

Title

**HR MANAGEMENT SYSTEM FOR ALL EMPLOYEES AND DEPARTMENTAL
WORKFLOW APPROVAL**

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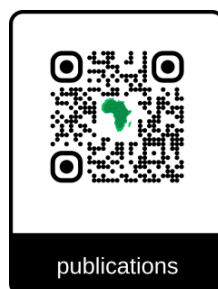
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ABSTRACT

This paper proposes an HR Management System for All Employees and Departmental Workflow Approval. The system is intended to improve how an organisation stores employee information, manages human resource activities, and processes requests that require approval from different departments. Traditional paper-based and disconnected processes can cause delays, duplicate records, misplaced documents, and difficulty tracking the status of requests. The proposed system will provide a central database for employee records and a digital workflow for submitting, reviewing, approving, or rejecting departmental requests.

The system will support role-based access for employees, department heads, and human resource administrators. Employees will be able to view relevant personal and employment information and submit requests such as leave applications. Department heads will review requests assigned to them, while HR staff will maintain employee records and monitor approved processes. Notifications, status tracking, and audit logs will help improve accountability and transparency. The project will follow the System Development Life Cycle (SDLC), including requirements analysis, design, implementation, testing, and evaluation. The expected outcome is a secure and user-friendly system that reduces manual work and makes employee management and departmental approvals more efficient. The system will provide a central database for storing employee information, managing departments, and tracking approval requests. It will also allow employees to submit requests online and enable department heads to review and approve them. Human resource administrators will be able to update employee records and generate reports when needed. Additionally, the system will use access controls to protect confidential information and ensure that only authorised users can access specific functions. Overall, the proposed system aims to improve accuracy, transparency, communication, and accountability within the organization.

KEYWORDS: Human Resource Management, Employee Records, Workflow Approval, Department Management, Database, Access Control.

INTRODUCTION

Background of the Study

Human resource departments manage important information about employees, including personal details, job positions, departments, attendance, and leave. In many organisations, these activities are handled using paper files, spreadsheets, emails, or separate systems. These methods may make it difficult to keep records up to date, find information quickly, and ensure that only authorised people can access confidential employee data.

Departmental workflows can also involve several people. For example, an employee may submit a leave request that must be reviewed by a supervisor and processed by HR. When the process is manual, requests can be delayed or misplaced, and employees may not know their current status. A central HR management system with workflow approval can help organise records and make these processes easier to track.

PROBLEM STATEMENT

Manual and disconnected employee management processes can lead to inaccurate records, repeated data entry, slow approval procedures, limited visibility of request status, and weak tracking of decisions. There is a need for a centralised system that manages employee information and provides a clear approval workflow for departments.

RESEARCH OBJECTIVE

Main Objective

- To design and develop an HR Management System that centralises employee records and manages

workflow approvals across departments. The system will provide a centralised platform for storing, updating, and retrieving employee information, making it easier for the Human Resources department to manage employee records accurately and efficiently. It will also automate departmental approval processes by allowing employees to submit requests electronically and enabling department heads and authorised personnel to review, approve, or reject requests. Furthermore, the system aims to reduce paperwork, minimise errors, improve communication between departments, enhance transparency, and ensure that approval requests are processed in a timely manner. Overall, the system will improve employee management, accountability, and workflow efficiency within the organisation.

Specific Objectives

- To examine challenges in existing employee record management and departmental approval processes.
- To design a central database for storing and updating employee information.
- To develop a workflow module for submitting, reviewing, approving, and rejecting requests.
- To implement role-based access for employees, department heads, and HR administrators.
- To test the system for usability, accuracy, security, and reliability.

SIGNIFICANCE OF THE STUDY

The system is expected to help HR staff maintain organised employee records, help department heads process requests more efficiently, and allow employees to follow the progress of their submissions. It may also improve accountability by recording approval decisions and the users responsible for them.

LITERATURE REVIEW

Human Resource Information Systems (HRIS) use information technology to support activities such as employee data management, leave administration, reporting, and staff planning. A centralised system can reduce repeated data entry and make records easier to retrieve, provided that information is entered accurately and maintained regularly.

Workflow management systems organise tasks into defined steps and assign each step to the appropriate person or role. In an approval workflow, a request can move from an employee to a supervisor and then to HR, depending on the organisation's rules. Digital status updates can make it easier to identify pending, approved, and rejected requests.

Security is important because employee records contain confidential information. Common controls include authentication, role-based access, secure password storage, backups, and audit logs. The proposed system combines employee record management with departmental workflows so that information and approval activities can be managed in one place.

2020 – Human Resource Management Practices

Effective human resource management involves maintaining accurate employee records, managing leave requests, and monitoring employee information. Manual processes can lead to misplaced documents, delays, and errors. Digital HR systems can improve the organisation of employee information and simplify routine HR activities.

2021 – Digital Transformation in Human Resources

Digital transformation involves using technology to improve organisational activities. In human resources, digital systems can reduce repetitive manual tasks and improve communication between employees and HR officers. An HR Management System can help employees access relevant information while allowing HR officers to manage records more efficiently.

2022 – Human Resource Information Systems

Human Resource Information Systems (HRIS) are designed to support the collection, storage, processing, and management of employee information. Such systems can maintain details such as employee names, identification numbers, departments, job positions, and contact information. A centralised HRIS can improve data consistency and make it easier to retrieve employee records when required.

2023 – HR Technology and Workflow Automation

Workflow automation uses digital processes to manage tasks and requests. In an organisation, employees may need approval for leave, travel, purchases, or other departmental activities. A digital workflow system allows employees to submit requests electronically and enables authorised managers to review, approve, or reject them. It can also help employees track the progress of their requests and reduce delays caused by paperwork.

2024 – Digital HR and Workforce Management

Digital HR solutions support communication, record management, and coordination between departments. A centralised system can provide authorised users with access to the information they need to perform their responsibilities. Security features, such as user accounts and access permissions, are also important for protecting confidential employee information. These functions are relevant to a system designed to manage employees across multiple departments.

2025 – HR Automation and Digital Approval Systems

HR automation continues to be an important area in the development of organisational information systems. Automating approval procedures can help organisations track requests, identify pending approvals, and maintain records of decisions. The proposed system can include notifications, approval status tracking, and reports to help managers monitor

departmental activities. These features may improve accountability and make the approval process more transparent.

Research Gap

Although digital systems can support employee management and workflow automation, organisations may still experience challenges when employee records are stored separately or approvals depend on paper-based procedures. These challenges can lead to delays, information duplication, and difficulties tracking requests. Therefore, the proposed HR Management System aims to centralise employee records and provide a structured workflow approval process across departments. The system will enable employees to submit requests, managers to make decisions, and HR administrators to maintain employee information in one platform.

METHODOLOGY

System Development Approach

The project will use the System Development Life Cycle (SDLC). The stages will include planning and requirements gathering, system analysis, database and interface design, development, testing, and maintenance. Feedback from intended users can be used to improve the system during development.

Proposed System Modules

- **Employee Management:** register employees and maintain personal, job, and department details.
- **Department Management:** create departments and assign employees and department heads.
- **Workflow Approval:** submit requests, route them to the appropriate approver, and record decisions.
- **Leave and Request Tracking:** display

request status, dates, comments, and approval history.

- User and Access Management: provide different permissions for employees, department heads, and HR administrators.
- Reports and Audit Logs: produce summaries and record important actions for accountability.

System Users

- Employee: views permitted information and submits requests.
- Department Head or Supervisor: reviews requests from staff and approves or rejects them.
- HR Administrator: manages employee records, departments, user roles, and HR reports.
- System Administrator: maintains system settings, access, backups, and technical operation.

Data Collection and Requirements

Requirements may be gathered through interviews with HR staff and department heads, observation of current processes, and review of existing forms and record templates. Only information necessary for the system should be collected, and access to confidential records should be controlled.

Security and Testing

The system will use authenticated accounts and role-based permissions. It should validate entered data, record approval actions, and support regular backups. Testing will include checking that employee records can be created and updated, requests follow the correct approval path, unauthorised users cannot access restricted functions, and reports display accurate information.

Proposed Technologies

The final technologies will depend on project requirements and available resources. A possible design may use a web application for the user interface, a server-side framework for application logic, and a relational database such as MySQL or PostgreSQL for employee and workflow records.

AGILE METHODOLOGY

The project will use the Agile Software Development Methodology to design and develop the HR Management System for All Employees and Departmental Workflow Approval. Agile is a software development approach that involves developing a system in small stages, testing each stage, and making improvements based on feedback. This methodology is suitable for the project because it allows system requirements to be reviewed and changes to be made throughout development.

The Agile methodology will help ensure that the system meets the needs of employees, HR administrators, department heads, and other authorised users. The development process will be divided into the following stages:

- **Requirements Gathering**

Information will be collected from potential system users to understand their needs. The requirements will include employee registration, employee record management, departmental management, leave requests, workflow approvals, and report generation.

- **System Design**

The system design will describe how the HR Management System will operate. This stage will include designing the database, user interfaces, system architecture, and workflow approval processes. The design will show how employees submit requests and how authorised managers review and approve them.

- **Development**

The system will be developed in small, manageable sections. The first section may focus on employee registration and record management, followed by departmental management, request submission, approval workflows, and reporting features.

- **Testing**

Each developed section will be tested to identify errors and confirm that it works correctly. Testing will check employee registration, login functionality, data storage, request submission, approval processing, and access permissions.

- **Implementation**

After successful testing, the system will be prepared for use by the organisation. User accounts will be created, and employees and authorised personnel will receive guidance on how to use the system.

- **Evaluation and Maintenance**

Feedback will be collected from users to identify areas that need improvement. The system will be updated to correct errors, improve security, and add necessary features as organisational requirements change.

Advantages of Using Agile

- Allows changes to be made during development.
- Encourages regular feedback from users.
- Helps identify and correct errors early.
- Supports the gradual development of system features.
- Improves collaboration between developers and stakeholders.
- Helps ensure that the final system meets organisational requirements.

In conclusion, Agile methodology will support the gradual

DISCUSSION

The proposed system brings employee record management and departmental approvals into a shared environment. Centralised records can make information easier to maintain, while workflow routing can clarify who is responsible for reviewing each request. Status tracking may reduce repeated enquiries from employees and help managers identify pending tasks.

The system will still depend on accurate data entry, clear approval rules, reliable access to the system, and appropriate staff training. Employee information must be protected through permissions, secure handling, and backups. Before full deployment, the organisation should test the system with representative users and review whether its workflows match actual departmental policies. The proposed HR Management System for All Employees and Departmental Workflow Approval is designed to improve the management of employee information and the processing of departmental requests within an organisation. The system will provide a centralised platform where employee records can be stored, updated, and accessed by authorised users. This approach is expected to reduce the challenges associated with manual record keeping, including misplaced documents, duplicated information, and difficulties retrieving employee details. One of the main areas addressed by the proposed system is employee record management. In many organisations, employee information is important for daily administrative activities and decision-making. When records are maintained manually or stored in different locations, updating and retrieving information can become time-consuming. The proposed system will allow HR administrators to maintain employee information in a central database, making it easier to access accurate and up-to-date records when required. Another important feature is departmental workflow approval. Employees often need permission for activities such as leave, travel, purchases, and other official requests. When these processes depend on paper forms and physical signatures, requests may experience delays, and it can be difficult to determine their current status. The proposed system will allow employees to submit requests electronically and enable authorised department heads or managers to review, approve, or reject

them. This is expected to improve the speed, transparency, and accountability of approval procedures. The system will also improve communication between employees, department heads, and the Human Resources department. Employees will be able to monitor the status of their requests instead of repeatedly contacting responsible officers for updates. Department heads will be able to view pending requests and take the necessary action. HR administrators will also be able to monitor relevant employee information and maintain records of approved or rejected requests. These functions are expected to improve coordination and reduce unnecessary communication delays. Furthermore, the proposed system will support report generation and organisational decision-making. HR administrators and other authorised users will be able to generate reports about employee records, departmental information, and workflow requests. These reports may help management monitor administrative activities, identify pending approvals, and understand how requests are being handled across departments. Having organised information available in one system can support better planning and more informed decisions. Security and confidentiality are also important considerations in the development of the system. Employee records may contain personal and professional information that should only be accessed by authorised individuals. The system will therefore require appropriate security measures, including user authentication, role-based access permissions, and secure data storage. These measures will help protect confidential information and ensure that users can only perform activities permitted by their assigned roles. The use of Agile methodology will support the development of the system through gradual implementation, testing, and improvement. Instead of developing all features at once, the project can be divided into smaller modules, such as employee management, departmental management, request submission, workflow approval, and report generation. Each module can be tested and reviewed before additional features are introduced. Feedback from potential users will help identify problems and ensure that the system meets their needs. Despite its expected benefits, the successful implementation of the proposed system may face some challenges. These may include limited computer skills among some employees, unreliable internet connectivity,

resistance to changing existing procedures, and the cost of system maintenance. These challenges can be addressed through user training, a simple and user-friendly interface, appropriate technical support, and proper planning before implementation. Regular maintenance and data backups will also be necessary to ensure the system remains reliable. The proposed HR Management System is expected to improve employee record management and departmental workflow approval by reducing manual activities, improving access to information, and providing a clear process for handling requests. However, these benefits will depend on the quality of the system design, proper implementation, user acceptance, and ongoing maintenance. Since the system is proposed for development, its actual performance and effectiveness will need to be confirmed through testing and evaluation after implementation.

CONCLUSION

This project proposes an HR Management System for All Employees and Departmental Workflow Approval. It aims to address common challenges in employee record keeping and manual approval processes by providing a central database, role-based access, request routing, status tracking, and reporting. Using the SDLC approach will provide a structured way to analyse requirements, design the system, implement its modules, and test its performance. If implemented and maintained appropriately, the system can support more organised employee management, improved transparency, and more efficient departmental workflows.

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