

## Request for Proposal (RFP)

For

### Development of 83 Digital Application Modules under the Comprehensive Digital Governance Platform along with Resource Deployment Component and to integrate it with existing ERP of Higher Education Department.

The Higher Education Department (HED), Government of Odisha invites sealed Request for Proposal (RFP) from interested Central Govt./ State Govt. PSUs for development of 83 Digital application modules. The Expression of Interest (EOI) Document containing the details of criteria, submission requirement, objective, scope of work etc. can be downloaded from the website <https://dhe.odisha.gov.in>

Further details, if any, may be obtained from the Additional Secretary or any other officer in charge of IT section, Higher Education Department, Lok Seva Bhawan, Bhubaneswar, Odisha– 751001 during the working hours, The contact No. is 0674-2390154. The last date for submission of EOI is 24.06.2026 up to 5 PM.

Sealed envelope marked to commissioner - cum -secretary, Higher Education Department, Lok Seva Bhavan, Bhubaneswar, Odisha – 751001, containing EOI with all relevant documents may be submitted mentioning “Digital Modules” on the top of the envelope.

#### Calendar of Events

S.No.	Events	Date & Time
1	EOI Publishing Date	4 <sup>th</sup> June, 2026
2	Document Download Start Date	4 <sup>th</sup> June, 2026
3	Document Download End Date	24 <sup>th</sup> June, 2026
4	Last Date for Submitting Queries	8 <sup>th</sup> June, 2026, 5:00 PM
5	Pre Bid Meeting	9 <sup>th</sup> June, 2026, 12 Noon
6	Pre Bid Clarification	12 <sup>th</sup> June 2026
7	Last Date of Submission	24 <sup>th</sup> June 2026, 5:00 PM
8	EOI Opening Date (Technical)	25 <sup>th</sup> June 2026
9	Technical Presentation	Will be communicated later
10	Publication of the list of Technical Bid Qualifiers	Will be communicated later

<b>S.No.</b>	<b>Events</b>	<b>Date &amp; Time</b>
11	Bid Opening Date (Financial)	Will be communicated later
12	Tentative Date of Offer Letter	Will be communicated later

**Commissioner -cum -Secretary**

**Higher Education Department**

**Bhubaneswar-751001**

### **Glossary of Terms**

<b>Abbreviation</b>	<b>Full Form</b>
ABC	Academic Bank of Credits
AEDP	Applied Education Degree Programme
AI	Artificial Intelligence
API	Application Programming Interface
CA	Chartered Accountant
CAPA	College Automation Platform Application
CCR	Confidential Character Roll
CERT-In	Computer Emergency Response Team – India
DD	Demand Draft
DMS	Document Management System
DR	Disaster Recovery
EMD	Earnest Money Deposit
ERP	Enterprise Resource Planning
FRS	Functional Requirement Specification
FY	Financial Year
GFR	General Financial Rules
GST	Goods and Services Tax
HED	Higher Education Department
HEI	Higher Education Institution
HIMS	Higher Education Information Management System
HTTP	HyperText Transfer Protocol
HTTPS	HyperText Transfer Protocol Secure
ISO	International Organization for Standardization
LMS	Learning Management System
MIS	Management Information System

MoU	Memorandum of Understanding
MRIP	Mukhyamantri Research and Innovation Fellowship Programme
NEP	National Education Policy
NSS	National Service Scheme
OBE	Outcome Based Education
OES	Odisha Education Service
OSDC	Odisha State Data Centre
OSHEC	Odisha State Higher Education Council
PAN	Permanent Account Number
PSU	Public Sector Undertaking
RFP	Request for Proposal
SI	System Integrator
SLA	Service Level Agreement
SRS	System Requirement Specification
SSB	State Scholarship Portal
SSL	Secure Socket Layer
SSO	Single Sign-On
UAT	User Acceptance Testing
VC	Vice Chancellor

## Request for Proposal (RFP) for Implementation of Comprehensive Digital Governance Platform for the Higher Education Department

Sl. No.	Particulars	Details
1	Name of the Client	HED, Bhubaneswar – 751001
2	Date of Issue of EOI	4 <sup>th</sup> June 2026
3	Pre-Bid Meeting	9 <sup>th</sup> June 2026
4	Pre-Bid Clarification Date	12 <sup>th</sup> June 2026
5	Last Date of Submission	24 <sup>th</sup> June 2026
6	Bid Opening Date (Technical)	Will be intimated to the bidders through Email
7	Publication of List of Technical Bid Qualifiers	Will be displayed on the <a href="https://dhe.odisha.gov.in">https://dhe.odisha.gov.in</a> website
8	Bid Opening Date (Financial)	Will be intimated to the technically qualified bidders separately through Email

9	Tentative Date of Offer Letter	Will be communicated later
10	Expected Date of Commencement of Assignment	Within one month of selection of agency
11	Bid Document Fee (Non-Refundable)	Rs. 5,000/- (Rupees Five Thousand only) in shape of DD favoring "Director, HED, Odisha", drawn in any scheduled commercial bank payable at Bhubaneswar
12	Earnest Money Deposit (EMD)*	Rs. 20,00,000/- (Rupees Twenty Lakh only) in shape of DD favoring "Director, HED, Odisha", drawn in any scheduled commercial bank payable at Bhubaneswar  <i>Note: Refundable subject to satisfactory performance &amp; compliance to laid down conditions</i>
13	Security Deposit	Successful bidder shall submit 10% of supply order value in the form of Demand Draft / Irrevocable Bank Guarantee within 15 days of receipt of Work Order
14	Postal Address for Submission of Proposal & Mode	Commissioner-cum-Secretary, HED, Odisha – 751001. Proposals to be submitted only through Speed Post / Registered Post / Courier. Bids submitted through any other mode and late bids will be rejected.
15	Website to Download Bid Document	<a href="https://dhe.odisha.gov.in">https://dhe.odisha.gov.in</a>

### 1. About Higher Education Department:

The Higher Education Department, Government of Odisha, is responsible for administration, regulation, and development of higher education across the State. It oversees universities, colleges, faculty management, academic governance, and implementation of educational policies and schemes.

The Department currently utilises the Higher Education Information Management System (HIMS) for core academic and administrative processes. However, several advanced governances, monitoring, financial, and analytical requirements remain fragmented or partially digitized.

To address these gaps, the Department proposes to implement a comprehensive, integrated, and scalable digital governance platform to enhance efficiency, transparency, and data-driven decision-making.

### 2. Summary:

The Higher Education Department, Government of Odisha, plays a pivotal role in the administration, regulation, and development of higher education across the State, catering to

universities, colleges, faculty, and students. This proposal highlights the strategic importance of digital transformation in strengthening governance, improving operational efficiency, enhancing transparency, and ensuring seamless access to academic and administrative services.

The proposed IT initiative aims to address existing challenges by establishing a unified, scalable, and efficient digital platform that enables real-time monitoring, streamlined workflows, and data-driven decision-making for all stakeholders within the higher education ecosystem.

### **3. Scope of Work**

The scope of work for the proposed digital application shall include the design, development, configuration, integration, deployment, and operationalization of a comprehensive, modular, and scalable system to support enhanced governance, administration, monitoring, and decision-support functions across Higher Educational Institutions.

- The scope shall include detailed requirement analysis and functional study of academic, administrative, financial, governance, and monitoring processes to be covered under the proposed application, including identification of workflows, data elements, roles, and approval hierarchies.
- The system shall be designed as a standalone digital application with secure and seamless integration capabilities with the existing Higher Education Information Management System (HIMS) to enable exchange of master data, transactional data, and analytical information, while avoiding duplication and ensuring data consistency.
- The scope shall cover development of configurable and rule-based digital workflows to automate institutional processes, approvals, validations, and status tracking, thereby reducing manual intervention and process delays.
- The application shall provide centralized data repositories with standardized data structures, enabling reliable data capture, storage, retrieval, and reporting across institutions.
- The scope shall include development of role-based access control mechanisms to ensure appropriate data visibility and system usage for different categories of users, including departmental officials, university authorities, college administrators, faculty, staff, students, parents, and other stakeholders.
- The system shall include dashboards and Management Information System (MIS) reports to provide real-time visibility into institutional performance, resource utilization, academic outcomes, administrative efficiency, and compliance status at various administrative levels.
- The scope shall cover implementation of analytics and reporting capabilities to support trend analysis, comparative assessment, performance monitoring, and evidence-based decision-making by the Department.

- The application shall support secure integration with other authorized government platforms and third-party systems, as required, through standardized APIs and integration protocols.
- The scope shall include comprehensive testing activities including functional testing, integration testing, security testing, and user acceptance testing to ensure system stability and reliability.
- The scope shall include capacity building activities such as preparation of user manuals, training of departmental and institutional users, and knowledge transfer to designated personnel.
- Post-implementation support, maintenance, and handholding during the initial operational phase shall be included to ensure smooth adoption and stabilization of the system.
- The system shall be scalable and future-ready, allowing incorporation of additional functional requirements, enhancements, and integrations as per evolving policy and operational needs of the Department.

1.

1. **Scope Overview**

- Study, development and implementation of the software solution as per the functional requirement of modules/sub-modules mentioned in this document
- Application Maintenance Support after it's go-live.
- API based integration such as third-party application/utility.
- Set-up and operation of technical support unit which shall provide technical and functional support at both onsite/offsite as specified in this document.

2. **Proposed Technology**

- The system should be developed using open-source technology.

3. **Requirement Study**

1. **Prerequisites and instruction to bidders**

- a. The SI to follow and ensure following prerequisites before the requirement study.
- b. Consultation meeting with the client.

- c. Identify and engage subject matter expert(s) as per the need.
- d. Readiness with the industry standard template for FRS and SRS documents
- e. Readiness with the project traceability matrix template
- f. The Bidder shall carefully review and verify all Functional Requirements specified in the RFP, including requirements mentioned across different modules, sub-modules, workflows, integrations, dashboards, reports, and user interfaces.
- g. The Bidder shall undertake a detailed assessment of the Functional Requirements and identify any apparent duplication, overlap, inconsistency, ambiguity, or repetition among the requirements. Any such observations shall be brought to the notice of the Department during the pre-bid clarification stage.
- h. The Bidder has thoroughly examined and understood all Functional Requirements contained in the RFP. It should be ensured that all the digital modules are different from each other and the bidder should specify the scope of each module at the time of architecture and web framing.
- i. The Bidder has identified and accounted for any overlapping or related requirements while preparing the Technical and Financial Proposal.
- j. Any perceived duplication or overlap of Functional Requirements shall not be construed as separate billable items unless explicitly specified by the Department.
- k. The Department's intent is to ensure complete coverage of the Functional Requirements and achievement of the desired business outcomes. Accordingly, the Bidder shall be responsible for delivering all functionalities envisaged under the Functional Requirements section, irrespective of whether such requirements are referenced in one or multiple modules.

## 2. **Assessment and Understanding**

The SI shall perform a detailed functional and system requirement study based on the modules/functions proposed under functional requirement section in this document. Then the SI shall prepare the Functional Requirement Specification (FRS) and the System Requirement Specification (SRS) document and submit to the client for necessary action for its approval.

- A. Consult with the client officials to:
  - o Understand the value chain and core processes.
  - o Identify current/ planned business initiatives (strategic & tactical)
  - o Key issues/ pain areas as assessed by officials.
- B. Conduct field visits (as per requirement)
- C. Maintain traceability matrix from SRS stage for the entire implementation.

D. Assess the existing IT assets and inventories related to this project.

#### 4. **Design**

Prepare and submit updated detailed design & development plan as per the requirement. Design the solution architecture and specifications for meeting the requirements mentioned as part of this document including sizing of the required hardware.

#### 5. **Development**

Identify, design and develop components / functionalities that are required to address proposed application requirements as mentioned in this document. Following documents shall be taken into consideration along with the developed components:

- Business process guides
- Data model descriptions
- Sample reports
- Frequently asked question (FAQ) guides
- Any other documentation required for usage of implemented solution.

The implementing agency shall implement a system for monitoring the SLAs and ensure that the system addresses all the SLA measurement requirements and calculation of applicable penalties as indicated in the document.

#### 6. **Integration**

The system should support both push and pull of data to and from systems proposed to be integrated. It is required that a standard mechanism of data exchange should be built and implemented using an industry specified data exchange protocol through a secure channel. The SI will have to co-ordinate with the designated nodal agencies for integration and the client will facilitate this process. In addition, the solution should be designed in such a way that any future integration does not require any changes to the system.

#### 7. **Data Migration**

The data migration strategy and methodology to be prepared by the SI and submitted to the client for its approval before performing the data migration activities by the SI. The following activities will be carried out as part of the data migration (if required):

- a. Define all the specifications that are needed to populate the data into the proposed system

- b. Prepare the data cleaning and migration plan and submit to concern authority for approval.
  - c. Prepare uniform codification of all data sets
  - d. Identification, configuration or development of the data upload / download programs for the Data Migration
  - e. Ensure minimum business downtime at the time of data cleaning and migration
  - f. Ensure the accuracy and completeness of the migrated data
  - g. Ensure migration of all data is completed by the time of go-live
  - h. Database of existing system would be migrated to the newly developed system.
  - a. The implementing agency will be expected to understand the data which has been captured and devise a template so that meaningful information can be captured and entered into the proposed system.
  - j. This template should have basic sanity check to prevent entry of incorrect information.
  - k. It is the ultimate responsibility of the implementing agency to ensure that all the data sets which are required for operationalization of the agreed user requirements are migrated.
- L. The client will provide the existing datasets and the implementing agency is to manage the data extraction, normalization and migration for the proposed framework.

## 8. **Testing**

- a. Provide the testing strategy including Traceability Matrix, Test Cases and Conduct Testing of various components of the software developed / customized as per industry standards for Software Testing Life Cycle.
- b. Details of the testing strategy and approach should be provided in the response.
- c. Identify, inform regarding testing requirements along with its impacts and work in a manner to satisfy all the testing requirements by adhering to the testing strategy outlined.

- d. Ensure deployment of necessary resources and tools during the testing phases and perform solution testing based on the approved test plan, document the results and fix the bugs found during the testing.
- e. Make sure that the end product delivered meets all the requirements specified in the document.
- f. Take remedial action based on outcome of the tests.
- g. Provide complete support to the departmental officials or their representatives at the time of User Acceptance Testing (UAT).
- h. Ensure that all issues raised during UAT are closed and signed-off from respective authority.
- i. Ensure that each module & features developed under this project is tested as per the latest version of the IEEE 730 (Software Quality Assurance Processes) standards and comply with GIGW guideline.

## 9. **Cyber Security Audit**

- a. The implementing agency shall ensure that the solution is in compliance with the CERT-In Security Policy and Guidelines.
- b. The implementing agency shall appoint CERT-In empaneled auditor who shall be responsible for performing the security audit of the solution.
- c. The cost of audit & rectification of non-compliances shall be borne by the implementing agency
- d. Carryout security audit before go-live of application and obtain the safe-to-host certification
- e. Conduct periodic audit & certification as and when it is required as per the OSDC/ Cloud policy.
- f. The audit shall be performed at least on the below mentioned aspects.
  - Accessibility Testing
  - Application Security Audit
  - Vulnerability Testing
- g. The illustrative deliverables for this activity are mentioned below

Activity	Responsibility
First Round Audit Report	Auditor
Rectified solution and submission of next round of audit	Implementing agency
Next Round Audit Report	Auditor
If required, rectified solution & submission of next round of audit	Implementing agency
Compliance Confirmation	Auditor

#### 10. SSL Certification

- a. Secure connection between client and server through Secure protocol HTTPS
- b. Encryption of Data during transmission from server to browser and vice versa
- c. Encryption key assigned to it by Certification Authority (CA) in form of a Certificate.
- d. SSL Security in the application server.

#### 11. Training

- a. Undertake training on a train to trainer mode.
- b. Training would be done at Higher Education Department in Bhubaneswar.
- c. Set up the IT infra such as computer, network, LCD, et as required for providing the training in a successful manner.
- d. Prepare training calendar and material for imparting training in consultation with the client officials.
- e. Submit a hardcopy of the training material to the client before every training session.
- f. In case of modifications, either in the training plans or substitutions of the regular trainers, proper communication with the client needs to be made.
- g. Conduct training (if required) on virtual mode and bear related expenditure for

licensing (fixed & recurring).

- h. Training to the other users through virtual mode would be on need basis and the SI will bear related expenditure for virtual meeting licensing (fixed & recurring).

12. **Online Help / Reference**

- a. It is proposed that the training contents / user manuals be made available to users in downloadable (PDF) format so that the users may refer / download it for their own personal reference as and when needed.
- b. The downloadable training content should have proper indexing and internal references, mapped with key words, in order to allow any user to search and reach the desired content with the help of those key words.
- c. It is envisaged that any user will be able to search and read the directions / information for the right content. On entering the key words for search criteria, the system should pull out and display the links to the content as mapped.
- d. The system should support dynamic search facility i.e. as soon as the key words are changed; a new set of content links with page shall be displayed to the user.
- e. Prepare Video & Audio based professional training material so that the users may refer it for their own personal reference as and when needed.
- f. Availability of video & audio manual in the landing page of application in the form of YouTube link so that the end users can view it time & again.

13. **Deployment & Configuration**

- a. All the decision regarding selection of appropriate hosting / server space will be taken in consultation with the client.
- b. Ensure deployment of the application as per the standard DR policy.

14. **UAT & Go-Live**

- a. Preparation and submission of test strategy, test cases and test results.

- b. Demonstration of module-wise functionalities/ features in staging environment.
- c. Support designated authority for conducting the testing and provide access of the systems as required by them.
- d. Rectification in the new application for any issues/ bugs/ and improvements/ Enhancements / up-gradations suggested Departments (if any) during the UAT without any additional cost.
- e. After incorporation of the suggestion received during UAT the application will be declared as Go-Live.

1.

**15. Supply and installation of Databases License and Support**

Clause	Requirement
a	Supply and Installation of RDBMS licenses (Open Source - PostgreSQL) at the facility provided by the HED.
b	Provide updates, patches and support from the date of delivery of the license.
c	Configure the database instance in the facilities provided by HED.
d	Conduct testing of the environment.

*Functional Requirements of RDBMS*

Sl. No.	Requirement
1	Proposed database should be an Enterprise-grade RDBMS (PostgreSQL)
2	RDBMS should have OEM Support.
3	Should be based on open standards and provide the latest commercially available version with 24x7x365 support from certified OEM experts.
4	Database should support major 32-bit and 64-bit operating systems including RedHat, SUSE, Ubuntu, CentOS, Oracle Linux, Windows, UNIX, OS/2, etc., and support multiple hardware platforms.
5	License should be in the name of Higher Education Department or any other name as deemed fit by the department.
6	Database should support clustering and High Availability (HA) configuration.
7	Database should provide optimization tools.
8	The Solution Provider, in consultation with OEM, should conduct a Data Migration Study and submit a Database Assessment Report where migration is involved.
9	Data migration should include extraction of required data from legacy systems using enterprise migration tools.
10	Loading of cleansed data into the proposed system.

1.

**16. Application Maintenance Support**

## 1. Application Support

- a. Regular check-up of Complete Higher Education Automation Project architectures all components' connections, connectivity and performance.
- b. Testing of new modules on staging servers before deployment.
- c. Fraud Transaction Detection and taking necessary actions accordingly.
- d. Management of complete fraud management system by using different fraud loggings.
- e. Execution of periodic Security Audit of application by the appropriate authority.
- f. Optimization of the already developed reports
- g. Tuning of transaction
- h. User and access management

## 2. Software Maintenance

- b. All patches and upgrades shall be implemented by the implementing agency. Implementing Agency shall ensure that the customization done in the solution should be as per the project requirement.
- c. The implementing agency shall address all the errors / bugs / gaps in the functionality in the solution implemented (vis-à-vis the FRS and SRS signed off) at no additional cost during the support phase.
- d. Tuning of products / applications, databases, third party software's and any other components provided as part of the solution software, shall be the responsibility of the implementing agency.
- e. Issue log for the errors and bugs identified in the solution and any change done in the solution shall be maintained by the SI and periodically submitted to the client.

## 3. System Support

### Database Administration

- Regular monitoring & management of all the applications installed / re-installed and databases hosted as and when it required for the project.
- Installation & configurations the RDBMS software
- Database administration, optimization and trouble Shooting.
- Database & file back-up as per the standard policy.
- Application Load balancing and Database Clustering

- Perform Database, event & system log analysis.
- Key Infrastructure Management for Encryption/Decryption and Signing.
- Coordination with the team for network, connection, database and performance related issue and troubleshooting.

#### Security Administration

- a. Regular analysis of events and logs generated.
- b. User ID and group management services

#### Backup & Restore Management

- a. Preparation of backup plan
- b. Backup of operating system, database and application as per standard policy
- c. Monitoring and enhancement of the performance of scheduled backups

#### System/Network Administration

- a. Network configuration
- b. Patch update
- c. System Administration and Trouble Shooting
- d. Application & System Software Administration (including performance tuning)
- e. Application and database level performance tuning
- f. Co-ordination with the Network Administration Team

#### 4. **Project Management**

The envisioned project is a multi-disciplinary initiative. An effective project management plan and commitment to adhere to it, is a mandatory requirement. The project plan should also include the resource, task and time plan for the entire duration of the project. The implementing agency shall employ best practices in project management methodology to ensure that the envisioned project components are developed and implemented within the defined time period. A detailed project management plan shall be handed over to HED to keep track of the progress of the project.

## **5. Guiding Principles**

The solution should adhere to the following principles:

### **Standards**

- a. The system architecture should be based on industry standards and protocols.
- b. The system shall be centrally deployed and globally accessed.
- c. The system shall be designed to be scalable and easily extensible.
- d. The system should be flexible to cater to changing business, industry and compliance requirements (including reporting requirements in proper formats)

### **Application**

- a. All applications must take into account appropriate security, performance, efficiency and maintainability issues.
- b. The ownership of the product licenses would be with HED.
- c. Upgrade to new releases should not become mandatory for the next five years from the date of installation.

### **Integration**

The integrated solution design should include framework for integration of both internal and external applications and services using suitable architecture.

### **Data**

- a. Data will be owned, shared, controlled and protected as a corporate asset of the the client.
- b. Data should only be accessed through application / interfaces to create, update and delete. There should not be any direct access to the data layer for users.

## **6. Data Security**

- b. Provide strategy to maintain data security at the application level, database level, messaging and middleware level.
- c. Provide security strategies when the applications are accessed by the resources from outside the network.
- d. Provide strategies of encryption and security for external transaction with partner network and systems

## **7. Adherence to Standards**

The system shall comply with relevant defined industry standards (their latest versions as on date) wherever applicable. This shall apply to all the aspects of solution including its design, development, security, installation, and testing. The suggested architecture must be scalable and flexible for modular expansion. It should ensure ease of integration with software/ applications developed using common industry standards, since the solution may be linked and connected to other sources (websites, contents, portals, mobile app systems of another user departments etc.) as well as there may be loose/tight integration with backend system of other departments depending on individual service processes.

The solution architecture should thus have provision to cater to the evolving requirements of the Western Odisha Development Council. A reference list of the minimum industry standards which the system components should adhere to is mentioned below:

<b>Component</b>	<b>Standards</b>
<b>Information Access / Transfer Protocols</b>	SOAP, HTTP/HTTPS
<b>Interoperability</b>	Web Services, Open Standards
<b>Portal Development</b>	W3C Specifications
<b>Document encryption</b>	PKCS specification
<b>Information Security</b>	ISO 27001 certified System
<b>Operation</b>	ISO 9001 Certified
<b>Service Management</b>	ISO 20000 specifications or latest
<b>Project Documentation</b>	IEEE/ISO Specifications for Documentation
<b>Data Standards</b>	All-important data entities should be in  Line with standards published by DeITY.

## **8. Security, Integrity & Confidentiality**

**a .Web Services Security:** System shall comply with all the Web services including routing, management, publication, and discovery should be carried out in a secure manner. Those who are using the Web services should be able to utilize security services such as authentication, authorization, encryption and auditing. Encryption of data shall take place at client level itself. Application server shall provide SSL security.

- b. **Data Integrity and Confidentiality:** Data integrity techniques need to be deployed to ensure that information has not been altered, or modified during transmission without detection. Similarly, Data confidentiality features are also to be applied to ensure that the data is only accessible by the intended parties.
- c. **Transactions and Communications:** With respect to the Data Transactions and Communications, system needs to ensure that the business process is done properly and the flow of operations are executed in correct manner.
- d. **Non-Repudiation Security:** The application shall have the non-repudiation security services to protect a party to a transaction against false denial of the occurrence of that transaction by another party. End-to-End Integrity and Confidentiality of Messages, integrity and confidentiality of messages must be ensured even in the presence of intermediaries.
- e. **Database Controls:** The database controls for online transaction processing systems like access to database directly, access to database through application, access to log files, access by the remote terminals, DBA controls, backup policy and backup procedures.

## 9. **Change Request Management**

Looking into the length of the project implementation period it is very usual to find changes in business logic frameworks. In such scenarios, there may be a need of modification of the software modules beyond FRS/SRS/Scope document.

It may also be required to develop new software modules beyond the coverage of FRS/ SRS/ Scope document.

- a. The activities that will be treated as enhancement services is mentioned below:
  - i. Functional changes in the application
  - ii. Development of new module/sub-module/Form/Report in the developed system
  - iii. Changes in the workflow or core application framework
  - iv. Integration with any new system
  - v. Additional onsite resources in the project
- b. The procedure for executing the change request is as follows:
  - o **Analysis:** Analyses the changes suggested and submit an effort estimation including timeline to the client
  - o **Approval:** The client shall do the due diligence and provide approval on the effort and timeline suggested.
  - o **Incorporation:** After receiving the approval from the client, team will incorporate the changes in the application.
  - o On approval, deliver the services and raise the claim as per actual according to the Commercial Bid.

## 10. Exit Plan

- a. Provide systematic exit plan and conduct proper knowledge transfer process to handover operations to the client at least three months before project closure.
- b. The client will work closely with the SI during knowledge transfer of testing, staging and production environment.
- c. All knowledge transfer should be documented and possibly recorded.
- d. Ensure capacity building
- e. Idling of the IT resource persons of the client on maintenance of software and infrastructure.

## 11. Project Documentation

Below list of documents needs to be submitted to the client during the project contract period, as per the requirement of the client:

- a. Latest version of Source Code
- b. System Requirement Study Documents
- c. System Design Document
- d. Test Plans and Reports
- e. Issue Logs
- f. User Manual
- g. Application Installation & Configuration Manual
- h. Report of Security Audit & Safe-to-Host Certificate
- i. Any other documents defined under Timeline & Tentative Deliverables
- j. All the above documentation should be done as per IEEE/ISO/CMM Standard

## 12. Expected Project Timeline

Sl. No	Milestone	Timeline
a)	Submission of System Requirement Study document	Within 2 weeks from the effective date of contract

b)	Approval of System Study Requirement document	Within 4 weeks form the effective date of Submission of System Study Requirement
c)	Completion of design and development of the project	Within 16 weeks from the effective date of contract
d)	Completion of User Acceptance Test (UAT) of the project	Within 18 weeks from the effective date of contract
e)	Cyber security audit certification, configuration & go-live the project	Within 20 weeks from the effective date of contract
f)	Operation and maintenance for the project	3 years from the date of go-live

### 13. Nodal Agency Responsibilities

- a. Assign a nodal officer who will be single point of contact from the beginning of the project till successful implementation.
- b. Provide necessary support to the development team of the SI for smooth execution of project.
- c. Provide all the relevant documents and information during the system study and analysis.
- d. Facilitate the SI for the third-party software integration.
- e. Facilitate/Provide approval of SRS Document, User Acceptance Test certificate, Go- Live Certificate, approval of activity report during Operation & Maintenance Support phase, AMC etc.
- f. Provide hosting infrastructure in OSDC or any other environment as deemed fit by the Department.

### 14. Bill of Material & Quantity

Sl. No.	Category	Items	Qty
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a)	Study, Design, Development of the project	As per requirement mentioned under the relevant clause(s) of this document.	Lump Sum
b)	Application Maintenance Support of the project	Application Support, Software Maintenance, System Support, etc mentioned under the relevant clause(s) of this document.	3 years
c)	Cyber Security Audit of the complete application by CERT- IN empaneled agency/auditor	As per the scope mentioned under the relevant clause(s) of this document.	3 times
d)	SSL certificate	As per the scope mentioned under the relevant clause(s) of this document.	3 Years
e)	RDBMS Licenses (Open Source PostgreSQL) – subscription base	As per the scope mentioned under the relevant clause(s) of this document.	3 Years

**Terms & Conditions:**

- The firm should be State/ Central Govt. owned/ Public Sector Organisation / agency.
- The firm should have prior experience of executing similar projects/ assignments in the State or at National level.
- The purchaser reserves the right to revise the terms and conditions as & when needed and also can reject any or all the bids.
- EOI to be submitted as per two Bid system.
- Envelop-1: Sealed envelope containing Technical Bid, Bid Processing Fee and all documents superscribed as “TECHNICAL BID” on the frontside top of the envelop.
- Envelop-2 to 6: Sealed envelope containing Financial indicating details of price, taxes and levies etc. and superscribed as “Financial Bid for Digital Modules” on the frontside top of the envelop.

## 15. General Terms and Conditions

In case, after Pre-bid meeting (wherever applicable) any modification(s)/ addition(s)/ deletion(s) or any alternation in the requirement(s)/ specification(s) etc. is required, the same will be published on the website <https://dhe.odisha.gov.in> within the next 7 days. Therefore, all the bidders are advised to visit our website before filling/submitted their bids. No separate advertisement/information will be published in this regard in the Newspapers or any other location or any other mode of communication will be adopted.

- The successful bidder will submit the Performance Security @5% (as per O.M. 8952/F-FIN-COD-MISC-0007-2019 of Govt. of Odisha, dt. 18-03-2021) of supply order in the form of Demand Draft / Bank Guarantee in the name of "Director, HED, Odisha" within 15 days of the receipt of Work Order. The validity of Demand Draft / Performance Security should be 90 days beyond the warranty period and it will be retained during the entire period of Warrantee as Security Deposit and will be returned after the satisfactory completion of the Warrantee period without interest within three months after expiry of warrantee period.
- EMD of the bidder(s) and Performance Security of successful bidder may be forfeited, if the bidder withdraws or amends or derogates from the tender in any respect or files any suit with the intention of obstructing the tender.
- This tender will remain valid upto 180 days from the issue of tender notification.
- In case the item(s) are fabricated/ finished in the campus, the Contractor/Agency shall ensure the protection of their items at site from fire, floodwater, moisture etc. or any kind of damage at their own cost.
- If at any stage it is found that bidder has supplied inferior quality or different specification than as specified in the supply order, and provide bad services in development and Implementation phase, payment shall be withheld till the supplier replaced the defective / inferior machine/equipment/instrument. In case the bidder fails to fulfill all the obligations as laid down in this tender document, then payment shall be held up and performance security may be forfeited.
- The supplier will provide three years on-site warranty on H/W product, and under warrantee period all the damages shall be repaired/replaced by the supplier at their own cost and risk. If equipment/ instruments have any manufacturing defects, the same will be preferably replaced with a new one, or repaired up to client satisfactions. No sub-standard material will be accepted.
- The rates quoted by the bidder shall be complete for supply, installation, commissioning and placing of the finished items as per the specification(s) and shall be inclusive of all applicable tax, duties loading, unloading, packing, transportation and installation etc and nothing extra/additional shall be payable on these rates.
- The supplier will provide three years AMC on software development work and will resolve the issue while occur in application.

- In any case, if tenders are not opened due to any reason, the EMD shall be returned to all bidders.
- Conditional Tender will not be accepted.
- Tender without, Bid Processing Fees, EMD/Bid Security Declaration will be summarily rejected.
- The Institute can ask any clarifications & documents at any stage of the procurement depending upon the circumstances to ascertain quality of material used in manufacturing of items.
- All the documents attached with the technical bid should be properly tagged, numbered, signed and stamped by the competent authority.
- EMD shall be forfeited in the following cases: -
  - If the Bidder withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
  - If the bidder having been notified of the acceptance of his tender by the Buyer during the period of its validity, fails to supply, install and commission the equipment/instruments.
  - If the Bidder fails to furnish the required Performance Security
  - If the Bidder fails to sign the agreement within 15 days of issue of Work Order/ Offer Letter.
  - Fails to respond to queries by HED, Odisha.
  - The Dept. reserves all rights to accept or reject any or all tenders in part or full without assigning any reason thereof. Dispute if any, shall be put before the Commissioner -cum -secretary, HED, Odisha who shall be the sole arbitrator and decision taken by the arbitrator shall be binding on both parties.

#### 16. **Insurance and Medical:**

- It shall be the responsibility of the agency to insure their staff and equipment against any exigency that may occur while carrying out the project activities. Agency will also take insurance cover for third party liability, which might occur due to damages caused to their manpower, equipment/instruments etc. HED shall not be responsible for any such damages.
- Medical facilities (as per law) for professional including insurance of the professional related to the project will be provided by the Agency

**17. Applicable Law and Jurisdiction:**

This contract, including all matters connected with this contract, shall be governed by the Indian laws, both substantive and procedural, for the time being in force and shall be subject to the exclusive jurisdiction of Civil Courts of Khordha and the High Court of Odisha at Cuttack, if required.

**18. Venue & Deadline for submission of proposal**

Application form completed in all respects as specified in the EOI, must be submitted to

Commissioner-cum-Secretary, HED, Odisha, on or before 24th June 2026, 5:00PM.

**19. Validity of Offer:**

The offer for EOI as per this document shall be valid for a period of 6 months (180 days) initially which may be extended further if required by HED.

1.

**20. Pre Bid Meetings & Clarifications:**

The Bidder shall be deemed to have carefully examined the Terms & Conditions, Scope of work, Service levels, Specifications, and Schedules of this RFP. If the Bidder has any doubt as to the meaning of any part of these conditions or of the specifications, the Bidder shall submit the queries in given format and participate in the pre-bid meeting as per the schedule specified in this RFP. The purpose of the meeting is to provide Bidders with any clarifications regarding the RFP. It will also provide each Bidder with an opportunity to seek clarifications regarding any aspect of the RFP.

- i. HED shall hold a pre-bid meeting with the prospective bidders on 09.06.2026 at 12:00 PM in the Conference room of the Higher Education Department.
- ii. The representatives of Bidders (restricted to two persons) may attend the Pre-bid meeting.
- iii. The Bidders should submit their queries in writing in below specified format (in MS-Excel only) by the schedule as mentioned in this RFP, prior to attending the pre-bid meeting. HED shall not be responsible for any Bidders' queries received by it in any other format. Any requests for clarifications post the indicated date and time mentioned will not be entertained by HED.
- iv. The bidders shall submit their queries in the prescribed format to the email [sectionithed@gmail.com](mailto:sectionithed@gmail.com) with a copy to [hedsec.od@od.gov.in](mailto:hedsec.od@od.gov.in) by 8<sup>th</sup> June 2026 5:00 PM.

SL#	RFP Document Reference(s) (Section & Page Number(s))	Content of RFP requiring Clarification(s)	Points of Clarification

## 21. Eligibility Criteria:

The bidders are expected to examine all instructions, forms, eligibility criteria and other details in the EOI document carefully. Failure to furnish complete information as mentioned in the EOI document or submission of a proposal not substantially responsive to the EOI documents in every respect will be at the Bidder's risk and may result in rejection of the proposal.

### Essential Eligibility Criteria:

A bidder participating in the procurement process shall possess the following minimum pre-qualification/ eligibility criteria.

SN	Criteria	Description of the Criteria	Documents to be Submitted
1	Legal Entity	<p>As specified under GFR 2017, the bidder must be a Public Sector Undertaking setup by the Centre or State Govt. to carryout I.T. related activities or any Central/ State Govt. Organization/PSU which may be notified by the MeitY / MoE / or any other Ministry in the field of IT for such purpose.</p> <p>Relevant supporting documents may be furnished.</p> <p>Note: - Consortium of any kind shall not be acceptable for this project. Any deviation would lead to disqualification or termination of the same</p>	<ol style="list-style-type: none"><li>1. Valid copy of certificate of Incorporation and registration certificates.</li><li>2. Copy of GST registration.</li><li>3. Copies of relevant Certificates of registration</li><li>4. Income Tax/PAN Number from the respective Government Department.</li><li>5. Documents of local bidder to be submitted as per formats attached along with Work Order + Project completion/Completion certificate /Partial completion Certificate (Mile stone completion Certificate</li></ol>
2	Turnover	<p>The Government Organization/PSU should have an average annual turnover of ₹300 Crores in IT/ICT/ITES activities during the last three financial years (FY 2022-23, 2023-24, 2024-25), duly audited.</p>	<ul style="list-style-type: none"><li>• Audited Balance Sheets-</li><li>• CA Certificate</li></ul>
3	Net Worth	<p>The net worth of the Government Organization/PSU must be positive for the last three financial years ending 31st March 2025.</p>	<ul style="list-style-type: none"><li>•Certificate from CA</li></ul>
4	Technical Capability	<p>The Govt. Organization/ PSU must have successfully completed at least one Software project Implementation work with value not less than amount ₹20,00,00,000/- (Twenty Crores Only)</p>	<ul style="list-style-type: none"><li>• Work Order copies</li><li>• Completion Certificates / Go Live Certificate/CA Certificate of Payment Received</li></ul>

		for Central Govt/State Govt. in India only during last Seven years preceding from tender release date.	
5	Bidder Quality Certification	The bidder must have valid certifications: ISO 9001, ISO 20001, ISO 27001, and CMMI Level 5 or above as on date of bid submission.	• Copies of valid certificates
6	Blacklisting	The bidder should not be blacklisted or declared ineligible for corrupt/fraudulent practices by any Government or PSU in India.	• Self-declaration (Annexure)
7	Local Presence	The bidder must have an office in Odisha. If not, an undertaking must be provided to establish a project office within one month of contract award.	• Address proof / supporting documents-Undertaking
8	RFP Fee	The bidder must pay ₹5,000 as RFP document fee.	• The RFP document fee in favor of "Director, HED, Odisha"
9	EMD (Earnest Money Deposit)	The bidder must submit EMD of ₹20 Lakhs via Bank Guarantee / Demand Draft from a Nationalized/Scheduled Bank, valid for at least 150 days from the last date of bid submission.	• Bank Guarantee / Demand Draft
10	Original Equipment Manufacturer Authorization Form	The primary bidder should submit an OEM MAF as part of bid submission.	Original Equipment Manufacturer (OEM) Authorization Form in OEM Letter Head as per the template in this tender.

**Selection of Applicant:**

1. The applicant will be selected based on verification and testimonials submitted and field visit to assess the ability of applicant to deliver the required services.
2. Short listed applicants will be invited for a detailed presentation before the Department level scrutiny committee.
3. The selected applicant shall be invited for finalization of service level agreement.

**Selection Process:**

1. Technical Bid Evaluation
2. Financial Bid Evaluation and selection of Bidder
3. Bidder selection shall be done taking into account 80% of percentile score of Technical Bid and 20% of percentile score of Financial Bid.

4. Bidder Scoring maximum in Technical Bid and lowest in the Financial Bid (taking into consideration of Financial Bid for all campuses together) shall be given 100 percentile and other Bidders will be evaluated accordingly.

### Technical Evaluation Criteria

In order to facilitate the technical proposal evaluation, the technical criteria laid down along with the assigned weights have been presented in subsequent section. The marking scheme presented here is an indication of the relative importance of the evaluation criteria. Bidders securing a minimum of 80% marks in the technical evaluation will only be considered for further financial bid evaluation. Bids or Tenders which do not secure the minimum specified technical score will be considered technically non-responsive and hence debarred from being considered for their financial bid opening.

Sl.no	Technical Eligibility	Max Marks
1	Average Annual Turnover in last 3 financial years (FY 2022-23, 2023-24, 2024-25), duly audited. More than Rs 700 Cr. - 10 Marks More than Rs 300 Cr & Less than Rs 700 Cr. - 05 Marks Less than Rs 300 Cr. - 02 Marks	10
2	The bidder must be profit-making in the last 3 financial years	5
3	The bidder must have successfully completed at least following Software development project Implementation in Central Govt/ State Govt.in India only during last Seven years preceding from tender release date with a minimum order value of Rs. 10 Cr ≥ 5 completed projects: 10 Marks 3–4 projects: 5 marks 1–2 projects: 2 marks	10
4	Experience of IT/ITeS project in Education Domain/Sector ≥ 3 projects in Higher Education / Universities / Digital Campus: 10 marks 1–2 projects: 6 marks No direct experience: 0 marks	10
5	The bidder must have these certificates: ISO 9001 - 2 Marks ISO 20001 - 2 Marks ISO 27001 - 2 Marks CMMI Level 5 - 4 Marks	10

6	The bidder should have at experience of successfully delivering IT based projects having relevant components such as Staff Management / Attendance Management / Survey Management / Analytical Dashboards in Central Govt/ State Govt.in India in education domain only during last Seven years preceding from tender release date.	15
7	Presentation on the proposed solution capturing the major features: a. Demo of application / Concept b. Understanding of the Project c. Detailed Work-plan and Methodology d. Proposed Project Deployment and Monitoring e. Operation & Maintenance Support Plan based on their previously executed projects	40
<b>TOTAL</b>		<b>100</b>

## 22. Functional Requirements of the Solution

### User Management

- Admin would have the privilege to manage user access, privileges to the roles, and user management.
- Admin can add a new user, update details of a user, and provide them with access rights.
- Adding new users by capturing basic details
- Edit/update the user details
- Assign role to the user with application access rights
- Admin would be responsible for the configurations of the application and maintaining master data.
- Admin can view the data and statistics of the application for monitoring purposes.
- Options for the Admin to manage dynamic menu configuration.
- Admin can initiate the mapping of user roles and their corresponding menu rights.
- The added users would be able to manage their profile details, update passwords using OTP authentication.
- Configure or fetch/upload master data such as University, Colleges & other relevant details from HIMS.
- Admin can Edit/update the master data.
- There will be functionality for Role-based access control and stakeholder management functionality.
- Admin can activate/deactivate the master details.

## Parents Module

- The system shall provide a secure, role-based digital interface enabling parents or guardians to access academic and administrative information related to their wards enrolled in higher education institutions.
- The module shall allow parents to view student attendance records, semester-wise examination results, and academic progress reports in a structured and comprehensible format.
- Provision shall be made for controlled visibility of student information, ensuring compliance with data privacy, consent, and applicable IT security policies.
- The system shall provide notification mechanisms through SMS, email, and in-portal alerts for key attendance records and examination schedules.
- The platform shall allow institutions to configure the extent of parental access based on academic level, program type, and institutional policies.
- Audit trails shall be maintained for all parent logins and access activities to ensure transparency and accountability.
- The module shall integrate seamlessly with student lifecycle, examination, and attendance systems within HIMS.
- The system shall support escalation and grievance redirection mechanisms where parents may raise concerns routed to appropriate institutional authorities.
- Provision shall be made for secure parent registration and verification using student-linked credentials.
- The module shall enable institutions to track parental engagement metrics for academic support analysis.
- The platform shall be scalable to support large volumes of concurrent parent access during result publication and admission periods.
- The system shall comply with applicable cybersecurity, data protection, and government IT guidelines.
- The module shall generate analytical reports on parental access patterns.

## Guest Faculty Lifecycle Management

- The system shall provide end-to-end lifecycle management of guest faculty engaged by universities and colleges.
- The module shall facilitate digital onboarding including profile creation, document submission, verification, and approval workflows.
- Provision shall be made for assignment of academic workload, course allocation, and teaching schedules to guest faculty.
- The system shall maintain attendance records linked with academic schedules and institutional calendars.

- Honorarium calculation shall be automated based on workload, attendance, and institutional norms.
- The module shall support approval workflows for honorarium bills and payment processing integration.
- The system shall maintain historical engagement records for audit, compliance, and reference purposes.
- Provision shall be made for issuing digital engagement orders and disengagement notices.
- The module shall support role-based access for department heads, administrators, and finance authorities.
- The system shall integrate with Staff master, and financial modules of HIMS.
- Configurable rules shall be provided to align with university and government engagement policies.
- The platform shall generate MIS reports on guest faculty utilization, expenditure, and academic contribution.
- Audit trails shall be maintained for all lifecycle events including engagement, modification, and disengagement.
- The module shall ensure compliance with applicable service and financial regulations.
- There will be restrictions applicable based on the candidates who can apply for which position, the college can configure how many guest faculties required in a particular subject.
- There will be issuance of Advertisement post approval from HED, and against this advertisement the guest faculty can apply to different colleges based on their subject.
- There will be functionality of auto-calculation of marks received by the individuals based on their educational and research qualifications.

### Property Statement Management of Staff

- The system shall provide an online facility for submission of annual movable and immovable property statements by employees.
- The module shall support structured data capture aligned with prescribed government formats and rules.
- Provision shall be made for document upload, validation, and secure storage of supporting records.
- The system shall provide hierarchical workflows for verification and approval by competent authorities if required.
- Automated reminders and alerts shall be generated for timely submission of property statements.
- The module shall maintain historical records of property statements across service periods.

- Role-based access shall be enforced to ensure confidentiality and restricted visibility.
- The system shall generate compliance reports for departmental and audit purposes.
- The module shall integrate with staff management and staff master modules of HIMS.
- The system shall enable export of reports in prescribed government formats.
- There will be provision for Multi-Factor Authentication to access the property statement at the department level.

### CCR Management for Non-Government Aided College Staff

- The system shall provide a digital platform for submission and management of Confidential Character Roll (CCR).
- The module shall ensure strict confidentiality through role-based and hierarchical access controls.
- Provision shall be made for structured CCR formats as prescribed by competent authorities.
- The system shall support submission, review, grading, and finalization workflows.
- Audit trails shall be maintained for all actions without compromising confidentiality.
- The module shall allow secure storage and long-term archival of CCR records.
- Configurable timelines and reminders shall be provided for timely completion of CCR cycles.
- The system shall support controlled access for promotion and appraisal-related references.
- Integration shall be provided with staff management and service record modules.
- The platform shall generate compliance reports without exposing confidential details.
- The module shall support institution category-wise configuration of workflow.
- Provision shall be made for supervisory remarks and final acceptance workflows.

### Vice-Chancellor Recruitment Management

- The system shall provide end-to-end digital management of the Vice-Chancellor recruitment process of the public universities.
- The module shall support publication of advertisements and recruitment notifications against which the user can apply for the post.
- Provision shall be made for online receipt of applications with document uploads.
- The user first needs to register themselves before proceeding for the application.
- The user needs to submit the following information for applying against Vice-chancellor:
  - General Information

- Experience
  - Educational Qualifications
  - International Exposure
  - Scholarly Achievement
  - Research paper
  - Any other
- There will be functionality for university wise applicants list along with an option to print the information.
  - There will be provision in the system for anyone from outside to apply for the post of vice-chancellor.
  - There will be an option save as draft before final submission to allow the user to modify the application.
  - Once submitted, the user should not be able to modify the application and can only view the application submitted.

### Integrated Project Management System

- The system shall support end-to-end project lifecycle management covering project conceptualization, administrative and technical approvals, execution, inspection, completion, and post-completion evaluation, with clearly defined stages, milestones, and approval checkpoints.
- The platform shall enable creation and configuration of projects with detailed attributes including location, timelines, sanctioned cost, funding source, implementing unit, and the concerned institutions ensuring standardized project documentation and uniform monitoring across institutions.
- Provision shall be made for geo-tagging of project locations, allowing capture and storage of geographic coordinates at the time of project initiation, progress reporting, inspection, and completion.
- The system shall support geo-tagged photographic uploads during different stages of project execution, with automatic capture of latitude, longitude, and timestamp, to strengthen authenticity of field-level reporting.
- The platform shall provide facilities for inspection workflow management, enabling assignment of inspections to designated officers, scheduling of site visits, recording of inspection observations, and submission of inspection reports through structured digital formats which shall be optional in nature.
- The inspection module shall support multi-level inspections including preliminary inspection, progress inspection, and final inspection, with configurable checklists aligned to project type.
- The platform shall provide dashboards to monitor inspection coverage, frequency, at institution, university, and Department levels.

- Integration shall be provided with the existing Higher Education Information Management System (HIMS) for synchronization of institutional and project master data.
- The platform shall support generation of inspection-wise, project-wise, and institution-wise MIS reports to support administrative review and decision-making.
- Role-based access controls shall be enforced to ensure that geo-tagging, inspection, and approval functionalities are accessed only by authorized users.
- The system shall be scalable to support large numbers of projects, inspections, and geo-tagged records across the State.
- There shall be provision to capture asset information as well as maintenance of the projects along with legacy database of the projects.

### Bookkeeping & Ledger Management

- The system shall provide digital book-keeping and ledger maintenance facilities.
- Wherever needed the integration need to be done to fetch the data from other system in here to provide advance MIS reports & dashboard.
- The module shall support recording of receipts and expenditures.
- Provision shall be made for ledger-wise and account-wise tracking.
- Reconciliation mechanisms shall be implemented.
- Audit-compliant records shall be maintained.
- Integration shall be provided with fund and payment modules.
- Role-based access shall be enforced.
- Reports shall be generated in prescribed formats.
- The system shall support financial year configuration.
- Historical data shall be preserved and alerts shall be generated for discrepancies.
- The module shall support export for audit purposes.

### Committee Management System

- The system shall provide centralized management of statutory and non-statutory committees.
- Committees such as IC, POSH, other committees as applicable in the institution shall be entered into the system.
- The module shall support committee constitution and member assignment.
- Meeting scheduling and notification shall be enabled.
- Agenda circulation shall be digitized, and minutes of meeting shall be recorded and archived.

- Role-based access shall be provided to members.

Reports shall be generated for compliance purposes and historical committee records shall be preserved.

- Alerts shall be generated for upcoming meetings.
- The system shall support multiple committees.

### Scheme Management System

- The system shall be designed and developed to provide a centralized digital platform for onboarding, configuration, and operational management of multiple education-related schemes implemented by the Department across universities and colleges.
- The module shall enable configuration of scheme objectives, eligibility criteria, benefits, timelines, and applicable institutional categories in a structured and rule-driven manner to ensure uniform implementation.
- Provision shall be made for mapping eligible students against defined scheme criteria through automated validation mechanisms.
- The system shall support end-to-end workflow management including application intake, verification, approval, sanction, and monitoring of scheme benefits if required.
- Fund allocation, utilization tracking, and scheme-wise financial monitoring shall be supported through integration with financial management modules.
- The module shall generate scheme-specific dashboards and MIS reports for departmental review and policy decision-making.
- The system shall support scheme lifecycle management including modification, suspension, and closure of schemes.
- Automated alerts and notifications shall be generated for key scheme milestones, deadlines, and compliance requirements.
- Historical scheme data shall be preserved to support longitudinal analysis and evaluation of scheme outcomes.
- The module shall be scalable to accommodate introduction of new schemes without significant system reconfiguration.

### Internship Management System

- The system shall provide a comprehensive digital framework for management of internships undertaken by students in alignment with academic curricula and employability objectives.
- This module shall define the type of internship that a student needs to take:
  - Mandatory Internship
  - Curriculum Integrated Apprenticeship

- Apprenticeship Embedded Degree Programme
- Research/Dissertation Internship
- NATS/PMIS Apprenticeship
- The module shall enable onboarding and management of industry partners, organizations, and institutions offering internship opportunities.
- Provision shall be made for publishing internship opportunities with details such as duration, eligibility, learning outcomes, and evaluation criteria.
- The system shall facilitate student applications, selection workflows, and institutional approvals in a transparent and time-bound manner.
- Internship progress tracking mechanisms shall be provided to monitor attendance, student daily activity and mentor feedback throughout the internship period.
- The platform shall support submission and evaluation of internship reports, assessments, and completion certificates.
- Integration shall be provided with academic records to reflect internship credits and compliance with curriculum requirements.
- Dashboards shall be made available to institutions and departments for monitoring internship participation and outcomes.
- The system shall generate analytics on industry engagement, student skill development, and employability indicators.
- Automated notifications shall be issued to students, mentors, and administrators at key stages of the internship lifecycle.
- Configurable workflows shall be provided to align with varying institutional internship policies.
- Historical internship records shall be maintained for future academic and accreditation references.
- Role-based access controls shall ensure secure participation of students, faculty coordinators, and industry mentors.
- The module shall support scalability to manage internships across multiple institutions and academic sessions.
- The system shall comply with NEP guidelines and applicable academic regulations related to internships.
- There shall be functionality for capturing the credit received by the students at the end of the internship.
- There will be provision for defining the stipends received paid by the employer to the students.
- There will be provision to capture govt-supported internship (NATS/PMIS)
- There shall be provision to capture the feedback by the employer upon completion of internship.

- The student needs to apply for the internship from this portal itself and upon selection the student needs to acknowledge the internship.
- Once the internship is acknowledged, then the college needs to give the NOC for the same then only the students can opt for the internship.
- A student can apply for Apprenticeship program after passing out and the functionality should be there to allow him until 3 years from the date of passing out.

### Chatbot-Enabled Smart Search

- The system shall integrate an AI-powered chatbot-enabled smart search interface to facilitate intuitive and conversational access to information available within this application and that of HIMS.
- The module shall allow users to retrieve academic, administrative, policy, and operational information using natural language queries.
- The chatbot shall be trained on structured and unstructured datasets including rules, notifications, manuals, and FAQs hosted within the system.
- Provision shall be made for role-based contextual responses ensuring that users receive information relevant to their access privileges.
- Search results shall be ranked intelligently based on relevance, usage patterns, and system configuration.
- The module shall continuously improve response accuracy through learning mechanisms and administrator feedback inputs.
- Integration shall be provided across all major modules of this application as well as HIMS to enable unified search functionality.
- Audit logs shall be maintained for chatbot interactions for monitoring and improvement purposes.
- Administrative tools shall be provided for content training, response validation, and performance monitoring.
- The chatbot shall operate within defined security and data privacy constraints.
- The module shall reduce dependency on manual helpdesks and support systems.
- Analytics shall be generated on query trends and information gaps.
- The system shall be scalable to support increasing user interactions over time.

### System Integration with University for Examination Result Data Upload

- The proposed digital application shall provide a standardized and secure mechanism to enable Universities to upload examination result data generated from their respective examination management platforms for centralized aggregation and unified publication of results.
- The system shall support multiple modes of result data submission, including Excel-based bulk upload through prescribed templates as well as secure system-to-system

integration through APIs, thereby accommodating Universities with varying levels of technical maturity.

- Standardized Excel templates shall be provided by the system to ensure uniform data structure, mandatory field validation, and consistency in result data across all Universities.
- The platform shall define standardized result data formats covering student identifiers, programme and course details, semester or examination type, marks, grades, pass/fail status, and result declaration metadata to ensure seamless consolidation and integration.
- Comprehensive data validation and verification checks shall be performed at the time of upload to identify missing fields, format inconsistencies, duplication, and logical errors prior to acceptance of result data.
- Role-based access controls shall be enforced to ensure that only authorized University officials are permitted to upload, review, or submit examination result data into the system.
- The system shall maintain detailed audit trails capturing upload method, user details, timestamps, data versions, and approval status to ensure traceability and accountability.
- Provision shall be made for controlled correction and re-upload workflows, allowing Universities to submit revised result data, wherever permitted, with proper authorization and version tracking.
- Upon successful validation and approval, the uploaded result data shall be integrated with the Higher Education Information Management System (HIMS) to ensure synchronization of student academic records and avoidance of data duplication.
- The system shall enable centralized and unified publication of examination results, providing a single point of access to students, institutions, and authorized stakeholders irrespective of the originating University system.
- Dashboards and MIS reports shall be provided to monitor University-wise result upload status, validation errors, approval timelines, and publication progress for effective departmental oversight.
- The integration framework shall ensure confidentiality, data security, and compliance with applicable academic regulations, IT governance standards, and data protection guidelines.
- The system shall be scalable and capable of handling large volumes of examination result data during peak academic cycles without performance degradation.

### Performance Management System

- The system shall provide a structured digital framework for managing performance assessment of employees across universities and colleges.
- The module shall enable definition of performance goals, key result areas, and evaluation parameters.
- Provision shall be made for periodic self-assessment and supervisory reviews.

- The system shall support configurable appraisal cycles aligned with service rules.
- Performance data shall be linked with service records and career progression modules.
- Dashboards shall be provided for monitoring individual and institutional performance trends.
- Audit trails shall be maintained for appraisal submissions and approvals.
- Role-based access controls shall ensure confidentiality of performance data.
- The module shall generate analytical reports for administrative decision-making.
- Integration shall be provided with HIMS staff management systems.
- There will be provision for staff at the department to assess their performance.

### Outcome Based Education

- The system shall provide a comprehensive framework for implementation of Outcome-Based Education in alignment with NEP 2020 guidelines.
- The module shall support definition and mapping of Program Outcomes, Course Outcomes, and Learning Outcomes.
- Provision shall be made for linking assessments with defined outcomes.
- The system shall calculate outcome attainment levels using configurable methodologies.
- Dashboards shall be provided for monitoring attainment at course, program, and institution levels.
- The module shall support CBCS and multidisciplinary curriculum structures.
- Reports shall be generated to support NAAC and NIRF accreditation requirements.
- Faculty interfaces shall be provided for outcome definition and review.
- The module shall support institution-wise configuration.

### Student-Teacher Discussion Forum

- The system shall provide course-wise, subject-wise, and topic-wise discussion spaces to enable focused academic conversations related to curriculum, lectures, assignments, examinations, and research activities.
- The platform shall support role-based participation, enabling students to post queries, seek clarifications, and engage in discussions, while allowing teachers and authorized faculty members to respond, guide discussions, and moderate content.
- Provision shall be made for faculty moderation and administrative oversight to ensure academic relevance, appropriateness of content, and adherence to institutional codes of conduct.
- The forum shall support creation of discussion threads, replies, and follow-up conversations, enabling structured and traceable academic interactions over time.

- The system shall allow sharing of academic resources such as documents, links, references, presentations, and learning materials within discussion threads, subject to access controls.
- Integration shall be provided with academic modules and master data, including courses, subjects, semesters, and user profiles, through linkage with the Higher Education Information Management System (HIMS), to ensure contextual and authenticated participation.
- The platform shall support notification and alert mechanisms to inform users of new posts, replies, faculty responses, and important academic announcements related to forum discussions.
- The system shall maintain audit logs of forum activities including post creation, edits, deletions, and moderation actions to support transparency and accountability.
- Provision shall be made for tagging, searching, and filtering of discussion content to enable easy retrieval of historical academic discussions and frequently asked questions.
- The platform shall provide analytical insights such as participation metrics, engagement levels, response times, and frequently discussed topics to support academic monitoring and improvement.
- Role-based access controls shall ensure that only authorized students and teachers associated with a course or institution can participate in relevant discussion forums.
- The system shall include safeguards against misuse, including content reporting mechanisms, moderation workflows, and configurable posting restrictions.
- The forum shall be designed to support high concurrent user access, particularly during academic sessions, examination periods, and result declaration phases.
- The Student – Teacher Discussion Forum shall be scalable and configurable to support future enhancements such as integration with learning management systems, live discussion features, and knowledge repositories.
- The system shall support academic calendar linkage, enabling automatic activation and closure of discussion forums based on semester timelines.

### PhD Lifecycle Management

The PhD Lifecycle Management System shall be designed and developed as a comprehensive, secure, and end-to-end digital platform to manage all stages of doctoral programmes across Higher Educational Institutions, with the objective of ensuring transparency, regulatory compliance, academic quality, and efficient administration of research programmes.

- The system shall support digital management of the complete doctoral lifecycle starting from notification of PhD admissions, online application submission, eligibility verification, and admission approval in accordance with applicable University Grants Commission (UGC) and institutional regulations.
- Provision shall be made for registration and profiling of PhD scholars, capturing detailed academic background, research area, admission category, fellowship details, and institutional affiliation.

- The platform shall enable allocation and approval of research supervisors and co-supervisors through defined workflows, including verification of supervisor eligibility, workload limits, and institutional approvals.
- The system shall support configuration and tracking of mandatory coursework requirements, including enrollment, attendance, assessment, and successful completion prior to confirmation of registration.
- Periodic progress monitoring shall be facilitated through structured submission of progress reports, seminar presentations, and review committee evaluations at prescribed intervals.
- The system shall enable submission, review, and approval of requests related to change of supervisor, change of research topic, extension of registration period, or temporary suspension of registration, in accordance with applicable rules.
- The platform shall facilitate end-to-end thesis submission workflows covering pre-submission requirements, soft copy upload, evaluator nomination, evaluation status tracking, and examiner reports.
- The system shall support scheduling and conduct of viva-voce examinations, including panel constitution, notifications, recording of outcomes, and final recommendations.
- Upon successful completion of all requirements, the platform shall enable digital approval and award of the PhD degree, with archival of all related academic and administrative records.
- Integration shall be provided with the Higher Education Information Management System (HIMS) for synchronization of scholar master data, institutional details, and academic records.
- The system shall maintain comprehensive audit trails for all doctoral lifecycle activities, including approvals, submissions, evaluations, and modifications, to support transparency and audit requirements.
- Role-based access controls shall be enforced to ensure that scholars, supervisors, evaluators, institutional authorities, and departmental officials have appropriate and secure access to relevant functionalities .

## Survey Management System

The Survey Management System shall provide a simple, lightweight, and user-friendly digital facility, similar in functionality to commonly used online form tools, to enable quick creation, dissemination, and collection of survey responses from students, faculty, staff, parents, alumni, and other stakeholders.

- The system shall allow authorized users to create basic surveys and feedback forms using predefined question types such as multiple choice, checkboxes, short text, long text, ratings, and yes/no responses, without requiring technical expertise.
- Provision shall be made for easy configuration of survey titles, descriptions, response options, and mandatory or optional fields to support common academic, administrative, and feedback-related requirements.
- The platform shall enable sharing of survey links through the portal and other approved communication channels for collecting responses from intended respondents.
- The system shall support collection of survey responses in a structured digital format, with automatic storage and consolidation of responses.
- Basic validation mechanisms shall be provided to ensure completeness of responses where mandatory fields are defined.

- The system shall allow viewing of survey responses in tabular format and generation of simple summary views such as response counts and basic charts.
- Provision shall be made for downloading survey responses in common formats such as Excel for offline analysis and reporting.
- Role-based access controls shall ensure that only authorized users can create surveys, view responses, or download data.
- The system shall allow closure of surveys after completion of the defined response period to prevent further submissions.
- Basic audit information such as survey creation date, creator details, and response count shall be maintained for reference purposes.
- The Survey Management System shall be designed for quick deployment and ease of use, focusing on functionality required for routine surveys, feedback collection, and opinion gathering.
- Integration shall be provided with the proposed digital application and, where relevant, linkage with HIMS user data to enable controlled access without duplicating master records.

## Arrear Calculation Module

The Arrear Calculation Module shall be designed and developed as a comprehensive, rule-based digital system to enable accurate, transparent, and auditable calculation and settlement of various types of financial arrears payable to employees and pensioners of Higher Educational Institutions, in accordance with applicable Government orders, service rules, and grant-in-aid provisions.

- The system shall support calculation and management of multiple categories of arrears, including but not limited to Dearness Allowance (DA) arrears, MACP/RACP arrears, pay revision-related arrears, promotion-related arrears, pension arrears, and other admissible service-related arrears, with distinct calculation logic for each category.
- Provision shall be made for configuration of Dearness Allowance rates, enabling administrators to define DA percentages along with effective dates as and when DA is revised by the Government, thereby allowing automatic recalculation of arrears for applicable periods.
- The module shall support period-wise arrear computation, enabling calculation of arrears across multiple months or financial years based on historical pay data, DA revisions, and service changes.
- The system shall enable MACP/RACP arrear calculation, including configuration of eligibility criteria, effective dates, revised pay levels, and differential pay components as per applicable rules.
- Provision shall be made for pension arrear calculation, including revision of pension, DA on pension, commutation adjustments, and differential payments arising out of pay revisions or Government orders.
- The module shall allow configuration of arrear calculation rules based on Grant-in-Aid (GIA) orders, ensuring that arrears are calculated strictly in accordance with sanctioned norms, funding percentages, and admissibility conditions specified in the relevant GIA guidelines.
- The system shall support institution-category-wise configuration, enabling different arrear calculation logic for all type of institutions, as applicable.
- Provision shall be made to define cut-off dates, eligibility periods, and exclusion rules to ensure compliance with specific Government notifications or departmental instructions.

- The system shall maintain employee-wise and pensioner-wise service and pay history, either through direct integration or structured data input, to ensure accuracy of arrear computation.
- The module shall generate detailed arrear statements showing component-wise breakup such as basic pay, DA difference, allowance difference, total arrear amount, admissible portion, and payable portion.
- Multi-level approval workflows shall be provided for verification, sanction, and authorization of arrear calculations prior to disbursement.
- Integration shall be provided with payroll, pension, and financial management modules to enable seamless settlement and accounting of approved arrear amounts.
- The system shall maintain complete audit trails capturing configuration changes, calculation parameters, approvals, and payment status to support audit, vigilance, and financial scrutiny.
- Dashboards and MIS reports shall be provided to monitor arrear liabilities, category-wise arrear status, institution-wise financial impact, and pending settlements.
- The module shall support bulk processing of arrears for large groups of employees or pensioners during mass revisions such as DA hikes or pay commission implementations.
- Role-based access controls shall be enforced to ensure that only authorized personnel can configure rates, trigger calculations, approve arrears, or initiate settlements.
- The system shall be designed to ensure accuracy, consistency, and elimination of manual calculation errors, thereby reducing administrative burden and processing time.
- The Arrear Calculation Module shall be scalable and configurable to accommodate future changes in pay rules, allowance structures, pension regulations, and GIA policies.

## Faculty-Student Exchange Program

The Faculty–Student Exchange Programme Module is a comprehensive digital solution designed to manage and monitor national and international academic exchange initiatives. It facilitates collaboration with partner institutions through MoU management, enables publication and administration of exchange opportunities, and supports end-to-end participant workflows from application to completion. The module ensures academic recognition, regulatory compliance, transparency, and data-driven decision-making through dashboards, reports, and historical records, thereby strengthening institutional collaboration and global academic engagement.

- The system shall provide a centralized digital platform to plan, execute, and monitor national and international faculty and student exchange programs.
- The module shall enable onboarding, configuration, and lifecycle management of partner institutions and organizations through structured MoU management.
- The system shall allow authorized users to publish exchange program opportunities with clearly defined eligibility criteria, duration, host institution details, and academic equivalence.
- The platform shall support end-to-end application management, including submission, screening, selection, approval, and confirmation workflows.
- The system shall implement participant tracking mechanisms to monitor mobility periods, academic engagement, and institutional affiliations throughout the exchange duration.
- Integration with academic records shall be provided to enable credit transfer, grade mapping, and academic recognition of exchange activities.

- Role-specific dashboards shall be made available to administrators for real-time monitoring of participation levels, program status, and outcomes.
- Automated notifications and alerts shall be triggered at key stages of the exchange lifecycle, including application status, approvals, mobility milestones, and completion.
- The system shall generate analytical and impact assessment reports on exchange participation, institutional collaboration, and internationalization metrics.
- Role-based access control shall be implemented to ensure secure and authorized access for students, faculty members, and administrative users.
- The system shall maintain historical exchange data to support accreditation requirements, audits, and policy formulation.
- The module shall comply with applicable regulatory, academic, and institutional guidelines governing exchange programs.
- The platform shall be scalable to support multiple concurrent exchange programs across institutions and academic sessions.
- The system shall ensure transparency, traceability, and structured governance of all exchange-related processes.

## CM Dashboard Integration

The proposed system shall include a comprehensive integration layer with the Hon'ble Chief Minister's Dashboard to enable real-time monitoring, data-driven governance, and high-level decision-making across the Higher Education ecosystem. This integration will ensure seamless visibility of key performance indicators, critical alerts, and scheme-level progress at the state level.

- The system shall facilitate real-time data synchronization with the CM Dashboard through secure APIs, ensuring that all relevant metrics from the Higher Education Department are updated dynamically.
- A standardized data exchange framework shall be established to ensure interoperability between the already existing Higher Education Information Management System (HIMS) portal, this application and the CM Dashboard platform.
- The integration shall provide section-wise and module-wise KPI mapping, enabling visibility of critical indicators such as:
  - Vacancy percentage (teaching and non-teaching)
  - Fund utilization status
  - NAAC accreditation coverage
  - Student enrollment and performance metrics
- The system shall support automated data aggregation from multiple modules mentioned in this module along with the modules present in HIMS.
- A configurable data validation and approval workflow shall be implemented to ensure that only verified and authenticated data is pushed to the CM Dashboard.
- The integration shall include a near real-time alert mechanism, enabling escalation of critical issues such as:
  - High vacancy levels in institutions
  - Low fund utilization
  - Pending grievances
- The system shall enable district-wise and institution-wise drill-down capabilities within the CM Dashboard for granular analysis and monitoring.
- The integration shall support historical data tracking and trend analysis, enabling the CM Dashboard to display performance trends over time for better policy evaluation.

- The system shall ensure compliance with state e-Governance standards, including security guidelines, API standards, and data privacy regulations.
- Provision shall be made for custom KPI configuration, allowing the Department and CM Office to define and modify indicators as per evolving governance requirements.
- The integration shall include a dashboard refresh scheduler and event-based triggers to ensure timely updates without performance degradation.
- A comprehensive logging and audit trail mechanism shall be maintained for all data transactions between the application and the CM Dashboard.
- The system shall be designed to support scalability and future integrations with other state-level dashboards and national platforms.

## Audit Management

The Audit Management Module is designed to provide a structured and transparent digital system for managing internal and external audits of colleges. The module enables systematic planning, execution, documentation, and monitoring of audit activities, observations, and compliance actions. It ensures accountability, traceability, and timely resolution of audit findings while supporting regulatory and financial governance requirements of higher education institutions.

- The system shall provide a centralized, controlled digital platform for planning, execution, and monitoring of national and international faculty and student exchange programs, ensuring completeness, accuracy, and auditability of records.
- The system shall provide structured onboarding, configuration, and lifecycle management of partner institutions through digitally maintained and verifiable Memoranda of Understanding (MoUs).
- The system shall support publication of exchange programme opportunities through authorized roles only, with clearly defined eligibility criteria, duration, host institution details, and approved academic equivalence.
- The platform shall support end-to-end application management workflows, including submission, scrutiny, selection, approval, and confirmation, with defined authority levels, role-based controls, and audit trails.
- The system shall provide participant tracking mechanisms to monitor mobility periods, academic engagement, and institutional affiliations throughout the exchange duration, ensuring traceability and compliance.
- The system shall support integration with academic record systems for credit transfer, grade mapping, and academic recognition of exchange activities, with appropriate validation and approval controls.

## Legal Case Management

The module ensures timely monitoring of case progress, compliance with court directions, secure document management, and availability of accurate information for administrative decision-making, audit, and policy purposes.

- The system shall provide for registration and centralized maintenance of all legal cases related to service matters, disciplinary proceedings, financial disputes, and other administrative litigations involving government staff.

- The system shall maintain comprehensive case master records capturing court or tribunal details, case numbers, parties involved, filing dates, current status, and other prescribed case attributes.
- The platform shall support end-to-end tracking of the legal case lifecycle from initiation to final disposal, including recording of hearing dates, interim orders, final judgments, and compliance actions.
- The system shall provide secure mechanisms for upload, storage, retrieval, and management of all case-related documents such as petitions, affidavits, counter affidavits, court orders, and legal opinions, with document integrity controls.
- The system shall enforce role-based access controls and workflow mechanisms for departmental officials, legal cells, and authorized administrators, ensuring segregation of duties and accountability.
- The platform shall support automated alerts and reminders for upcoming hearings, court directions, compliance deadlines, and pending actions to ensure timely response and adherence.
- The system shall provide dashboards and MIS reports to monitor case pendency, disposal status, compliance with court orders, and department-wise litigation trends for management and audit review.
- The system shall maintain complete audit trails and historical records of all case-related transactions, updates, and user activities for inspection, audit, and legal reference.
- The system shall ensure compliance with applicable legal provisions, administrative rules, government IT policies, and information security guidelines.

## University Staff Management Platform

- The system shall provide a centralized and controlled digital platform for comprehensive management of academic and non-academic staff across universities and colleges.
- The system shall maintain complete and up-to-date service records of staff members, including appointments, postings, promotions, transfers, deputations, and retirement details.
- The platform shall support secure upload, storage, and management of documents related to service books, appointment orders, promotion orders, and other service-related records.
- The system shall support defined approval workflows for staff-related actions, with role-based authorization, traceability, and approval history.
- The system shall provide integration with HRMS, payroll, and performance management modules to ensure consistency and accuracy of personnel data.
- The platform shall provide dashboards for monitoring sanctioned strength, working strength, vacancies, and cadre-wise staff position at institutional and system levels.
- The system shall maintain comprehensive audit trails for all staff-related transactions, updates, approvals, and data modifications.
- The system shall enforce role-based access controls to ensure confidentiality, integrity, and controlled access to personnel data.
- The system shall support policy-driven configuration aligned with applicable service rules, government orders, and administrative instructions.
- The system shall maintain historical staff data for administrative reference, inspection, audit, and statutory compliance.
- The platform shall support automated alerts and notifications for key service milestones such as probation completion, promotion eligibility, retirement, and contract expiry.

- The system shall support institution-wise, cadre-wise, and category-wise staff management to facilitate effective administration and reporting.
- The system shall generate standard and ad-hoc reports to meet administrative, statutory, and audit requirements.
- The platform shall ensure data accuracy, validation, and integrity through defined controls and reconciliation mechanisms.
- The system shall be scalable to support deployment across multiple universities and affiliated colleges, accommodating growth in users and data volume.

## University Infrastructure Grant Management Platform

The module supports planning, sanctioning, fund disbursement, utilization monitoring, and project tracking, ensuring transparency, financial discipline, accountability, and compliance with applicable audit and financial regulations.

- The system shall provide a centralized and controlled digital platform for planning, sanctioning, and monitoring infrastructure grants provided to universities.
- The system shall support configuration and management of university-specific infrastructure grant schemes, including eligibility criteria, funding norms, ceilings, and applicable guidelines.
- The platform shall support online submission and appraisal of infrastructure grant proposals by universities, with defined technical and financial evaluation parameters.
- The system shall provide sanction and approval workflows with clearly defined authority hierarchies, delegation of financial powers, and approval audit trails.
- The platform shall support scheduling and tracking of fund releases to universities, including tranche-wise disbursement linked to sanctions and progress milestones.
- The system shall provide utilisation tracking mechanisms to monitor expenditure incurred by universities against sanctioned grants and approved project components.
- The platform shall support submission, scrutiny, and verification of utilisation certificates, progress reports, and completion reports submitted by universities.
- The system shall provide dashboards and MIS reports for real-time monitoring of grant status, fund utilisation, and physical progress of infrastructure projects at universities.
- The system shall ensure integration with financial management and project management modules to ensure consistency and reconciliation of financial and progress data.
- The system shall maintain comprehensive audit trails for all university grant-related transactions, approvals, fund releases, and data modifications.
- The platform shall support upload and verification of geo-tagged photographs, documents, and other prescribed evidentiary records submitted by universities.
- The system shall maintain historical infrastructure grant data of universities for audit, inspection, evaluation, and policy analysis.
- The platform shall ensure transparency, traceability, and accountability in the management of infrastructure grants for universities.
- The system shall enforce role-based access controls for university users, departmental officials, and approving authorities.
- The module shall comply with applicable financial rules, government grant guidelines, accounting standards, and audit requirements.

## Workflow-Based Data Deletion Module

The module ensures that any request for deletion of records is processed through a structured approval workflow aligned with data retention policies, statutory requirements, audit standards, and information security norms. It prevents unauthorized or accidental deletion of critical records while maintaining transparency, accountability, and regulatory compliance.

- The system shall provide a centralized and rule-based mechanism for initiating, reviewing, approving, and executing data deletion requests within defined governance controls.
- The platform shall allow authorized users to raise formal data deletion requests specifying record type, module reference, reason for deletion, legal justification, and supporting documentation.
- The system shall enforce validation rules to ensure that data eligible for deletion complies with predefined retention policies, archival timelines, audit dependencies, and statutory preservation requirements.
- The platform shall prevent deletion of records that are linked to active workflows, financial transactions, audit observations, legal proceedings, compliance reviews, or ongoing approvals.
- The system shall support configurable multi-level approval workflows incorporating defined authority hierarchies, role-based validation, and escalation mechanisms before final deletion is executed.
- The system shall generate alerts and notifications to approving authorities and compliance officers upon submission of deletion requests.
- The platform shall ensure that all deletion actions are logged with comprehensive audit trails, including request originator, approvers, timestamps, IP details, and justification notes.
- The system shall support soft deletion (logical deletion) mechanisms where records are marked inactive or archived instead of being permanently erased, depending on policy configuration.
- The platform shall support hard deletion only where explicitly permitted under retention policies and after completion of mandatory approvals and compliance checks.
- The system shall maintain an immutable deletion history register to ensure traceability and enable future audits, inspections, or forensic reviews.
- The platform shall provide dashboard views and MIS reports reflecting number of deletion requests raised, approved, rejected, pending, and executed across modules.
- The system shall allow restoration of soft-deleted records within a defined time window subject to approval and system controls.
- The platform shall enforce role-based access control to restrict deletion request initiation and approval rights to designated administrative and compliance roles only.
- The module shall integrate with archival and backup systems to ensure that deleted data is handled in accordance with backup retention policies and disaster recovery protocols.

## AI-Based Attendance from Image

The module leverages facial recognition, image processing, and pattern matching algorithms to record attendance accurately and efficiently. It minimizes manual intervention, reduces proxy attendance risks, enhances reliability of attendance data, and strengthens institutional monitoring mechanisms.

- The system shall provide an AI-driven attendance capturing mechanism that enables automated identification and marking of attendance based on uploaded or real-time captured images.
- The platform shall support image capture through integrated cameras, mobile devices, or uploaded photographs taken during designated attendance sessions.
- The system shall utilize facial recognition algorithms to match captured faces with pre-registered student, staff, or participant profiles stored in the system database.
- The platform shall maintain a secure repository of enrolled facial templates linked to individual user profiles for accurate comparison and validation.
- The system shall support real-time attendance marking during classes, meetings, examinations, inspections, or institutional events based on configured schedules.
- The platform shall ensure that attendance is recorded only when confidence scores from AI recognition meet predefined accuracy thresholds to minimize false positives and false negatives.
- The system shall provide manual verification or override functionality to authorized users in cases where AI confidence levels are insufficient or discrepancies are detected.
- The platform shall generate attendance logs containing date, time, location (if geo-tagged), image reference ID, and system confidence percentage for audit and verification purposes.
- The system shall support geo-tagging and time-stamping of captured images to ensure authenticity and prevent misuse.
- The platform shall prevent duplicate attendance marking within the same session and restrict multiple submissions from unauthorized devices.
- The system shall support batch processing of images for attendance marking in scenarios such as large gatherings or classroom environments.
- The platform shall generate automated alerts for anomalies such as duplicate faces, unidentified individuals, mismatches, or repeated low-confidence recognitions.
- The system shall provide dashboards and MIS reports reflecting attendance percentages, absentee trends, session-wise participation, and institutional compliance metrics.
- The platform shall integrate with academic, HR, or event management modules to synchronize attendance data with performance evaluation, payroll processing, or academic records.
- The system shall enforce role-based access control to restrict enrollment of facial data, attendance approval, and override permissions to authorized administrators only.
- The platform shall ensure secure storage and encryption of biometric facial data in compliance with applicable data protection regulations and institutional privacy policies.
- The system shall maintain comprehensive audit trails for image uploads, attendance marking, manual overrides, data modifications, and system-generated recognition results.
- The module shall include safeguards to ensure that AI-based image processing is used as an assistive tool, with provisions for periodic human validation and oversight to maintain reliability and fairness.
- The system shall support scalability to accommodate large user populations and high-frequency attendance sessions without performance degradation.
- The module shall enhance operational efficiency, improve accuracy of attendance records, reduce administrative workload, and strengthen institutional governance through technology-driven automation.

SSO for all Applications under HED

The Single Sign-On (SSO) Module is a centralized authentication and identity management system designed to provide unified access across all applications operating under the Higher Education Department (HED). The module enables users to authenticate once and securely access multiple departmental systems without repeated logins. It enhances user convenience, strengthens security controls, centralizes identity governance, and ensures consistent access management across all integrated platforms.

- The system shall provide a centralized authentication mechanism that enables users to log in once and gain authorized access to all integrated HED applications without the need for separate credentials.
- The platform shall maintain a unified user identity repository containing standardized user profiles, roles, designations, and associated departmental affiliations.
- The system shall support secure authentication protocols such as OAuth 2.0 to ensure interoperability and security.
- The platform shall enable role-based access control across applications, ensuring that users can access only those modules and functionalities for which they are authorized.
- The system shall support multi-factor authentication (MFA), including OTP-based verification, email verification, or biometric validation, to enhance login security.
- The platform shall enforce strong password policies, session timeout controls, account lockout mechanisms, and CAPTCHA validation to prevent unauthorized access.
- The system shall allow centralized user provisioning, modification, activation, deactivation, and revocation of access rights across all integrated applications.
- The platform shall synchronize user roles and permissions dynamically across applications to ensure consistent authorization and minimize discrepancies.
- The system shall provide secure token-based session management to allow seamless navigation between applications without re-authentication.
- The platform shall support single logout functionality, ensuring that logging out from one application terminates active sessions across all integrated systems.
- The system shall maintain comprehensive audit logs of login attempts, access history, authentication failures, role changes, and session activities for compliance and monitoring purposes.
- The system shall provide dashboards and reports for monitoring user login statistics, access patterns, suspicious login attempts, and system-wide authentication metrics.
- The platform shall support scalable architecture to accommodate increasing numbers of users and applications under the Higher Education Department.
- The system shall ensure secure encryption of authentication tokens, credentials, and session data to comply with government IT security policies and data protection regulations.
- The platform shall enable controlled onboarding of new departmental applications into the SSO ecosystem through standardized integration interfaces and APIs.
- The system shall enhance user experience by reducing login redundancy, improving navigation efficiency, and maintaining consistent authentication workflows across applications.
- The module shall strengthen institutional security governance by centralizing authentication controls, minimizing credential duplication, and reducing the risk of unauthorized access.
- The system shall comply with applicable cybersecurity guidelines, government digital governance standards, and institutional IT policies governing identity and access management.

## SSB Portal for Students

- The system shall provide a centralized digital repository for generation, storage, and management of student marksheets issued by universities and affiliated institutions.
- The platform shall enable secure digital issuance of marksheets with system-generated unique identification numbers, QR codes, or verification codes to ensure authenticity.
- The system shall support automated marksheet generation based on approved examination results uploaded by universities or examination authorities.
- The platform shall ensure that all issued marksheets are digitally signed using authorized digital signature certificates to prevent tampering or unauthorized modification.
- The system shall provide students with secure login access to download, view, and share their digitally issued marksheets.
- The platform shall enable real-time online verification of marksheets through QR code scanning, verification ID entry, or API-based validation by authorized institutions and employers.
- The system shall maintain comprehensive records of marksheet issuance history, including date of issue, issuing authority, verification logs, and download history.
- The platform shall support correction workflows for rectification of errors in marksheets, subject to defined approval hierarchies and audit tracking.
- The system shall prevent unauthorized editing or duplication of marksheets once digitally signed and issued.
- The platform shall support integration with examination management systems to ensure automated data flow of student results for marksheet preparation.
- The system shall provide dashboards and MIS reports reflecting marksheet issuance statistics, verification requests, correction cases, and university-wise performance metrics.
- The platform shall maintain robust audit trails of marksheet generation, approval, digital signing, access, download, and verification activities.
- The system shall ensure role-based access control for university administrators, examination controllers, departmental officials, and verification authorities.
- The platform shall support archival of historical marksheet data for long-term retrieval, audit, and compliance purposes.
- The system shall ensure secure encryption of student academic data during storage and transmission in accordance with government data protection guidelines.
- The platform shall provide secure APIs for integration with national academic repositories, digital locker systems, or government credential verification platforms where applicable.
- The system shall enhance ease of access for students by enabling anytime, anywhere availability of authenticated academic credentials.
- The module shall strengthen authenticity and reduce the risk of forgery through digital signature validation, QR-based verification, and tamper-proof document controls.
- The system shall comply with applicable education regulations, digital governance policies, IT security standards, and archival guidelines prescribed by the Higher Education Department.

## Departmental Promotional Committee

The Departmental Promotion Committee (DPC) Module is a centralized digital system designed to automate and manage the complete lifecycle of departmental promotion proceedings. The

module facilitates structured eligibility verification, vacancy management, service record evaluation, promotion recommendations, and approval workflows. It ensures transparency, uniformity in decision-making, timely processing of promotion cases, and compliance with applicable service rules and government regulations.

- The system shall provide a centralized digital platform for managing DPC proceedings across universities and affiliated institutions under the Higher Education Department
- The platform shall provide functionality for recording DPC meeting proceedings, deliberations, remarks, and recommendations in structured digital format.
- The platform shall provide configurable approval workflows incorporating defined authority hierarchies for recording recommendations, forwarding cases, and granting final promotion approvals.
- The platform shall generate promotion recommendation reports, minutes of meeting, and approval orders in standardized digital formats.
- The system shall maintain audit trails of all actions taken during DPC processing, including eligibility verification, document uploads, approvals, modifications, and final decisions.
- The platform shall provide real-time dashboards and MIS reports displaying status of pending DPC cases, approved promotions, vacancy utilization, and processing timelines.
- The system shall generate automated notifications to eligible employees, committee members, and approving authorities at various stages of the promotion workflow.
- The system shall maintain historical records of DPC proceedings, promotion decisions, and eligibility assessments for future reference, audit, and legal scrutiny.
- The platform shall enforce role-based access control to ensure that sensitive employee records and DPC deliberations are accessible only to authorized committee members and officials.

### Vice-Chairperson Recruitment for OSHEC

The Vice-Chairperson Recruitment Management Module is envisaged to manage, regulate, and monitor the complete lifecycle of the recruitment and appointment process for the Vice-Chairperson of the Odisha State Higher Education Council (OSHEC). The module facilitates structured notification issuance, application management, eligibility scrutiny, evaluation, selection committee processing, approval workflows, and appointment order issuance. It enhances transparency, ensures regulatory compliance, strengthens accountability mechanisms, and supports outcome-based tracking of leadership selection processes in higher education governance.

- The system shall provide a centralized digital platform for managing the end-to-end recruitment process for the Vice-Chairperson of OSHEC, from vacancy notification to final appointment.
- The system shall support structured configuration of recruitment rules, eligibility criteria, qualification requirements, experience norms, age limits, tenure provisions, statutory guidelines, and government policy directives applicable to the position.
- The platform shall enable issuance and publication of recruitment notifications, including advertisement details, eligibility conditions, selection procedure, application deadlines, and required documentation.

- The system shall facilitate secure online submission of applications, including personal details, academic qualifications, administrative experience, research credentials, vision statements, and supporting documents.
- The platform shall provide automated validation mechanisms to verify completeness of applications, document uploads, eligibility compliance, and declaration requirements.
- The system shall support structured scrutiny workflows for preliminary screening of applications based on defined eligibility and evaluation criteria.
- The platform shall enable constitution and management of Search-cum-Selection Committee workflows, including secure access to candidate profiles, evaluation forms, and assessment records.
- The system shall provide configurable evaluation templates for recording academic credentials, leadership experience, governance expertise, vision presentation assessments, and overall merit scoring.
- The platform shall facilitate scheduling of interviews, issuance of interview call letters, recording of interview proceedings, and documentation of committee recommendations.
- The system shall support preparation of merit panels, recommendation reports, and submission to competent authorities for final approval in accordance with statutory provisions.
- The platform shall provide configurable approval workflows incorporating defined authority hierarchies, government concurrence stages, and digital authentication to ensure transparency and procedural compliance.
- The platform shall maintain comprehensive audit trails for all recruitment-related activities, including notification publication, application submissions, scrutiny remarks, evaluation records, committee decisions, and approval actions.
- The system shall generate dashboards and MIS reports for monitoring application counts, eligibility screening status, interview schedules, selection stages, approval progress, and recruitment cycle timelines.
- The system shall generate automated alerts and notifications for application deadlines, scrutiny completion timelines, interview schedules, pending approvals, and appointment issuance milestones.
- The platform shall maintain historical recruitment records, including previous advertisements, candidate panels, committee proceedings, and appointment outcomes for audit, reference, and policy analysis.
- The system shall ensure secure storage and confidentiality of sensitive applicant data in compliance with applicable data protection and governance regulations.

## NSS Volunteer Module

The Infrastructure NSS Volunteer Module is a centralized digital system designed to monitor, manage, and regulate the complete lifecycle of infrastructure-related activities undertaken under the National Service Scheme (NSS).

- Development of NSS Volunteer Registration Module with college-level authentication and role-based access.
- Mapping of NSS volunteers to respective colleges for authorized institutional data entry.
- Provision for structured data entry of college details including Infrastructure, Staff Details (Teaching & Non-Teaching), Library, Hostel, and other institutional parameters.
- Facility for scanning and uploading documents such as Governing Body (GB) records, acquaintance rolls, and related institutional documents.
- Mandatory validation checks, structured formats, and duplicate control mechanisms to ensure data accuracy.
- Workflow-based approval system for verification of data entered by NSS volunteers at College and Department level.
- Activity tracking mechanism to record number of entries, document uploads, date & time stamps, and user actions.
- Configurable remuneration policy module where HED can define rate per entry, per document, or fixed assignment-based compensation.
- Automated remuneration calculation engine based on verified transactions and approved rate configuration.
- Capture and secure storage of NSS volunteer bank account details including Account Number, Bank Name, IFSC Code, and Account Holder Name.
- Bank account validation mechanism to prevent incorrect or duplicate financial records.
- Integration with secure Government-approved Direct Benefit Transfer (DBT) system for account-based payment processing.
- Automated generation of payment advice and transaction reference tracking for each volunteer.
- Real-time payment status monitoring (Processed / Failed / Pending / Reconciled).
- Comprehensive MIS and dashboard for monitoring volunteer performance, remuneration calculation, and financial disbursement status.

## Gradation List Publication & Objection Hearing

The Gradation List Publication & Objection Hearing Module is a centralized digital system designed to manage, regulate, and streamline the complete lifecycle of preparation, publication, review, and finalization of gradation/seniority lists of personnel in colleges.

- The system shall provide a centralized digital platform for preparation, publication, review, and finalization of gradation lists for college staff and faculty in accordance with applicable service rules and regulations.
- The system shall support structured configuration of gradation policies, including seniority determination criteria, eligibility rules, reservation norms, promotion guidelines, service weightage parameters, and applicable statutory provisions wherever applicable.
- The platform shall enable automated generation of provisional gradation lists based on verified service records, appointment dates, promotion history, qualification details, roster positions, and other predefined criteria.

- The system shall allow authorized administrators to review, validate, and digitally approve provisional gradation lists prior to publication.
- The platform shall provide configurable workflows for provisional publication, specifying publication dates, objection windows, communication channels, and authority hierarchies.
- The system shall enable employees to securely access the published provisional gradation list and submit objections online within the prescribed timeline, along with supporting documents and justification.
- The platform shall support structured objection management workflows, including registration of objections, categorization of issues, scrutiny mechanisms, and assignment to designated scrutiny officers or committees.
- The system shall facilitate scheduling and management of objection hearings, including issuance of notices, hearing schedules, digital communication to concerned employees, and recording of proceedings.
- The platform shall enable recording of hearing outcomes, decisions, recommendations, and reasoned orders with provision for document uploads and digital authentication.
- The system shall support revision of gradation lists based on approved decisions and generate updated versions with version control and change tracking.
- The platform shall provide dashboards and MIS reports for monitoring status of gradation list preparation, number of objections received, objection disposal rate, pending hearings, timeline adherence, and finalization status.
- The system shall integrate with human resource management modules to ensure synchronization of employee service records, promotions, pay levels, reservation rosters, and disciplinary records.
- The platform shall enable transparency by providing employees with visibility into objection status, hearing outcomes, and reasons for acceptance or rejection of claims.
- The module shall ensure compliance with applicable service rules, government regulations, reservation policies, court directives, and administrative guidelines governing seniority determination.
- The system shall enhance transparency, traceability, and accountability in gradation list management by providing real-time status tracking and complete digital documentation of the objection and hearing process to authorized stakeholders.

## Principal Recommendation & Posting of Non-Government Aided Colleges

- The system shall provide a dedicated module within HIMS for assignment of Principal In-Charge (I/c) in Non-Government Aided Colleges by leveraging real-time data integration with the HIMS Staff Management System to automatically fetch and utilize faculty details including name, designation, subject, current posting, service history, and seniority as per the gradation list.
- The module shall enable capturing and displaying of incumbent Principal details including Date of Retirement (DoR), subject specialization, and associated college, while simultaneously maintaining and dynamically updating subject-wise sanctioned strength, men in position, and vacancy positions through automated calculations based on institutional data available in HIMS.
- The system shall incorporate a rule-based eligibility and filtering mechanism that automatically excludes ineligible Readers based on disciplinary proceedings, audit paras, vigilance status, and other disqualifications retrieved from Staff Management records, while also allowing configurable criteria such as minimum service years, subject relevance, and administrative rules.
- The module shall generate a prioritized and system-recommended list of eligible Readers for Principal I/c assignment by aligning gradation list seniority, subject-wise vacancy mapping, current place of posting, and transfer norms, ensuring a transparent and data-driven decision support system.
- The system shall provide functionality to capture continuation details of Readers already serving in the same college including tenure and eligibility for extension, along with provision to incorporate and tag VIP or reference-based recommendations for administrative consideration without compromising transparency.
- The module shall include an advanced visualization component through development of an Odisha State Map enabling district-wise and college-wise plotting of institutions along with visualization of Principal I/c vacancies, subject-wise availability, and interactive filtering capabilities.
- The system shall provide comprehensive dashboards and analytics for decision-makers including vacancy trends across districts, predictive alerts for upcoming retirements, availability of eligible candidates, and real-time monitoring of assignment status across institutions.
- The module shall implement a configurable workflow mechanism enabling section-level validation, recommendation generation, and approval by competent authorities, along with automated alerts for upcoming vacancies and pending assignments to ensure timely action.
- The system shall maintain a complete audit trail capturing all data changes, recommendation logs, and approval history, while enforcing role-based access control for different stakeholders including section users, directorate and administrators.
- The module shall support integration with existing HIMS components including Staff Management and College Master Database, while also providing reporting capabilities such as college-wise vacancy reports, subject-wise deficiency reports, and historical assignment records in compliance with departmental policies and audit norms.

## NOC & Study Leave for the Government & Non-Government Colleges

- The system shall provide a dedicated module within HIMS for online submission and processing of NOC and Study Leave applications by OES Officers across Government Degree Colleges, Teacher Education Institutions, State Public Universities, and Non-Government Aided Colleges, with seamless integration with the HIMS Staff Management

System for automatic retrieval of employee data including personal details, designation, posting, and service history.

- The module shall enable auto-population of applicant information and facilitate submission of applications by allowing selection of application type (NOC or Study Leave), entry of purpose, course details, duration, and justification, along with provision for uploading supporting documents such as admission letters, institutional approvals, and related records.
- The system shall incorporate automated validation mechanisms using HIMS Staff Management data to verify eligibility based on predefined service rules including minimum service requirements, permissible leave duration, and past leave or NOC history, ensuring compliance with government regulations.
- The module shall implement a configurable multi-level workflow comprising institution-level verification, directorate or departmental scrutiny, and final approval by competent authority, along with provision for query management allowing reviewing officials to raise queries and applicants to respond and resubmit applications.
- The system shall provide real-time application tracking for applicants along with automated notifications through SMS, email, and system alerts at each stage of processing, ensuring transparency and timely communication.
- The module shall include administrative dashboards for monitoring application status, pending cases, approvals, rejections, and SLA-based timelines, enabling effective supervision and performance tracking.
- The system shall support digital approval mechanisms including e-sign integration and auto-generation of digitally signed NOC certificates and Study Leave sanction orders, ensuring secure and paperless processing.
- The module shall ensure secure storage, retrieval, and verification of documents, along with provision for downloading approved certificates by users.
- The system shall provide reporting and analytics capabilities including generation of application statistics, institution-wise and category-wise reports, and processing efficiency metrics to support decision-making and policy analysis.
- The module shall maintain a complete audit trail of the application lifecycle including submission, workflow movement, approvals, and rejections, while enforcing role-based access control and providing alerts and reminders for pending actions and incomplete applications.
- The system shall ensure integration with HIMS Staff Management and other relevant modules.

## Affiliation Management System for the University

The Affiliation Management System (AMS) is a centralized digital platform designed to manage, regulate, and monitor the complete lifecycle of college affiliation processes under the University. The module facilitates structured application submission, scrutiny, inspection, compliance verification, approval, renewal, extension, and continuous monitoring of affiliated institutions. It enhances transparency, ensures regulatory compliance, strengthens accountability mechanisms, and supports outcome-based monitoring of academic and infrastructure standards across affiliated colleges.

- The system shall provide a centralized digital platform for managing the end-to-end affiliation lifecycle, from application submission to approval, renewal, modification, suspension, or withdrawal of affiliation.
- The system shall support structured configuration of affiliation regulations, eligibility norms, infrastructure standards, faculty requirements, intake capacity norms, financial criteria, statutory compliance requirements, and program-specific guidelines.
- The platform shall enable colleges and institutions to submit online applications for new affiliation, continuation, additional courses, intake enhancement, program closure, or status modification, along with required documentation.
- The system shall support submission of detailed institutional profiles including land ownership details, built-up area specifications, laboratory facilities, library resources, faculty strength, student enrollment capacity, financial statements, and statutory approvals.
- The platform shall provide configurable scrutiny and verification workflows with defined evaluation criteria, compliance checklists, deficiency identification mechanisms, and recommendation processes.
- The system shall enable constitution and assignment of inspection committees, scheduling of inspection visits, and digital recording of inspection observations and recommendations.
- The platform shall support upload and verification of geo-tagged photographs, infrastructure evidence, laboratory and classroom facilities, safety compliance certificates, and other statutory documents.
- The system shall facilitate recording of deficiencies identified during scrutiny or inspection and enable institutions to submit compliance reports with supporting documents within defined timelines.
- The platform shall provide configurable approval workflows incorporating defined authority hierarchies, delegation of powers, approval stages, and digital audit trails for transparency and accountability.
- The system shall support generation and issuance of digital affiliation orders, renewal letters, extension approvals, or rejection communications with digitally signed documentation.
- The platform shall enable monitoring of affiliation validity periods and automate alerts for upcoming renewals, compliance deadlines, and statutory submission requirements.
- The system shall provide real-time dashboards and MIS reports for monitoring institution-wise affiliation status, program approvals, intake capacity, compliance levels, inspection outcomes, and pending cases.

- The platform shall integrate with academic management modules to synchronize approved programs, sanctioned intake capacity, examination eligibility, and student registration permissions.
- The system shall integrate with finance modules for tracking affiliation fees, inspection fees, penalties, and other applicable charges, ensuring reconciliation with accounting records.
- The platform shall maintain comprehensive audit trails for all affiliation-related activities, including application submissions, data modifications, scrutiny remarks, inspection reports, approvals, and communications.
- The system shall maintain historical affiliation records of institutions, including previous approvals, compliance history, inspection findings, deficiency reports, and regulatory actions for audit and policy analysis.
- The platform shall enforce role-based access controls for college administrators, university affiliation officers, inspection committee members, finance officers, and approving authorities to ensure secure and authorized access.
- The system shall generate automated alerts and notifications for application status updates, deficiency communications, inspection schedules, approval decisions, renewal due dates, and compliance deadlines.
- The platform shall enable outcome-based monitoring by linking affiliation approvals with measurable performance indicators such as student enrollment trends, faculty-student ratios, infrastructure adequacy, accreditation status, examination performance, and regulatory compliance ratings.
- The module shall ensure compliance with applicable university statutes, regulatory body norms, government policies, accreditation standards, safety regulations, and statutory reporting requirements.
- The system shall enhance transparency, traceability, and accountability in affiliation management by providing real-time visibility of application status, compliance levels, inspection findings, and approval decisions to authorized stakeholders.

## Notification/Calendar Management System

The Notification / Calendar Management System is a centralized digital platform designed to manage, schedule, publish, and monitor institutional notifications, circulars, academic calendars, administrative events, compliance deadlines, and regulatory timelines across universities and affiliated institutions. The module facilitates structured planning, approval, dissemination, acknowledgment tracking, and compliance monitoring of time-bound academic and administrative activities. It enhances transparency, ensures timely communication, strengthens accountability mechanisms, and supports outcome-based tracking of institutional commitments and scheduled milestones.

- The system shall provide a centralized digital platform for creation, scheduling, publication, and monitoring of colleges notifications, circulars, orders, and calendar events from draft stage to closure.
- The system shall support structured configuration of notification categories, priority levels, applicability scope (university-wide, department-specific, institution-specific), recurrence rules, and compliance requirements.
- The platform shall enable authorized users to draft notifications and calendar entries online, including subject, description, attachments, applicable stakeholders, timelines, and expected actions.
- The platform shall allow scheduling of one-time and recurring events such as academic sessions, examination schedules, affiliation deadlines, grant submission timelines, inspection visits, and statutory reporting dates.
- The platform shall support automated publication of approved notifications through web portals, dashboards, email alerts, SMS notifications, and in-system messaging to relevant stakeholders.
- The system shall enable acknowledgment tracking by requiring recipients to confirm receipt and review of critical notifications within defined timelines.
- The system shall generate dashboards and MIS reports displaying notification-wise status, compliance percentage, pending acknowledgments, upcoming deadlines, overdue actions, and institutional response metrics.
- The system shall enforce role-based access controls for administrators, departmental heads, university officials, affiliated institution representatives, and other authorized stakeholders to ensure secure and restricted access.
- The platform shall support version control for revised notifications and calendar updates, ensuring traceability of changes and historical references.
- The system shall enable outcome-based tracking by linking notifications and calendar events to measurable performance indicators such as compliance rates, timely submissions, milestone adherence, and administrative efficiency metrics.

### Integrated Dashboard & MIS Reporting Module

The Dashboard & MIS Reporting Module provides a comprehensive, role-based analytics and reporting framework. It consolidates data from multiple functional modules to deliver real-time insights, statutory reports, and decision-support information for policymakers, administrators, and institutional authorities, while ensuring data accuracy, security, and audit compliance.

- The system shall provide an integrated, role-based dashboard and MIS reporting framework to enable data-driven decision-making at institutional, university, and departmental levels.

- The module shall aggregate and consolidate data from multiple modules to present a unified, consistent, and near real-time view of academic, administrative, financial, and governance indicators.
- The system shall support configurable dashboards tailored to different user roles, including policymakers, administrators, and institutional heads, based on defined access privileges.
- The platform shall support drill-down and drill-through capabilities to facilitate detailed analysis from high-level indicators down to transactional data.
- The system shall generate standard and ad-hoc MIS reports to meet statutory, audit, monitoring, and policy formulation requirements.
- The module shall provide data visualization tools, including charts, graphs, and tabular views, to enhance interpretation and analysis of complex datasets.
- The platform shall support export of reports in prescribed government formats such as PDF, Excel, and other notified formats.
- The system shall enable automated scheduling and dissemination of periodic reports to authorized stakeholders.
- The module shall implement data validation, reconciliation, and consistency checks to ensure accuracy, reliability, and integrity of reported information.
- The system shall maintain comprehensive audit trails for report generation, access, and data extraction activities.
- The platform shall ensure seamless integration across all functional modules of the HIMS application for consistent data flow and reporting.
- The system shall support historical data retention, trend analysis, and comparative reporting across academic and financial years.
- Role-based access controls shall be enforced to prevent unauthorized access and restrict data visibility based on user roles.
- The system shall be scalable to handle large volumes of data, concurrent users, and growing reporting requirements.
- The module shall comply with applicable data governance, information security, and regulatory policies of the Government.

### Third-Party Integration

The 3rd Party Integration Framework provides a secure, scalable, and standardized mechanism for integrating the application with external government platforms and authorized third-party systems. The framework enables seamless data exchange, ensures compliance with government IT and cybersecurity guidelines, and supports both real-time and batch integrations through robust API management, monitoring, and audit controls.

- The system shall provide a secure and standardized integration framework to enable controlled connectivity with external government platforms and authorized third-party systems through APIs.
- The module shall support data exchange with approved external systems including Academic Bank of Credits, Digi Locker, payment gateways, and other notified platforms, as per defined integration protocols.
- The system shall provide configurable integration workflows to accommodate evolving policy requirements, data standards, and technical changes without impacting core application stability.

- The system shall implement strong authentication, authorization, and encryption mechanisms to ensure secure transmission and protection of data during all integration transactions.
- The platform shall maintain comprehensive audit logs for all API calls, data exchanges, and integration activities to ensure traceability and audit compliance.
- The system shall provide error handling, exception management, and reconciliation mechanisms to detect, log, and resolve integration failures in a timely manner.
- The platform shall support both real-time and batch-based data integrations, based on operational and functional requirements.
- The system shall provide monitoring dashboards to track integration status, performance metrics, failures, and data synchronization health.
- The module shall ensure compliance with applicable government IT policies, cybersecurity guidelines, and data protection standards.
- The system shall implement API version control, change management, and backward compatibility mechanisms to manage enhancements and updates to integration services.

## Resource Deployment

Various resources will be deployed across the Department to lead and support the implementation, configuration, and operationalization of different modules of the system. These resources will work in coordination with stakeholders to ensure effective execution, monitoring, and governance of the application. The deployment of resources will facilitate timely decision-making, smooth inter-module coordination, and sustained operational support in alignment with departmental objectives and institutional requirements.

## AI-Innovation & Collaboration Clustering Across HEIs

This module shall facilitate the creation of collaborative innovation ecosystems across Higher Educational Institutions (HEIs) by enabling AI-driven collaboration mechanisms, research partnerships, academic networking, and knowledge-sharing frameworks to promote innovation and institutional growth.

- The system shall provide mechanisms for creation, configuration, and management of innovation clusters among Higher Educational Institutions for enabling collaborative research, academic partnerships, and innovation initiatives.
- The system shall facilitate AI-enabled recommendation of collaboration opportunities among institutions based on academic strengths, research interests, available resources, and institutional requirements.
- The system shall provide capabilities for facilitating research collaboration management among institutions, departments, faculties, and external stakeholders for promoting interdisciplinary innovation.

- The system shall provide centralized mechanisms for capturing, managing, and sharing innovation activities, research outcomes, publications, and institutional achievements across participating institutions.
- The system shall provide dashboards and analytical capabilities for monitoring collaborative initiatives, innovation activities, institutional participation, and overall performance indicators.

### AI-Based Language Lab Management

This module shall provide AI-enabled digital language learning capabilities for facilitating communication skills enhancement, multilingual education, automated assessments, and intelligent language learning experiences.

- The system shall provide mechanisms for configuration and management of language courses, learning modules, and language laboratory activities across multiple languages and competency levels.
- The system shall provide virtual practice environments supporting listening, speaking, reading, and writing activities for learners through digital learning mechanisms.
- The system shall provide personalized learning pathways and recommendations based on learner performance, competency levels, and assessment outcomes.
- The system shall provide comprehensive monitoring dashboards and reporting mechanisms for tracking language learning progress, participation, and performance analytics.

### AI-Based Infrastructure Assessment

This module shall facilitate automated infrastructure evaluation through AI-driven mechanisms for assessment, monitoring, planning, and identification of infrastructure gaps across educational institutions.

- The system shall provide mechanisms for maintaining infrastructure inventories and asset repositories for capturing physical infrastructure details and related information.
- The system shall facilitate AI-enabled assessment of institutional infrastructure for identifying the building at which level it is at based on the construction image analysis.
- The system shall provide automated mechanisms for identifying infrastructure gaps and generating recommendations for improvement based on predefined assessment parameters.
- The system shall provide facilities for periodic monitoring and evaluation of infrastructure assets for supporting decision-making and planning activities.
- The system shall provide centralized dashboards and analytical mechanisms for monitoring infrastructure status, assessment outcomes, and institutional performance indicators.

### AI-DMS (Document Management System)

This module shall facilitate centralized management of digital documents through AI-enabled classification, indexing, retrieval, storage, and document lifecycle management capabilities.

- The system shall provide centralized repository management capabilities for storing, organizing, and managing institutional documents and digital records.
- The system shall facilitate AI-enabled document classification, metadata tagging, and indexing mechanisms for improving document accessibility and search efficiency.
- The system shall provide advanced search mechanisms enabling users to retrieve documents based on keywords, categories, metadata, and contextual information.
- The system shall facilitate document version management, approval workflows, and document lifecycle tracking for maintaining record integrity and governance.
- The system shall provide audit trails, permission management mechanisms, and access controls for ensuring secure document access and monitoring activities.
- The system would be smart enough to understand the queries asked by the users and coming with the answers from the uploaded documents.

### AI-Powered Student Life Cycle & Tracking Management

This module shall facilitate end-to-end monitoring and management of student activities throughout their academic lifecycle using AI-enabled tracking and predictive analysis mechanisms.

- The system shall provide mechanisms for managing student lifecycle activities from admission through academic progression, graduation, and alumni transition processes.
- The system shall facilitate continuous monitoring of student performance, engagement, attendance, participation, and academic activities throughout the educational journey.
- The system shall provide AI-enabled identification of students requiring intervention through predictive analysis and risk assessment mechanisms as defined by the HED from time to time.
- The system shall facilitate tracking of academic progression, extracurricular activities, institutional engagement, and overall student development indicators.
- The system shall provide dashboards and analytical capabilities for monitoring student lifecycle events, performance indicators, and institutional outcomes.

### AI Driven Integrated Exam Management System

This module shall provide AI-enabled examination management capabilities covering pre-examination activities, examination execution processes, and post-examination activities through integrated mechanisms.

- The system shall provide comprehensive mechanisms for planning, scheduling, configuration, and management of examination activities across institutions.
- The system shall facilitate examination workflow management including question paper sharing (optional), examination scheduling, center management, and candidate allocation processes.
- The system shall provide AI-enabled reporting ability to identify which students requires intervention based on the results during semester. There will be analysis of student – teacher, which teacher derives the best outcome for the students.
- The system shall facilitate result processing, and performance analysis activities through AI-enabled capabilities.
- The system shall provide centralized dashboards and analytical capabilities for monitoring examination performance, participation trends, and institutional outcomes.

## Blockchain Certificate Generation & Download

This module shall facilitate generation, storage, verification, and distribution of digitally secured certificates using blockchain-enabled technologies for ensuring authenticity and security.

- The system shall provide mechanisms for digital certificate generation and issuance for students, faculty members, and other stakeholders.
- The system shall facilitate blockchain-enabled certificate validation mechanisms for ensuring certificate authenticity and preventing unauthorized modifications.
- The system shall provide centralized repositories for secure storage and management of digital certificates and related documents.
- The system shall facilitate certificate download, sharing, verification, and retrieval mechanisms for internal and external stakeholders.
- The system shall provide dashboards and monitoring mechanisms for tracking certificate issuance, verification activities, and utilization statistics.

## Intelligent Learning & LMS Layer

This module shall provide an integrated digital learning ecosystem supporting personalized learning experiences, content management, learner engagement, and learning analytics.

- The system shall provide facilities for creation, management, organization, and delivery of digital learning content and academic resources.
- The system shall facilitate personalized learning experiences through AI-enabled recommendations based on learner behavior, performance, and interests.
- The system shall provide mechanisms for conducting assessments, quizzes, assignments, and interactive learning activities.
- The system shall facilitate monitoring of learner participation, engagement, performance, and learning outcomes across educational programs.
- The system shall provide dashboards and analytical mechanisms for monitoring learning activities and institutional academic performance indicators.

## Assignment Management

This module shall facilitate management of assignment-related activities including creation, distribution, submission, evaluation, and monitoring processes.

- The system shall provide mechanisms for assignment creation, publishing, scheduling, and management across academic programs and courses.
- The system shall facilitate assignment submission mechanisms enabling learners to upload, manage, and track submissions digitally.
- The system shall provide facilities for evaluation, grading, review, and feedback management for submitted assignments.
- The system shall facilitate monitoring of assignment completion status, submission trends, and academic participation indicators.
- The system shall provide reporting mechanisms and dashboards for monitoring assignment activities and learner performance outcomes.

## NEP-2020 Based Modifications

This module shall facilitate implementation of academic reforms and policy provisions aligned with the objectives, principles, and guidelines prescribed under National Education Policy (NEP) 2020 through configurable digital mechanisms and institutional process transformation.

- The system shall provide mechanisms for configuration and management of academic structures aligned with NEP-2020 guidelines including multidisciplinary learning frameworks, flexible curriculum structures, and competency-based education models.
- The system shall facilitate implementation of multiple entry and exit provisions, academic mobility frameworks, and learner-centric educational structures for improving academic flexibility.
- The system shall provide support mechanisms for management of academic credits, curriculum restructuring, course mapping, and institutional academic reforms as prescribed under NEP guidelines.
- The system shall facilitate implementation of institutional reforms associated with skill-based education, outcome-driven learning approaches, and interdisciplinary educational models.
- The system shall provide monitoring mechanisms and dashboards for tracking implementation status, institutional readiness, compliance indicators, and adoption of NEP-based reforms.
- The system shall provide reporting and analytical capabilities for monitoring educational reforms, policy implementation outcomes, and institutional transformation initiatives.

## Faculty Development / Training Management

This module shall facilitate planning, management, monitoring, execution, and evaluation of faculty development initiatives and capacity-building programs for improving institutional capabilities and academic quality.

- The system shall provide mechanisms for planning, scheduling, configuration, and management of faculty development programs, workshops, training sessions, and capacity-building initiatives.
- The system shall facilitate management of faculty participation, nominations, enrollment processes, and attendance tracking for various institutional training programs.
- The system shall provide mechanisms for training calendar management, scheduling activities, resource allocation, and communication related to faculty development initiatives.
- The system shall facilitate management of certifications, completion records, competency assessments, and faculty skill enhancement activities.
- The system shall provide facilities for capturing feedback, conducting evaluations, and measuring effectiveness of training programs and development activities.
- The system shall facilitate monitoring of faculty competencies, professional development activities, research-oriented training participation, and academic skill enhancement initiatives.
- The system shall provide dashboards and analytical capabilities for monitoring participation trends, training effectiveness, institutional capacity-building activities, and faculty performance indicators.

## WhatsApp Integration for Communications

This module shall facilitate communication and engagement among stakeholders through integration with messaging platforms for enabling automated notifications, alerts, and communication workflows.

- The system shall provide mechanisms for configuration and management of automated communications triggered through system activities, workflows, and institutional events.
- The system shall facilitate automated dissemination of notifications, reminders, alerts, and communication messages to students, faculty members, administrators, and stakeholders.
- The system shall provide template management mechanisms for configuring communication content, message structures, and notification categories for different use cases.
- The system shall facilitate communication scheduling, workflow-triggered messaging, and event-based communication mechanisms for improving stakeholder engagement.
- The system shall provide facilities for broadcasting announcements, institutional communications, emergency notifications, and information dissemination activities.
- The system shall facilitate tracking of communication status, message delivery monitoring, notification history management, and communication audit trails.
- The system shall provide dashboards and analytical mechanisms for monitoring communication effectiveness, stakeholder engagement levels, and communication performance indicators.

## Award & Recognition Management

This module shall facilitate management of awards, recognitions, nominations, achievements, and appreciation programs for promoting institutional excellence and stakeholder motivation.

- The system shall provide mechanisms for configuration and management of award categories, recognition programs, eligibility criteria, and institutional appreciation initiatives.
- The system shall facilitate management of nomination processes, submission workflows, evaluation activities, and approval mechanisms associated with awards and recognitions.
- The system shall provide facilities for maintaining repositories of achievements, institutional recognitions, academic accomplishments, and stakeholder contributions.
- The system shall facilitate monitoring of recognition programs, award distribution processes, achievement tracking, and institutional performance indicators.
- The system shall provide mechanisms for generation of certificates, recognition documents, appreciation communications, and digital acknowledgements.
- The system shall facilitate maintenance of historical records associated with awards, achievements, recognitions, and institutional excellence initiatives.
- The system shall provide dashboards and reporting mechanisms for monitoring award participation, recognition outcomes, and overall institutional performance indicators.

## Research & Innovation Hub

This module shall facilitate management of research activities, innovation initiatives, academic collaborations, publications, and institutional research ecosystems through centralized digital mechanisms.

- The system shall provide mechanisms for management of research projects, proposals, institutional initiatives, and innovation activities across educational institutions.
- The system shall facilitate collaboration among researchers, institutions, departments, faculty members, and stakeholders for supporting multidisciplinary research initiatives.
- The system shall provide facilities for management of research proposals, project tracking, funding information, approvals, and monitoring activities.
- The system shall facilitate management of publications, intellectual contributions, innovation outputs, patents, and academic research repositories.
- The system shall provide mechanisms for monitoring funded research activities, innovation programs, institutional partnerships, and collaborative initiatives.
- The system shall facilitate repository management for research outputs, innovation documents, project reports, and institutional knowledge assets.
- The system shall provide dashboards and analytical capabilities for monitoring research performance, innovation indicators, institutional contributions, and research outcomes.

### MOM & Proceeding Management with Live Translation

This module shall facilitate management of meetings, proceedings, approvals, documentation activities, and multilingual communication through digital mechanisms supporting institutional governance processes.

- The system shall facilitate preparation of Minutes of Meetings (MoM), proceedings, resolutions, and action points associated with institutional activities.
- The system shall provide live translation mechanisms for supporting multilingual (Odia to English) communication, improving accessibility, and enabling participation across language barriers.
- The system shall facilitate recording and management of discussions, decisions, observations, and action items arising during meetings and institutional interactions.
- The system shall provide facilities for maintaining centralized repositories of meeting records, proceedings, approvals, and historical institutional documents.
- The system shall facilitate search, retrieval, and tracking mechanisms for meeting records and action items to improve governance and monitoring activities.
- The system shall provide dashboards and reporting mechanisms for monitoring meeting frequency, decision implementation status, pending actions, and institutional governance indicators.

### Compliance Automation

This module shall facilitate automation of institutional compliance processes by enabling monitoring, tracking, reporting, and management of regulatory requirements applicable across Higher Educational Institutions.

- The system shall provide mechanisms for configuration and management of various regulatory, academic, administrative, and institutional compliance requirements.

- The system shall facilitate automated tracking and monitoring of compliance activities, timelines, deadlines, and submission requirements across institutions.
- The system shall provide configurable workflows for approval, verification, review, and escalation of compliance-related activities.
- The system shall facilitate generation of compliance alerts, reminders, notifications, and escalation mechanisms for minimizing delays and non-compliance risks.
- The system shall provide dashboards and analytical mechanisms for monitoring compliance status, pending actions, institutional performance, and regulatory adherence indicators.
- The system shall facilitate repository management for maintaining compliance documents, records, certificates, and supporting evidences for audit purposes.
- The system shall provide reporting capabilities for generating regulatory reports and compliance status reports for stakeholders and authorities.

### Inter-University Credit Transfer (ABC Integration)

This module shall facilitate management of academic credit transfers across institutions through integration mechanisms supporting Academic Bank of Credits (ABC) and inter-institutional academic mobility.

- The system shall provide mechanisms for management of student academic credits and credit accumulation across institutions and academic programs.
- The system shall facilitate integration with Academic Bank of Credits (ABC) frameworks for enabling credit transfer, validation, and reconciliation processes.
- The system shall provide facilities for mapping courses, subjects, academic structures, and equivalent credit frameworks across institutions.
- The system shall facilitate management of inter-university academic mobility processes and credit portability mechanisms.
- The system shall provide mechanisms for verification, approval, and validation of transferred credits across participating institutions.
- The system shall facilitate monitoring of student credit utilization, progression, and completion requirements.
- The system shall provide dashboards and analytical capabilities for monitoring credit transfer activities and academic mobility indicators.

### Policy & Governance Intelligence

This module shall facilitate data-driven governance and decision-making through centralized policy monitoring, intelligence generation, and analytical mechanisms.

- The system shall provide mechanisms for management of institutional policies, guidelines, governance frameworks, and administrative procedures.
- The system shall facilitate collection and analysis of governance-related information for supporting strategic decision-making activities.
- The system shall provide intelligent monitoring mechanisms for identifying policy gaps, implementation challenges, and governance-related observations.
- The system shall facilitate centralized tracking of policy implementation status, institutional compliance, and governance indicators.
- The system shall provide analytical dashboards and decision-support mechanisms for improving institutional planning and governance processes.

- The system shall facilitate generation of policy reports, governance summaries, and performance indicators for stakeholders.
- The system shall provide monitoring capabilities for evaluating policy effectiveness and institutional governance outcomes.

### Citizen & Public Interface

This module shall facilitate engagement between institutions and citizens through digital service delivery mechanisms, information dissemination, and public interaction capabilities.

- The system shall provide mechanisms for enabling citizen access to institutional services, public information, and digital interfaces.
- The system shall facilitate management of public interactions, feedback collection, communication activities, and stakeholder engagement mechanisms.
- The system shall provide facilities for dissemination of notifications, announcements, public notices, and institutional communications.
- The system shall facilitate online submission of requests, applications, queries, and service-related interactions.
- The system shall provide mechanisms for monitoring citizen interactions, service delivery efficiency, and response timelines.
- The system shall facilitate integration with grievance management and service delivery workflows where required.
- The system shall provide dashboards and analytical capabilities for monitoring citizen engagement and public service indicators.

### Inspection Management

This module shall facilitate planning, execution, monitoring, and reporting of inspection activities across institutions and educational entities.

- The system shall provide mechanisms for scheduling, assigning, and managing inspection activities across institutions and departments.
- The system shall facilitate inspection workflow management including preparation, execution, review, and reporting activities.
- The system shall provide facilities for capturing observations, findings, recommendations, and compliance requirements during inspections.
- The system shall facilitate monitoring of corrective actions, compliance closure activities, and follow-up mechanisms.
- The system shall provide digital repositories for maintaining inspection records, documents, evidences, and reports.
- The system shall facilitate monitoring of inspection frequency, institutional performance, and inspection outcomes.
- The system shall provide dashboards and analytical capabilities for inspection monitoring and performance evaluation.

### Student Multiple-Entry Exit Management System

This module shall facilitate implementation and management of multiple-entry and multiple-exit academic structures supporting flexible education frameworks.

- The system shall provide mechanisms for management of student academic journeys involving multiple entry and exit provisions.
- The system shall facilitate tracking of academic credits, completed programs, certifications, and re-entry eligibility criteria.
- The system shall provide facilities for academic progression management and flexible continuation mechanisms.
- The system shall facilitate validation and management of student records associated with entry, exit, re-entry, and program transitions.
- The system shall provide monitoring mechanisms for tracking academic pathways and learner progression indicators.
- The system shall facilitate integration with academic structures, credit systems, and institutional workflows.
- The system shall provide dashboards and reports for monitoring multiple entry-exit implementation and student mobility trends.

### MRIP Monitoring

This module shall facilitate monitoring, tracking, reporting, and management of activities associated with MRIP initiatives and institutional performance.

- The system shall provide mechanisms for capturing, managing, and monitoring MRIP-related activities and institutional initiatives.
- The system shall facilitate monitoring of project milestones, timelines, deliverables, and implementation status.
- The system shall provide facilities for tracking institutional participation and activity completion mechanisms.
- The system shall facilitate monitoring of financial utilization, progress indicators, and performance outcomes.
- The system shall provide centralized dashboards for monitoring implementation status and institutional achievements.
- The system shall facilitate generation of progress reports and analytical summaries for stakeholders.
- The system shall provide performance monitoring mechanisms supporting decision-making activities.

### Private College & University Management

This module shall facilitate digital management of administrative, academic, regulatory, and institutional activities associated with private colleges and universities.

- The system shall provide mechanisms for management of institutional profiles, academic information, and organizational structures.
- The system shall facilitate management of administrative processes, institutional workflows, and academic operations.
- The system shall provide facilities for regulatory monitoring, compliance management, and reporting activities.
- The system shall facilitate management of institutional approvals, recognitions, and governance-related activities.
- The system shall provide monitoring mechanisms for academic performance and institutional indicators.

- The system shall facilitate communication and coordination between institutions and administrative authorities.
- The system shall provide dashboards and analytical mechanisms for institutional performance monitoring.

### Android & iOS Extension

This module shall facilitate mobile accessibility of services and digital platforms through mobile application capabilities across Android and iOS ecosystems.

- The system shall provide mobile interfaces enabling access to institutional services through Android and iOS platforms.
- The system shall facilitate mobile-based access to notifications, dashboards, approvals, and workflow activities.
- The system shall provide mechanisms for mobile-friendly service delivery and stakeholder engagement activities.
- The system shall facilitate real-time communication, alerts, and activity monitoring through mobile platforms.
- The system shall provide support for mobile authentication, profile management, and personalized user experiences.
- The system shall facilitate synchronization between mobile applications and centralized digital platforms.
- The system shall provide monitoring mechanisms for mobile usage analytics and service utilization indicators.

### Course Coverage Monitoring & Tracking

This module shall facilitate monitoring and tracking of academic syllabus completion, teaching activities, and course delivery mechanisms.

- The system shall provide mechanisms for monitoring academic course progress and syllabus completion status.
- The system shall facilitate tracking of teaching activities, classroom engagements, and curriculum delivery processes.
- The system shall provide facilities for monitoring planned versus actual academic coverage across institutions.
- The system shall facilitate identification of delays, academic gaps, and pending course activities.
- The system shall provide dashboards and monitoring mechanisms for evaluating course completion indicators.
- The system shall facilitate generation of reports for academic administrators and institutional authorities.
- The system shall provide analytical capabilities for monitoring teaching efficiency and curriculum delivery outcomes.

### Convocation Management Module

This module shall facilitate planning, coordination, execution, and management of convocation-related activities through digital workflows.

- The system shall provide mechanisms for planning and scheduling convocation activities across institutions.
- The system shall facilitate registration, participation management, and communication activities for eligible students.
- The system shall provide facilities for certificate preparation, distribution planning, and document management activities.
- The system shall facilitate management of event logistics, seating arrangements, invitations, and ceremonial workflows.
- The system shall provide monitoring mechanisms for participation status and event execution activities.
- The system shall facilitate communication management associated with convocation events.
- The system shall provide dashboards and reports for monitoring convocation activities and outcomes.

### Scanning & Digitisation of Examination System

This module shall facilitate digitization of examination records, answer scripts, and examination-related documents for improving accessibility and management.

- The system shall provide mechanisms for digitization and storage of examination-related documents and records.
- The system shall facilitate scanning and repository management of answer scripts and examination artifacts.
- The system shall provide facilities for indexing, categorization, and retrieval of digitized examination records.
- The system shall facilitate digital access and workflow-based movement of examination documents.
- The system shall provide mechanisms for maintaining audit trails and document integrity.
- The system shall facilitate archival and long-term preservation of examination records.
- The system shall provide monitoring and reporting mechanisms for digitization activities.

### Guest Faculty Selection for Government College

This module shall facilitate management of guest faculty recruitment, selection, approval, and engagement processes.

- The system shall provide mechanisms for managing guest faculty requirements and vacancy information.
- The system shall facilitate application management, eligibility verification, and candidate screening processes.
- The system shall provide workflow mechanisms for approvals, recommendations, and selection activities.
- The system shall facilitate management of merit preparation and candidate shortlisting activities.
- The system shall provide facilities for communication, notifications, and engagement management.
- The system shall facilitate monitoring of faculty deployment and requirement fulfillment activities.

- The system shall provide dashboards and reporting mechanisms for recruitment monitoring.

### Teacher Education Monitoring

This module shall facilitate monitoring and evaluation of teacher education activities, institutional performance, and training outcomes.

- The system shall provide mechanisms for monitoring teacher education programs and institutional activities.
- The system shall facilitate tracking of teacher training, certification, and professional development activities.
- The system shall provide facilities for monitoring participation, completion rates, and performance indicators.
- The system shall facilitate evaluation of institutional outcomes and teacher competency development initiatives.
- The system shall provide dashboards and analytical mechanisms for monitoring educational effectiveness.
- The system shall facilitate reporting and performance monitoring activities for administrators.
- The system shall provide centralized mechanisms for monitoring teacher education indicators.

### Career Counselling & Placement

This module shall facilitate career guidance, placement support, skill development activities, and employment-related initiatives for students.

- The system shall provide mechanisms for management of career counseling activities, guidance sessions, and student engagement initiatives.
- The system shall facilitate management of placement activities including employer engagement, recruitment drives, and opportunity dissemination.
- The system shall provide facilities for capturing student profiles, career preferences, skills, and employment aspirations.
- The system shall facilitate management of internships, training activities, and skill enhancement programs.
- The system shall provide monitoring mechanisms for placement outcomes, employer participation, and student engagement indicators.
- The system shall facilitate communication and coordination between students, institutions, and employers.
- The system shall provide dashboards and analytical capabilities for monitoring placement performance and career development indicators.

### Integration with HIMS, SAMS, Scholarship Portal, Common Websites, Mo College Website, ABC Portal & Other CAPA Platforms

This module shall facilitate seamless integration among various departmental and institutional digital platforms for enabling data exchange, interoperability, centralized monitoring, and unified service delivery mechanisms.

- The system shall provide mechanisms for integration with existing departmental applications, institutional platforms, and external systems for facilitating seamless information exchange.
- The system shall facilitate secure exchange of information among multiple platforms to eliminate duplicate data entry and improve operational efficiency.
- The system shall provide configurable mechanisms for synchronization of academic, administrative, financial, and beneficiary-related information across integrated systems.
- The system shall facilitate real-time or scheduled data exchange mechanisms supporting interoperability among departmental applications.
- The system shall provide monitoring mechanisms for integration activities, synchronization status, transaction monitoring, and exception handling.
- The system shall facilitate unified reporting and centralized monitoring capabilities utilizing information aggregated from multiple platforms.
- The system shall provide scalable integration frameworks for supporting future integrations and expansion requirements.

### Special Information Collection Modules with Creation of Separate Dedicated Links / Interfaces

This module shall facilitate collection of specific information requirements through configurable interfaces and dedicated digital mechanisms for supporting institutional and departmental requirements.

- The system shall provide configurable mechanisms for creation of dedicated forms, interfaces, and information collection workflows based on departmental requirements.
- The system shall facilitate creation of separate links and interfaces for collecting institution-specific, scheme-specific, or activity-specific information.
- The system shall provide facilities for configuration of validation rules, approval workflows, and submission mechanisms for information collection processes.
- The system shall facilitate bulk collection, management, verification, and processing of collected information through centralized mechanisms.
- The system shall provide monitoring mechanisms for tracking submission status, response rates, pending activities, and completion indicators.
- The system shall facilitate dynamic creation and modification of information collection requirements without major technical dependencies.
- The system shall provide reporting and analytical capabilities for monitoring collected information and decision-making activities.

### Pay Fixation and Pay Protection Proposal by OES Officers

This module shall facilitate digital processing and management of pay fixation and pay protection proposals associated with officers through workflow-driven mechanisms.

- The system shall provide mechanisms for submission and management of pay fixation and pay protection proposals through digital workflows.
- The system shall facilitate configuration of rules, approval workflows, verification mechanisms, and processing activities associated with pay-related proposals.
- The system shall provide facilities for management of employee records, supporting documents, and proposal-related information.

- The system shall facilitate tracking of proposal movement, approval stages, pending activities, and status monitoring.
- The system shall provide mechanisms for maintaining historical records associated with pay fixation activities and revisions.
- The system shall facilitate monitoring and reporting capabilities for processing timelines, proposal status, and administrative activities.
- The system shall provide dashboards and analytical mechanisms for monitoring proposal processing efficiency and administrative performance.

### Assignment of Principal (I/C) in Non-Government Aided Colleges

This module shall facilitate management of assignment, approval, and monitoring activities associated with appointment of Principal In-Charge positions.

- The system shall provide mechanisms for capturing institutional requirements and vacancies associated with Principal In-Charge assignments.
- The system shall facilitate submission, recommendation, approval, and assignment workflows associated with appointment processes.
- The system shall provide facilities for maintaining records of assignments, approvals, tenure information, and institutional allocations.
- The system shall facilitate monitoring of assignment status, vacancies, tenure completion, and administrative workflows.
- The system shall provide mechanisms for communication and notification associated with assignment activities and approvals.
- The system shall facilitate repository management for maintaining assignment records and supporting documentation.
- The system shall provide dashboards and analytical capabilities for monitoring assignment activities and institutional coverage indicators.

### NOC and Study Leave for OES Officers

This module shall facilitate management of No Objection Certificate (NOC) requests and study leave processes through digital workflow mechanisms.

- The system shall provide mechanisms for submission and management of NOC applications and study leave requests.
- The system shall facilitate configurable approval workflows for processing applications through multiple administrative stages.
- The system shall provide facilities for maintaining supporting documents, application records, and approval history information.
- The system shall facilitate monitoring of application status, pending approvals, and processing timelines.
- The system shall provide automated notification and communication mechanisms associated with workflow activities.
- The system shall facilitate reporting and monitoring of study leave utilization and approval statistics.
- The system shall provide dashboards and analytical capabilities for monitoring administrative efficiency and application processing activities.

## Leave Management Module for Teaching Staff of Non-Government Aided Colleges

This module shall facilitate management of leave applications, approvals, balances, and monitoring activities associated with teaching staff.

- The system shall provide mechanisms for leave application submission, modification, withdrawal, and management activities.
- The system shall facilitate configurable approval workflows supporting various leave categories and institutional structures.
- The system shall provide facilities for management of leave balances, entitlements, utilization history, and leave records.
- The system shall facilitate monitoring of leave approvals, pending requests, and staff availability indicators.
- The system shall provide automated communication mechanisms associated with leave requests and approvals.
- The system shall facilitate reporting and analytics associated with leave utilization and workforce availability.
- The system shall provide dashboards and monitoring capabilities for administrative oversight and workforce planning activities.

## Learning Process Module

This module shall facilitate management and monitoring of teaching-learning processes for improving academic delivery and educational outcomes.

- The system shall provide mechanisms for management of academic activities associated with teaching and learning processes.
- The system shall facilitate monitoring of learning activities, curriculum delivery, classroom engagements, and academic participation indicators.
- The system shall provide facilities for capturing learning outcomes, academic interactions, and educational performance indicators.
- The system shall facilitate monitoring of learner participation, academic engagement, and educational effectiveness.
- The system shall provide configurable mechanisms supporting various teaching methodologies and institutional practices.
- The system shall facilitate reporting and analytics associated with academic delivery and learning effectiveness indicators.
- The system shall provide dashboards for monitoring teaching-learning activities and institutional academic performance.

## Module for Generation of Payment Instruction at College / University Level for Employees and Other HEIs

This module shall facilitate generation and management of payment instructions associated with institutional financial processes and employee-related disbursements.

- The system shall provide mechanisms for creation and management of payment instructions associated with institutional financial activities.

- The system shall facilitate processing of payment requests, validations, approvals, and financial workflows.
- The system shall provide facilities for maintaining payment records, transaction history, and financial documentation.
- The system shall facilitate monitoring of payment status, approval stages, pending activities, and processing timelines.
- The system shall provide mechanisms for integration with financial management systems and related institutional processes.
- The system shall facilitate reporting and monitoring of payment activities and financial performance indicators.
- The system shall provide dashboards and analytical capabilities for monitoring institutional financial transactions and payment workflows.

### NCC, Rovers Rangers, Red Cross Activities, NCC Camp and Field Activities

This module shall facilitate management and monitoring of extracurricular activities associated with student development and institutional engagement initiatives.

- The system shall provide mechanisms for management of various extracurricular activities, camps, programs, and participation initiatives.
- The system shall facilitate registration, participation tracking, scheduling, and activity monitoring mechanisms.
- The system shall provide facilities for maintaining records associated with activities, achievements, participation history, and events.
- The system shall facilitate monitoring of student participation, engagement levels, and activity outcomes.
- The system shall provide communication mechanisms supporting event coordination and stakeholder engagement activities.
- The system shall facilitate reporting and analytical capabilities associated with activity participation and outcomes.
- The system shall provide dashboards for monitoring extracurricular engagement indicators and institutional participation levels.

### IDs for SDMs, BDOs, DMs for Internship

This module shall facilitate management of user access and institutional coordination mechanisms associated with internship stakeholders.

- The system shall provide mechanisms for creation and management of user identities and access controls for designated stakeholders.
- The system shall facilitate role-based access mechanisms supporting internship-related activities and coordination requirements.
- The system shall provide facilities for management of institutional mappings, jurisdiction information, and stakeholder associations.
- The system shall facilitate monitoring of user activities, access utilization, and coordination mechanisms.
- The system shall provide communication and notification mechanisms supporting internship management activities.
- The system shall facilitate reporting and monitoring of stakeholder engagement and participation indicators.

- The system shall provide dashboards supporting administrative oversight and access management activities.

### Modules for AEDP

This module shall facilitate digital management and monitoring of activities associated with AEDP initiatives through configurable workflows and monitoring mechanisms.

- The system shall provide mechanisms for configuration and management of activities associated with AEDP initiatives and related institutional programs.
- The system shall facilitate management of workflows, approvals, monitoring activities, and program implementation processes.
- The system shall provide facilities for capturing program information, beneficiary details, institutional activities, and progress indicators.
- The system shall facilitate monitoring of implementation status, performance indicators, and institutional participation activities.
- The system shall provide reporting and analytical capabilities for monitoring program outcomes and performance indicators.
- The system shall facilitate dashboard mechanisms supporting administrative oversight and monitoring activities.
- The system shall provide scalable mechanisms supporting future modifications and expansion requirements.

### AI Analytics for Student Performance and Identification of Vulnerable Students

This module shall facilitate AI-driven analysis of academic performance and identification of students requiring intervention through predictive mechanisms.

- The system shall provide mechanisms for collecting and analyzing academic, attendance, participation, and performance-related information.
- The system shall facilitate AI-enabled identification of vulnerable students based on academic trends, participation patterns, and performance indicators.
- The system shall provide predictive analysis mechanisms supporting early intervention and student support activities.
- The system shall facilitate monitoring of academic progress and effectiveness of intervention mechanisms.
- The system shall provide dashboards supporting administrators, faculty members, and stakeholders in monitoring student performance indicators.
- The system shall facilitate generation of analytical reports supporting decision-making and academic planning activities.
- The system shall provide centralized monitoring mechanisms supporting improvement of student outcomes and institutional performance.

API Integration with Various Universities programs for result publication, examination management, affiliation, promotions of employees, College development activities, education investment proposal, monitoring of demands of various institutions, facility management services, PM Gatishakti and other relevant Govt websites/ IT solutions.

This module shall facilitate integration with multiple university systems for enabling interoperability, data exchange, process automation, and unified service delivery.

- The system shall provide mechanisms for integration with examination systems, result publication systems, examination management, affiliation, promotions of employees, College development activities, education investment proposal, monitoring of demands of various institutions, facility management services.
- API integration with IFMS. PM Gatishakti and other portals as and when required.
- The system shall facilitate secure exchange of information among university systems for improving operational efficiency and eliminating redundant activities.
- The system shall provide configurable integration mechanisms supporting future expansion and onboarding of additional systems.
- The system shall facilitate monitoring of data exchange activities, synchronization status, and integration performance indicators.
- The system shall provide centralized monitoring mechanisms supporting interoperability and information consistency across platforms.
- The system shall facilitate reporting capabilities supporting integration monitoring and administrative decision-making activities.
- The system shall provide scalable integration frameworks supporting long-term institutional digital transformation objectives.

## **22. FORMATS FOR SUBMISSION FORMAT– 1**

### **APPLICANT’S REQUEST FOR PROPOSAL**

**To,**

**The Commissioner -cum - Secretary**

**Higher Education Department**

**Govt. of Odisha, Bhubaneswar**

**Sub:** Submission of Request for Proposal for development of “Digital Application Modules under the Comprehensive Digital Governance Platform along with Resource Deployment Component and to integrate it with existing ERP of Higher Education Department.

Sir,

In response to the Invitation for Expressions of Interest (RFP) published on \_\_\_\_\_ for the above purpose, we would like to express interest to the above proposed task. As instructed, we are submitting the following documents in sealed envelopes for needful:

1.

- a. Applicant's Request for Proposal as per Format-1.
- b. Application as per Format-2 with relevant documents
- c. Financial Quotation: Format-3.
- d. Power of Attorney in favour of Authorized Signatory with long and short signatures of Authorized person [in case of Agencies/Organizations]

Your's Sincerely,

Signature of the applicant

Date:

[Full name of applicant]

Encl.: As above.

**FORMAT- 2**

**APPLICANT'S PROFILE**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Information Furnished by the Applicant</b>
1.0	Name and Address of the Applicant (in BLOCK LETTERS)	
2.0	Address for Communication (Telephone/Mobile Number)	
3.0	Experience Details	<p>Have you delivered such services to any individuals/agencies/organizations?</p> <p>No. of years of experience:</p> <p>Nature of services provided:</p> <p>Details of customers:</p>

<b>Sl. No.</b>	<b>Particulars</b>	<b>Information Furnished by the Applicant</b>
5.0	Technical Support Personnel	Details of technical support personnel available to handle this project
6.0	Previous Performance	Customer reviews, awards, certifications
7.0	Annual Turnover	Annual turnover of last 3 years (attach audited financial statements certified by Chartered Accountant)

I hereby declare that the information furnished in the application is true to the best of my knowledge and belief.

Encl.: As stated above

Signature of the applicant

Full name of the applicant

Stamp & Date

**FORMAT- 3**

**TECHNICAL BID**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Information Furnished by the Applicant</b>
1	Name of the Bidder with Complete Postal Address	
2	Details of Bid Processing Fee	DD No: _____ Date: _____ Amount: _____ Bank: _____

3	Details of Earnest Money Deposit (EMD)	DD No: _____ Date: _____ Amount: _____ Bank: _____
5	Full Address of Registered Office	Address: _____ Tel No: _____ Fax: _____ Email: _____
6	Full Address of Operating / Branch Office at Bhubaneswar	Address: _____ Tel No: _____ Fax: _____ Email: _____
7	Authorized Contact Person	Name: _____ Tel No: _____
8	PAN / GIR No. (Attach self-attested copy)	
9	GST No. (Attach self-attested copy)	
10	Annual Turnover (₹ in Crores)	FY 2022–23: _____ FY 2023–24: _____ FY 2024–25: _____
11	Net Worth (₹ in Crores)	FY 2022–23: _____ FY 2023–24: _____ FY 2024–25: _____
12	Project Experience Details	Sl. No: _____ Project Name: _____ Client Name & Address: _____ Contract Value (₹ in Crores): _____

		Duration: _____
13	GST Returns (Last 3 Years)	2022-23: _____ 2023-24: _____ 2024-25: _____
14	Certifications	ISO 9001: _____ ISO 20001: _____ ISO 27001: _____ CMMI Level 3 or above: _____

**FORMAT- 4**

**Manufacturer Authorization Form (MAF)**

**(To be submitted on OEM Letter Head)**

**To**  
**The Commissioner -cum - Secretary,**  
**Higher Education Department,**  
**Govt. of Odisha, Bhubaneswar**

**Sub:** Authorization for participation in RFP for Selection of Software Solution Provider for Development of Digital Application Modules under the Comprehensive Digital Governance Platform along with Resource Deployment Component and to integrate it with existing ERP of Higher Education Department.

Dear Sir/Madam,

We, <**OEM Name**>, having our registered office at <**OEM Address**>, are the Original Equipment Manufacturer (OEM) of <**Product / Software Name**>.

We hereby authorize <**Bidder Name**> to quote, supply, install, configure, commission, provide support and maintenance for our products/software against the above-mentioned RFP.

We further confirm that:

1. The products/software proposed are genuine OEM products.
2. We shall provide necessary technical support and updates during the project period through the authorized bidder.

3. The proposed licenses/products shall be supplied through the authorized bidder if awarded the contract.
4. We shall honor all warranty/support obligations associated with the supplied products/software.
5. We confirm availability of back-to-back support to the bidder for successful implementation of the project.

This authorization is valid for the entire bid process and subsequent contract period, if awarded.

For and on behalf of <OEM Name>

Authorized Signatory

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Contact No.: \_\_\_\_\_

Email: \_\_\_\_\_

(Official Seal of OEM)

1.

1.

1. **Payment Terms**

<b><u>Sl. No</u></b>	<b><u>Component</u></b>	<b><u>Payment Milestone</u></b>
<b>1</b>	<b><u>Software development &amp; Implementation Enablers under the Higher Education Automation</u></b>	<ol style="list-style-type: none"> <li>1. <b><u>30 % of implementation cost for submission of SRS Documents</u></b></li> <li>2. <b><u>30 % of implementation cost for completion of development phase</u></b></li> <li>3. <b><u>20 % of implementation cost for completion of UAT phase</u></b></li> <li>4. <b><u>20 % of implementation cost for completion of Go Live Phase &amp; 10% of RDBMS License Cost after go-live</u></b></li> </ol>
<b>2</b>	<b><u>SSL &amp; Security AUDIT</u></b>	<b><u>100% payment on submission of SSL &amp; Audit certificate</u></b>

<b><u>3</u></b>	<b><u>Supply of RDBMS License (PostgreSQL)</u></b>	<b><u>90% of RDBMS License cost on UAT</u></b>
<b><u>4</u></b>	<b><u>Annual Maintenance</u></b>	<b><u>100 % Payment on Quarterly basis on submission of quarterly report</u></b>
<b><u>5</u></b>	<b><u>Hand Holding Support</u></b>	<b><u>100 % Payment on Quarterly basis on submission of quarterly report and attendance</u></b>
<b><u>6</u></b>	<b><u>Annual Technical Support of the supplied RDBMS, tools and license from 2nd year onwards</u></b>	<b><u>100% of the yearly quoted cost will be paid at the beginning of respective year</u></b>

## 2. Financial Bid

<b>Sl. No.</b>	<b>Category</b>	<b>Module / Item</b>	<b>Unit</b>	<b>Rate</b>	<b>Qty</b>	<b>Amount (₹)</b>
1	Application Development (Study, Design, Development, Testing, Implementation & Training)	Comprehensive Digital Governance Platform – Web Application	Lumpsum		1	
2	Application Development (Study, Design, Development, Testing, Implementation & Training)	Comprehensive Digital Governance Platform – Mobile Application	Lumpsum		1	
3	Security Audit	Security Audit Certification by 3rd Party CERT-In Empanelled Vendor	Nos.		2	
4	SSL Certificate	EV SSL Certificate with 1 Year Subscription	Year		1	
5	Integration	API Integration with Other Applications	Number		1	
6	Operation & Maintenance	Application Support & Software Maintenance	Year		1	
7	Onsite Handholding Support	One Handholding Support Executive to be deployed for 1 Year	Man Month		12	

8	RDBMS License Cost (PostgreSQL Enterprise Support Subscription)	PostgreSQL Enterprise Support Subscription including OEM Support, Updates & Patches	Years		3	
Sub Total						
Tax (18%)						
Grand Total						