

# IP Based Time Sheet Tracking

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**Abstract-** This paper entitled “IP Based Time sheet Tracking” is a powerful leave management module that allows one to stop all time-off abuses and centralize all employees leave data in an organization. It allows the user to add his/her own leave types, making exceptions to individual employees and groups using leave rules and also supports leave accrual and carry forwarding leaves to next leave period and also a Human resource management system for small and medium sized organizations. The system is implemented with a modular architecture which makes it extendable and customizable easily.

This system is used to track employee leaves in the organization, and also to manage employee details. This system can be used to automate the workflow of leave applications and their approvals. The periodic crediting of leave is also automated. There are features like email notifications, cancellation of leave, automatic approval of leave, report generators in this system.

The employees can access their information and can apply leave, can view their leave details, can view their training and loan details. Additionally ‘Time sheets module’ enables employees to update their own time sheets and send those for approval to supervisors. The attendance module will keep track of employee punch-in and punch-out times.

## I. INTRODUCTION

### 1.1 PROBLEM DEFINITION

In the existing system it was very difficult to process the human resources activities. The existing system fails in accuracy, efficiency, cost and consumes more time and it was really a tedious task to process properly. The proposed system is designed based on the objectives prepared to fulfill the existing systems drawbacks. In the proposed system there are different provisions provided to automate and generate the information of the jobseekers and job details. The system design focusses on deriving efficient process flow, which uses optimum resources, and deliver maximum results. The system concentrates on cost estimation, instant access of information, efficient human resource management and customer servicing.

The application design provides centralized data accessibility with high security.

## II. SYSTEM DESIGN

### 2.1 EXISTING SYSTEM

Present day organizations, especially large companies house employees in large numbers. In order to maintain their records, which include their personal details, payroll details and attendance details, the burden on Human Resource department is immense. The lack of consistency in record maintenance may lead to both loss of property as well as employee confidence.

With the total automation of Employees time tracking and attendance, the manual dependency is minimized to a large extent. It should inherit all the properties of computerizing a system, which includes quick response, less processing time, non-diligence, fast recovery, robustness, flexibility, reliability, scalability etc.,

In addition to these characteristics the system should maintain data in consistent format all the while.

#### 2.1.1 DRAWBACKS OF THE EXISTING SYSTEM

- Difficulty in tracking employee timesheets
- Lack of credibility
- Time consuming
- Managing excel documents for leave reports was cumbersome.

### 2.2 PROPOSED SYSTEM

Building an IP based time sheet tracking system will improve the productivity of the system and also lets user to provide quick access to the application in order to perform daily, critical activities when the employee is out of the office or do not have access to main web application.

This system allows the organization to manage entire employee details, access their information as needed by the admin at anytime and anywhere.

The employees can access their information and can apply leave, can view their leave details, can view their training and loan details. Additionally Time sheets module employees to update their own time sheets and send those for approval to supervisors. The attendance module will keep track of employee punch-in and punch-out times.

**2.2.1 ADVANTAGES**

The user can do the following tasks easily through the web application.

- Apply / Assign Leave
- Track, Approve & Reject Leave Requests
- Punch In/Out
- Personal Profiles
- Leave & Attendance Reports
- View reports

**III. PROPOSED SYSTEM**

In proposed system cryptography concept is applied to apply security features to folders. Using this system folder is locked and encrypted password should be saved in database. That Password is encrypted using SHA algorithm.

**3.1 FEATURES**

- Folder Password is maintained secrete.
- No one can hack the folder password and encryption key.
- Time will not be wasted in the process.
- High speed.
- Wastage of manpower is reduced.
- Less Time.

**IV. DESCRIPTION OF MODUELS**

**4.1 Login**

Login module consists of admin login. Employee can login punch in and punch out his daily attendance, and the employees can view his\her available leaves for the year, leave calendar, training sessions assigned, compensation attendance and salary details etc.

**4.2 Personal Information**

Personal information includes Employee id, contact information, job details, etc...

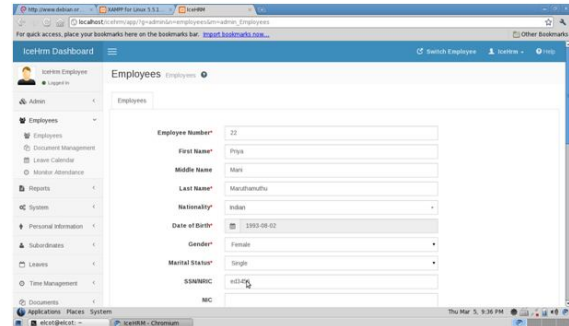


Figure 1.Employee Registration Form

**4.3 Leave**

It allows adding your own leave types, making exceptions to individual employees and groups using leave rules and also supports leave accrual and carry forwarding leaves to next leave period.

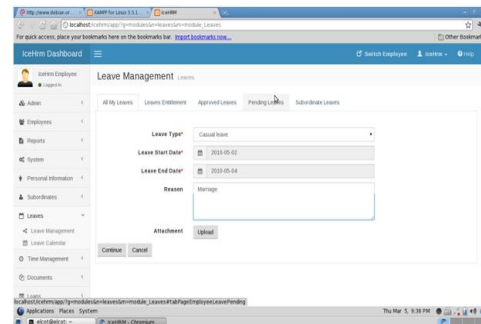


Figure 2.Leave Form

**4.4 Time management**

Employees are able to update their own time sheets and send those for approval to supervisors.

**4.5 Skill**

The skill module consists of username, employee id, qualification, department, experience, skill details.

**4.6 Training**

In training module consists of username, employee id, project, department, experience, skill, start date, end date details. In the supervisors can assign training sessions to the employees.

**4.7 Attendance**

In attendance module consists of employee id, employee name, present days, absent days details, the admin

can monitor daily attendance of the employees, view leave applications and approve leaves or reject leave applications.

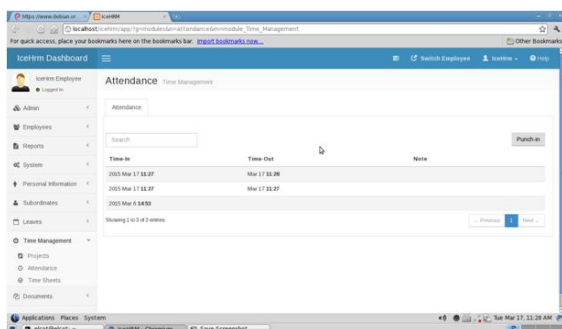


Figure 3.Attendance Form

#### 4.8 Salary

In salary module consists of salary component, pay frequency, currency, and amount.

#### 4.9 Report

The report module is used to view all the reports which are generated in the above modules. We can view and get each module separately.

### V. SYSTEM IMPLEMENTATION

The purpose of **System Implementation** can be summarized as follows:

It making the new system available to a prepared set of users (the deployment), and positioning on-going support and maintenance of the system within the Performing Organization (the transition). At a finer level of detail, deploying the system consists of executing all steps necessary to educate the Consumers on the use of the new system, placing the newly developed system into production, confirming that all data required at the start of operations is available and accurate, and validating that business functions that interact with the system are functioning properly. Transitioning the system support responsibilities involves changing from a system *development* to a system *support and maintenance* mode of operation, with ownership of the new system moving from the Project Team to the Performing Organization. System implementation is the important stage of project when the theoretical design is tuned into practical system. The main stages in the implementation are as follows:

- Planning
- Training
- System testing and

- Changeover Planning

At the time of implementation of any system people from different departments and system analysis involve. They are confirmed to practical problem of controlling various activities of people outside their own data processing departments. The line managers controlled through an implementation coordinating committee.

- The implication of system environment
- Self selection and allocation form implementation tasks
- Consultation with unions and resources available
- Standby facilities and channels of communication

### VI. CONCLUSION

An online system has been implemented which made the entire human resources automation process easier. The system has been implemented successfully, and has produced good results that were expected to do. Human resource automation system with the facilities to post the vacancies available in the company and for applying the jobs through online is the key issues of the system. Great efforts have been taken to make the system more secure, easier and user-friendly. This system overcomes the drawbacks of the existing system where the details are entered and maintained manually. This system generates various reports in a user friendly manner .Further it helps the employees in monitoring the leave details in an automated fashion.

### VII. FUTURE ENHANCEMENTS

The system has been designed in such a way that further enhancements can be made easily. IP Based Timesheet tracking system can be enhanced by automatically sending SMSs to manager when employees apply leave. By upgrading the software the system may work faster than now. The system can be integrated with other systems.

### REFERENCES

- [1] G. Padmavathi, D. Shanmugapriya and M. Kalaivani, "A Study on Vehicle Detection and Tracking Using Wireless Sensor Networks," *Wireless Sensor Network*, Vol. 2 No. 2, 2010, pp. 173-185. doi: 10.4236/wsn.2010.22023
- [2] Y.Zhang, *A multilayer IP security protocol for TCP performance enhancement in wireless networks*. IEEE Journal on Selected Areas in Communications, Vol. 22, n. 4, pp. 767-776, May 2004. NS-2 Network Simulator (Vers. 2.27),URL: <http://www.isi.edu/nsnam/ns/nsbuild.html>

- [3] M. Luglio, A. Saitto, “Security of Satellite Networks”, chapter in H. Bidgoli (Ed), “The Handbook of Information Security”, John Wiley & Sons, Inc., 2006, Hoboken, N.J., Vol. 1, pp. 754-771.
- [4] M. P. Howarth, S. Iyengar, Z. Sun and H. Cruickshank, “Dynamics of key management in secure satellite multicast”, IEEE Journal on Selected Areas in Communications, Vol. 22, n. 2, pp. 308-318.
- [5] C. Partridge, and T. Shepard, *TCP Performance over Satellite Links*. IEEE Network, vol. 11, n. 5, 1997, pp. 44-49.
- [6] W. Stevens, *TCP/IP illustrated, Volume 1*. Addison Wesley, 1994.
- [7] ETSI TS 102 292, Broadband Satellite Multimedia (BSM); Functional Architecture
- [8] Caini, C., et al.: PEPsal: A Performance Enhancing Proxy for TCP Satellite Connections. IEEE A&E Systems Magazine (August 2007)
- [9] I-PEP specifications, Issue 1a. Satlabs group recommendations (October 2005), <http://www.satlabs.org>
- [10] ETSI TS 102 463: Broadband Satellite Multimedia (BSM); Interworking with IntServQoS
- [11] ETSI TS 102 464: Broadband Satellite Multimedia (BSM); Interworking with DiffServQoS
- [12] Obanaik, V.: Secure performance enhancing proxy: To ensure end-to-end security and enhance TCP performance over IPv6 wireless networks. Elsevier Computer Networks 50, 2225–2238 (2006)
- [13] Bellovin, S.: Probable plaintext cryptanalysis of the IPSEC protocols. In: Proceedings of the Symposium on Network and Distributed System Security (February 1997)
- [14] M. Annoniet *al.*, “Interworking between multi-layer IPSEC and secure multicast services over GEO satellites,” presented at the COST-272 Symp., Thessaloniki, Greece, June, 20–21 2002. Doc. TD-02-016-P.
- [15] J. Arrkoet *al.*, “MIKEY: Multimedia Internet Keying,” IETF Internet Draft, work-in-progress, draft-ietf-msec-mikey-06.txt, Feb. 2003 , expires Aug. 2003.
- [16] N. Assafet *al.*, “Interworking between IP security and performance enhancing proxies for mobile networks,” *IEEE Commun. Mag.*, vol. 40, pp. 138–144, May 2000.