

Punjab Tianjin University of Technology

Lahore



Tender Documents

FOR IMPLEMENTATION OF OPEN-SOURCE CAMPUS MANAGEMENT SOLUTION (CMS), LEARNING MANAGEMENT SYSTEM (LMS) and ENTERPRIZE RESOURCE PLANNING SYSTEM (ERPS)

Bid Reference No:	PTUT/PC/17/2020-21
Package Name:	IMPLEMENTATION OF OPEN-SOURCE CAMPUS MANAGEMENT SOLUTION (CMS), LEARNING MANAGEMENT SYSTEM (LMS) and ENTERPRIZE RESOURCE PLANNING SYSTEM (ERPS)
Procurement Procedure & Method:	Single Stage Two Envelope
Bid Opening Venue:	Conference Room PTUT, Lahore
Last date and time for obtaining of bid documents	17-01-2022, 01:00 P.M.
Last date and time for submission of bid documents	17-01-2022, 02:00 P.M.
Opening of Bid Documents	17-01-2022, 02:30 P.M.

Procurement Notice

IMPLEMENTATION OF OPEN-SOURCE CAMPUS MANAGEMENT SOLUTION (CMS), LEARNING MANAGEMENT SYSTEM (LMS) and ENTERPRIZE RESOURCE PLANNING SYSTEM (ERPS) FOR THE PUNJAB TIANJIN UNIVERSITY OF TECHNOLOGY, LAHORE.

The Punjab Tianjin University of Technology (PTUT), Lahore intends to hire services of a well reputed and well-equipped IT Company for IMPLEMENTATION OF OPEN-SOURCE CAMPUS MANAGEMENT SOLUTION (CMS) LEARNING MANAGEMENT SYSTEM (LMS) and ENTERPRIZE RESOURCE PLANNING SYSTEM (ERPS).

Interested firms should obtain the signed Bidding Documents from the office of Project Director (Building & Works) 1st Floor Room No. 120, before obtaining Bid Time & Date (17-01-2022, 01:00 P.M.) from 09:00 a.m. to 04:00 p.m. (Monday to Friday) after depositing the Tender Fee of Rs. 1000/- (non-refundable) at BOP, Township (College Road) Branch, Lahore A/c No. 6580064981000010. The Bidding Document is available on websites www.ptut.edu.pk and www.ppra.punjab.gov.pk for information only.

The sealed bids complete in all respect as detailed in bidding documents must reach in the office of Project Director (Building and Works) on or before 17-01-2022 until 02:00 P.M. The technical proposal will be opened on the same day at 02:30 P.M. in the presence of the bidders or their representatives who make them present.

**Project Director
Punjab Tianjin University of Technology, Lahore
Ph. 042-99332570**

AFFIDAVIT (Stamp paper of Rs: 100/-)

We do hereby confirm that we have carefully read the requirements and instructions of this bidding document and all the terms and conditions of services and also do hereby confirm as follows:

1. That, M/s _____ shall abide by all the instructions/conditions of the bidding documents and in addition the other conditions and university rules and regulations, all other special instructions from given time to time and enforced PPRA Rules.
2. That, M/s _____ is not blacklisted by any Provincial/ Federal Government/ Autonomous body Department/Authority in Pakistan.
3. That the information given in the application form and bidding documents is correct. In case any of this information is proved incorrect, university reserve. The right to reject the bid beside forfeiting the Bid Security and may initiate suitable legal action which may include blacklisting of the Bidder.

Name: _____

Signature: _____

Designation: _____

CHECK LIST FOR SUBMISSION OF APPLICATION

(Please mark or X in relevant boxes)

- | | |
|---|--------------------------|
| 1. Detail of company profile/ Firm/ Contractor etc. Profile | <input type="checkbox"/> |
| 2. Original CDR/Earnest Money /Deposit at call attached with Technical Bid.
(2% of the total estimated Rs.80, 000/- per annum) | <input type="checkbox"/> |
| 3. Original Tender fee Amounting Rs.1,000/- | <input type="checkbox"/> |
| 4. Affidavit on stamp paper Rs: 100/- | <input type="checkbox"/> |
| 5. Has registration certificate from a registered/ incorporated company/ firm
in Pakistan. | <input type="checkbox"/> |
| 6. Copy of National Tax No. | <input type="checkbox"/> |
| 7. List of All Mandatory required documents | <input type="checkbox"/> |
| 8. List of documents required in Technical Evaluation criteria | <input type="checkbox"/> |
| 9. Price offer on Bidder's letter head in the specified format given in Form-I. | <input type="checkbox"/> |
| 10. Active Tax Payer List (ATL) | <input type="checkbox"/> |
| 11. Provincial Sales Tax Number (PRA) | <input type="checkbox"/> |

TENDER DOCUMENT (Tender fee: Rs.1000/-)

TERMS AND CONDITIONS FOR SERVICE PROVIDER

All the participating companies/ Firms/ Contractors etc. must adhere the following instructions regarding preparing and submission of Tender/ offer.

1. Bidding shall be conducted through Open Competitive Bidding Single Stage Two Envelope procedures specified in the Rule 38-2-a of PPRA rules 2014, and is open to all eligible bidders as defined in the bidding document
The bidding procedure shall be Single Stage Two Envelopes as per Rule No. 38 (a) of PPRA Rules, 2014. The bidder shall seal the original Technical and Financial bid (separately sealed) into a single envelope. The Bidder shall seal the bid in envelopes, duly marking the envelopes as in block and legible letters “Technical” & “Financial”. And the single sealed envelope should be clearly marked "Tender for **IMPLEMENTATION OF OPEN-SOURCE CAMPUS MANAGEMENT SOLUTION (CMS), LEARNING MANAGEMENT SYSTEM (LMS) and ENTERPRIZE RESOURCE PLANNING SYSTEM (ERPS)** for The Punjab Tianjin University of Technology” Lahore. The inner envelopes shall also indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared “late”. No bid may be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form. Withdrawal of a bid during this interval may result in the Bidder’s forfeiture of its bid security
2. That the company/ Firm/ Contractor etc. must be registered with Income Tax department should have proven track record of providing the services to reputable organizations such as government/ reputed institutions. The company/ Firm/ Contractor should have office or sub office in Lahore.
3. The Bid submitted must be accompanied by Bid Security 2% (Rs. 80,000/-) (Refundable) in shape of CDR/ Pay Order, Demand Draft from a Scheduled Bank in favor of Punjab Tianjin University of Technology, Lahore of the total estimated amount (Rs. 4,000,000/-). Bids submitted without CDR / Pay Order, Demand Draft will not be considered and rejected straight away.
4. That the Rates quoted should be in Pak Rupees inclusive all applicable Government taxes. Amount of these Taxes will be deducted out of the running bill of payment payable to the bidders.
5. That the successful company/ Firm/ Contractor etc. will arrange stamp paper(s) @ 0.25% on total value of approved bid for contract/ Agreement between University and approved bidder.
6. That the tender should be filled on the prescribed form attached with Tender Document Rates quoted for Tender should be typed on the letter head of the firm both in words and figures. All supporting documents should and signed/ stamped by the Head of the Firm Company etc.
7. Bidder/ company/ Firm/ Contractor etc. will share a detailed operational plan for said work, list of employees etc. with university authorized officer.

8. That the company/ Firm/ Contractor etc. will be bound to provide the Services within 7 days after issuance of work order or extended time. In case work order issued and company/ Firm/ Contractor failed to execute work within stipulated period or extended period, the security money shall be forfeited.
9. That the successful firm will be provided services on all working days. Except Sunday however, in case of any particular event the company/ Firm/ Contractor etc. shall be bound to provide focal person on said time.
10. That the Penalties/ Fine imposed by university administration for misconduct, theft or damage caused to university property by the company/ Firm/ Contractor etc. shall be borne by the contractor/ Company/ Firm. The amount of penalties/ fine etc. shall be deducted from the bill.
11. In case of withdrawal after award of Tender, the earnest money shall be immediately forfeited.
12. That the inner and outer envelopes shall bear the address of the company/ Firm/ Contractor etc.
13. That the bidder/ Firm/ Contractor etc. at his own expense inspect and examine the sites & departments and at his own responsibility gather all information that may be necessary for preparing the Tender and entering into contract.
14. That the rates once quoted in Tender may not be allowed to change.
15. That the company/ Firm/ Contractor etc. shall be liable to report to authorized officer on daily basis regarding performance.
16. That the company/ Firm/ Contractor etc. will be bound to comply all the instructions issued time to time by University Authority in performing of duties.
17. That the university Procurement Committee reserves the right to accept/ reject or cancel the Tender according to PPRA rules completely which cannot be challenged in any court of law. In case of dispute, Vice Chancellor, will be the arbitrator and his decision will be final.
18. Bid Security of unsuccessful bidders shall be refunded on the finalization of the contract / tender whereas the successful bidder shall submit performance guarantee @ 10 % of the contract value in the form of Call Deposit Receipt (CDR) in favor of Punjab Tianjin University of Technology, Lahore.
19. In case of breach of contract by the firm, performance guarantee shall be forfeited and the firm may be blacklisted for future bidding according to presubscribed PPRA Rules.
20. That the Head of the institution/ Vice Chancellor of the university, Lahore reserves the rights to waive off/ relax; impose conditions deemed necessary at any stage without assigning any reason.
21. That the bidders with the lowest evaluated bid, if not conflict with any other law, rules, regulations & policy of the University, shall be awarded the procurement contract within the signed & extended period of bid validity.
22. That the Procurement shall be governed by the presubscribed PPRA Rules, 2014.
23. That university required implementation of open-source campus management solution (CMS) Learning Management System (LMS) And Enterprize Resource Planning System (ERPSs) services at its two campuses (Township & Raiwind Road).
24. This agreement can be extended on yearly basis (after 3 years of this agreement) for services only on mutually agreed price for services only.

25. That part of/ Advance payment is not allowed.
26. That Payment will be made on availability of funds, if delayed due to any reason, no extra interest/ mark up will be accepted or paid.
27. Successful bidder should provide complete training to the university staff for each module complete in all respect.
28. If two or more bidders quoted equal rate in bid, then the contract will be awarded to one gained higher marks in technical bid evaluation
29. The bid of all bidders will be opened publicly at a time, date and venue specified in tender /advertisement) observing SOPs of COVID 19 in the presences of representatives of the bidders who make them present.
30. Company shall be responsible for all the taxes required to be paid under relevant law.
31. The participating and qualifying firms are bound to follow all state and provincial Laws applicable to them.
32. Joint venture / consortium is not eligible for this tender
33. In case of query received from bidders on the bidding documents, a pre-bid meeting may be called in by the university 5days before opening of bid, correspondingly all the bidders who have purchased the bid document will be conveyed the clarity on queries 3 days before opening of bid documents.
34. The successful bidder should take input/necessary requirement from university official in addition to specifications mentioned in scope of work on each module and incorporate the same in the software
35. Grievance (if any) against the tendering process shall be entertained up to 10 days after announcement of lowest bidder over PPRA website. Any grievance received after this duration shall not stand valid/entertained.
36. Any offer not received as per terms & conditions of the tender enquiry is liable to be ignored
37. Any development required not specified in below mentioned scope of work deem necessary (if required).
38. Successful bidder on completion of the agreement will provide with complete Source code including installation, configuration, commissioning in university provided hardware and training to university official with all up to date data as and when required by the University.

Rejection/ Acceptance of the Tender

The Client shall have the right, at its exclusive discretion to reject any or all tender(s), cancel the Tendering process at any time prior to award of formal Contract, without assigning any reason or any obligation to inform the Bidder of the grounds for the Client's action, and without thereby incurring any liability to the Bidder and the decision of the Client shall be final.

The Tender shall be rejected if any of the following occurs:

- i. It is substantially non-responsive
- ii. Received without original bid security attached with technical bid
- iii. Received after the time and date fixed for its receipt
- iv. The offer is ambiguous
- v. The offer is received by fax or e-mail
- vi. The offer is from a black listed firm
- vii. Offer received with shorter validity than required
- viii. The offer is not conforming to requirements indicated in the tender documents
- ix. Any conditional offer
- x. It is submitted in other than prescribed forms, documents / by other than specified mode; or it is incomplete, un-sealed, un-signed, partial, conditional, alternative, and late; or it is subjected to interlineations / cuttings / corrections / erasures / overwriting.
- xi. The Bidder submits more than one Tenders;
- xii. The Bidder refuses to accept the corrected Total Tender Price; or The Bidder has a conflict of interest with the Client;
- xiii. Offering partial scope of work/ incomplete bids.
- xiv. The client has the right to forfeit the CDR in case the bidder violates any instructions to bidders of this document.
- xv. The bid security will be forfeited, in case of withdrawal of bid after opening of bids

BIDDING FORMS

BID SUBMISSION FORM

Date: _____
No: _____

To [Client Address]

Having examined the bidding documents including, the receipt of which is hereby duly acknowledged, we, the undersigned, offer for implementation of open-source campus management solution (CMS) Learning Management System (LMS) and Enterprize Resource Planning System (ERPs) services in conformity with the said bidding documents.

We undertake, if our Bid is accepted, to deliver the services in accordance with the said schedule specified.

If our Bid is accepted, we will obtain the guarantee of a Bank/CDR or any other form acceptable to the client in a sum equivalent to 5% of the Contract Price for the due performance of the Contract, in the form prescribed by the Client.

We agree to abide by this Bid for a period up to 120 days after the date fixed for Bid opening and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

We understand that you are not bound to accept the lowest or any bid you may receive. Dated this _____ day of _____ 2021.

[signature]

[in the capacity of]

Duly authorized to sign Bid for and on behalf of

Technical Proposal Submission Form on the letter head of the firm
(Part of Technical Bid Envelope)

[Location, Date]

To

Project Director B&W,

Punjab Tianjin University of Technology Lahore.

Dear Sir,

We, the undersigned, offer to provide the _____ in accordance with your Request for proposal / bidding document.

We also confirm that the Government of Pakistan /Punjab has not declared us, or any, ineligible on charges of engaging in corrupt, fraudulent, collusive or coercive practices. We furthermore, pledge not to indulge in such practices in competing for or in executing the Contract, and we are aware of the relevant provisions of the Proposal Document.

We understand you are not bound to accept any Proposal you receive.

Authorized Signature

Name and Designation of Signatory

Name of Firm and Address

Mandatory Requirements-

Bidder must furnish following information:

Sr. No.	Criteria	Requirement
1.	Evidence of Company/Firm/ Sole proprietorship	Mandatory
2.	Certificate of valid Income Tax Registration Certificate.	Mandatory
3.	Original CDR @ 2% of estimated bid value must be attached with the technical bid	Mandatory
4.	Valid PRA Registration	Mandatory
5.	Affidavit on attested stamp paper that the bidder is not black listed by the Provincial or Federal Government Department, Agency, Organization or autonomous body anywhere in Pakistan.	Mandatory
6.	Meeting the specification of items as specified in Form-II	Mandatory

It is mandatory to fulfill above stated requirements for all bidders. Any bidder not fulfilling above criteria will be considered as non- responsive bidder and will not be taken into consideration for Technical and Financial Evaluation. However, the technically qualified bidder with lowest rates will be awarded the contract (subject to fulfillment of all required conditions of bidding document & PPRA Rules, 2014).

Technical Evaluation Criteria

TECHNICAL EVALUATION CRITERIA FOR PURCHASE OF COMPUTER & IT EQUIPMENT

Sr. No.	Technical Criteria	Maximum Marks
1.	No. of clients (5 Marks per client)	20
2.	Work Order of similar nature with similar or higher value (5 marks for each work order)	20
3.	Number of Employees on Company Payroll, Attach List No. of employees greater than 10 = 20 marks 5 to 10 = 15 marks Less than 5 = 10 marks	20
4.	Age of Company (5 Marks per year)	10
5.	Income Tax return for last 2 years (5 marks each year)	10
6.	Offices held in Pakistan in various cities, Attach List with complete address (5 Marks per office across Pakistan)	10
7.	Annual amount Credited in PKR in bank statement for last financial year Less than 1,000,000 = 0 marks 1,000,000 – 4,000,000 = 5 marks More than 4,000,000 = 10 marks	10
Total		100

Obtaining 60 out of 100 Marks are compulsory to be technically qualified. All bids will be evaluated on basis of above given evaluation criteria and the bidders who do not obtain 60 marks as per above mentioned evaluation criteria will be considered as technically non- responsive bidders and will not be taken into consideration for Financial Evaluation. However technically qualified bidders (Responsive to Evaluation Criteria) will be considered as responsive bidder, and among technically responsive and qualified bidders, the bidder with lowest rates will be awarded the contract (subject to fulfillment of all required conditions of bidding document & PPRA Rules, 2014).

FORM-I

Financial Proposal Submission Form on the letter head of the firm
(Part of Financial Bid Envelope)

[Location, Date]

To

Project Director B&W,

Punjab Tianjin University of Technology Lahore.

Dear Sir,

We, the undersigned, offer to provide the _____ in accordance with your request for proposal / bidding documents and our attached Financial Proposal is for the sum of (insert amount in words and figures).

Our financial proposal shall be binding upon us up to expiration of the validity period of the Proposal.

We also declare that the Government of Pakistan / Punjab has not declared us or any Sub-Contractors for any part of the Contract, ineligible on charges of engaging in corrupt, fraudulent, collusive, or coercive practices. We, furthermore, pledge not to indulge in such practices in competing for or in executing the Contract and are aware of the relevant provisions of the Proposal Document.

Authorized Signature

Name and Designation of Signatory

Name of Firm and Address

Price Schedule / Financial Bid Form for Service Provider

Must be filled separately on the letterhead of the firm

(Part of Financial Bid Envelope)

Having examined the bidding documents the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply, install and commission the following items in conformity with the below mentioned required specification as per the following price at the places mentioned against each item.

S/N	Item Name with Specifications/ Description	Quantity	Pak Rupees	
			Unit Price without tax	Total Price Without Tax
1.	Scope of work including Services for 3 years to maintain and operate the system			
Sub Total				A
Income Tax @ _____				B
General Sales Tax @ _____				C
Any other applicable Tax (specify the Tax) @ _____				D
GRAND TOTAL				X= A + B + C +D

Grand Total in figures (Inclusive of all types of applicable Taxes)

Grand Total in words (Inclusive of all types of applicable Taxes)

NOTE: Please read carefully before filling of above-mentioned columns.

- i. Any fresh tax/ charges imposed or exempted (both conditions) by any federal/ provincial governments, will be adjusted/ accepted by the successful bidder as per rules / laws.
- ii. Hardware/Virtual-Machine /Processing/Storage cost Included and able to manage the 5000 user's load.
- iii. Service include Secure DNS, operate and maintain complete CMS, LMS and ERP system, Continuous Security, Un-Interrupted Server's Power/Electricity, Unlimited Bug Fixes, Server, IT Administration with 30 Days Database Backup.
- iv. Missing or Incomplete filling of all the subject columns of this Financial Proposal will not be considered and should result in disqualification.
- v. Financial Proposal evaluation will be conducted under the Punjab Procurement Rules 2014 (Amended till date). The Price evaluation will include all duties, taxes and expenses etc. In case of any exemption of duties and taxes made by the Government in favor of the Purchaser, the contractor shall be bound to adjust the same in the Financial Proposal.

- vi. The quantity of items can be increased/decreased and the cost of increase/ decrease will be adjusted accordingly.
- vii. 70% Payment of contract value will be made after implementation of scope of work.
- viii. 20% Payment for services will be made in 3 equal amount payments spread over 3 years span upon satisfactory services on completion of subsequent year.
- ix. 10% performance guarantee withheld will be released after 3 years of satisfactory completion of this contract.
- x. Prices quoted by the bidder shall remain fixed and valid until completion of the Contract performance and will not be subject to variation on account of escalation.
- xi. Unit Price will govern for arithmetic check and corresponding Grand Total” X” after arithmetic check will determine lowest bidder.
- xii. If there is discrepancy between words and figures the small amount will prevail.
- xiii. Quoted items must be legally imported in Pakistan after paying all taxes. (Where Applicable)
- xiv. Standard Warranty (Where Applicable).
- xv. Prices must be quoted for all items.
- xvi. All items must be quoted for successful quote. Partial quotes are not acceptable and will be rejected.
- xvii. Bidder must quote proper brands and models of the required items, bidders without quoting proper brand /model will be rejected.

The duration for implementation of scope of work under this contract shall be maximum 90 days, starting from the date of issuance of Letter of Acceptance or as per purchase order.

Date: _____

Place: _____

Authorized Signature

(In full and initials)

Name and Designation of Signatory

Name of Firm and Address

(Seal & Signature of Company)

Note: No cutting or overwriting is allowed. Any cutting or overwriting may lead to rejection of the financial bid.

Form-II

1. Scope of Work:

2.1. General Requirements:

- 2.1.1 Complete academics and examination system strongly coupled with Outcome Based Education, along with student Portal and QEC.
- 2.1.2 System should support the Secure online examination and online classes with latest online collaboration tool Like Zoom, MS team, JitSi, Google Meet and Skype. In future, PTUT want to implement passive and active surveillance for the online exam.
- 2.1.3 System should support multiple independent and parent child campuses in a single database as well as in multiple databases. Each campus can further manage multiple academics activities.
- 2.1.4 System should be complete web application, preferably belongs to international ERP family.
- 2.1.5 ERP system technology and its dependencies must belong to open-source platform. Like system should allow future development/customization of functional modules, strong local or international community should be available and it can deploy on open-source operating systems. It should use open-source database and should be able to connect with other system via web service coupled with ERP security layered itself.
- 2.1.6 System should support N number of functional user (Campus Manager, Chairmen, Program Coordinators, Faculty and Students).
- 2.1.7 System must be in operation and supporting 5,000+ users in production environment.
- 2.1.8 Users can chat with each other in web portal for quick learning from each other's.
- 2.1.9 System must be implemented and in production in any major public engineering university (of same level) for at least two plus years.
- 2.1.10 Multiple times the system has gone through the PEC accreditation and have successfully aced it.

2.2. Functional Requirements:

- 2.2.1 System should allow to define general level configuration, like Departments, Designations, Regular & Manual grades, Programs Portfolio, Course Portfolio (with and without OBE), Educational psychologies like Bloom Taxonomies (or any other) with their levels, Keywords & integrated with Weekly Course Plan and other general configurations.
- 2.2.2 System should support campus level master configuration, like annual or semester system grading policy, reappear course policy, offer variety of DMC formats, policies of allowed credit hours for student in semester, semester promotion policy (Pass out, Probation, Warning etc.) and minimum attendance Policy etc.

2.3. Academic Module and Online Admission System

- 2.3.1 System should support HR profiling (Academics and Non-Academics) with support of HEC profile (Proforma 9) attributes, like Academic Details, Honors & Awards, Presentations, Memberships, Publications, Research Grants & other researches, Project/Thesis Supervisions and Work Experience. Profile can be viewed in print format as per HEC requirement.

- 2.3.2 System should support complete student profile and its complete life cycle like, regular, admission cancel, transferred, Dismiss/Block, freeze, alumni etc. Student profiling includes personal information, education details, publications, semester & subject wise summary in a semester which includes subject grades, subject grade points, subject grade comments, subject credit hours, subject attendance, semester GPA, semester CGPA, semester attendance, CGPA & percentage. System should support batch promotion of students with enforcement of pre-configured semester promotion policy. System should support single and batch admission cancellation and re admission process.
- a. System should allow to offer and manage dynamic program session in a year, semester or morning/evening in a department. System should allow different session based on OBE and non-OBE academic life cycle. In each session, system should allow to manage variety of scheme of studies based on Theory, Lab, Theory Lab, Thesis, Project, Non-Graded Subjects, specialized course planning. OBE related attributes will be discussed in upcoming section.
 - b. System should allow to offer and managed semester planning and its complete life cycle like student course registration process, operational execution, completion, survey execution etc.
 - c. System should allow to offer and manage section/class planning and its complete life cycle like Initiation, Planning, Operational Execution, Survey and Completed. System should allow to initiate section/class in variety of ways like Section and shifts etc. System should allow to manage a section/class in controlled time interval, maximum number of allowed registration and inter department students can also register in class in case of re-appear. Class Teacher can plan & manage weekly course contents integrated with study reference material, education psychology & it's level and delivery methods. Class teacher can define and manage complete reading material, assessment planning (with enforcement of department wide policy), recommendations, announcements etc. Strictly section/class time interval should be enforced inherited from the current semester planning.
 - d. System should allow to plan and manage the complete time scheduling of section/class and it's assessment in a semester. System should allow to manage parent child infrastructure as per the HEC requirements like capacity, type of facility (Class Room, Laboratory, Library, Meeting Room, Conference Room, Office, Studio etc.), facility equipped with different machines, available workstation with student capacity and the staff responsible to manage this facility. System should able to manage all the conflicts of time, resource and workdays for any schedule.
 - e. System should allow to manage class wise student attendance. System should enforce to submit the attendance for make-up class life cycle. Variance of student attendance and minimum attendance rule can be view from GUI or reports.
 - f. System should allow degree completion process which includes manual and automated departments check list with date and comments.
 - g. Issuance of computer generated Degree/transcript/certificates.
 - h. Management of Record of Degree/Transcript/certificate.

2.4. Examination Module:

- System should allow to plan and manage any type of assessment in section/class including the department or campus level policy. System should manage the weightage level constraints. System should allow to plan/manage the question paper based on type & complexity level, each question should directly map to the course content, education phycology and OBE parameters. OBE related attributes will be discussed in upcoming section. System should allow to generate dynamic question papers from the question bank.
- System should not allow to submit the quantitative feedback assessment of student those are not able to fulfill minimum attendance rule in section/class. There should be super user configurable provision to bypass the minimum attendee rule too.
- After the complete planning of assessment, system should able to support quantitative results submission for each assessment and question. System should also have provision to upload the batch result using excel. All the rules should be enforced in excel to avoid any mistake.

- Complete result submission life should be the part of system like preparation of result, relative grading based on configuration, submission of result to controller of examination and result archived for all the HEC reports. Class Teacher can initiate the request for change in results, controller of examination can accept or reject the request based on nature & severity of request and complete log should be maintain in case of rejected result.
- System should cover the processes of manual grades for a student in a course in a predefined semester time interval, like with Withdrawal, Withdraw Forcefully, Interim etc. This manual grade process should be part of the system to avoid printing.
- System should support complete rechecking life cycle starting from the request from student portal, Rechecking, Final Decision, Acceptance or Rejection from controller of examination.
- Complete integrated process for Postgraduate Thesis/Project from academics planning to examination.

2.5. Secure Online Examination and Online Classes:

- System should allow to organize the online examination. Which can be used with and within a secure environment.
- System should allow to manage and restrict the student machine for online exam by configuring the Security Level. Security parameters are;
 - In the General pane you'll find basic settings like the URL which SEB opens and the passwords to open a config file for editing and to quit/restart SEB. When first time using SEB, you might only have to change these general settings, as the default values for all other settings should reflect the more "secure" option. Detail of rules are Start URL, Administrator password, confirm administrator password, allow user to quit SEB, ignore exit keys, Quit/unlock password, and Exit sequence.
 - Config File contains details about encryption of the SEB. seb configuration files plus all functions to deal with the opening, saving, reverting, duplicating and applying settings. These commands can also be accessed in the menu bar above the tab bar. Settings in Config File section are: Use SEB settings file for ... starting an exam, Use SEB settings file for ... configuring a client: Allow to open preferences window on client: Choose identity to be used for encrypting SEB settings file, use old asymmetric-only encryption (for SEB < 2.2), Settings password: Confirm settings password, Open Settings, Save Settings (As...), Revert Settings to and Use Current Settings to.
 - User Interface contains general SEB user interface settings. Some of the settings in this section are: Use browser window, use full screen mode, Touch optimized, Main browser window size and position, Browser Window Toolbar, SEB taskbar/dock, Audio Controls, Spell Checker.
 - Browser all detail settings for the built-in SEB web browser. Settings in the browser pane are: Links requesting to be opened in a new browser window, Block when directing to a different server, new browser window size, new browser window horizontal positioning, Block when directing to a different server: Browser Security, User Agent Settings,
 - Down/Uploads refers to file downloads and uploads. Details of rules are: Allow downloading and uploading files, save downloaded files to, choose file to upload, Download and open PDF files instead of displaying them inline, allow using Acrobat Reader PDF plugin (insecure), Download and open SEB config files.
 - Exam handles the connection to exam systems and exam specific settings. Some of the rules that can be configured in this section of SEB are: Use Browser Exam Key (send in HTTP header), Browser Exam Key, Link to quit SEB after exam, ask user to confirm quitting, Back to Start button, Title/tool tip text for the Back to Start button, Protect Back to Start button with the quit/restart password.
 - Application is for handling permitted and prohibited processes. Details of rules are: Allow switching to third party applications, Allow Flash to switch to full screen mode Click +/- to add/remove permitted process, Choose Application, Selected Process details, Prohibited Processes Section.

- Additional Resources is for adding webpages, websites or documents which can be opened during the exam. Following rules can be configured in this pane: Hierarchical list of resource items, Selected Resource, Appearance, Activation, and Behavior.
- Network about the URL filter, certificates and proxies. Details of rules configured in this pane are: Activate URL filtering, Filter also embedded content. Format for a filter expression in the non-regex format.
- Security contains detail settings about how SEB locks down security relevant system features. Security pane has the following set of rules: SEB Service policy, Allow SEB to run inside virtual machine, enable screen capture / Print Screen, allow remote session/screen sharing, use private clipboard, Enable logging, Kiosk mode,
- Registry allows to control options in the Windows Security Screen invoked by Ctrl-Alt-Del and an option when using VMware Horizon View while SEB is running. Registry pane allows following set of configurations: Enable Switch User, Enable Lock this computer, Enable Change a password, Enable Start Task Manager, Enable Log off, Enable Shut down, Enable Ease of Access, Enable VMware Client Shade.
- Hooked Keys controls blocking key and mouse commands. Special Keys, Enable Right Mouse, Enable Print Screen, Enable Alt-Mouse wheel Function Keys are some of the key rules that can be configured in this section.
- System should offer the online classes features seamlessly integrated with Zoom, MS Team, JitSi, Google Meet and Skype.

2.6. Quality Enhancement Cell – QEC:

- System should allow a complete quality framework where HEI can define the objectives guided by Syndicate, Board of Studies, PTUT, HEC, PEC and Washington Accord etc.
- System should allow KPI against the quality objectives in different hierarchy.
- System should allow the model of Plan, Do, Act and Check.
- System should allow to provide the quantitative and qualitative reports to analysis the non-compliances in different processes of HEI based on KPIs.
- In case of noncompliance, system should allow to create and follow up the case in process of continuous quality improvement framework. System allow to delegate a team case to case for the root cause analysis and with the proposed corrective and preventive actions.
- System should allow to define and manage the surveys for course evolution, teacher evaluation, Degree Completion Survey, Postgraduate Thesis Feedbacks, Alumni Survey and Employer Survey. See 10 proformas of HEC for Quality Assurance.
- Tabular and Graphical feedback analysis of each survey.

2.7. Outcome Based Education - OBE:

- Complete OBE System, strongly integrated with Academics and Examination system.
- System should allow to define the department and program level vision, mission and its versioning.
- System should allow to define and/or inherit session wise program educational objectives (PEO), program learning outcomes (PLO), PEO's & PLO's mapping, its versioning. System must allow the session wise KPI for PEO's, PLO's, and CLO's.
- Considering the session PEO's & PLO's and other demands, system should allow to plan & manage the complete scheme of study, consisting of courses.
- System should allow to define and/or inherit course learning outcome (CLO's), mapping with respective PLO's, mapping with course contents & educational psychology. In assessment planning, each question mapping with respective course contents (strongly coupled with CLO's).
- System should have the capacity to produce all the OBE reports (Quantitative and Qualitative, with or without CQI impact) as per PEC requirements like SAR, CLO Attainments, PLO attainment, PLO-PEO Mapping for a session, PLO-CLO Mapping for a course, PLO Transcripts etc.

- System should have integrated Continues Quality Improvement (CQI) process with academics, examination & OBE process for CLO's, PLO's and PEO's. This process should cover the complete lifecycle of CQI like CQI Initiative, Planning, Execution, Analysis, Final Decision and Closure.

2.8. Student and Employee Portal:

- Student can see his profile, current courses, course website, course announcements, scheme of study for his admission session, current lecture & assessment scheduling, notice board, self-course registration, grade book, print DMC, OBE performance (CLO and PLO Attainments), standard academics and examination services.
- System should support are the silent features of Learning Management System.
- Detail information of Employee and Complete employee management

2.9. E Meeting:

- System should allow to schedule and manage all the meetings in between faculty, administration staff ,students and other.
- System should allow to define agenda of meeting, nomination of meeting team, organize the meeting physically or virtually, recording the meeting minutes, consent on minutes from each member etc
- System should allow to have such meeting with students organized Class teachers, Internal Supervisor, PGRC, etc.
- System should allow to manage the meeting virtually integrated with Zoom, MS Team, JitSi, Google Meet and Skype.

2.10. E Noting and E Document:

- System should allow to receive of documents electronically, circulate between colleagues for consultation. Sub Noting can be option to maintain the privacy of departmental decision.
- System should allow to attachment as eDocument in notes and user can manage his document under his ownership. User can share his document to any note or with other colleagues
- User can mark the confidential non-sharable to restrict the access
- User can mark the document confidential and such document can e viewable based on additional password

2.11. Student Dues

- System should allow to manage semester wise academic fee structure and number of credit hour registered by students.
- System should generate batch academic challan for students in a semester.
- System should have facility to convert unpaid challan in installments (2-3) and add scholarship in unpaid challans.
- System should be interactable with any medium of online banking. System should allow to manage the scholarships and discount with the reconciliation of student challan
- System should allow barcoded challans to quick reconcile with the bank statements or data.

2.12. Reporting (academic, examination and OBE)

- System should support variety of reports as per HEC, PEC and university requirements.
- Report should be available in number output formats like HTML, PDF, EXCEL, etc.

2.13. User Management System

- Complete user management with role and permission assignment

2.14. Library Management System

- Complete Library management system integrated with the system so that librarian can manage library books and student, faculty record easily.

2.15. Transport Management

- Complete transport management system for users can handle transport easily including maintenance schedule and record. The software can allocate/deallocate different types of vehicles to its employees. It can be Bus, Van ,Car and motorcycle. The Charges can also be configured on Employee Scale. This department is also integrated with Salary-Section

2.16. Human Resource Management (HRM)

- Human Resource Management (HRM) It will centralize all your HR information and allow you to successfully manage your employees, integrated with EDU Campus. Oversee all important information for each department at a glance. Restrict visibility of sensitive information to just HR managers, or make other information public for all employees to see such as employee directory. Receive alerts for any new leave requests, allocation requests, applications, appraisals, and more. Main features of HRM are track time & attendance, Leave management, streamlined expense management, employee evaluation made easy, recruit top talents, complete payroll system integrated with accounts. Salient features of HRM are;
- You can satisfy each one of your HR needs by a specific app that you activate on demand and all information are stored in the cloud.
- You can view your company address book to oversee all the important information.
- You can manage employee contracts and get alerts when they have to be renewed.
- Post job offers and keeps track of each application received. Follow applicants in your recruitment process with the smart view.
- Interact with your colleagues in real-time with live chat. This feature is great for big offices, for companies with multiple offices and even for some employees.
- Keep track of the time spent by project, client or tasks. It's easy to see the statistics, to record timesheets and to check the attendance of each employee.
- One of many benefits of this app is that you can keep track of the vacation days taken by each employee.
- Set up appraisal plans and/or surveys for your employees and watch their evolution. Define steps for interviews and Odoo will notify managers or subordinates automatically.
- Inspire achievement with challenges, goals and rewards. Design your targets and define clear objectives and provide real-time feedback and tangible results
- software should be able for recruiting the employees and then profiling them. With the profile management of the employee, the system allows restricting visibility of sensitive information to just HR managers or makes other information public for all employees to see such as an employee directory. They can also manage the Contract of the employee, promote/demote an employee, and transfer them. Also, the system maintains employee transfer history. With the feasibility of Duty Status, they can implement different rules for Salary Computation depending upon the duty status of an employee. They can apply Salary Fixations for all the salary rules to the specific employee(s) and Subscription-based allowances and deductions can also be applied

2.17. Auto Invoice

- Automatically generate invoice for library, dues, student, faculty and transport

2.18. Account, invoice and payments

- Privileged users can manage invoice and payments

2.19. Purchase

- University purchase system

2.20. Scheduling

- Privileged users can create exam & class schedule for students

2.21. Accounting System

- Instantly create invoices and send with just a click. No need to print them. The module can send email or SMS. This accounting module is connected with all modules such as sale, purchase, inventory, student dues, and HRM. This way, recording vendor(s) bills. legal statements to executive summaries. Availability of accounts on the go. Should be able to add the more addons/features anytime which are asset management, integrated analytic accounting for budgeting, multiple company's consolidations.
- Software should be able to import the bank statements, get reconcile in a few clicks and prepare the payment orders.
- Sharing invoices with your customers/students and suppliers over email and online portal. It can also receive the online payment. •
- Software should be able to produce invoices automatically from different sources like sales orders, purchase orders or delivery orders, etc.
- posts the accounting entries of real-time inventory evaluation and provides the control on supplier invoices generated from the purchase order.
- Integrate analytic accounting operations with timesheets, projects, invoices, expenses, etc.
- Should provide customizable and dynamic dashboards to analyze the financial entries with drill-up, drill-down, drill-across and filter features.

2.22. University Procurement System

- Software should manage Procurement as per Punjab PPRA-2014 rules amended till date
- Maintain inventory system, store management system including incoming of items with allocation of resources, assets and items.

2.23. Automation of Public Sector Payroll

Software can support hundreds of employees very smoothly. These employees are offered different contracts like Regular (BPS), Tenure Track System (TTS), Tenured, Contract Scale Based, Project Base and Contract Lump sum. Different types of dynamic Salary rules can be configured with which different combinations makes the salary structure of a contract. With the automation of the Salary Section, the whole procedure of a Public Sector Payroll should be stress free.

- Note: Scope of work includes above stated items including Implementation of Open-Source Campus Management Solution (CMS), Learning Management System (LMS) And Enterprise Resource Planning System (ERPs) For The Punjab Tianjin University Of Technology, Lahore Having following features (Student information, Teacher &

Staff information, User Management, Online Payment, Grading system, Exam Management, Academics settings, Assignment, Attendance, Account, invoice and payment Scheduling, Emails and SMS, Library Management, Transport management, Academic Year, Syllabus, Report, Online examination, Purchase, certificate, HRMS (Human resource management system), online admission, email settings, etc.)

3.1.1. Technical Requirements:

- a. System should support customizable user access groups. These groups can be mapped with Create, Read, Delete, and Edit access rights with table and record level rules.
- b. System should have the password change facility for registered emails/logins. Password should be stored in encryption. System should run with SSH.
- c. System must have built-in web services, ensured with predefined security layer via user access groups.
- d. System should be able to integrate with third party Business Intelligence (BI) suits. Preferably any open-source BI.

1. Currency:

Firm and final rates should be in Pak Rupees.

2. Arbitration

In case arising of any dispute between the procuring agency and the contractor after the procurement contract, the dispute should be resolved through the representators of both parties otherwise the decision of Vice Chancellor will prevail over the version of both parties.

3. Blacklisting

The procuring agency may, for a specified period, debar or prohibit the contractor from participating in any public procurement process of the procuring agency, if the bidder or contractor has:

- (a) Acted in a manner detrimental to the public interest or good practices.
- (b) Consistently failed to perform his obligation under the contract.
- (c) Not performed the contract up to the mark; or
- (d) Indulged in any sort of corrupt practice.

Blacklisting mechanism will be followed as per Punjab Procurement Rules 2014.

4. Miscellaneous

Any point which is not mentioned in the term and conditions contained in the bidding documents, shall be decided in the light of the provisions laid down in PPRA rule 2014

5. Termination for Default:

The Procurement Committee without prejudice to any other remedy for breach of Contract, by written notice of default sent to the bidder, may terminate this Contract in whole or in part if:

1. The bidder fails to provide services within the period(s) specified in the Contract, or within any extension thereof granted by the Procuring entity.
2. The successful bidder fails to deliver items/services as per specifications mentioned in the bid.
3. The successful bidder fails to perform any other obligation(s) under the Contract.
4. The bidder, in the judgment of the Procurement Committee has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

6. Force Majeure:

Majeure means an act of nature or an event beyond the control of the Supplier and not involving the Supplier's fault or negligence directly or indirectly purporting to mis-planning, mismanagement and/or lack of foresight to handle the situation. Such events may include but are not restricted to acts of the Procuring Agency in its sovereign capacity, wars or revolutions, fires, floods, earthquakes, strikes, epidemics, quarantine restrictions and freight embargoes. If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring Agency in writing with enough and valid evidence of such condition and the cause thereof. The Grievances Committee shall examine the pros and cons of the case and all reasonable alternative means for completion of purchase order under the Contract and shall submit its recommendations to the competent authority. However, unless otherwise directed by the Procuring Agency in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek reasonable alternative means for performance not prevented by the Force Majeure event.

7. Acceptance of tender

As per provisions of Rule (55) of Punjab Procurement Rules, the Purchaser shall issue the Acceptance Letter to the successful bidder, at least after 10 days of announcement of bid evaluation reports (Ref. Rule-37 of PPRA Rules) and prior to the expiry of the original validity period or extended validity period of the Tender. The successful Bidder must submit performance guarantee @ 10% of the final contract amount within 10 days after the issuance of LOA/LOI. After receipt of performance guarantee from the bidder, Procurement Order will be issued. Bid Security of successful bidder will be released on receipt of performance guarantee The Performance guarantee will be released after completion of all supplies, installation, and commission, training, and performance period as per contract agreement.

8. Penalty

In case of late delivery, installation/training and commissioning (if applicable) of goods/services/items beyond the period specified in the bidding documents, a delay penalty @ 0.2% per day of the cost of late delivered / installed / commissioned supplies / items shall be imposed on the supplier up to a maximum of 10% of the contract amount

9. Training of the Staff

supplier will provide necessary training to the University staff / faculty free of cost