

## EXPRESSION OF INTEREST (EOI)

## Title of Consulting Service: Design, Development, Deployment, Maintenance and Support for ERP System Implementation

**Method of Consulting Service: National** 

Project Name: Design, Development, Deployment, Maintenance and support for ERP System Implementation EOI: EOI/LTU/ERP/2081-082-1 Office Name: Lumbini Technological University Office Address: Nepalgunj Sub Metropolitan-10, Banke

**Funding agency: Lumbini Province Government** 



## Abbreviations

CV	-	Curriculum Vitae
DO	-	Development Partner
EA	-	Executive Agency
EOI	-	Expression of Interest
GON	-	Government of Nepal
PAN	-	Permanent Account Number
PPA	-	Public Procurement Act
PPR	-	Public Procurement Regulation
TOR	-	Terms of Reference
VAT	-	Value Added Tax



## Table ofContents

Section I.	A. Request for Expression of Interest	4
Section II.	B. Instructions for submission of Expression of Interest	6
Section III.	C. Objective of Consultancy Services or Brief TOR	8
Section IV.	D. Evaluation of Consultant's EOI Application	37
Section V.	E. EOI Forms and Formats	40





## A. Request for Expression of Interest





## **Request for Expression of Interest**

## **Government of Nepal (GoN)**

Name of Employer: Lumbini Technological University

Date: 29-03-2025 13:00

Name of Project: Design, Development, Deployment, Maintenance and support for ERP System Implementation

- 1. Government of Nepal (GoN) has allocated fund towards the cost of Design, Development, Deployment, Maintenance and support for ERP System Implementation and intend to apply portion of this fund to eligible payments under the Contract for which this Expression of Interest is invited for National consulting service
- 2. The Lumbini Technological University now invites Expression of Interest (EOI) from eligible consulting firms ("consultant") to provide the following consulting services: Design, Development, Deployment, Maintenance and support for ERP System Implementation
- 3. Interested eligible consultants may obtain further information and EOI document free of cost at the address Lumbini Technological University, Nepalgunj Sub metropolitan 10, Nepalgunj, Lumbini Province, Nepal during office hours on or before 12-04-2025 12:00 or visit website [https://ltu.edu.np/]
- 4. Consultants may associate with other consultants to enhance their qualifications.
- 5. Expressions of interest shall be delivered manually to the address Lumbini Technological University Office, Nepalgunj sub-Metropolitan-10, Nepalgunj, Banke, Lumbini Province on or before 12-04-2025 14:00
- 6. In case the last date of obtaining and submission of the EOI documents happens to be a holiday, the next working day will be deemed as the due date, but the time will be the same as stipulated.
- 7. EOI will be assessed based on Qualification 40.0 %, Experience 50.0 %, and Capacity 10.0 % of consulting firm and key personnel. Based on evaluation of EOI, only shortlisted firms will be invited to submit technical and financial proposals through a request for proposal.
- 8. Minimum score to pass the EOI is 70



## **B.** Instructions for Submission of Expression of Interests

- 1. Expression of Interest may be submitted by a sole firm or a joint venture of consulting firms.
- 2. Interested consultants must provide information indicating that they are qualified to perform the services (descriptions, organization and employee and of the firm or company, description of assignments of similar nature completed in the last 5 years and their location, experience in similar conditions, general qualifications and the key personnel to be involved in the proposed assignment).
- 3. This expression of interest is open to all eligible consulting firm/person/ company/ organization.
- 4. In case, the applicant is individual consultant, details of similar assignment experience, their location in the previous 4 years and audited balance sheet and bio data shall be considered for evaluation.
- 5. The assignment has been scheduled for a period of 6 Months. Expected date of commencement of the assignment is 28-05-2025.
- 6. A Consultant will be selected in accordance with the QCBS method.
- 7. Expression of Interest should contain following information:
  - (i) A covering letter addressed to the representative of the client on the official letter head of company duly signed by authorized signatory.
  - (ii) Applicants shall provide the following information in the respective formats given in the EOI document:
    - EOI Form: Letter of Application (Form 1)
    - EOI Form: Applicant's Information (Form 2)
    - EOI Form: Work Experience Details (Form 3(A), 3(B) & 3(C))
    - EOI Form: Capacity Details (Form 4)
    - EOI Form: Key Experts List (form 5).
- 8. Applicants may submit additional information with their application but shortlisting will be based on the evaluation of information requested and included in the formats provided in the EOI document.
- 9. The Expression of Interest (EOI) document must be duly completed and submitted in sealed envelope and should be clearly marked as "EOI Application for Short-listing for the Design, Development, Deployment ,Maintenance and support for ERP System Implementation". The Envelope should also clearly indicate the name and address of the Applicant.
- 10. The completed EOI document must be submitted on or before the date and address mentioned in the "**Request for Expression of Interest**". In case the submission falls on public holiday the submission can be made on the next working day. Any EOI Document received after the closing time for submission of proposals shall not be considered for evaluation



## **A. Objective of Consultancy Services or Brief TOR**



n)

Lumbini Technological University

Terms of Reference (TOR) For LTU Enterprise Resource Planning (ERP) System

Prepared by

Lumbini Technological University

2025



## A. Introduction of Lumbini Technological University:

Lumbini Technological University was established on July 2, 2022 (Ashar 18, 2079 BS) by the Act of Province Legislature with the goal of advancing higher education in the field of information technology, engineering, agricultural and forestry, and tourism, among others, with a particular focus on the application and development of technology and innovation. Technology continues to play an increasingly significant role in shaping our world with traditional jobs being replaced by tech-oriented ones, which demands competent professionals.

LTU's mission is to promote and offer comprehensive programs at undergraduate and graduate levels that produce graduates who have both disciplinary expertise and the ability to handle real-world problems by combining theoretical knowledge with practical application along with exposure visits to reputed technological institutions. LTU recognizes that academic programs are not the only way to foster a rich learning experience. To this end, it also places a strong emphasis on research and continuous education programs by supporting and encouraging students and faculty to engage in rigorous research activities, thus fostering a culture of innovation and creativity that benefits both students and faculty alike.

Our mission is to be an institution of excellence in the domain of higher technical education that serves as the fountainhead for nurturing the future leaders of technology and techno-innovation responsible for the techno-economic, social, cultural and environmental prosperity of the people.

#### **B. Objectives**

LTU-ERP is an initiative of Lumbini Technological University to develop comprehensive LTU IT system(s) for different processes (briefly mentioned in ToR) which are integrated with each other for registering transactions digitally, accounting them for financial transactions and enabling transaction and financial control, reporting in an efficient and effective manner

LTU intends to develop LTU-ERP Software to automate its business transaction and processes. The objectives of the consulting services are as follows:

• Analyze, design, develop, integrate, test and implement a LTU web-based software with enterprise level database as back end that can handle all its process.

#### C. Outcomes:

The outcomes of the service shall be as follows:

- (i) **Improved Administrative Efficiency:** Streamlined and automated administrative processes, such as admissions, registration, and financial management, leading to increased efficiency and reduced manual workload.
- (ii) Enhanced Data Accuracy: Centralized and standardized data management, minimizing errors and ensuring accuracy in information across departments.
- (iii)Effective Resource Management: Optimized allocation and utilization of resources, including faculty, staff, classrooms, and other facilities, resulting in cost savings and improved resource efficiency.
- (iv)Integrated Information Systems: Integration of various university systems and departments, fostering seamless communication and collaboration among different units.
- (v) Real-time Reporting and Analytics: Access to real-time data and analytics, enabling university administrators to make informed decisions based on up-to-date information.



- (vi)Improved Student Experience: Streamlined student services, including online registration, course planning, and financial aid management, contributing to an enhanced overall student experience.
- (vii) Efficient Financial Management: Centralized financial management, budgeting, and reporting capabilities, providing a comprehensive view of the university's financial health.
- (viii) Compliance and Regulation Adherence: Implementation of features to ensure compliance with industry regulations, accreditation standards, and government reporting requirements.
- (ix)Enhanced Communication: Improved communication channels between students, faculty, and staff, fostering a more connected and collaborative academic environment.
- (x) Facilitation of Strategic Planning: Access to data and insights that aid in strategic planning, helping the university adapt to changing educational landscapes and market demands.
- (xi)Customized Reporting for Stakeholders: Tailored reporting capabilities for different stakeholders, including administrators, faculty, and governing bodies, to meet specific information needs.
- (xii) Adaptation to Technological Advancements: Positioning the university to adapt to future technological advancements, ensuring a scalable and sustainable IT infrastructure.
- (xiii) Increased Security and Data Protection: Implementation of robust security measures to protect sensitive student and institutional data, ensuring compliance with privacy regulations.
- (xiv) Optimized Research Management: Enhanced support for research activities, including grant management, project tracking, and collaboration tools for faculty and researchers.

## **D. Scope of Works**

- (i) Finalize detailed business blueprint with process flowchart for the IT systems implemented which should include approval from respective process owners for the requirement. For the same, the process should be in line with the LTU's byelaws.
- (ii) Finalize solution document against each requirement elaborated in the business blueprint for the processes implemented.
- (iii)Project management for development, implementation and initial maintenance of the system post go-live with proper documentation. Shall include tracking of each change to the requirement / solution documents and the bugs identified during testing.
- (iv)Prepare and finalize the bill of materials to operate proposed system
- (v) Design and develop user friendly IT system with least possible human intervention for accounting, recording and reporting
- (vi)Train power users and end users of LTU by identifying the stages to train for efficient adoption of the system and as suggested by LTU management through preparation of training materials / manuals
- (vii) Handover the final system after eliminating and mitigating all the defects of the system including transfer of authentic master and transaction data from legacy / existing system



- (viii) Provide post go-live support in an effective and efficient manner so that LTU's operation is not compromised
- (ix)Design and implementation document should be such that any other IT professional with similar knowledge should be capable of understanding the design.
- (x) Design and implement backup system for all the transactions / records updated in the system including detailed procedure for the same
- (xi)Suggest best possible way with respect to time and cost for disaster recovery in case of loss / damages to the system

## E. KNOWLEDGE AND TECHNOLOGY TRANSFER,

- (i) Consultant is required to train IT staff(s) / manager and identified persons by the management for general troubleshooting of the issues with the system.
- (ii) In-house designated staff should be trained for regular backup, archival and invoke disaster recovery procedure of the records updated in the system
- (iii)Knowledge of procedures like updating master data, configuration data, extraction of records / data from backend should be imparted to designated persons by LTU management
- (iv)In case the consultant uses third party licenses / libraries, the consultant shall make such usages free from encumbrances and provide us with authorized usage / ownership License for unconditional usages.
- (v) All source codes used for customization as per our requirements shall be completely owned by LTU and no part or full use of such codes be used by the firm for their commercial use. All such source codes shall be availed to LTU.

## F. TRAINING REQUIREMENTS:

- (i) Training as specified in the above scope of work shall be imparted by the consultant at required intervals
- (ii) Consultant shall train initially an expected number of 15-20 staffs for using the system
- (iii)Consultant shall also train ToT to designated staffs of the LTU which shall be 1 or 2 staffs for each department
- **G. CONSULTANT'S PERSONNEL (KEY EXPERT):** The consultant should have the following key personnel in the team.

#### (i) **Project Manager (1 Nos.)**

Project Manager Should be at least Master's Degree in IT or related field with at least Minimum 8 years' general experience on IT projects. S/he shall be preferred post masters experience in information technology for at least 4 years as Project Manager.

## (ii) System Architect Expert (1 Nos.)

The System Analyst should be at least Master's Degree in IT or related Field with at least 5 years of general experience in Information Technology.



### (iii)Business Analyst (1 Nos.)

System Architect Expert should be at least Masters in Business Administration (MBA)/Masters in Business Studies (MBS)/Chartered Accountants (CA) with at least 4 years' experience on IT projects.

### (iv)Senior Database Designer (1 Nos.)

Database Designer should be at least Bachelor's Degree in IT or related Field with at least 5 years' experience in Information Technology.

### (v) Senior Software/Web Developer (1 Nos.)

Database Designer should be at least Bachelor's Degree in IT or related Field with at least 5 years' experience as developer/programmer.

### (vi)Dev Ops Expert (1 Nos.)

Dev Ops Expert should be at least Bachelor's degree in computer science / IT equivalent with preferably 4 years of experience in server management and troubleshooting.

### (vii) **Programmer (3 Nos.)**

Programmer should be at least Bachelor's degree in computer science / IT equivalent with preferably 3 years of experience of writing programmers for IT projects preferably modular design architecture

#### (viii) UX / UI Designer (2 Nos.)

UX / UI Designer should be at least Bachelor's degree in computer science / IT equivalent with at least 3 years of experience as UI/UX designer in large scale project

## (ix)Front End Developer (2 Nos.)

Front End Developer should be at least Bachelor's degree in computer science / IT equivalent with at least 3 years' experience with HTML/XHTML, CSS, and Java Script

#### (x) Quality Assurance (2 Nos.)

Quality Assurance should be at least Bachelor's degree in computer science / IT equivalent. S/he shall have specific experience in design & implement test scenarios, test cases, test plans, test scripts and assist in implementation of QA standards for enterprise level financial applications.

## (xi)Capacity Building and Training Expert (2 Nos.)

Capacity Building and Training Expert should be at least Bachelor's degree in computer science / IT equivalent with at least 2 years of experience in similar software training

#### (xii) **Documentation Expert (1 Nos.)**

Documentation Expert should be at least Bachelor's degree in any stream with sound knowledge of IT. S/he shall have experience as Technical Documentation Expert in documentation of User Manual and Technical Manual for enterprise level financial applications.

## H. TIME FOR THE COMMENCEMENT AND COMPLETION OF ASSIGNMENT BY THE CONSULTANT,

(i) Commencement of assignment: Not later than 7 days from the date of contract is awarded.



(ii) Completion: The final system should be capable of going live by not later than Six months from the commencement.

## I. DESCRIPTION OF INFORMATION, PHYSICAL FACILITIES AND EQUIPMENT TO BE PROVIDED BY THE PUBLIC ENTITY TO THE CONSULTANT, AND

- (i) LTU shall not provide computer/laptops to perform the consultant's task as per specified above, however, all the LTU data related works and specific customization of LTU shall be done in LTU's designated network
- (ii) Place and working station shall be provided by LTU in its premises as per the requirement of Consultant for requirement collection and analysis portion
- (iii)Any asset/ equipment provided by LTU shall be returned to LTU on leaving the LTU premises.
- (iv)Where Consultant is required to travel outside of Nepalgunj, Lumbini for the purpose of this assignment, LTU shall provide travel and daily allowance applicable to an officer of LTU
- (v) The LTU have full ownership of that developed system and its source code / database and LTU have rights to modify with their requirements using other third-party firm in future.

## J.BUSINESS BLUEPRINT

Lumbini Technological University of Lumbini Province is an independent body laid out under the Act of Province Legislature with the goal of advancing higher education in the field of information technology, engineering, agricultural and forestry, and tourism, among others, with a particular focus on the application and development of technology and innovation. As an organization, an Executive Committee is the governing body under which a ED appointed for overall administration of the body. Further, there are departments under ED headed by specific Directors including Director.

Following are the areas which will be integrated into an enterprise system forseamless input and output

## THE FUNCTIONAL BUSINESS MODULES ARE:

## **1. ACCOUNTING AND CONTROL MANAGEMENT SYSTEM**

## 1.1 General Ledger (GL) Management

- 1.1.1 Chart of Accounts (COA) customization
- **1.1.2** Journal entries and automated postings
- 1.1.3 Multi-campus financial consolidation

## 1.2 Accounts Payable (AP)

- 1.2.1 Vendor management and payments
- 1.2.2 Purchase order and invoice processing
- 1.2.3 Tax calculations

## 1.3 Accounts Receivable (AR)

- 1.3.1 Student fee collection and tracking
- **1.3.2** Automated invoicing and reminders
- 1.3.3 Scholarships and financial aid adjustments

## 1.4 Tax & Compliance Management



- **1.4.1** Tax and Tds calculations
- **1.4.2** Automated compliance reports
- **1.4.3** Audit trails and financial governance

## 1.5 Bank Reconciliation & Payment Processing

- 1.5.1 Multi-bank account integration
- 1.5.2 Automated reconciliation with statements
- 1.5.3 Online payment gateway support
- 1.5.4 Expenses Recording
- 1.5.5 Internal order shall be prepared with reference to expenses.
- **1.5.6** Each expenses item shall be categorized / grouped into category.
- **1.5.7** This type of order numbering and type shall be different than purchase orders generated otherwise in the system.
- 1.5.8 The order shall be created with reference to the approved budget maintained in the system. Such order should mandatorily capture payment term i.e. advance payment or credit payment.
- **1.5.9** Budgetary check shall be invoked and intimated to the user creating the order while preparing for order. Order shall not be saved/authorized until the budget is supplemented through approval process.
- 1.5.10 Order shall be reviewed by the manager and approved by higher authority.
- 1.5.11 Advance request payment memo shall be generated with reference to order, payment terms in the order, budget mentioned in the order.
- 1.5.12 Amendments to order shall be done before making service receipt/ completion confirmation but all the approval workflow will remain the same for the amendment.
- 1.5.13 Purchase order related expenses
  - 1.5.13.1 Purchase requisition (PR) shall be generated by the requirement department with approval from department head
  - 1.5.13.2 The PR shall also require mentioning the budget head and expected cost to check the available budget.
  - 1.5.13.3 Budget used in the purchase order shall be reported as budget committed and shall not be allowed to use unless released by cancellation of purchase order.
  - 1.5.13.4 The approved PR shall be forwarded to purchases head for review and further processing. Purchases head shall be allowed to return the PR for want of documents/ details /corrections.
  - 1.5.13.5 Final PR will be forwarded for purchase procedures to follow.
  - 1.5.13.6 In case of all the purchases, PO shall be prepared by purchase office after the vendor has been selected. Purchase orders shall be of different types: outright purchases (below Rs.100000), direct purchases, SQ purchases, and tender based purchases.
  - 1.5.13.7 In case of SQ, tender and proposals, the reference of SQ, tender and proposals shall be captured in the PO along with the approved price, vendor and items.
  - 1.5.13.8 On receipt of goods, the stores will receive the goods in the system with reference to purchase order and invoice / delivery chalan.



- 1.5.13.9 Accounting for the expense shall be made on goods receiving with reference to purchase order and price mentioned in the purchase order.
- 1.5.13.10 The bills with receipt note shall be passed on to the purchase department for bill verification.

## 1.6 Income Recording

- 1.6.1 Student fee structure setup (tuition, lab fees, hostel fees, etc.)
- **1.6.2** Fee collection and tracking
- **1.6.3** Payment gateway integration (online payments)
- **1.6.4** Automatic fee reminders and notifications
- 1.6.5 Scholarships and financial aid management

### 1.7 Financial Reporting

- 1.7.1 Balance sheet
  - 1.7.1.1 Balance sheet shall be prepared in the system as per the reporting format of LTU and as required under NFRS if applicable.
  - 1.7.1.2 Balance sheet shall be prepared and reported every month, quarter, four monthly, and annually
  - 1.7.1.3 Income & expenditure statement Income and expenditure statement shall be based on expenditure codes and required by NFRS if applicable.
  - 1.7.1.4 Income & expenditure account will be in the format of LTU
- 1.7.2 Cash flow statement
  - 1.7.2.1 Cash flow statement shall be generated at any point of time for cash flow planning
- **1.7.3** Custom financial report generation

## 2. Student Information Management System

- 2.1.1 Student profiles, admissions, and enrollment
- 2.1.2 Attendance tracking and academic progress monitoring
- 2.1.3 Course registration and scheduling
- 2.1.4 Students progress reporting through sms/email

## 3. Enrollment and Academic Management

- 3.1.1 Online application and document submission
- 3.1.2 Automated merit-based selection and admission
- 3.1.3 Course and Syllabus management
- **3.1.4** Daily/semester routine management
- 3.1.5 Examination and grading system

## 4. Exam and Result Management System

- 4.1 Exam Setup
  - 4.1.1 Define and set up exams, including details such as exam type, duration, date, and subjects.
  - 4.1.2 Specify the format of the exam (e.g., multiple-choice, essay).



- 4.2 Exam Schedule
  - 4.2.1 Generate and publish exam schedules for students and faculty.
  - 4.2.2 Include details such as date, time, and exam venue.
- 4.3 Admit Card Generation
  - 4.3.1 Automatically generate admit cards for registered students.
  - 4.3.2 Include essential details like exam center, roll number, and photograph.
- 4.4 Candidate Registration
  - 4.4.1 Allow students to register for exams online.
  - 4.4.2 Capture and store candidate information, including personal details and course enrollment
- 4.5 Result Processing
  - 4.5.1 Automatically calculate and process exam results.
  - 4.5.2 Apply predefined grading criteria.
- 4.6 Result Publication
  - 4.6.1 Publish exam results securely.
  - 4.6.2 Notify students of their results through various channels (e.g., online portal, email).
- 4.7 Transcript/Grade sheet Generation
  - 4.7.1 Generate transcripts with detailed information about a student's performance.
  - 4.7.2 Include cumulative GPA and other relevant details.
- 4.8 Statistical Analysis
  - 4.8.1 Provide statistical analysis of exam results.
  - 4.8.2 Generate reports on class-wise performance, subject-wise analysis, etc.
- 4.9 Feedback System
  - 4.9.1 Collect feedback from students about the exam process.
  - 4.9.2 Allow faculty to provide feedback on the exam-setting process
- 4.10 Integration with Student Information System (SIS):
  - 4.10.1 Integrate with the SIS to retrieve student information and academic history.
  - 4.10.2 Ensure consistency between exam results and overall student records.

## 5. Fixed Assets and Inventory Management

- 5.1 Receipt / acquisition, issue of items, disposal
- 5.2 Unique record number for each kind and tagging and physical verification control
- 5.3 Linked to accounting on goods/assets receipts, issue of all based on events above
- 5.4 As of now inventory is recognized as chargeable / consumable while the goods are received
- 5.5 Receipt of inventory shall be done based on received invoice.
- 5.6 In case of multiple deliveries for an invoice, the receipt will be made with reference to delivery chalan.
- 5.7 Even in case chargeable, the quantity and historical price information of the item shall be maintained in the system.
- 5.8 Issue of items and quantities shall be made from system to persons defined in the system with reference to requisition from originating user.



- 5.9 Provision should be there to dispose-off the items from inventory record and the track of it shall be maintained in the system.
- 5.10 Fixed asset acquisition
  - 5.10.1 In case of asset partially available or not in use, the same will be recognized as Asset under construction or CWIP. Where the asset is recognized as CWIP, there shall be provision to transfer the CWIP to fixed asset every month based on management's assessments.
  - 5.10.2 Each item of fixed asset will be recorded in the system by its name, type, brand, make. In case of land and building the title deed reference shall also be captured. In case of motor vehicles, the registered number plate should be captured.
  - 5.10.3 No fixed asset should be allowed for purchase until the desired fixed asset is created in the system and budget available.
  - 5.10.4 On receipt of fixed asset along with the bill, the same will be receipt entered as per asset created under pre-defined class and with reference valid bill and purchase order.
  - 5.10.5 The administration department will assign the location of fixed asset once the same is received in system.
  - 5.10.6 Fixed asset tag number will be generated in the system based on receipt and on the asset being assigned, the tag generated in system will be marked in physical asset

### 5.11 Fixed asset transfer

- 5.11.1 System shall have provision to transfer fixed asset from one location to another, one person to another, one class to another.
- 5.11.2 In case fixed asset is transferred for some repair works or temporary movement, the same should be identified in the fixed asset register with reference to returnable gate pass.
- 5.11.3 If the asset is transferred to another office, the same will be identified with new location on receipt on that location. The value of asset will remain as per the prevailing value during the transfer.

#### 5.12 Fixed asset write off / sale / disposal

- 5.12.1 Whenever required, fixed asset shall be provisioned and written off based on approval document.
- 5.12.2 For written off assets, the reference of write off approval should be traceable.
- 5.12.3 After write off, the asset may be sold or disposed-off, which should be identified in the asset register as sold / disposed-off and will not be available for any further depreciation.

## 5.13 **Depreciation**

- 5.13.1 Depreciation shall be processed by the system based on useful life of the asset defined or the rates defined by management and posted to the accounting.
- 5.13.2 Before posting, the system shall provide the log of expected depreciation for review by accounts team.
- 5.13.3 The depreciation shall be processed from 1st day of the month following the acquisition month.



- 5.13.4 Depreciation on fixed asset taken on CWIP will not be computed and recorded.
- 5.13.5 Assets marked for no depreciation shall be held without any depreciation.

## 5.14 Fixed asset reporting

- 5.14.1 Fixed asset transaction summary / register shall be available with at least the following details by item of fixed asset: opening, additions, write off, sales / disposal, adjustment, closing.
- 5.14.2 Assets held without depreciation shall be available as report.
- 5.14.3 Assets acquired during the year, written off/ disposed-off during the year, assets written off but not disposed off shall be available.
- 5.14.4 Fixed asset schedule and depreciation schedule as per income tax act of Nepal shall be available as report.

## 6. Vacancy Management System

- 6.1 Posting a job Vacancy
  - 6.1.1 Create and post new job vacancies with detailed descriptions.
  - 6.1.2 Specify job title, department, location, and other relevant details.
- 6.2 Application Tracking
  - 6.2.1 Track and manage applications submitted by candidates.
  - 6.2.2 Store applicant details, resumes, and cover letters.
- 6.3 Candidate Database
  - 6.3.1 Maintain a centralized database of candidate information.
  - 6.3.2 Allow for easy searching and sorting of candidate profiles.
- 6.4 Workflow Automation
  - 6.4.1 Implement automated workflows for the recruitment process.
  - 6.4.2 Assign tasks to different stakeholders and track the progress.
- 6.5 Interview Scheduling
  - 6.5.1 Schedule interviews and coordinate with candidates and interviewers.
  - 6.5.2 Send automated reminders for scheduled interviews.
- 6.6 Reporting and Analysis
  - 6.6.1 Generate reports on the status of vacancies, time-to-fill, and other key metrics.
  - 6.6.2 Provide insights for continuous improvement in the hiring process.
- 6.7 Compliance and Equal Opportunity Monitoring
  - 6.7.1 Ensure compliance with legal regulations and equal opportunity employment standards.
  - 6.7.2 Track and report on diversity metrics.

## 7. Library Management System

- 7.1 Catalog Management
  - 7.1.1 Create and maintain a centralized catalog of all library resources, including books, journals, multimedia, etc.
  - 7.1.2 Organize resources by categories, authors, genres, or other relevant criteria.
- 7.2 User Management



- 7.2.1 Manage patron information, including registration, borrowing privileges, and user categories.
- 7.2.2 Allow users to view their borrowing history and account details.
- 7.3 Check-in and Check-out:
  - 7.3.1 Facilitate the process of checking in and checking out library materials.
  - 7.3.2 Implement a barcode or RFID system for efficient tracking.
- 7.4 Fine and Fee Management
  - 7.4.1 Automatically calculate fines for overdue items.
  - 7.4.2 Manage and track fee payments for lost or damaged items.
- 7.5 Search and Discovery
  - 7.5.1 Provide a robust search interface for users to find resources quickly.
  - 7.5.2 Include advanced search options and filters for more accurate results
- 7.6 Reporting and Analytics
  - 7.6.1 Generate reports on library usage, popular items, and overdue materials.
  - 7.6.2 Provide insights for collection development and resource allocation.
- 7.7 Acquisition and Budget Management
  - 7.7.1 Track the acquisition of new materials and manage the budget for purchasing.
  - 7.7.2 Streamline the ordering and receiving process for new items.
- 7.8 User Feedback and Ratings
  - 7.8.1 Enable users to leave reviews, ratings, and feedback on library resources.
  - 7.8.2 Use this information for collection development decisions

## 8. Laboratory Management System

- 8.1 Sample and Experiment Tracking:
  - 8.1.1 Manage and track the entire lifecycle of samples and experiments from collection to analysis.
  - 8.1.2 Assign unique identifiers for samples and experiments for easy tracking.
- 8.2 Inventory Management:
  - 8.2.1 Monitor and control laboratory inventory, including chemicals, reagents, equipment, and consumables.
  - 8.2.2 Set up alerts for low stock levels and automate the reordering process.
- 8.3 Equipment Management:
  - 8.3.1 Maintain a comprehensive inventory of laboratory equipment.
  - **8.3.2** Schedule and track equipment maintenance, calibration, and usage.
- 8.4 User Access Control:
  - 8.4.1 Implement role-based access control to restrict access to sensitive data and functionalities.
  - 8.4.2 Manage user permissions and access levels based on roles and responsibilities.
- 8.5 Data Management and Storage:
  - 8.5.1 Centralize storage for experimental data, results, and associated documentation.
  - 8.5.2 Provide secure and organized storage with version control and data backup.



- 8.6 Quality Control and Assurance:
  - 8.6.1 Implement quality control checks to maintain the accuracy and reliability of experimental results.
  - **8.6.2** Facilitate adherence to quality standards and protocols.
- 8.7 Electronic Lab Notebook (ELN):
  - 8.7.1 Offer a digital platform for researchers to record, organize, and share experimental data.
  - 8.7.2 Enhance collaboration and knowledge sharing among researchers.
- 8.8 Reporting and Analytics:
  - **8.8.1** Generate customizable reports and analytics on laboratory performance, utilization, and trends.
  - 8.8.2 Support data-driven decision-making for laboratory management.
- 8.9 Integration with Other Systems:
  - **8.9.1** Integrate with other university systems such as student information systems, research databases, and administrative platforms.
  - 8.9.2 Enable interoperability with external laboratory information management systems (LIMS) or enterprise resource planning (ERP) systems.
- 8.10 Collaboration Tools:
  - 8.10.1 Provide tools for collaboration among researchers, faculty, and laboratory staff.
  - 8.10.2 Support communication, document sharing, and project collaboration.

## 9. Vendor Management System

- 9.1 Vendor will be created under different category for control purposes
- 9.2 No vendor will be created duplicate except for finance vendor like CIT, Banks, etc.
- 9.3 Vendor listing will be maintained as part of vendor master data. All the unique vendor listing required documents details will be maintained in the system.

## **10.** Conference and Event Management System

- 10.1 Event Creation and Setup
  - 10.1.1 Define and set up new conferences or events with details such as title, date, time, and venue.
  - 10.1.2 Specify the type of event (conference, seminar, workshop) and relevant topics.
- 10.2 Online Registration
  - 10.2.1 Enable online registration for participants, speakers, and attendees.
  - 10.2.2 Capture essential details during the registration process.
- 10.3 Attendee Management
  - 10.3.1 Manage attendee information and registration status.
  - 10.3.2 Provide a dashboard for organizers to view and track participant details.
- 10.4 Agenda Management
  - 10.4.1 Create and publish the program agenda, including session details, keynote speakers, and breaks.
  - 10.4.2 Allow attendees to customize their schedule.
- 10.5 Payment and Invoicing
  - 10.5.1 Integrate payment processing for registration fees.



- 10.5.2 Generate invoices and track payment status.
- 10.6 Sponsorship Management
  - 10.6.1 Manage sponsorship packages and agreements.
- 10.6.2 Provide visibility to sponsors through various channels, including signage and digital platforms
- 10.7 Survey and Feedback
  - 10.7.1 Collect feedback from participants through surveys.
  - 10.7.2 Analyze feedback for continuous improvement
- 10.8 Virtual Participation and Recording
  - 10.8.1 Provide options for virtual attendance and live streaming.
  - 10.8.2 Integrate virtual collaboration tools for remote speakers and participants.
  - 10.8.3 Provide facility of recording of ongoings
- 10.9 Post-Event Analytics and Reporting:
  - 10.9.1 Generate comprehensive reports on event attendance, feedback, and financials.
  - 10.9.2 Analyze the success of the event and gather insights for future planning

## 11. Students' Project Tracking System

- 11.1 Ability for students to register their projects with necessary details.
- 11.2 Validation checks to ensure completeness of information.
- 11.3 Fields for project title, description, objectives, and methodology.
- 11.4 Date and time stamps for project registration.
- 11.5 Support for uploading project documents, presentations, and other related files.
- 11.6 File versioning and storage to track project progress.
- 11.7 Search functionality to easily find specific projects based on keywords or criteria.
- 11.8 Filtering options for sorting projects by status, date, or other relevant parameters.
- 11.9 Tools to track and update project progress.
- 11.10Milestone setting and monitoring.
- 11.11Messaging or commenting system for communication between students, faculty, and project supervisors.
- 11.12Notification system for updates, deadlines, and announcements.
- 11.13Mechanism for faculty and peers to provide feedback on project work.
- 11.14Evaluation forms and criteria for assessing project quality.
- 11.15Timeline feature to visualize project timelines and deadlines.
- 11.16Reminders for upcoming deadlines and milestones.
- 11.17Generation of reports summarizing project details, progress, and outcomes.
- 11.18Export functionality for sharing project information.

## 12. Innovation and Incubation Center Management System

- 12.1 Online registration for startups interested in joining the incubation program.
- 12.2 Onboarding process to collect essential information and documents.
- 12.3 Booking system for startups to reserve co-working spaces, meeting rooms, and other facilities.



- 12.4 Resource allocation for equipment and shared spaces.
- 12.5 Matching startups with suitable mentors based on expertise, industry, and needs.
- 12.6 Communication tools for scheduling mentorship sessions.
- 12.7 Scheduling and coordination of workshops, training sessions, and networking events.
- 12.8 Event calendar with notifications and RSVP features.
- 12.9 Tools to monitor and track the progress of startups in the incubation program.
- 12.10Key performance indicators (KPIs) for evaluating startup development.
- 12.11Platform for startups to share resources, knowledge, and collaborate on projects.
- 12.12Document sharing and version control for collaborative work.
- 12.13Budget tracking for startups and the incubation center.
- 12.14Invoicing and payment tracking for services provided.
- 12.15Ability to customize and configure incubation programs based on different tracks or industries.
- 12.16Flexibility to adapt programs to the evolving needs of startups.

## 13. Crowd Funding Management System

```
13.1 Campaign Creation:
```

- **13.1.1** Enable users to create and launch crowdfunding campaigns.
- 13.1.2 Include options for project details, funding goals, and campaign duration.

13.2 Project Categories:

- 13.2.1 Categorize campaigns based on different project types or themes.
- 13.2.2 Allow users to browse campaigns by category.

13.3 User Profiles:

- 13.3.1 Create user profiles for both campaign creators and backers.
- 13.3.2 Include personal information, campaign history, and supported projects.
- 13.4 Payment Processing:
  - 13.4.1 Integrate secure payment gateways to facilitate donations.
- 13.4.2 Support multiple payment methods, including credit cards and digital wallets.

13.5 Campaign Updates:

- 13.5.1 Enable campaign creators to post updates and progress reports.
- 13.5.2 Notify backers of important developments or milestones.

13.6 Commenting and Interaction:

- 13.6.1 Provide a platform for backers to leave comments and interact with campaign creators.
- **13.6.2** Foster community engagement around the campaign.

13.7 Referral Programs:

- **13.7.1** Implement referral programs to encourage backers to share campaigns.
- 13.7.2 Reward users for bringing in new backers.

## 14. Canteen Management System

14.1 Menu Management:



- 14.1.1 Capability to create, update, and manage the canteen menu.
- 14.1.2 Categorization of items (breakfast, lunch, snacks, etc.).
- 14.1.3 Prices and availability status for each item.
- 14.2 Ordering System:
  - 14.2.1 Online ordering system for students and staff.
  - 14.2.2 Ability to customize orders based on preferences.
  - 14.2.3 Integration with payment gateways for online transactions.
- 14.3 Canteen Credit System:
  - 14.3.1 Maintain the credit balance of students.
- 14.4 Integration with ID Cards:
  - 14.4.1 Integration with ID cards or access cards for quick and secure access to canteen services.
- 14.5 Inventory Management:
  - 14.5.1 Real-time tracking of food and beverage inventory.
  - 14.5.2 Automatic notifications for low stock items.
  - 14.5.3 Integration with suppliers for seamless restocking.
- 14.6 Feedback and Rating:
  - 14.6.1 System for users to provide feedback on food quality and service.
  - 14.6.2 Rating system for individual food items and overall service.
  - 14.6.3 Analysis of feedback for continuous improvement.
- 14.7 Reporting and Analytics:
  - 14.7.1 Generation of reports on sales, popular items, and revenue.
  - 14.7.2 Analysis of customer preferences and trends.
  - 14.7.3 Data visualization tools for easy interpretation.

## **15.** Payment Integration

- 15.1 Payment gateway(s) will be integrated into the ERP system.
- 15.2 Support will be ensured for multiple payment methods (credit cards, electronic funds transfer, Digital wallet etc.).
- 15.3 Mechanisms will be included for error detection and reporting during payment transactions.
- 15.4 Procedures will be specified for handling failed transactions and providing meaningful error messages.
- 15.5 It is to be ensured that the solution is scalable to accommodate potential future growth in transaction volume.

## **16. HEMIS Integration:**

- 16.1 Identify the data elements that need to be synchronized between the HEMIS and ERP systems.
- 16.2 Ensure that access controls are consistent across both HEMIS and ERP.



16.3 Ensure real-time synchronization of data between HEMIS and ERP

## 17. Cost management information system

- 17.1 Budgeting and Planning:
  - 17.1.1 Facilitate the creation of detailed budgets for different projects, departments, or organizational units.
  - 17.1.2 Support the allocation of budgeted amounts to specific cost categories.
- 17.2 Expense Tracking:
  - 17.2.1 Capture and record all types of expenses incurred by the organization.
- 17.2.2 Allow for manual entry or integration with financial systems for automated data input.
- 17.3 Cost Allocation:
  - 17.3.1 Implement mechanisms for allocating costs to different cost centers, projects, or products.
  - **17.3.2** Ensure accurate distribution of shared costs.
- 17.4 Variance Analysis:
  - 17.4.1 Provide tools for comparing actual costs against budgeted amounts.
  - 17.4.2 Generate reports highlighting variances and deviations.
- 17.5 Forecasting:
  - 17.5.1 Support the creation of financial forecasts based on historical data and current trends.
  - 17.5.2 Allow for scenario analysis to project future costs.
- 17.6 Purchase Order Management:
  - 17.6.1 Track and manage purchase orders to monitor commitments and obligations.
  - 17.6.2 Integrate with procurement systems for seamless data flow.
- 17.7 Vendor and Contract Management:
  - 17.7.1 Maintain vendor information and contract details.
  - 17.7.2 Monitor contract performance and associated costs.
- 17.8 Dashboard and Visualization:
  - 17.8.1 Create intuitive dashboards and visualizations to represent cost data.
  - 17.8.2 Use charts, graphs, and key performance indicators (KPIs) for quick insights.

## **18.** Travel Administration

18.1 Travel Administration would include the procedures from initiating the travel requests or travel order, passing through the approvals and thensubmission to account for travel advance and settlement of travel and advance with reference to the same travel order. It is very much required to go for automated or computerized system for travel administration asmuch of the activity and cost of LTU involves the same, details are required at different stages which involves substantial time and effort thepeople currently working.

## **19.** Document Management System & Workflow:



- 19.1 DMS of the system should be used to send, receive, track, manage and store attachments and documents (files) of different modules in an organized way.
- 19.2 Storage Repository and Search Filter: DMS should allow attachments to store in multiple repositories including File System, Database System, Cloud Storage, or other Enterprise Content Management Repositories. Documents available to the user should have the filter mechanism which will user to search and sort the documents based on different parameters like date created, date updated, type of document etc.
- 19.3 Auto tags: There should be provision of automatically tagging of any documents that is stored in the system using the various dimensions like (Modules, Sub-Modules, Features, Process, Steps, Users, Date Time etc). This should allow a user to search a document based on multiple parameters even if there was no manual tagging of documents by the user at the time of creating document.
- 19.4 Security and Access Control: User should be able to allocate the access level and permissions (like Read only, Read and Write) of his/her document while sharing any document.
- 19.5 Version Control: Version control should automatically manage multiple versions of a document as it is updated. Every time a document is modified, a new version should be produced and tracked. Document should be numbered so that the version of any document is always available. User handling the document should be able to see the version history of particular document.
- 19.6 Audit trails: Should be available for administrators and managers to review all actions performed on any document in document management system.
- 19.7 Workflow: The Application should have a proper workflow design system. Administrator should be able to configure/setup the routine the work flow process as per need. User role management, role assignment and hierarchy management should also available in this module.

## **20.** Decision approval system with Tippani and workflow automation

This module should be able to automate the government agencies' decision-making system from initiation to final approval, documenting all the steps and comments added by every user/employee involved in decision making.

- 20.1 The system should have tippani flow features with different types of users such as initiator, reviewer (no. of reviewers) and approvers.
- 20.2 Administrator should be able to configure/setup the routine the work flow process as per need. User role management, role assignment and hierarchy management should also be done through the use of this module.
- 20.3 This module should also be able to dynamically integrate with other automation modules including task management, document management, workflow management and darta/chalani modules.
- 20.4 The system shall have built in letter and memo flow features with digital signature enabled. Such flow shall be designed to capture the operational norms of Government of Province.
- 20.5 Letter Flow: This reflects the flow of incoming letters within the organizational hierarchy. A registration user at the registration section shall be responsible for entering the details of letter, scanning of letters (hardcopy), uploading the document and forwarding to the associated hierarchy.
- 20.6 Registration Section: This user of this section is responsible for entering incoming letter details, scanning / uploading document and forward to a designated section.



- 20.7 Decision maker: Decision maker receives an incoming letter, writes note order (तोक आदेश) and forwards to a designated section.
- 20.8 Task Creation: Upon receiving the letter, officer then either creates a new task against that letter or simply enters the action undertaken against that letter.
- 20.9 Digital signature integration

## 21. HR Management System

## 21.1 General Requirement

- 21.1.1 Master Setup for Branch, Department, Unit, Employment Type, Appointment Type, Employees Group, Level, Rank and Designation, Region, Clusters etc.
- 21.1.2 Master setup of Job Group, position, job profile, job status etc.
- 21.1.3 Competency Mapping and Charts
- 21.1.4 Should support both Nepali and English Calendar
- 21.1.5 Should have a provision to track fiscal year and calendar year.
- 21.1.6 GPS and Location Tracking System for Employee Attendance
- 21.1.7 Role based HRIS system

## 21.2 Attendance and Leave Module

## 21.2.1 Leave Management

- 21.2.1.1 Leave and Attendance Master Setup as per Company Leave Rule.
- 21.2.1.2 Daily / Monthly Leave Entry
- 21.2.1.3 Leave option: whole day or half day leave.
- 21.2.1.4 Leave Balance, Opening and Closing Transfer
- 21.2.1.5 Leave Encashment Calculation.
- 21.2.1.6Online leave application and approval to reduce paperwork and effective leave management.
- 21.2.1.7 Employee leave history and collection control various leave reports such as Periodic Leave Taken Reports (Detailed and Summarized), Periodic Leave Balance Reports, Periodic Matured Leave Summary Reports, Leave Encashment Reports etc.
- 21.2.1.8Leave can be paid or unpaid leave or mixed nature leave where certain salary benefit are paid but others are not paid while on leave

## 21.2.2 Holiday Management

- 21.2.2.1 Weekly Holiday Settings (named or unnamed) for single or multiple days
- 21.2.2.Group based Public Holiday Setting such as caste, gender and locality based public holidays.
- 21.2.2.3 Provision to apply Overtime/Extended/Evening/Holiday Counter Allowance via mobile and/or self-service portal with proper check and balance mechanism.
- 21.2.2.4 Allows province wise holiday set up
- 21.2.2.5 Dashboard notifications for holiday announcement in employee's portal.

## 21.2.3 Attendance Management





- 21.2.3.1 Can attach software with existing or new e-attendance system or Attendance Device. Biometric device may be finger readable device/ Palm readable device/ Magnetic Device/ Tap to attendance
- 21.2.3.2 Should support Web, Biometric or mobile attendance with GPS tracking.
- 21.2.3.3 Auto download attendance log and calculate attendance and generate reports.
- 21.2.3.4 Generate Monthly Attendance for Salary Calculation. Allow manage Leave adjustment for previous month such as (26th of Previous month to 25th of Current Month).
- 21.2.3.5 Exception Attendance entry can be done by role based users.

#### 21.3 Employee Management Module (PIS):

- 21.3.1 Personal Information
- 21.3.2 Service and service history Information
- 21.3.3 Other Official Information
- 21.3.4 Salary Information
- 21.3.5 Recording Pan number, PF, CIT, Insurance Number, Bank Account , passport number, voter registration number , etc.
- 21.3.6 Retirement Fund account Management
- 21.3.7 Contract Staff's contract date setup and option to auto salary disable after expiry of contract

#### 21.4 Salary Management

- 21.4.1 Can Create Dynamic Salary and benefit Titles according to requirements.
- 21.4.2 Complete Formula Based Salary Titles that can be easily customized
- 21.4.3 Payment option for Monthly, Periodic or On Demand etc.
- 21.4.4 Automatic Attach with Tax Heads and Tax Deduction Options (RF, Donation, Pension etc.) for accurate TDS Calculation.
- 21.4.5 Can setup Mass salary increment rule i.e., working age wise, employment type, designation wise etc., so that no need to increment salary one by one. Checker and maker system mustly required on salary increment process.
- 21.4.6 Send Salary information and email in the form of letter to employees via mail
- 21.4.7 Salary expenses posting in different profit center on prorata basis(If staff is transferred from one branch to another)
- 21.4.8 Salary and benefit shall be computed on proportionate basis, for example if an employee is promoted during a month, salary and allowance shall be proportionately computed for the month. Detailed calcuation shall be reported to employee.
- 21.4.9 Job type set up for different facility to different categories of employees such as permanent, probation, contract, contract with PF etc and provision to create a job type by user on need basis.
- 21.4.10 Provision of SSF, PF and CIT contribution
- 21.4.11 Facility to hold salary payment/release salary by specifying reason and report of the same

## 21.5 Letters can be auto generated in format supported by Microsoft word both in English and Nepali language



## 21.5.1 Letter Generation System:

- 21.5.1.1 Appointment Letter
- 21.5.1.2 Promotion Letter
- 21.5.1.3 Salary Increment Letter
- 21.5.1.4 Offer Letter
- 21.5.1.5 Different types of letter as per requirement which is in template based generating system.

## 21.6 Resignation and Clearance Management System (Exit Process)

- 21.6.1 Should have a provision to add workflow for the clearance of assets and handover (Department wise Clearance Process)
- 21.6.2 Should have a provision to track handover details.
- 21.6.3 Individual online resignation request.
- 21.6.4 Resignation verification by supervisor.
- 21.6.5 Automatic calculation of eligible gratuity (based on staff eligibility), leave and other payable amount of staffs upon resignation/retirement
- 21.6.6 Track record of resignation submitted staffs. This is required as the leave of such employee is to be approved by higher authority from the recommendation from the leave approving authority.

## 22. Vehicle Management System

- 22.1 Vehicle and Fuel Tracking system
- 22.2 Repair & Maintenance, license, insurance and renewal management

## 23. Miscellaneous

- 23.1 QR Integration in students' certificates
- 23.2 Integration of all above mentioned modules





## **Non-Functional Features**

The indicative technical requirements for LTU ERP system across all the modules are given below.

	given below.	
		A. Must support industry standards such as DOM 1.0, HTML 5, HTTP, HTTPS,
	Requirements	ODBC, ODF (IS26300), Open XML (IS29500), OpenSearch, OpenType,
		PDF 1.7, PDF/A, RTF, RSS, ATOM, SOAP, REST, UDDI (v2 and v3),
		Unicode, URI/URN, W3C XML
		Schema, WCAG 2.0, WebDAV, WSDL, WSRP, XHTML, XML, XML
		Web Services, XMLDsig, XPATH, XPS, XSLT etc. as applicable.
		B. Should be based on current state-of-the-art technology platformswhich
		have been in use in the industry for at least 1 year
		C. Should have a definite upgrade path and plan for at least next 5years
		C. Should have a definite upgrade path and plan for at least next Syears
		D. Should be modular in nature with ease of addition / modification of
		functional requirements/ business rules
		E. Must follow W3C standards as applicable
		F. Should be based on n-tier Architecture.
		G. Must provide contextual online help to users
		H. Should offer support for authenticating the user with digital signature as
		well as simple name/password procedures
		I. Should support SSL for secure communication over web
		J. Should support encryption and compression features
		K. Should integrate with any other portal products through open standards such as
		HTML, XML, RSS, web services, WSRP asapplicable
2.	System	A. The application platform suggested and the architecture that the contractor
	Capacity	would propose must be proven to handle the expected load throughout the
	& Performance	project
	Requirements	B. Deployment Plan Must be such that minimum downtime shall meet the
		required reliability and availability of 99%.
		C. Must provide support for at least 1000 concurrent users, with Minimum
		response time.
3.	Security	A. The proposed solution must include design and implementation of a
	Requirements	comprehensive IS security policy in line with ISO 27001 orequivalent standards.
		B. The designed IS policy must not be in conflict with the securitypolicy of
		the Data Centre
		C. The proposed solution must provide security including identification,
		authentication, authorization, access control, administration and
		audit and support for industry standard protocols
		D. The proposed solution must support the Security Standards as applicable:
		(Authentication, Authorization, Encryption, Secure Conversation, Non-
		repudiation, XML Firewalls, Security standards support, Web Service
		Security)
		E. The proposed solution must provide database security mechanismat core
		level of the database
		F. The database of the proposed solution must provide option for secured data
		storage for historic data changes for compliance and tracking the changes.
		G. The proposed solution must be able to generate a report on all
		"Authorization Failure" messages per user ID
		H. The proposed solution must provide ability to monitor, proactivelyidentify
		and shutdown the threat incidents through different modes
		of communication (email, SMS, phone call, dashboard etc.) as
	1	i communication (chain, 5005, phone can, dashooard etc.) as





		applicable	
		I. The proposed solution must provide a security model that can beconfigured	
		for enforcement of user rights	
		J. Each user must have a user id and a password in order to access the system.	
		K. The user must be able to change his/her password when required.	
		L. The software must ensure periodic change of passwords.	
		M. There must be no facility to read passwords; therefore, forgottenpasswords	
		must be reset.	
		N. Access security must dictate who gets access to the system, aswell as the	
		functions that are accessible.	
		Administrative users must have access to a facility to maintain thesoftware security features.	
4.	User	A. Management of IDs	
т.		a) Creation and management of unique keys for identities	
	Management	<ul><li>b) Configurable generation of unique logins</li></ul>	
		B. Management of credentials	
		a) Support several authentication methods per user	
		b) Provide password management through both administrator and end-user	
		(Self Reset)	
		C. Management of Users	
		a) Definition and enforcement of consistency and constraintschecks for	
		all use cases (create, modify, delete, etc.)	
		b) Create new user	
		<ul><li>c) Maintain user data (enter, modify or delete attribute values)</li></ul>	
		d) Create new or delete existing user attributes	
		<ul> <li>e) Activate/ enable and deactivate/disable users</li> </ul>	
		f) Delete user (after a successor has been defined and	
		implemented)	
		g) Search, sort, view and print users depending on given criteria	
		<ul><li>h) Assign users to a group and remove users from a group</li><li>i) Assign a role to a user and remove a user from a role</li></ul>	
		j) Display group- and role-assignments of users	
		<ul> <li>k) k) Reporting (e.g. generate a list of all users)</li> </ul>	
		Management of Groups	
		a) Define owner of a group	
		b) Definition and enforcement of consistency and constraintschecks for	
		all use cases (create, modify, delete, etc.)	
		c) Create group for each type of users	
		d) Change members of a group	
		e) Activate/ enable and deactivate/disable groups	
		f) Reporting (Search, sort, display and print groups according togiven	
		criteria)	
		E. Management of Roles	
		a) Define owner of a role	
		b) Definition and enforcement of consistency and constraintschecks for	
		all use cases (create, modify, delete, etc.)	
		c) Create role	
		d) Change information about role	
		e) Delete role	
		f) Activate/ enable and deactivate/disable roles	
		g) g) Reporting (Search, sort, display and print roles according togiven	
		criteria)	
		F. Management of Rights	
		a) Consistency and constraints checks for all use cases (create,	





		modify, delete, etc.)
		b) Create permission
		c) Modify permission
		d) Delete permission
		<ul><li>e) Assign permission to a role or withdraw permission from a role.</li></ul>
5.	Ugan Interface	A. There shall be a pick list selection for select fields; entry list must beable to limit
		entry to only valid values.
	Requirements	B. Customizable help text, by screen and by field.
		C. Availability of online help, including illustrations, tutorials and reference
		materials.
		D. Intuitive query facility that is easy to learn and easy to use bynontechnical
		personnel.
		E. Scroll (with a single keystroke) forward, backward, up and down formultiple
		screen displays. F. Hot key for common screen transitions.
		G. Automatic fill-in of all system items
		H. Unlimited text notes fields with word-wrap capabilities and
		scroll bars.
		A. The list of various reports required for LTU ERP is provided inAnnex 1. The
0.	Dequinementa	list of reports given in detail scope of work is indicative. The actual list of
		reports shall be finalized during the SRS preparation stage. This section
		deals with the broad requirements of the major features to be incorporated in
		the software applications:
		B. The system must provide a facility for generating and viewing reports for
		transactions handled during a specified period (daily, weekly, monthly,
		yearly and any user defined period).
		C. The system must support both graphical and textual output
		D. The system must provide MIS reporting with multiple "Slice & Dice" options to
		generate reports in flexible formats based on user specific needs.
		E. The system must be able to model a reporting format.
		F. Must provide a facility to create custom queries and reports that canbe stored,
		reused, printed and emailed.
		G. Must have provision for immediate and scheduled batch reporting.
		H. Must be able to launch the report generator from within the softwareapplications
		through simple keystrokes.
		I. Must provide flexible (custom) report creation capabilities such asuser definable
		data selection criteria, user definable columns andheadings
		L Must support anophical superta
		J. Must support graphical reports.

#### 1. Availability of Study documents and Data

LTU will make available the following documents for preliminary review and study:

- a. Existing database/application snapshots,
- b. Existing report formats,
- c. Act, Rules & Regulations of LTU

#### 2. Logistic Support

The LTU shall provide one room space within the LTU premises to the consultant to perform day to day work effectively.

### 3. Ownership

Any materials produced for the purpose of this consultancy contract shall be the property of the LTU. The consultant should provide complete source code of LTU-ERP system to LTU.



## **D.** Evaluation of Consultant's EOI Application

# Evaluation of Consultant's EOI Application

Consultant's EOI application which meets the eligibility criteria will be ranked on the basis of the Ranking Criteria.

## i) Eligibility & Completeness Test

Sl. No.	Criteria Title	Compliance
1	Corporate Registration	
2	Tax Clearance of FY 2080-81	
3	VAT/PAN Registration	
4	EOI Form 1: Letter of Application	
5	EOI Form 2: Applicants Information Form	
6	EOI Form 3: Experience (3(A) and 3(B))	
7	EOI Form 4: Capacity	
8	EOI Form 5: Qualification of Key Experts	
9	In case of a natural person or firm/institution/company which is already declared blacklisted and ineligible by the GoN, any other new or existing firm/institution/company owned partially or fully by such Natural person or Owner or Board of director of blacklisted firm/institution/company; shall not be eligible consultant.	
10	If the corruption case is being filed to Court against the Natural Person or Board of Director of the firm/institution /company or any partner of JV, such Natural Person or Board of Director of the firm/institution /company or any partner of JV shall not be eligible to participate in procurement process till the concerned Court has not issued the decision of clearance against the Corruption Charges.	

## ii) EOI Evaluation Criteria

#### A. Qualification

Sl. No.	Criteria	Minimum Requirement		
1	Qualification of Key Experts	As Per ToR		
2 Experience of Key Experts		As Per ToR		

#### Score: 40.0

#### **B.** Experience

Sl. No.	Criteria	Minimum Requirement	
1	General Experience of consulting firm	Shall have at least 5 years of experience in the field of software development and IT system.	
2	Specific experience of ERP System within last 5 years of firm.	Shall have the specific experience of development and implementation of ERP system in at least one Government sector.	
3	Similar experience of consulting firm	Shall have specific experience of development and implementation of minimum 10 Web based application software in Government, Universities and Non-Government sector.	

Moderate Capacity			
	Sl. No.	Criteria	Minimum Requirement
	1	Financial Capacity.	Average annual turnover of the consulting firm of best three years out of last Five years should be at least 10 million

#### Score: 10.0

/

#### Minimum score to pass the EOI is: 70

Note : If the corruption case is being filed to Court against the Natural Person or Board of Director of the firm/institution /company or any partner of JV, suchNatural Person or Board of Director of the firm/institution /company or any partner of JV such consultant's proposal shall be excluded during the evaluation.



## **E. EOI Forms & Formats**



Form 1. Letter of Application
Form 2. Applicant's information
Form 3.Experience (*General, Specific and Geographical*)
Form 4. Capacity
Form 5. Qualification of Key Experts



Τo

#### Standard EOI Document

## 1. Letter of Application

(Letterhead paper of the Applicant or partner responsible for a joint venture, including fullpostal address, telephone no., fax and email address)

Date: .....

10,
Full Name of Client:
Full Address of Client:
Telephone No.:
Fax No.:
Email Address:

Sir/Madam,

- Being duly authorized to represent and act on behalf of (hereinafter "the Applicant"), and having reviewed and fully understood all the short-listing information provided, the undersigned hereby apply to be short-listed by [Insert name of Client) as Consultant for {Insert brief description of Work/Services}.
- 2. Attached to this letter are photocopies of original documents defining:
  - a) the Applicant's legal status;
  - b) the principal place of business;
- 3. [Insert name of Client] and its authorized representatives are hereby authorized to verify the statements, documents, and information submitted in connection with this application. This Letter of Application will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by yourselves to verify statements and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.
- **4.** *[Insert name of Client)* and its authorized representatives are authorized to contact any of the signatories to this letter for any further information.<sup>1</sup>
- 5. All further communication concerning this Application should be addressed to the following person,

[Person]

[Company]

[Address]

[Phone, Fax, Email]

6. We declare that, we have no conflict of interest in the proposed procurement proceedings and we have not been punished for an offense relating to the concerned profession or

<sup>&</sup>lt;sup>1</sup> Applications by joint ventures should provide on a separate sheet, relevant information for each party to the Application.



#### Standard EOI Document

business and our Company/firm has not been declared ineligible.

- 7. We further confirm that, if any of our experts is engaged to prepare the TOR for any ensuing assignment resulting from our work product under this assignment, our firm, JV member or sub-consultant, and the expert(s) will be disqualified from short-listing and participation in the assignment.
- 8. The undersigned declares that the statements made and the information provided in the dulycompleted application are complete, true and correct in every detail.

:

:

Signed

Name

For and on behalf of (name of Applicant or partner of a joint venture):



## 2. Applicant's Information Form

(In case of joint venture of two or more firms to be filled separately for each constituentmember)

- 1. Name of Firm/Company:
- 2. Type of Constitution (Partnership/ Pvt. Ltd/Public Ltd/ Public Sector/ NGO)
- 3. Date of Registration / Commencement of Business (*Please specify*):
- 4. Country of Registration:
- 5. Registered Office/Place of Business:
- 6. Telephone No; Fax No; E-Mail Address
- 7. Name of Authorized Contact Person / Designation/ Address/Telephone:
- 8. Name of Authorized Local Agent /Address/Telephone:
- 9. Consultant's Organization:
- 10. Total number of staff:
- 11. Number of regular professional staff:

(*Provide Company Profile with description of the background and organization of theConsultant and, if applicable, for each joint venture partner for this assignment.*)

Standard EOI Document



## Experience

## **3(A). General Work Experience**

(Details of assignments undertaken. Each consultant or member of a JV must fillin this form.)

S. N.	Name of assignment	Location	Value of Contract	Year Completed	Client	Description of work carried out
1.						
2.						
3.						
4.						
5.						
6.						
7.						

3



## **3(B). Specific Experience**

### Details of similar assignments undertaken in the previous seven years

(In case of joint venture of two or more firms to be filled separately for each constituent member)

Assignment name:	Approx. value of the contract (in current NRs; US\$ or Euro) <sup>2</sup> :	
Country:	Duration of assignment (months):	
Location within country:		
Name of Client:	Total No. of person-months of the assignment:	
Address:	Approx. value of the services provided by yourfirm under the contract (in current NRs; US\$ orEuro):	
Start date (month/year): Completion date (month/year):	No. of professional person-months provided by the joint venture partners or the Sub- Consultants:	
Name of joint venture partner or sub-Consultants, if any:	Narrative description of Project:	
Description of actual services provided in the assignment:		

Note: Provide highlight on similar services provided by the consultant asrequired by the EOI assignment.

Firm's Name:

<sup>&</sup>lt;sup>2</sup> Consultant should state value in the currency as mentioned in the contract





Standard EOI Document

#### Standard EOI Document

## 4. Capacity

## 4(A). Financial Capacity

(In case of joint venture of two or more firms to be filled separately for each constituentmember)

Annual Turnover					
Year	Amount Currency				

## - Average Annual Turnover

(Note: Supporting documents for Average Turnover should be submitted for the above.)





## 4(B). Infrastructure/equipment related to the proposed assignment<sup>3</sup>

No	Infrastructure/equipment Required	Requirements Description
1.		
2.		
3.		
4.		
5.		

 $<sup>\</sup>frac{1}{3}$  Delete this table if infrastructure/equipment for the proposed assignment is not required.



### Standard EOI Document

## **5.** Key Experts (Include details of Key Experts only)

(In case of joint venture of two or more firms to be filled separately for each constituent member)

SN	Name	Position	Highest Qualification	Work Experience (in year)	Specific Work Experience (in year)	Nationality
1						
2						
3						
4						
5						

(Please insert more rows as necessary)