

**TENDER DOCUMENTS
FOR DEVELOPMENT OF
“CMS/ERP UPGRADATION”**

October, 2018

**INSTITUTE OF MANAGEMENT SCIENCES
PESHAWAR**

ABOUT THE PROJECT

The Institute of Management Sciences (IMSciences), Peshawar is an autonomous body established under the auspices of the Government of the Khyber Pakhtunkhwa and is the foremost management school of the Khyber Pakhtunkhwa. IMSciences offers postgraduate and undergraduate education, with its main focus on business administration, computer science, public administration and allied disciplines. The average active student strength in all programs is around 3000 with proportionate number of faculty (regular, visiting) and staff.

CURRENT STATUS OF AUTOMATION AT IMSCIENCES

CMS/ERP Implementation

Previously, the IMSciences staff and faculty were overloaded with manual work for various on-campus operations. These operations range from simple classroom and teacher allocations to more complex tasks including handling and managing financial complexities. Further, due to lack of automated coordination between different sections on-campus, lot of activities are repetitively conducted which creates unnecessary burden on the ministerial staff and the management. Another aspect of this disconnected system is the excessive usage of paper which is collectively a huge overhead for the institute.

In order to rectify the above-mentioned problems and to connect various operations, a customized in-house ERP software was developed in the open source ERP framework (OpenERP Version 5). The CMS/ERP is in working from the last 5 years that has not only connected all the sections and departments at the campus but also facilitated the staff, faculty and management in saving their time from petty tasks to more productive tasks. One key aspect of this software is its extensive reporting at the operational level.

Bottlenecks in Current System

CMS/ERP Architecture

Since the CMS/ERP modules were developed in phases over the period of 5 years. So in the beginning the bigger picture of the system was not much clear and CMS/ERP modules were much interdependent on each other as integration was not planned in advance. The CMS/ERP implemented was much focused on meeting the operational needs of the concern section and lacks analytical/predictive reporting for the senior management.

Technological Enhancement

Existing CMS/ERP is implemented in OpenERP Version 5 (Released Apr, 2009) which has now become obsolete or has reached the end of maintenance. This obsolete version has limitations in its framework and doesn't support next generation technology. Some of the lacking technological advancement features are (Web Interfacing, Scalability, Availability, Manageability, Security, and Development practices) which are deemed necessary for any CMS/ERP application now a days.

Operational Support

As today most of the application features are already available in Odoo Version 11 or above (Community Edition). These features were not previously available in OpenERP Version 5 hence they were developed from scratch and hence requires a lot of efforts for its maintenance and support. A favorable thing in upgradation is migrating custom code "back to standard".

Poor User Experience

Web and mobile has raised user experience and expectations. A better user experience leads to better productivity. This upgrade will enable us to improve the user experience, which will lead to higher productivity.

SCOPE OF WORK

Interested bidders are required to provide technical proposal/solution for the development of the following components:

1 CAMPUS MANAGEMENT SYSTEM (CMS)

1.1 MASTERFILE DATA AND ACADEMIC

1.1.1 CMS Configuration

The salient features of the module should include but not limited to the following:

- Facility to maintain multiple organizations working under the umbrella of IMSciences.
- Facility to setup faculties, their departments and affiliated colleges for each campus.
- Facility to setup management staff such as Directors, Dy. Directors, Coordinators etc.
- Facility to maintain bank accounts for fee collection.
- Facility to maintain multi-currency.
- Facility to maintain Academic Programs and their details such as maximum credits hours, degree duration, batches with the following information:-
 - Batch Code and Name.
 - Maximum Credit Hours to Pass.
 - Number of Core Credit Hours to Pass.

- Registration Number Template if any.
- Passing Criteria of a Course.
- Batch Timings (Morning or Evening etc.).
- Probation Rules (GPA, CGPA, Percentage etc).
- Promotion Rules.
- Any Specialization is offered.
- Any Thesis/Project is offered.
- Any other setup required for the processing of CMS related transactions.

1.1.2 Academic Module

- Facility to define academic rules for admission, enrollment, exams, double degree, semester freeze and unfreeze, semester repeat, attendance, grading system and other rules and other scenarios defined in the prospectus and university directives.
- Facility to define rules for improvements, subject withdrawal, credit and non-credit courses, regular semesters, additional semesters, makeup semesters etc.
- Facility to cancel, suspend student admission based on the rule defined in the system such as low GPA, misconduct, non-payment of dues etc.
- Facility to assign CMS Registration
- Facility to close enrollment of student at the completion of study programs.
- Facility to define number of rooms and their usage (lecturing, lab, etc.)
- Facility to define calendar such as shifts (morning, afternoon, evening etc.), working days (Monday, Tuesday, etc.) and class duration (1.5 hour, 3 hours, etc.)

1.1.3 Curriculum Module

The salient features of the module should include but not limited to the following:

- Facility to add department wise course code and name with number of credit hours and course type (regular, non-credit, etc.)
- Facility to add program wise course code and name with number of credit hours and course type (regular(credit), non-credit, etc.)
- Facility to add discipline wise generic course code and name with number of credit hours and course type (regular(credit), non-credit, etc.)
- Facility to configure batch scheme of study with course code, course credit hour, passing marks, course type (regular, non-credit, etc.), optional or core course.
- Facility to enter course syllabus/ outlines along with recommended books.
- Facility to enter course composition such as theory, lab, project, assignments, quizzes, etc.

1.1.4 Academic Calendar Module

The salient features of the module should include but not limited to the following:

- Facility to create semester creation with semester start date and end date.
- Define Terms for Academic Calendar and its effective dates
- Facility to enter course/ semester add/ drop deadline date.
- Facility to enter tentative examination (mid-term & final-term) date sheets.
- Facility to enter result submission deadline date.
- Facility to enter tentative result declaration date.

1.2 STUDENT REGISTRATION

1.2.1 Entry Test Module

This module starts when students apply for the entry test and ends when the final merit lists are notified. The salient features of the module should include but not limited to the following:

- Facility to prepare entry test schedule for different disciplines/programs
- Admission criteria for individual offered program:
 - Requirements (Compulsory Previous Subjects or Degrees)
 - Program Eligibility
 - Marks Distributions (Academics, Entry Test, Interview, Extra Credit Marks & Hafiz Quran Marks)
- Online Admission System (ASP.NET) via Web Services in ODOO. Currently it is integrated with OpenERP V5
- Prospectus Sales
 - Prospectus Number Generation
 - Prospectus Issuing
 - Accounting Impact
- Online prospectus challan Issuing , Submission & Reconciliation through Account Section
- Generate unique entry test card according to each program discipline or individual program
- In case of receiving manual application, the concerned admission staff can enter the credentials of students such as particulars of students registered for different programs.
- Facility to verify applicants' data based on criteria defined in the system
- Facility to create test schedule covering the test date, test center capacity, test center location, engagement of supervisory staff, student allocation, other resources, etc.
- Facility to upload Test Results into the Entry Test Module
- Auto calculation of results upon completion of the test phase and alert generation to communicate result of test to the students
- Facility to create Interview schedule covering the interview date, teachers panel creation, panel wise student's allocation, Interview marks collection etc.
- Facility to upload Interview Marks to Entry Test Modules
- Auto calculation of results upon completion of the interview phase & promotion of passed students to the Final Merit list
- Facility to generate statistics report based on different search filters

1.2.2 Admission Module

This module starts when eligible student applies for the admission and ends when the student is selected in a specified program.

The salient features of the module should include but not limited to the following:

- Facility to define merit including quota for gender, district, provinces, marks of previously attained qualifications such as Matric, Secondary, Bachelor and other qualifications possessed by the candidate.
- Final Merit list preparation based on the criteria defined in each program
- Facility to exempt students from Entry test and interview based on some specific program or Institute

- Promotion of the Entry test and Interview exempted students to final merit list
- Facility to generate & publish Final Merit list for normal & exempted students & send alerts to successful candidates
- Facility to handle waiting list
- Facility to generate notification to the successful candidates to deposit fee as per the schedule
- Provision to apply for other facilities offered by the university such as transport, hostel, etc.
- Facility to cancel student admission.
- Facility to re-admit, change program.
- Facility to assign Enrollment number

1.2.3 Student Profile Module

- Facility to define student information such as name, contact number, email address, mailing address, academic records and other details.
- Maintain Events, Parents, References, Previous Qualification, Award Info, Family Info, Medical and Certificates record.

1.3 PROGRAM DELIVERY & GRADUATION

1.3.1 Semester & Subject Registration Module

The module starts at the stage when a student gets admission in a program and ends at completion of student program.

- Facility to define and implement semester rules, course selection rules as defined in the prospectus such as number of credit hours, eligibility of re-selection of a repeat courses, etc.
- Facility to select courses for new semester by the students.
- Facility to student to apply for subject improvement
- Facility to review enrollment list/ course selection received from the students.
- Facility to freeze/unfreeze semester or course and generation of alerts to all the concerned departments.
- Course offering approval from concern Program Coordinator.

1.3.2 Timetable & Class Scheduler Module

- Facility to generate draft timetable based on predefined parameters such as number of students per discipline, number of students per course in each discipline, number of labs per course, number of classes per week, teachers' minimum and maximum workload, sections per course, etc.
- Facility to define class duration / dynamic time slots
- Facility to generate class schedule
- Facility to assign teacher to the subject/course, based on their workload
- Facility to assign different teachers to the same course with different date slots
- Facility to define common subject combination into a single class (merge class)
- Students' Group Handling'
- Facility to support cancelation, replacement and relocation of classes.
- Facility to generate Daily Round-report for all the courses offered
- Facility to Enter Daily-Round entry of teacher to the system with remarks like (class started late, absent, present, informed, makeup etc.)
- Facility to generate various reports based on timetable.

1.3.3 Examination Module

- Facility to propose tentative semester wise date sheet by the head of departments.
- Facility to publish final date sheet on university website as well as on student portal after getting approvals.
- Facility to schedule exam and resources such as sitting capacity, supervisory staff, invigilators duties, rooms/halls allocations, date and time plan, students' sitting location etc.
- Facility for the faculty to setup scoring scheme for each course such as weightage of mid-term exam, final-term exam, assignments, quizzes, class participation, etc. to compute GPA (Course GPA, Semester GPA, Semester CGPA and CGPA).
- Provision to adjust score based on relative marking where highest score and lowest score is used as a scale for computing marks.
- Facility for the faculty to upload scores of mid-term, final-term, quizzes, assignments, etc.
- Facility to verify and approve award list compiled by the different faculties. The award list contains the results of mid and final terms exam and score of assignment performed by the students.
- Integration with student kiosk for final results and transcript so that the student can view or print it.
- Upload Research/Project marks and other details
- Facility to enter marks after re-totalling.
- Facility to handle UFM Cases.
- Facility to upload Project/ Thesis Marks by Concerned Supervisor/s or R&D users
- Facility to upload U-GRADE etc Marks by Concerned department users
- Facility to handle students migrated to and from other institutes.
- Facility to handle course equivalency of migrated students.
- Facility to manage Semester and Final Notifications

1.3.4 Degree/ Transcript Module

The salient features of the module should include but not limited to the following:

- Maintain student document issuance process of required certificate or degree
- Maintain student document verification of required certificate or degree
- Maintain stock of blank copies of transcripts, provisional certificates, degrees and distinction certificates
- Integration with Student Financial Module to ensure that students' outstanding dues have been cleared and fee for degree/ transcript issuance and verification have been paid.

1.3.5 Attendance Module

The salient features of the module should include but not limited to the following:

- Management should be able to configure rules for attendance
- System should maintain the attendance of students per course
- Facility to integrate with Class Rounds for class verification
- Enable faculty to punch all exams attendance(midterm, final-term etc)
- Handle merging/splitting of classes for students attendance during semester
- Faculty and Program officers should be facilitated to rearrange the scheduled classes
- Facilitate Program officers/Program coordinators to verify unscheduled classes
- Facility to handle student unmarked attendance due to late enrollment
- Short Listing of students due to attendance shortage (rule applied)
- Enable Program officers/Coordinators to lock/unlock attendance prior to final term examination

- System should also provide a mechanism for handling student's attendance if a course is taught by different teachers.
- Provide a mechanism for program coordinators to punch attendance on behalf of any faculty member in special cases (rules applied)
- System should facilitate faculty to get their required reports for entire session for a selected course at once

1.3.6 Quality Enhancement Cell (QEC)

QEC provides information and guidance about the Cell and the Institute's quality assurance procedures and processes of teaching, learning and assessment in line with the HEC Quality Assurance Manual. The Cell is responsible for undertaking various assignments to create awareness, impart training and carry out various tasks for Quality Assurance in teaching and education. This sub module carries the evaluation of both Teacher and Courses taught:

- Course evaluation is a paper or electronic questionnaire, which requires a written or selected response answer to a series of questions in order to evaluate the instruction of a given course.
- Teacher evaluation for improvement focuses on the provision of feedback useful for the improvement of teaching practices, namely through professional development. It involves helping teachers learn about, reflect on, and improve their practice.

1.4 STUDENT FINANCIALS

1.4.1 Fee Module

Fee Module is one of the important module because it's used not only to collect and manage fees submitted by/to students, but its functionality also impact the whole account section which includes all type of earning and expenses.

The salient features of the module should include but not limited to the following:

- Facility to define different fee structures having multiple head of accounts
- Facility to generate fee challans for the following cases and its integration with student kiosk (.Net Application):
 - Entry test fee
 - Admission of new program
 - Semester fee challan
 - Course fee, Diploma, certificate fee, etc.
 - Other fee such as transcript, degree, semester freeze, R&D, Transport, Hostel, etc.
- Each challan will have multiple head of accounts i.e. security, admission, course etc.
- Facility to handle the following fee scenarios:
 - Instalments
 - Advance Adjustment
 - Scholarship / Financial Aid
 - Waivers
 - Penalties (late payment, etc)
 - Refund

- Adjustment of multiple payments
- Payables (cheque or pay order or cash)
- Facility to share student details with banks and upload bank scroll of fees deposited by the students in the bank.
- Provision for record reversal to rectify errors
- Provision to create bank reconciliations
- Facility to handle final settlement of students
- Facility to generate projected fee estimates of any program enrolled with reference to any particular student.
- Facility to generate challan based on different category such as batch, individual student, semester wise, program wise, etc.
- Facility to maintain history of semester wise fee charged to the student.
- Integration with General Ledger to post financial effects of different receipts/payments in the form of journal voucher

1.4.2 Scholarship Management Module

The salient features of the module should include but not limited to the following:

- Define scholarship structures
- Facility to handle donor's Account Heads (Income, expense, payable)
- Facility to handle additional scholarship payable heads e.g. stipend, lodging, books etc
- Facility to define different scholarship programs offered by donors i.e. HEC, USAID, Faculty Development Program, FATA Scholarship, etc.
- Facility to define criteria for shortlisting of applicants for each scholarship program.
- Facility to communicate approved scholarship program to the students
- Facility for online apply for scholarship programs and submission of supporting documents
- Facility to process received applications, assign scores and short listing (rules applied)
- Provision for arranging interview sessions for shortlisted applicants and send alerts via email and SMS.
- Facility to record interview marks
- Provision to prepare merit list and waiting list of applicants.
- Provision to record award of scholarship for qualified applicants and send alerts via SMS and Email.
- Facility to record invoice in the system to release funds from the donor. The system should be integrated with Receivable module to post the financial effect of invoice
- Facility to handle multiple scholarships for a single student (rule applied)
- Facility to provide automatic priority mechanism for assigning scholarship among multiple awarded scholarship to a student
- Facility to handle automatic recurring scholarship for multiple program's semesters to the students
- Facility to automatically handle excess or less scholarship amount while assigning a single scholarship
- Facility to handle total excess amount in case of multiple scholarships
- Facility to reverse or halt scholarship in case student does not meet required criteria
- Facility to generate the scholarship grant utilization report from the accounting system.
- Facility to enter closing of scholarship award upon successful completion of the program by the student.

1.4.3 Transport Management

Transport management sub module includes students registration, vehicle name, route details, transportation fees etc. which is created easiness to maintain details about transportation data also Transport fee collection is quite easy of the predefined structure.

1.4.4 Hostel Management

Hostel management sub module ensures comprehensive control over the entire hostel work flow. This includes complete management of student's registration, hostel financial management, room allocation and assignment and more. Disciplinary log facility helps the management in authorized control over the hostel activities.

2. ENTERPRISE RESOURCE PLANNING (ERP)

2.1 FINANCIAL MANAGEMENT SYSTEM

The Financial Management System (FMS) should be implemented for the following functional areas:

2.1.1 General Ledger

The General Ledger system (GL) will be fully integrated with all other modules having financial effects such as Student Accounting Module, Payables, Receivables, HRMS, Fixed Assets, etc. The integration will be done to the extent that any financial transaction generated by other modules, will be periodically posted into the control accounts in the GL. The GL system will have the following salient features:

- The General Ledger should support cash basis/ double entry system.
- Provision to maintain financial accounts of multiple departments/ entities/ employee funds within a same database thereby helping the user to consolidate the financial information at Group level.
- Facility of maintaining multiple years of data jointly allowing previous years and current year's data to be accessed simultaneously.
- Handling of multi-level chart of accounts with a flexibility of defining user specific structure of the chart of accounts in line with the requirements set-out by IMSciences.
- Providing multi-level cost center structure to record transactions with reference to different segments like department, campuses, etc. to produce segment wise analysis.
- Calendar with user-defined financial periods according to reporting requirement of the IMSciences.
- Facility to define standard vouchers with customized printing options.
- Facility of standard transaction narration on single keystroke for each voucher type.
- Full screen-editing facility while entering data.
- Provision to define month/year end vouchers as 'reversible' at the opening of subsequent financial period.
- Providing options whether to maintain automatic numbering of all documents or user entered document number.
- Powerful password protection for all activities.
- Facility to lock entered data to protect against any changes.
- Provision for standard/ recurring vouchers.
- Flexible user defined on-screen inquiries to analyze the entered vouchers with different logical operator and filters.

- Automatic calculation of excess/ shortage of funds at year-end (temporary or permanent) and update of user defined profit account with corresponding printing of Journal Voucher.
- Period-end and year-end processing and generation of year-end voucher for closing balances of accounts.

General Reporting

- Option to print the voucher as soon as its entry has been completed.
- Printing of transactions list, voucher type wise.
- Printing of trial balance at any level of the chart of accounts with data range selection.
- Printing of general journal, ledger activity and ledger balances.

Financial Reports

- Month wise income and expense report, with budget comparatives.
- Comparison of data of different periods
- Facility to design user-defined report formats through the report writer including balance sheet, profit/ loss statement, income / expense statement.
- Facility to set up cash flow statement through the report writer
- Cost center definition enabling cost-center wise reporting.

2.1.2 Budget Module

The Budget module is designed to allocate the financial budgets at group or detail account code level, in accordance with the IMSciences requirements. The system will also maintain track of budget revisions during a financial year. The proposed module will have the following salient features:

- Facility to enter annual budgets for different heads of account and campuses with a breakup of financial periods defined by the user.
- Facility to define multiple budgets such as HEC budgets as well as recurring budgets.
- Facility to allocate budget figures with reference to business segment i.e. cost center, department, campuses, etc.
- Facility to copy previous year's budgeting values or get new allocation using a factor of previous data to minimize the data input efforts.
- Facility to revise the budget before completion of the year.
- Facility of re-appropriation of budget from subheads.
- Facility to print report for each head of account comparing the actual amount therein with the budgeted figure and the last year's figure.
- Facility to view consolidated budget covering all the departments and campuses.
- Facility to import budget data from the spreadsheets.
- Facility to compare budgets from periods of different years for a head of account and their actual for different reports including profit and loss statement, balance sheets, cost center-reports and other user defined reports.

2.1.3 Accounts Receivable

The Accounts Receivable module will cover the transactions of parties, employees other than students. The module should be fully integrated with the General Ledger system, where only control accounts will be maintained for trade debtors. At the end of every day/ or every month the control account in the General Ledger will be updated based on the detailed transactions in the accounts receivable. The main features of the module are as follows:

- Facility to enter invoice into the system thereby producing a corresponding accounting voucher into the general ledger system to book the financial effects in customer ledger
- Maintenance of customer account balances

- Facility to knock off invoices with payments/adjustments
- Facility to maintain details of outstanding invoices
- Facility to incorporate adjustment notes

Reports

- Details of outstanding invoices
- Printing of customer ledger/ customer statement
- Customer balances report
- Ageing analysis of receivables
- Tax reporting

2.1.4 Accounts Payable

The Accounts Payable module should be linked with the inventory system to validate all the purchases. The user will be able to enter supplier's invoices and record payable liabilities. The system should also be integrated with the General Ledger system to book accounting effects, resulting from the entry of supplier invoice, debit/credit notes etc. The system should provide a facility to make payments against the payable liabilities and make necessary deductions. The main features of the system are as follows:

- Facility to enter bill/ invoice containing demand reference, supplier reference, payment and tax deductions.
- Facility to enter supplier invoice along with other costs breakups to account for purchases and accounts payable.
- Facility for the Purchase department to validate and approve invoices.
- Maintaining track of purchases.
- Maintain history of foreign currency rates used for the purchase of imported items.
- Facility to define approval cycles to authorize payments initiating from different authorities such as Director, Controller Finance, Manager Audit, etc.

General Reporting

- Details of outstanding bills/ list of payments to be made during each period
- List of payments due in the next xx number of days and the related cash outflow requirements
- Aging analysis for a given set of days
- Printing of supplier ledger and balances
- Tax reports

2.1.5 Cash Management Module

The Cash Management module is designed to analyze the future inflow and outflow of cash generated from the accounts receivables, payables, etc. This module also include preparation of bank reconciliation, maintenance of multi-currencies, computation of forex gain/ loss etc. The proposed module will have the following salient features:

- Facility to setup banks, bank accounts, cash accounts, imprest accounts, etc.
- Facility to prepare payment voucher on the basis of supplier invoice.
- Handling of supplier payment by incorporating withholding tax according to the nature of services and amount limit.
- Facility to link payment with available budget.
- Facility to prepare and maintain cash receipts
- Facility of advance payments from customers and adjust this at the stage of issuing invoices.

- Providing a reporting lines for evaluating future cash inflow and outflow, thereby gives a base for future fund management in terms of investment, debt service, pay off liabilities, etc.
- Provision to prepare bank reconciliation to evaluate exact cash position at different banks of the IMSciences.
- Facility to compute forex gain/ loss upon receipt of customer dues and payment of outstanding amounts.
- Facility to print cash, bank books, ledgers, etc. for given range of dates.

Tax Reporting

- Tax payment receipt (challan)
- Monthly statement
- Annual statement
- Supplier Certificates
- Tax Reporting

2.2 FIXED ASSETS, PURCHASE AND INVENTORY SYSTEM

2.2.1 Fixed Assets Module

Fixed assets system maintains complete record of all assets owned by the IMSciences and records the movement of these assets from one department to the other and from one location to other. The system also calculates year-end depreciation and determines the written down value (WDV), at the time of disposal to calculate the gain/ loss on disposal of assets. The salient features of the Fixed Assets system are given below:

- Maintain comprehensive database of assets using multilevel asset codes for analyzing group and detail level information.
- Multi-location assets maintenance
- Department-wise assets management
- Disposal of assets using various modes of asset disposal.
- Provision to write-off assets
- Provision for different type of adjustments i.e. revaluation, re-classification etc.
- Transfer of asset to other locations/ departments.
- Breakup for assets costs either acquired locally or imported
- Maintains the history of previous years schedules
- Fixed assets register for individual items
- Edit lists and MIS reports
- Integration with the General Ledger system

Depreciation

- Maintaining different methods of depreciation calculation like straight line, reducing balance etc.
- Depreciation methods setup at group level as well as at individual level
- Provision to define depreciation policies regarding acquisitions and disposals
- Prepares monthly and annual depreciation schedules.
- Cost center-wise depreciation allocation
- Initial and normal depreciation rate (if different). Initial depreciation values are for the first year of newly acquired assets
- Number of shift days (if applicable) at group level
- Provision for calculating shift based depreciation.

Reports

- Fixed assets register

- Depreciation schedule – financial and tax
- List of assets location-wise, department-wise
- List of transfers/ disposals/ additions
- List of revalued assets/ re-classified assets/ written-off assets

2.2.2 Purchase System

The Purchase system will be used to maintain all activities related to purchase monitoring and execution, starting from the entry of the requisition, getting quotations from the market and preparing purchase orders to communicate with suppliers. The proposed system will be integrated with the Inventory system as required to maintain supply chain. The system will also be integrated with the Payable system to share purchase order data for the preparation of supplier invoice. The main features of the system are as follows:

- Facility to maintain supplier database containing name, address, credit period, credit limit and their origin like foreign and local etc.
- Facility to enter requisition by each concerned department.
- Stock/Inventory requisition system by staff/Departments/Faculty.
- Purchase department must have facilitate to organize multiple requisition into single purchase.
- Requisition generated by various departments would be accessible to Purchase Department for requesting quotation or creating POS of goods and services depending upon the value of goods or services.
- Purchase department must have facilitate to organize multiple requisition into single purchase order/
- Facility to generate MIS reports related to purchase transactions.
- System must also suggest if a specific purchase documents can be procured instead of direct purchase.
- Provision to enter quotations received from suppliers.
- Facility to generate comparative statement based on the quotations received from supplier.
- Facility to generate purchase/ supply orders against quotation received from suppliers.
- Integration with the Inventory system to maintain the status of goods received and outstanding quantities against each purchase order.

2.2.3 Inventory System

- The Inventory system is designed to manage movements of stock i.e. receipts of materials from supplier, issuance of materials to the user departments, materials returns, etc.
- The total cost of an item can be maintained as a break up of various cost heads, for instance purchase price, freight, installation charges, etc.
- Valuation of stock (Based on Weighted Average / LIFO / FIFO cost. etc.)
- Preventing shortfall by maintaining a minimum level for all items in stock.
- Multiple stock adjustments and reports on their quantitative and financial effects
- Producing financial / quantitative reports of the stocks procured, issued and in hand
- Different characteristics can be defined for different groups of items. This is in addition to the levels of codes maintained in the system.
- Manage Backorder

- Facility to maintain multiple warehouses. Each warehouse can have its own Goods Receiving Notes, Material Issues, Sales Invoices and other transactions.
- Facility to enter quantitative information separately by Stores staff and financial valuation separately by the Finance department for each GRN.
- Facility to define item types such as capital goods, consumable items, etc. Upon entering the GRN the system should update the acquisition in the Fixed Assets system.
- Materials valuation linked with the prices in PO/ supplier invoice/ payment voucher.
- QC inspection and facility to maintain stock as useable, damaged/ expired
- Providing the management with consumption pattern of stock items
- Provision to maintain separate buying units and issuing units and their conversion
- Material Issue and Material Return Note to manage stock movement between store and departments.
- Stock adjustment note for different type of errors like excess/short stock
- Facility to return damage stock to the supplier and automatic generations of debit note to supplier ledger balances.
- Stock/Inventory requisition system by staff/Departments/Faculty
- Cost center-wise issuance of stock.
- Facility to generate MIS reports related to inventory transactions.

2.3 HUMAN RESOURCE MANAGEMENT SYSTEM

The salient features of the system should include but not limited to the following:

2.3.1 Employee Module

- Facility to enter employee personal information, academic and other information
- Facility to enter academic record
- Facility to enter date of joining or leaving
- Facility to enter details of employee family
- Facility to record medical history
- Facility to enter multiple addresses
- Facility to enter status of annual leaves(Move to leave Management)
- Contract creation & renewal
- Sending Offer Letter directly
- Probation evaluation form
- Facility to enter status of annual leaves

2.3.2 Job Profile

- Facility to create areas of operations such as Academic, Administration, Accounts, Provost, HR
- Create uniform Job titles to be used in whole organization such as Director, Joint Director, Dy. Director, Coordinators etc.,
- Facility to define IMSciences grade structure and pay scale to accommodate salary
- Create Job positions such as Director, Joint Director, Dy. Director, Coordinators etc.,
- Facility to define job description by attach duties, responsibilities, skill, qualifications with the Job position
- Define Job Evaluation Factors (Age, Qualification, Experience)

2.3.3 Recruitment and Selection (Different for Staff and Faculty)

- Resources planning to define all the sanctioned posts in each department
- Facility to view status of sanctioned positions such as vacant position, positions to be vacant, etc.
- Facility to generate request for the hiring of a position.
- Facility to publish adverts of vacancies on the website
- Facility to define hiring criteria.
- Facility to create and upload CVs using candidates own login id, password.
- Facility to search best candidate from the CV database based on the criteria defined in the system and custom filters. Search of suitable personnel from the database of resumes based on:
 - Skills requirements
 - Educational requirements
 - Experience requirements
 - CV text search for uploaded CVs
- Facility to shortlist the selected candidates and send them call letters test/ interviews from the system(With users approval).
- Facility to define different stages for selection such as selection board, panel, etc.
- Facility to schedule interviews/ assessment of the candidates.
- Facility to conduct tests/ assessments/ interview sheets
- Facility to generate offer letter to the selected candidate

2.3.4 Training and Skills Development

- Facility to raise training request based on training needs identification during the appraisals, recruitment, department's specific needs, etc.
- Facility to prepare course calendar
- Facility to enroll employees based on:
 - Courses already attended by person
 - Prerequisites/ skills required for course
- Facility to mark course completion by:
 - Performing post training evaluations
 - Entering training costs

2.3.5 Appraisals/ Performance Management

- Facility to configure performance evaluation form for different grades/job titles
- Facility to conducted monthly/quarterly/Annual Evaluation process
- Facility to record details of performance evaluation of the concerned HOD.
- Designing appraisal form (Competency, KPIs, Objectives, weightage, comments)
- Facilitate to create KPIs templates for different job positions
- Facility to organise single and multi staged evaluation (Manager, HOD,Director)
- Facility to define various stages of review, recommendations and approvals
- Schedule reviews and intimate stakeholders such as assesses, assessors
- Perform assessments based on the assessment workflow configured earlier.
- Recommend (review and amend system generated) compensations
- Review and finalize compensations
- Department/Employee/Job title wise appraisal analysis
- Prior contract expiry notifications
- Facility to generate new contracts
- Different reports (Details will be provided)

2.3.6 User Access Rights

The salient features of the system should include but not limited to the following:

- Facility to maintain user profiles.
- Maintain logs of users activities
- System should facilitate faculty and relevant users to print pdf and excel reports
- Facility to process requests for granting/ revoking access rights.
- Facility to manage access rights at the following levels:
 - Modules
 - Menu
 - Setups
 - Transactions
 - Reports
 - Data
 - Button
- Facility to maintain multi role base access i.e. need to know basis like edit, entry, view, entry & view, edit & view and all.
- Facility to define user groups to define roles and access rights. Once a user is assigned to a particular group all the access rights given to group can be assigned to the particular user.
- Facility to control access by campus wise, faculty wise, department wise, section wise, etc.
- Facility to log users along with their activities with date and time stamp.
- Facility to generate logins in batch mode, where multiple logins can be generated for multiple students at once.
- Facility to allow user to change passwords
- Facility to define policies related to password strength, password change.
- Facility to grant/ revoke/ modify access rights.
- Facility to maintain audit log of all activities performed by a user.

2.4 PAYROLL SYSTEM

Payroll system should have a facility to set up employees' master file and the salary structure for each employee in terms of monthly allowances and deductions. The system should maintain the location wise/ department wise employee cost thereby enabling the management to analyze the payroll cost contribution with reference to each department/ business unit. The effect of these transactions should be transferred to General Ledger system electronically.

The system should also provide a loan module, which will maintain a track of various loans given to the employees by the IMSciences and will automatically make loan deductions according to the loan terms set in the system. All loans will be treated as interest free loans.

The payroll system should maintain track of leave record of each employee, in terms of leaves availed and leaves outstanding, and will automatically calculate the deductions for 'leave without pay'. The module wise features of the system are as described below:

2.4.1 Basic Salary Module

- Employees should be identified by unique numbers allotted to them and the system maintains the personal information of each employee, like employee's name, father's name, address, department, designation, location, date of joining and confirmation, date

- of leaving (for employees who have left), grade, National Tax Number and National Identity Card Number, eligibility for EOBI, Social Security, General Provident Fund, etc.
- Facility to define government basic pay scales for each grade to compute allowances, annual increase.
- Facility to revise basic pay scales as and when required.
- All allowances offered to the employees and deductions made from their salaries are user-defined in the system.
- Allowances and contributions should be computed automatically based on formulas defined by the users as per the IMSciences policy.
- The effect of any changes in the allowances is immediately passed on to tax module and the system computes the tax automatically.
- Non-salary benefits offered to the employees should also be maintained by the system.
- The effect of the number of days not worked during the month is passed on the net amount of salary payable to that employee once these have been entered.
- Provision to split an employees net salary for remittance to multiple banks.
- Printing of Pay-slips
- Salary sheets for banks and CFO signature
- Salary slips dispatch via email and sms
- The Basic Salary module should be integrated with Workload module to compute and make payments of the extra work load (academic and administrative)
- The following reports should be produced from the system:
 - Employee's personal details
 - List of employees: Department / location /designation wise
 - List of employees joined and left during the month.
 - Department-wise and grade-wise strength
 - Monthly payroll sheet by employee/department/location
 - Departmental summary of the salary paid
 - Annual payroll sheet: detailed and summarized
 - List of employees paid by bank and cash
 - EOBI and Group Insurance reports (monthly and annual) for the contributions made by the IMSciences on behalf of its eligible employees.
 -

2.4.2 Loan Management Module

- This module should keep a track of loans disbursed to employees, their recovery in installments and the balance amount payable.
- Loans of various kinds should be maintained, such as car loan, house loan, loan against PF, revolving funds, etc.
- Facility to setup different types of loans having different installment plans.
- Interest-free loans should be maintained.
- Once the installment per month has been decided, the system keeps deducting the same amount regularly in the subsequent months until the total loan has been recovered or the installment amount has been changed.
- The system should have provision for lump sum payment.
- Monthly and annual loan register

2.4.3 Leave Management

- Annual leaves allocations
- Designation wise leaves distribution

- Maintenance of employees' leaves in terms of leaves allowed, leaves availed and leaves outstanding.
- Employees leaves adjustments in case of designation change/promotion etc
- The actual dates when the leaves were availed can also be maintained.
- The effect of days not worked in the month (leaves without pay etc.) is reflected on the salary of that employee.
- Monthly and annual leaves register can also be produced.
- Leaves approval workflow
- Cancellation and extension of leaves
- Unplanned leaves Management
- Leaves encashment is also calculated once the encashable leaves have been identified.

2.4.4 Income Tax Module

- Income Tax module to compute tax liabilities based on the latest tax rules and produce the following report:
 - Income tax computation
 - Monthly/ quarterly income tax return
 - Salary certificate printing as per government requirement
 - Income Tax Statements
 - Income Tax Deduction Certificates
 - Facility to produce tax report in a format prescribed for e-filing by the FBR

2.4.5 Load Management/ Overtime Module

- The module should keep record of extra load on daily basis and make payments on monthly basis through the pay-slip.
- Employee Double shifts management
- The number of hours worked as overtime per day can be recorded through attendance module.
- Facility to define rules for the work load of maximum chargeable hours for academic and administrative.
- Facility to prepare week wise course/ teacher assignment giving teacher name & designation, course name, credit hours (theory & lab), admin load, total load, regular load, weekly extra load, total semester extra load, approved hourly rate, estimated cost.
- The system automatically calculates the amount payable by calculating each faculty's daily rates.
- Facility to generate remuneration bill on the basis of workload and class attendance.

2.4.6 General Provident Fund Module

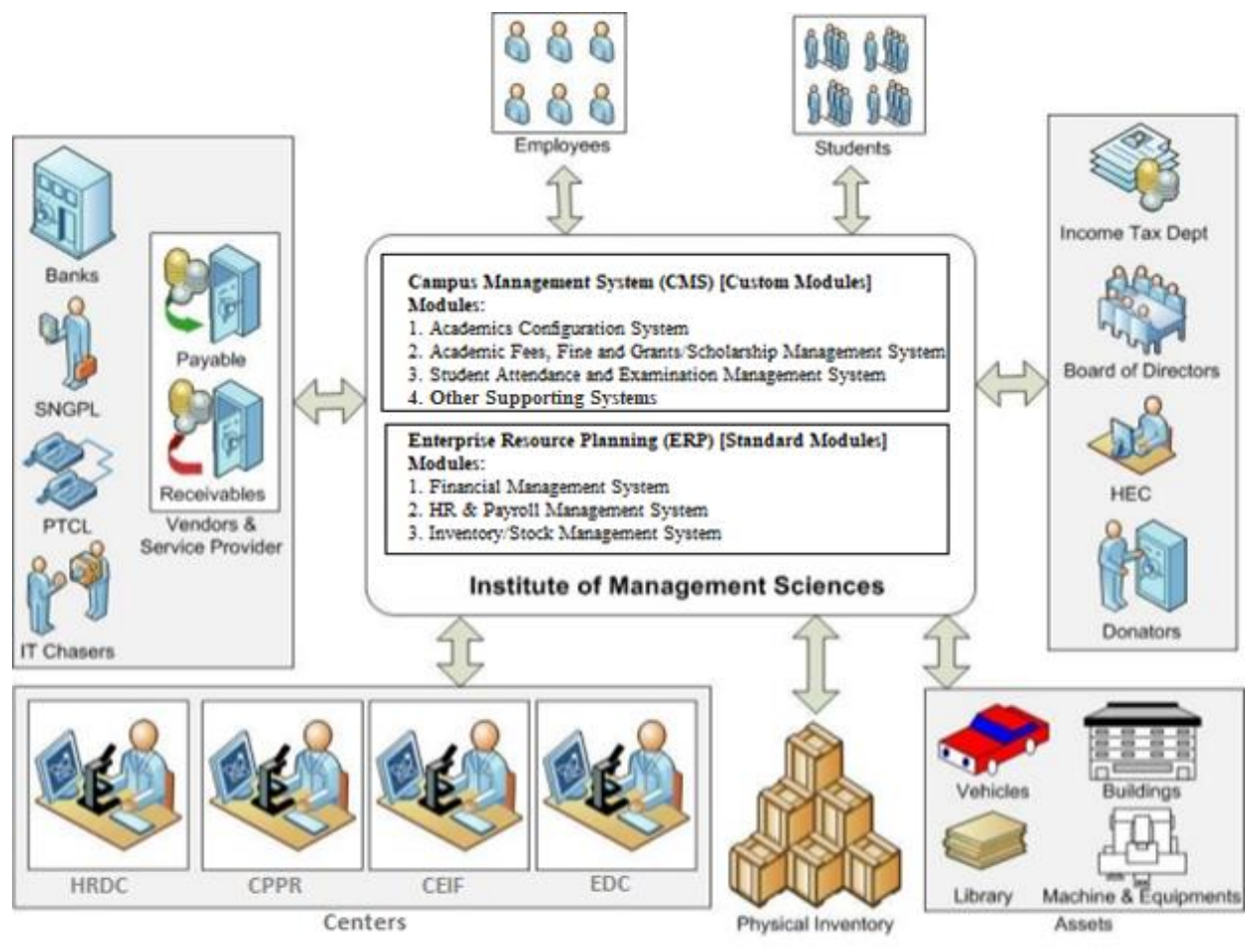
- The module should compute the amount of provident fund to be deducted for employees who are members of the fund.
- Both employees and employers contributions are maintained for each member employee as per the percentage decided. The accrued provident fund for each member is also maintained.
- The system checks that loans taken against provident fund do not exceed the accrued value of GPF for that employee.
- Printing of GPF ledgers for each member employee.
- Monthly/ Annual reports of contributions by the members and the IMSciences are also printed.

- The users can also get report from the system for the monthly allocation to be done for Provident Fund.
- This module should be integrated with the GL system and GPF funds accounting system to book the financial effects.

2.4.7 Final Settlement Module

- This module should compute the terminal benefits for the employee who leaves the organization based on the following parameters:
 - Computation of leaves encashment
 - Computation of notice pay (either side)
 - Deduction of balance loan amount recoverable
 - Deduction of tax recoverable form the employee
 - Computation of salary for the days worked during the leaving month.

PICTORIAL VIEW OF CMS/ERP INTERACTION WITH USERS



ODOO UPGRADATION PROJECT PLAN

The “CMS/ERP Upgradation” project is divided into three phases as shown in the table below, each phase/sub-phase is either the responsibility of IMSciences or the Vendor:

Phases	Description
<p>Phase 1</p> <p>Deliverable’s: Existing System Analysis and Initial Design Documentation</p> <p>Responsibility: IMSciences</p> <p>Expected Completion: Will be provided immediately after award of tender</p>	<p>Documenting each module by involving of relevant stakeholders. An analysis of the current business processes implemented in the CMS/ERP and desired improvements should be completed and fully documented as the foundation for our new CMS/ERP design.</p> <ul style="list-style-type: none"> • Starting point is documentation of complete functionality provided by each module • Identify any problems/dependencies/coupling we encountered in that module with other modules • Note down any improvements that can be made in newer version • Problems and improvements should relate to the functionality provided by that module <p>Following documentation is required for each module:</p> <ol style="list-style-type: none"> 1. Requirements including screen shots for each module 2. A brief description of functionality provided by the module 3. A Context Diagram or Equivalent 4. Process Models for critical business processes 5. Data Model: A class diagram / ERD or Equivalent
<p>Phase 2</p> <p>Deliverable’s: Gap Analysis and Proposed System Design Documentation</p> <p>Responsibility: Vendor</p> <p>Expected Completion: 1 to 2 Months</p>	<p>Alignment with organizational goals—New proposed design document should clearly address how the new system will help to achieve the primary objectives of the organization.</p> <ol style="list-style-type: none"> 1. Analyze the existing documented processes, data, and behavior models. Identify new processes, data, and data flows for the new system. This new model should be able to eliminate (at least partially) the problems that were identified in the current system. Prepare the new logical model that includes <ol style="list-style-type: none"> 1. A Context Diagram or Equivalent 2. Process Model for critical business processes 3. Data Model: A class diagram or Equivalent 2. Transform the logical model into a detailed design. <p>The design should include</p> <ol style="list-style-type: none"> a. ERD design: You need to simply show all the tables with their attributes. b. Object design: You should design the attributes and methods.

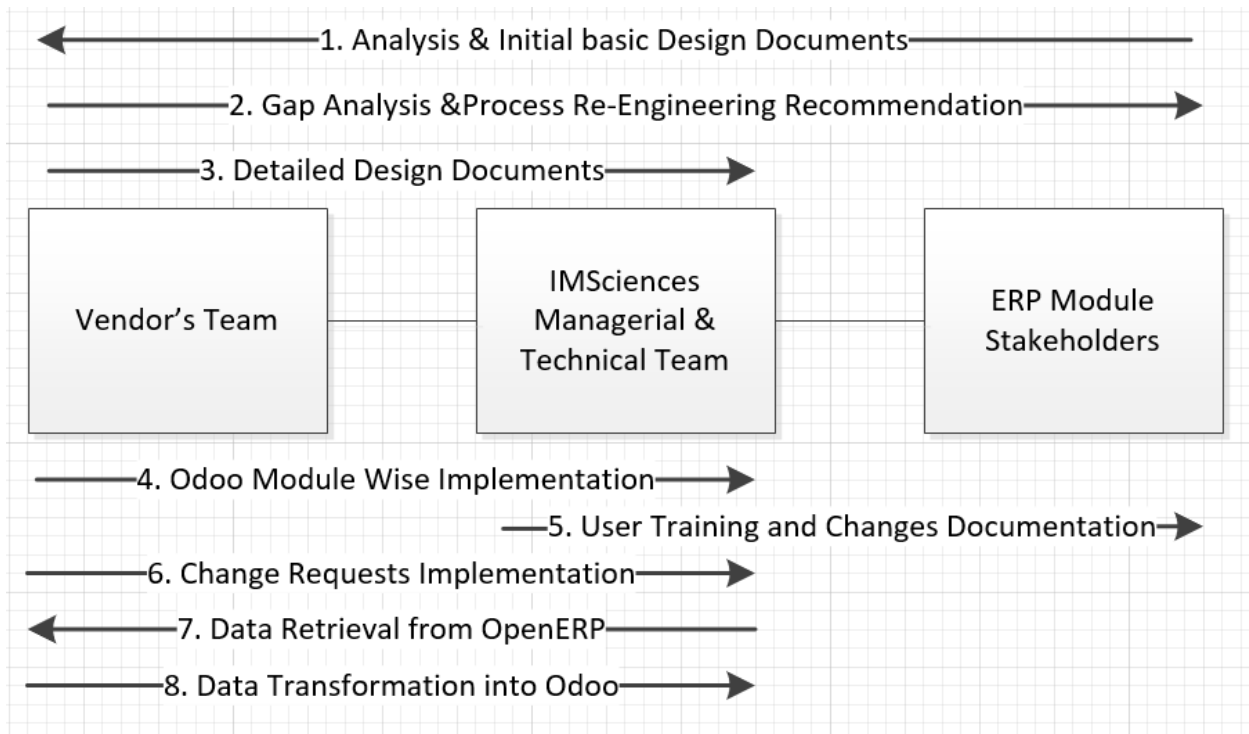
c. Controls. You should identify control mechanisms to prevent/detect possible errors that can occur in the system.

Best practice guidance— the vendor team will make recommendations based on best practices that they have learned over time of implementations in Odoo.

- **Expert functional review**— Each ERP module has functional strengths and weaknesses. The implementation team should get a deep understanding our CMS/ERP’s functionality using our provided analysis documents and meeting with stakeholders in order to recommend any business process re-engineering in our existing processes to make it tailor to industrial standard practices. By making our processes standardize will be beneficial for implementation and maintenance phases.
- **Expert technical review** — In addition to Odoo functional expertise, the implementation team will also provide detailed design document by analyzing existing design documents to identify potential cases that can be solved with existing features customizations in Odoo and also specify unique characteristics that can be overcome with third-party/custom code only.

<p>Phase 3</p> <p>Deliverable’s: Implementation in Odoo 11 or above (Community Edition)</p> <p>Expected Completion: 6 to 8 Months</p>	<p>Agile based modules implementation and high level design documents in phase 2 will be updated accordingly.</p> <table border="1"> <thead> <tr> <th data-bbox="438 1171 1071 1213">Activity</th> <th data-bbox="1071 1171 1336 1213">Responsibility</th> </tr> </thead> <tbody> <tr> <td data-bbox="438 1213 1071 1360">CMS/ERP Core Modules implementation in Odoo (Complete source code of all customization and any third party packages used)</td> <td data-bbox="1071 1213 1336 1360">Vendor</td> </tr> <tr> <td data-bbox="438 1360 1071 1434">User Trainings, system adaptation and Change Requests documentation</td> <td data-bbox="1071 1360 1336 1434">IMSciences</td> </tr> <tr> <td data-bbox="438 1434 1071 1476">Change Requests Implementation in Odoo</td> <td data-bbox="1071 1434 1336 1476">Vendor</td> </tr> <tr> <td data-bbox="438 1476 1071 1518">OpenERP Data Migration (Data Retrieval)</td> <td data-bbox="1071 1476 1336 1518">IMSciences</td> </tr> <tr> <td data-bbox="438 1518 1071 1587">Odoo Data Migration (Data Transformation)</td> <td data-bbox="1071 1518 1336 1587">Vendor</td> </tr> </tbody> </table>	Activity	Responsibility	CMS/ERP Core Modules implementation in Odoo (Complete source code of all customization and any third party packages used)	Vendor	User Trainings, system adaptation and Change Requests documentation	IMSciences	Change Requests Implementation in Odoo	Vendor	OpenERP Data Migration (Data Retrieval)	IMSciences	Odoo Data Migration (Data Transformation)	Vendor
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Information/Artifacts flow between IMSciences Team and Vendor's Team



TERMS AND CONDITIONS OF TENDER

Bidders are requested to read carefully the following terms and conditions and sign the Tender Form in token of having understood and accepted the same in all respects. Any of the provisions terms can be altered, initiated, admitted or included in the terms & condition by the procurement committee, however this can only be done with prior intimation and before the opening of bids.

Tenders which are incomplete or which do not fulfill the requirements given hereinafter may be rendered disqualified.

Qualification of the Bidders

The following bidders will be eligible to apply for this tender:

1. Bidders registered with relevant tax authorities and KP Revenue Authority.
2. An affidavit that the bidder has never been black listed by any Government agency or authority.
3. Interested bidders can't apply in Consortium or Joint Venture capacity.
4. Bidders having minimum 5 years of working experience in IT business.
5. Active registered partner of Odoo.

Method of Procurement:

It will be a "Single Stage - Two Envelope" procedure

- The bid shall comprise of a single package containing two separate envelopes. Each envelope shall contain separately the financial and technical proposal.
- The envelopes shall be marked as "FINANCIAL PROPOSAL" and "TECHNICAL PROPOSAL" in bold and legible letters to avoid confusion
- Initially only the envelope marked with "TECHNICAL PROPOSAL" shall be opened at 1430 hours on the same day, in the presence of interested bidders.
- The envelope marked as "FINANCIAL PROPOSAL", will be retained by the procuring agency without being opened.
- The Technical Committee shall evaluate the technical proposal based on the parameters mentioned in the "Technical Evaluation Criteria", without reference to the price and reject any proposal which does not conform to the specified requirements.
- The financial proposal of bids shall be opened in the presence of interested bidders or their representatives at a time, date and venue to be specified in due course of time.
- After the evaluation and approval of the technical proposal the Procurement Committee shall open the financial proposals of the technically qualified bids only. The financial proposal of bids found technically non-responsive shall be returned un-opened to the respective bidders.
- Earnest money should be enclosed in a separate sealed envelope marked clearly as "EARNEST MONEY" and submitted separately with the proposals.

Response time:

Pre-bid meeting for Purchase of “CMS/ERP Upgradation” Project of IMSciences will be arranged on 08-Oct-2018 at 1100 hours.

The sealed bids duly marked as Bid/Proposal for “CMS/ERP Upgradation” must reach the office of the Manager Administration, at **IMSciences**, Plot #1-A, E-5, Phase,7, Hayatabad, Peshawar on or before 1400 hours on 16-Oct-2018.

Bid Price:

1. The prices quoted shall be valid for 90 days after the date of submission.
2. The prices quoted should be inclusive of all taxes (FBR, KPRA etc.), duties & service/installation charges.
3. Taxes will be recovered as per rules and regulations of the government.

Evaluation of bids:

1. All bids should comply with the eligibility criteria and other terms and conditions mentioned here after.

Rejection of bids & dispute:

1. All bids submitted after the prescribed date & time shall not be entertained.
2. Failure in submission of the required documents will result in the rejection of bid/proposal.
3. Any bid received without earnest money, shall not be accepted.
4. IMSciences reserves the right to reject any or all bids or proposals at any time prior to the acceptance of a bid or proposal.
5. If the bidder left the project incomplete legal proceeding will be done as per law.
6. Any dispute arising during course of completion of assignment will be referred to the Director IMSciences and his decision will be final and binding upon the bidder.

Award of Tender and Payment of Bills:

1. Minimum technical qualifying source is 70%.
2. Financial bids of only technically qualified bidders would be opened.
3. The contract will be awarded to the lowest financial bidder.
4. The successful bidder will sign a formal contract with the Institute.
5. Payment of bills will only be released on deployment of module 60% and on acceptance 40%.
6. No advance amount would be paid.
7. Professional Tax Certificate of KP should be provided after award of contract and before payment of bills. In case of failure, the due amount of tax would be deducted from the service provider.

Earnest Money

1. Earnest Money (refundable) @ 2% of the quoted price shall be submitted with the Tender in the form of Bank Draft in favor of the **Director, IMSciences** without which no bid(s) will be accepted for consideration.

Note: Technical & Financial Proposals, in sealed covers, addressed to the Manager Administration, **at IMSciences** must be sent through registered post/courier service or may be delivered in person.

I have read all the terms and conditions and agree to fully comply and abide by them. Any non-conformity on my part would result in the rejection of the bid.

Name of the Tenderer
Authorized Signatures
& Official Stamp

Name of Project Coordinator
Authorized Signatures
& Official Stamp

Institute of Management Sciences Peshawar

Checklist

Sr	Item	Page No.
1	Name of the Firm Address (Telephone, Fax & E-mail)	
2	Date of Establishment & Certificate of Establishment	
3	Sales Tax Registration No. (attach documentary evidence)	
4	KP Revenue Authority Registration No. (attach documentary evidence)	
5	National/Income Tax No. (Annual Turnover supported by Income Tax Return)	
6	Earnest Money @ 2% as Bank Draft is attached with the check list	Yes_____ No._____
7	Affidavit (that the firm has not been blacklisted by private, Govt., Semi Govt. and Autonomous Body)	
8	Contact Person Name & Designation_____	_____ Authorized Signature & Stamp

Institute of Management Sciences Peshawar

Financial Proposal

Name of the firm: _____

Address _____

Project Deliverables/Modules	Price (Rs.) including all Taxes
<i>1 Campus Management System (CMS)</i>	
1.1 Masterfile Data & Academics	Rs.
1.2 Student Registration	Rs.
1.3 Program Delivery & Graduation	Rs.
1.4 Student Financials	Rs.
<i>2 Enterprise Resource Planning (ERP)</i>	
2.1 Financial Management System	Rs.
2.2 Fixed Assets, Purchase & Inventory System	Rs.
2.3 Human Resource Management System	Rs.
2.4 Payroll System	Rs.
Total Project Cost	Rs.

Note:

Development room will be provided to the vendor team in the IMSciences premises on request during office timings.

Name & Designation

Authorized Signature & Stamp

Institute of Management Sciences Peshawar

Evaluation Criteria

The proposals will be evaluated as per following criteria:

Total Marks = 100	Total Marks/Max	Page Nos
Clause		
1. Organization Profile & Portfolio		
a. Registration with Professional Bodies		
i. ODOO Silver Partner 3-Marks / Gold Partner 6-Marks	6	
ii. PSEB Registration	3	
b. Financial Capability (Annual performance & Financial strength)		
Provide annual audited financial statements for the last 3 Financial Years	12	
c. Projects Experience (ODOO Only)		
i. ERP ODOO projects completion certificates (5 Marks for each related projects) of Net Worth 2 Million Each	15	
ii. Number of in-hand ODOO projects or services (5 Marks for each Project/Service) of Net Worth Rs. 2 Million for Each Project or Rs. 2 Million for Each Service per Year	15	
2. Proposed Technical Solution		
i. Software Development Methodology & Implementation Road Map (5 Marks), Technical Solution (10 Marks) and Presentation (10 Marks)	25	
3. Staff to be Assigned to the Project		
Provide required documents along with CV's		
Project Manager		
i. Academic Final Degree (2 Marks for MBA, MIT, MCS or Equivalent 16-Years Education)	2	
ii. Post Qualification CMS/ERP Experience (1 Mark for Each Year)	3	
iii. PMP or MS (Project Management/Software Project Management)	3	
Functional Business Analyst (Max. 2 Functional Analyst profile)		
i. Academic Final Degree (2 Marks for MBA, MCom or Equivalent 16-Years Education)	4	
ii. Post Qualification CMS/ERP Functional Analyst Experience (1 Mark for Each Year up to 2 Marks per Analyst)	4	
Software Engineer / Software Developer (Max. 2 Developers profile)		
i. Academic Final Degree (2 Marks for MIT, MCS or Equivalent) per Developer	4	
ii. Post Qualification ODOO Experience Certificates (1 Mark for Each Year up to 2 Marks per Developer)	4	
Total marks = 100	100	

Note:

- i. Minimum qualifying score is 70.