journal of Modernization in Engineering Technology and Science, e-ISSN:2582-5208, Volume:04/April-2022