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## HUMAN RESOURCE INFORMATION SYSTEM BASED ON GAMIFICATION

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## ABSTRACT

A HRIS (Human resource information system) is a combination of system and processes that connects human resource management and information technology through HR software. Since every organization is made up of people, acquiring their services, motivation and self-engagement is lacking in employees as there is only 16% who are totally engaged in their work. This project aims to develop a web-based application which is capable of motivating the employees through "Gamification Environment" it is a game-thinking and game mechanics in non-game scenarios such as business environment and processes by giving (points and rewards etc.) specifically for best performing employee. The main objective is to increase efficiency by increasing motivation and thus fulfills management's goals and objectives. Along with this a RFID based monitoring system is setup to provide points by calculating the timely presence of the employee inside the campus and for other scheduled events.

**KEYWORDS**: Gamification, Motivation, Monitoring, Human resource and engagement.

## INTRODUCTION

There are many reasons to use gamification in working environment. The main aim of gamification is to motivate the employees. It uses game mechanics such as points, badges and leader board which is used in "chocolate covered broccoli" approach. Gamification changes the non-game environments by incorporating the game elements. Gamification is not a project; it is just a program to motivate the employees. Gamification is based on good understanding of a player, so that the player knows the target and he can succeed.

The main aspects of player are to understand the scenario and target and identify the smart mission to achieve success. The motivation is classified into two general types. They are intrinsic and extrinsic motivation. The intrinsic motivation means internal motivations like autonomy, mastery and meaning etc. The extrinsic motivation means external motivations like money, trophies etc. Gamification considers three essential aspects to ensure success. They are managing task, monitoring employees and measuring metrics. Nowadays gamification concept is applied to many different contexts. Gamification changes the stressful work environment to joyful environment. Gamification provides people to create internal motivation. The gamification activity are similar to normal activity, by using the components of game, it will change the environment.

An activity of an employee is to finish the assigned task, if he/she finishes the assigned task on time, they must be credited to get motivated. Gamification became a new way to motivate the user and change the behaviour of the user. It is a way to boost the user engagement in various events, as people seek for reorganization, Gamification helps to trigger them to involve at work as they feel more like a game at which they are competing with their own counterpart to get reorganized in the organization which ideally improves the business goals and organization's targets.

## PROPOSED SYSTEM

In this proposed system the concept of gamification is used in Human Resource information system to improve engagement at work and to motivate the employee by providing points, credits etc., for best performance at work and timely presence i.e. for daily attendance, on time presence for scheduled events like (meeting, discussion etc.) where their physical presence is tapped by using radio frequency identification technique. By considering all the above details, the HR will award points for the employee. A leader board (T index) which will provide an overall standing of the employee in the organization with their respective leagues, along with that a chart is generated which will provide a graphical representation of overall performance of an employee to the HR and for the employee themselves as they can further check to improve the places where they lack and places where training is required to be given, this type of a gamified set up helps the employee to engage at work and gives confidence as valid recognition is obtained for the work that they do and acts as a transparent medium which helps to scale up in their career as no biased decision will be considered in the organization for promotion and appraisal period of a particular individual.
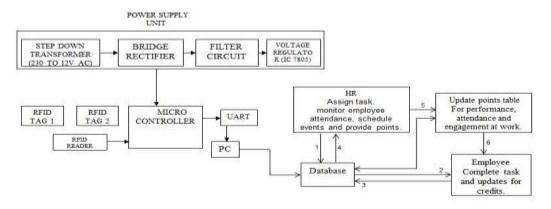
*System Architecture*



*Figure 1*

## TASK ASSIGNMENT

In this module, the HR will assign a task for an employee with a due date within to complete the task. The employee must finish the assigned task within the due date. After the completion of the task, he/she must notify the HR about the completed task, the HR will award points for the employee according to their timely completion and efficiency in completing their task. The points given by the HR for the respective employees will be stored in the database.
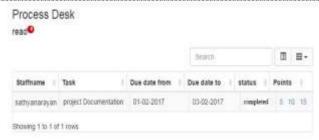


*Figure 2*

*Figure 3*

## MONITORING

To motivate an employee every productive activity of he/she is monitored and points are given for their actions, this makes them engage more on the work. Every valuable action is credited to make the employee get motivated as ideally this improves the organization goals and overall productivity.
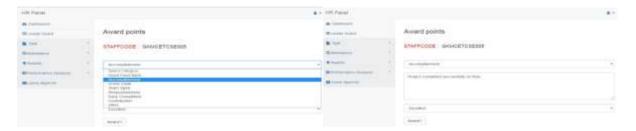


*Figure 4*

### *Chart Analysis*

In this module, the employee's overall performance is calculated and chart is generated with respective to the points earned. This chart analysis helps the HR and employee themselves to rate their performance and to analyze the places where they lag and HR will get an overall outlook in the places where training is required to be given to improves the efficiency of the employee.
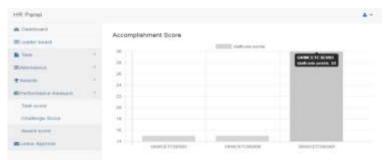


*Figure 5*

## ATENDANCE

In this module, points are awarded for the employee for their punctuality, a RFID based system is used to get the attendance of the employee and that is stored in the database on daily basis. The HR will award points according to attendance percentage of the each employee, even points are given for timely presence of the employee for scheduled events like meeting, discussion session which are prefixed, when the employee enter the conference or meeting room he/she needs to tap the RFID tag on the reader placed which calculates the time at which they enter, with respective to their timely presence points will be given.
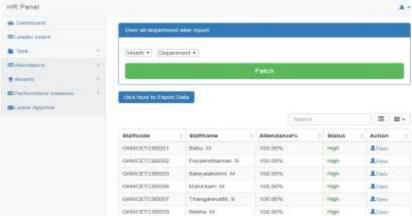
*Figure 5*

## LEADER BOARD AND LEAGUS

A T-index leader board is created considering the overall points earned by the employee and he/she will be placed in league with respective to their points earned, this is more like a game element which triggers an employee to achieve more than their counterpart by earning more points which ideally increase engagement at work and organizations goals are equally increased.



*Figure 6*

## CONCLUSION

In the above paper we have proposed the gamification technique to improve the employee's engagement and motivation. The gamification technique is used to recognize the best performing employees at work and motivated them to achieve targets by giving credits for the work that they do. To motivate people, gamification is the best platform. To implement Gamification for any environment the target users and business goals must be properly planned as the biggest limitation of gamification is improper planning and bad game design.

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