



Public Sector Development Program (PSDP)
“Launching of STEM in Pakistan, Phase-I (Revised)”

REQUEST FOR PROPOSAL (RFP)
(Single Stage Two Envelope procedure)

Development of STEM Learning Management System (LMS)

April 2024

Pakistan Science Foundation
(Ministry of Science & Technology)
Islamabad

Note: This document contains 33 pages, it is the responsibility of the bidder to check and confirm the complete RFP document at the time of procurement.

**Pakistan Science Foundation
(Ministry of Science & Technology)
Islamabad

Development of STEM Learning Management System (LMS)

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i. **Tender Notice**

**Pakistan Science Foundation
(Ministry of Science & Technology)
Islamabad
Development of STEM Learning Management System (LMS)
(Single Stage Two Envelope procedure)**

Pakistan Science Foundation (PSF), the executing agency for STEM project invites to submit online proposals on EPADS portal of PPRA from well reputed firms, suppliers, companies, and manufacturers registered with the Security Exchange Commission of Pakistan (SECP), PSEB, or other registration authorities, having names in Active Taxpayers List (ATL) of Income Tax & GST for the “Development of STEM Learning Management System” of international standard for STEM Modules designed for 50 Higher Secondary Schools/Cadet Colleges, 5 Universities across the country, Pakistan Museum of Natural History, PSF Science Center Faisalabad, STEM Academy at PSF, and other institutions making a total of 10,250 users (20 STEM Crew/PSF members, 30 Resource Persons/Master Trainers, 200 Teachers, 10,000 students (increase or decrease in quantity with respect to enrollment)). 500 Training modules, videos, lectures, documentaries, projects, simulations, educational games, assessments, articles, activities/experiments, and advertisements being developed by PSF (In hard as well as soft forms with all rights reserved for procuring agency, i.e. PSF) will be uploaded on LMS. (List/ file available in the form of Annex-I on the PSF website).

2. In order to continue the services, PSF seeks the services of well reputed service providers in the area of Learning Management Systems (LMS), management and maintenance services, Cloud hosting services along with Infrastructure operations (initially for duration of one year after project completion date as per PC-1). Bidding documents containing technical details of “**Development of STEM Learning Management System**” along with the procedure for submission of proposals, evaluation criteria, terms and conditions, performance guarantee, etc. available and can only be applied on EPADS within 15 days of advertisement.

3. Bidding documents shall be carefully prepared and submitted/applied on EPADS as per provided instructions on or before the closing date (i.e. after 15 days of this advertisement/ publication) by 11:00 am. **Technical** Bids will be opened on the same day at 11:30 am and financial bids of the qualified firms will be opened at a time decided by the Committee.

4. Only EPADS-registered bidders are eligible to apply for the tender, and applications must be submitted through EPADS. Tender details can be accessed and downloaded from the PPRA website (www.ppra.org.pk), the PSF website (www.psf.gov.pk), and EPADS

**Project Director (STEM)
Pakistan Science Foundation,
1-Constitution Avenue, G-5/2, Islamabad
Phone: - (051) 9204033**

ii. Introduction

**Pakistan Science Foundation
(Ministry of Science & Technology)
Islamabad

PSDP “Launching of STEM in Pakistan, Phase-I (Revised)

Development of STEM Learning Management System

1. Pakistan Science Foundation (PSF) is an autonomous body under the administrative control of the Federal Ministry of Science and Technology (MoST) and the executing agency for the Public Service Development Program “Launching of STEM in Pakistan, Phase-I, (Revised)”, approved by the Departmental Working Party of MoST, Govt. of Pakistan, Islamabad.

The main objectives of the PSF are.

- Promotion and funding of scientific research and related activities having the socio-economic needs of the country.
- Establishment of Science Centers, Museums, Herbaria & Planetaria.
- Promotion and Popularization of science through Mobile Science Exhibition, Science Fairs, Science Essay, Poster and quiz competitions, Inquiry Based Science Education (IBSE), Popular Science Lectures and the Establishment of Science Clubs in High Schools.

2. Launching of STEM in Pakistan, Phase-I (Revised): Primarily, the project is designed to achieve a knowledge-based economy by enhancing the capacity of Government sector schools across the country. The major objectives of the STEM project are;

- To officially launch STEM, the modern tool for the promotion of science and technology for Science, Technology, Engineering, and Mathematics Education in Pakistan. In the 1st phase, the project shall be launched initially in 50 Higher Secondary Schools/Cadet Colleges, 5 Universities across the country, and 1 at the Pakistan Museum of Natural History and PSF Science Center Faisalabad (each) making a total of 50 Mini STEM FABLABs and 7 Hi STEM FABLABs and 1 at PSF under STEM PSF Academy.

- To prepare a critical mass of science teachers as STEM mentors and Innovation Handlers, capable of harnessing the disruptive innovation coming out of FABLABS and transforming this phenomenon into socio-economic well-being.
- To introduce active learning methods that include communication, collaboration, problem-solving, leadership, and creativity.
- To prepare the youth for meeting the incumbent technological needs and challenges facing the country by preparing the 21st-century workforce through STEM.

iii. Instructions

1. **Procedure for Proposal:** Interested and well-reputed firms, suppliers, companies, and manufacturers, registered with the Securities and Exchange Commission of Pakistan (SECP), PSEB, or other registration authorities, having names in Active Taxpayers List (ATL) of Income Tax & GST are invited for “Development of STEM Learning Management System” of international standard for STEM-based education of students at 50 Higher Secondary Schools/Cadet Colleges, 5 Universities across the country, Pakistan Museum of Natural History, PSF Science Center Faisalabad, and at STEM academy under PSF making a total of 10,250 users (20 STEM Crew/PSF members, 30 Resource Persons/Master Trainers, 200 Teachers, 10,000 students (increase or decrease in quantity with respect to enrollment)). STEM LMS will be developed for 65 institutes and 500 Training modules, videos, lectures, documentaries, projects, simulations, educational games, assessments, articles, activities/experiments and advertisements being developed by PSF (In hard as well as soft forms with all rights reserved for procuring agency, i.e. PSF) will be uploaded on LMS. A list of modules/videos/activities/experiments is available in the form of Annex-I on the PSF website). The STEM modules include hands-on, sophisticated/one of kind, software-based, and collaborative STEM lesson plans and activities related to Biology, Physics, Chemistry, Computer Sciences, Mathematics, and other science subjects of 9th, 10th, 11th, and 12th grades. PSF will hand over the modules/videos and other related content to the bidder/firm upon which modules/activities/videos/experiments will be uploaded on the LMS. The bidder/Firm shall complete and carefully prepare the proposal documents, submit, and apply online on EPADS portal of PPRA in accordance with instructions in RFP documents in all respects along with relevant documents as per PPRA rules.

- 2. Procurement Process:** EPADS tender procurement procedure will be adopted for the “Development of STEM Learning Management System” of international standards. Bidders should submit the proposal via EPADS. **"Single Stage Two Envelop Procedure"** will be adopted for open competitive bidding. Proposals and bids should be submitted in two separate envelopes with the titles as "technical" and "financial" proposals, which should be enclosed in a single envelope with clear heading **“Development of STEM Learning Management System”**. Initially technical proposals will be opened at the date and time mentioned in the tender notice. While the financial proposals of only technically qualified firms would be opened later on date and time in this regard would be communicated. All the received proposals will be evaluated, and no amendments or changes will be allowed in the proposals after opening.
- 3. Mode of submission of documents:** The proposals should be submitted online through EPADS within its stipulated closing date and time on or before 15 days of the advertisement of this tender. It should also be sent to the “Project Director (STEM), Pakistan Science Foundation, 1-Constitution Avenue, G-5/2, Islamabad, Phone: - (051) 9204033.
- 4. Opening of received proposals:** The received proposals will be opened by the authorized committee through EPADS on the date time mentioned in this document in the PSF Committee Room, in the presence (physical/online) of the bidder/firm, who wants to participate. Representatives present in the proposal opening meeting shall mark the attendance sheet (physical/online) evidencing their presence. If any holiday is announced by the Govt. of the “Force Majeure Situation”, the proposals will be opened on the next working day or as intimated by the PSF.
- 5.** PSF may request any one or all firms for clarification of the LMS specification. Response of that clarification should be in writing and should be sent within 48 hours, any delay in providing clarification of such information will not be considered.
- 6.** If a proposal is not substantially aligned with the terms & conditions/particulars of this document, it will be rejected by PSF and may not subsequently be made responsive by the firm by correction of the non-conformity. A proposal once opened in accordance with the prescribed procedure shall be subject to only those rules, regulations, and policies that are in force at the time of issue of notice for invitation of proposals.
- 7.** Applicants will be informed, in due course of time, of the result of the evaluation of applications.
- 8. Evaluation of Technical Proposal:** The evaluation committee shall carry out its

evaluation, applying the evaluation criteria and point system specified in the technical evolution criteria sheet. Each responsive proposal shall be attributed a technical score (St). Firms obtaining less than seventy percent (70%) points in technical evaluation will be rejected and their financial proposals will be returned un-opened.

iv. **COVERING LETTER FOR SUBMISSION OF PROPOSALS**

To:

Project Director (STEM)
Pakistan Science Foundation
Islamabad.

Dear Sir,

We, the undersigned, offer to provide the services of our company/firm to the Pakistan Science Foundation for “Development of STEM Learning Management System” as per the details attached in accordance with your RFP documents.

Yours sincerely,

Authorized Signature [*In full and initials*]:
Name and Title of Signatory:
Name of Firm:
Address:
Date:

v. Mandatory documents
(To be attached with the Proposal)

(Please attach and submit a copy of this page with the Proposal after duly completing the “Response” Column along with all the required documents)

#	Particulars	Remarks	Response Yes/No
1.	Covering Letter	Mandatory	
2.	Having nationwide presence/offices (with an office in Islamabad/Rwp, mandatory) with complete addresses & active landline and fax numbers [Fax Number may be optional]	Mandatory	
3.	Complete Profile / Introduction of bidder’s company/firm (including the name of Chief Executive, Partners, Director, Professionals)	Mandatory	
4.	Copy of CNIC of CEO/Authorized person	Mandatory	
5.	Copy of Certificate of Incorporation from SECP, PSEB or Registration from Registrar of Firms or undertaking of establishment in case of sole proprietor /partnership deed	Mandatory	
6.	Proof of the Age of the Firm (minimum 3years)	Mandatory	
7.	Proof of names in of Income Tax & GST	Mandatory	
8.	To provide: Audited annual reports of last two years (2021-22 & 2022-23)	Mandatory	
9.	Bank Account Statement (for last two years (i.e., 2021-23) with minimum annual transaction of PKR 10 million).	Mandatory	
10.	Affidavit declaring that the Bidder is not blacklisted by any Government department/agency and no inquiry is ongoing against the bidder in NAB (on Stamp paper worth Rs.50)	Mandatory	
11.	List of completed and ongoing projects. Copies of Work orders/Job Completion certificate.	Mandatory	
12.	Detail of all staff members	Mandatory	

I/we hereby confirm that the required documents are provided with the Proposal and information contained in this proposal is correct and true.

Company’s Stamp

Signature with date

vi. **TECHNICAL EVALUATION CRITERIA:**

The firm should submit a copy of this page of this document duly signed and stamped along with the proposal, otherwise, the proposal is liable to be rejected.

#	Particulars	Maximum Marks	Marks Obtained (for official use only)
1.	Location of Offices with complete address & active landline and fax numbers	Islamabad/Rwp = 3 marks 1 st Sub-Office = 1 2 nd or other Sub-offices = 2	5
2.	Age of the firm (not less than 03 years)	Minimum three years of age =5 More than three years = 10	10
3.	Presentation explaining.	Project Understanding (10) Project Formulation (10) Project Execution (10) Project Deliverables (10)	40
4.	Bank Statement for last two year	Transaction during last one year (Rs.) 10 million = 5 Between 10-20 Million = 10 marks 20 million or above = 15 marks	15
5.	Audited Accounts Statement for last 2 years (2021-22, 2022-23)	One year = 5 Two years = 10 (5 marks for each year)	10
6.	Detail of similar projects and services undertaken in last 3 years (similar academic projects) (Attach brief of the projects with proof)	Marks for each project. Up-to 1 million = 1 Up-to 2 million = 2 Up-to 3 million = 3 Up-to 4 million = 4 Above 5 million = 10	20
Total			100

Note: The firm fulfilling all mandatory requirements and obtaining minimum 70 marks in the above technical evaluation will be considered as qualified, provided that all other terms and conditions prescribed in this document are fulfilled. Financial Proposal of only technically qualified firms would be opened.

vii. **FINANCIAL EVALUATION:**

Financial proposals of only technically qualified bidders will be opened. The Bidder getting maximum marks on 70-30 weightage (70% for technical proposal and 30% for financial proposal) will be declared successful.

The formula for determining the financial score (FS) is as follows:

$$FS = (\text{Lowest Bid/Bid Offered}) * 30$$

viii. **BID EVALUTION CRITERIA:**

PSF shall award the contract to the Bidder with the highest total score based on the following weight ratios:

- 70% for Technical Score
- 30% for Financial Score

$$\text{Total} = \text{Financial Score} + \text{Technical Score}$$

Company's Stamp

Signature with date

ix Format for Brief Introduction of the Bidder

#	Particulars	Response
1	Name of the Bidder/Firm	
2	Date of Establishment	-
4	Owner / CEO /Director Name	
5	NTN No.	
6	Mailing Address:	
7	Contact (Landline & Cell NO.)	
8	Fax No(s).	
9	Email Address	
10	GST No.	
11	Bank Name & Account No along with title of Account.	
3	Corporate Status	
12	Attachments :	Attach list of all documents attached with the proposals
13.	Any other relevant documents	Please attach

Company's Stamp

Signature with date

x. Scope of Work

(Development of the STEM Learning Management System along with hosting, support, maintenance, and all necessary infrastructure components)

The firm should prepare a work plan for the following assignment and submit with the proposal, otherwise, the proposal is liable to be rejected. (Keeping in view that STEM Learning Management System will be working all over Pakistan)

#	Particulars	Qty/Remarks
1.	Standard of Learning Management Systems	International
2.	Language	Bilingual (English and Urdu)
3.	Login details	<p>STEM LMS, an e-learning system must have the functionality to ensure user-friendly and 2-step login security (such as visual face recognition), for initial login, along with the login and password option, at random intervals to the 65 institutions, and 10,250 users (20 STEM/PSF officials, 30 Master trainer/Resource persons, 200 teachers, and 10,000 + students of 9th, 10th, 11th, 12th, grades).</p> <p>It shall have an option for password change/recovery for the user and administrator. Automated locking of user accounts after a defined number of unsuccessful logins attempts for security.</p> <p>Implement two-factor authentication for increased security during user login. Enable a self-service portal where users can manage their profiles, sign up for courses, and track their progress.</p> <p>Automated notifications for password expiry and prompt for renewal to enhance security.</p>
4.	User Interface	Create an intuitive and visually appealing interface to enhance user experience. Important news may appear as a flash on the user interface.
5.	Design of LMS	The system allows for the modification of the design of the STEM LMS. The proposed solution must include all STEM-PSF brand guidelines and logo placement. The font, design color themes,

		<p>logo placement, and language (bilingual) must all be approved by STEM-PSF and must be in adherence to STEM-PSF's corporate brand. Customize the login page and dashboard to feature the organization's colors, logo, and any relevant imagery. Customize headers and footers with the organization's branding elements. This can include links to the organization's website, contact information, and other relevant details such as FAQs.</p>
6.	LMS compatibility	<p>The training/teaching can be delivered through STEM LMS both online and offline through smart devices (Cell Phones, Chromebooks, Tablets, PCs, etc.) through web browser and supports major operating systems (Android, Microsoft, later on Apple, MAC, etc.). The host app or web shall remain compatible with FOC (free of cost) with upcoming Android, iOS/windows, initially, and Apple MAC versions later on. An omnichannel approach should be used.</p> <p>The training/teaching can be delivered through a STEM Learning Management System (LMS) that supports both online and offline modes accessible via smart devices such as cell phones, Chromebooks, tablets, and PCs. Compatibility extends to all major operating systems Android, Linux, iOS, Windows, and Apple macOS. The host app or web platform shall remain compatible and accessible free of cost, with an omnichannel approach ensuring seamless interaction across devices and browsers. Additionally, the application must be compatible with all modern browsers and responsive across various smart devices</p>
7.	Access	<p>STEM LMS meets the needs for the project life and an additional one year/12 months after the project life, without any other monthly or yearly charges.</p>
8.	Availability	<p>STEM LMS is available for internal users 24/7/365. Users have 365-day access to all training/ learning assignments. Application maintainability and customer IT & course content</p>

		support are essential. An SLA will be signed between the companies. All the features are available online as well as offline for the users.
9.	Content creation	<p>The STEM LMS should allow the creation (H5P etc.) and uploading, editing, and deletion of course content (Modules) in various forms including but not limited to text, documents, PDF, books, URLs, video, audio, textual, HTML, etc., The instructor should be able to easily upload and share resources, articles, videos, pictures, and anything else students may need.</p> <p>500 Training modules, videos, lectures, documentaries, projects, simulations, educational games, assessments, articles, activities/experiments, and advertisements being developed by PSF (In hard as well as soft forms with all rights reserved for procuring agency, i.e. PSF) will be uploaded on LMS.</p>
10.	LMS user enrollment	STEM LMS users should be able to enroll themselves, attend classes, and take examinations. Collaborate with the class fellow for peer learning. The administrator/Teacher will have control over the enrollment.
11.	Record Maintenance	The STEM LMS shall generate correspondence to members of staff, students/teachers/employees, and other relevant persons maintained in the database, Communication records can be created, tracked, and stored. Ability to generate correspondence via softcopy (email) or notifications via SMS.
12.	Data storage	The STEM LMS must maintain the comprehensive details of conducted courses i.e. duration, date, time, instructors, and results/marks for tests/exams, etc.
13.	Validity	The STEM LMS should maintain the validity of an individual student/teacher/master trainer/resource person/STEM employee of the training/course and it will generate an alarm to the concerned student/ teacher/master trainer//resource person/ STEM employee as per the customized period before the expiry date.

14.	Feedback and Survey Tools	STEM LMS incorporates tools for gathering student feedback and conducting surveys to improve overall courses and teaching methodology.
15.	Student Performance Evaluation	STEM LMS should offer an inbuilt feature to provide comprehensive customizable reports of student activity completion so that their performance can be monitored continuously during the course of learning.
16.	Monitoring and Access to STEM Officials	STEM LMS allows the office bearers at various levels such as STEM-PSF officials/ departmental heads, to be able to monitor the profiles and activities of all students, teachers, and concerned staff. The training center/Administrator should be able to define new roles and accessibility permissions according to organizational policy.
17.	Data Security	The STEM LMS must ensure Data Security for STEM-PSF developed training content. Implement robust data security measures to protect organization and users' data. This will be the responsibility of the Bidder/Firm and he will have to sign a Non-Disclosure Agreement (NDA) with PSF
18.	Troubleshoot and Solutions	The Solution must include the template policies and procedures for content uploading. Create a dedicated support center within the LMS. Provide a knowledge-based, FAQs and guides to help users troubleshoot.
19.	Maintenance And Support	Maintenance/Technical support services up to the project life and an additional one year/12 months after the project life.
20.	Provision of Trainings	Provision of training at PSF, PMNH, provisional Headquarters, and any other venue decided by PSF on STEM LMS to ensure the working and performance results of STEM LMS after the delivery of STEM LMS.
21.	Training	Bidder/Firm shall organize for training as follows: 1. Adequate user-level training should be provided in batches during installation/configuration. 2. Hands-on support to be provided to the users at the bidder's Central office for a time-to-time basis to the users.

		<p>3. Minimum one trainer of bidder/Firm should be made available for hand holding i.e. on the job training period.</p> <p>4. Bidder/Firm will provide documentation to each participant (hardcopy and softcopy). Document should give illustration for each type of activity with issues and action steps.</p> <p>5. Training also includes Knowledge transfer to core team, engineers/ operators, and support personnel.</p> <p>6. User training should include amongst other the following:</p> <ul style="list-style-type: none"> a) Features/Functionality available b) Administration/Parameterization c) Trouble shooting, d) Interpretation of Reports/logs etc. <p>The bidder/firm shall provide training to all people who will manage the Learning Management System (LMS) administratively.</p>
22.	Backup Support	<p>Software and Database backup and recovery will be the responsibility of the bidder/Firm. Backup data should be stored in a different geographical location from the live server, it can be PSF premises.</p>
23.	Hardware Specification	<p>Minimum hardware specifications for the successful implementation and deployment of the system should be specified as part of the technical proposal. The price for the hardware and licensing should be added separately in the financial proposal.</p>
24.	Disaster Recovery Site	<p>The bidder/Firm should have a business continuity plan in place, including a DR site hosting the proposed solution, for uninterrupted services and access control server operations in a scenario where the primary site of business is affected due to disaster. The bidder should provide an undertaking stating the availability of the DR site.</p>
25.	Deployment	<p>Bidder/Firm must also specify separate cost for software deployment, hardware maintenance and ensuring 365/24/7 uptime without chocking of bandwidth during peak times. Bidder/firm is required to provide complete deployment solution along with technical proposal. The bidder/firm are also required to mention whether bidder/firm will deploy the software inside country or outside. The bidder/firm is required to provide detail of</p>

		proposed hardware and bandwidth etc. If the solution is cloud based, then bidder/firm must mention what cloud infrastructure provider bidder/firm will use.
26.	Audit of Activities	STEM LMS software should provide a detailed audit trail of all activities and should be equipped with a query analyzer to view any exceptions.
27.	Course Content Management and Modules Sharing	Provides a course table to be created/ maintained to include the necessary attributes of courses. The system should have a unified architecture such that any setup students, teachers, departments, etc. created in one module should be accessible to other modules. All systems/modules should be well integrated with each other.
28.	User Management Module	<p>The system should include a user management module with the following features:</p> <ul style="list-style-type: none"> • Maintenance of user profiles. • User groups to define roles and access rights. • Log users along with their activities with date and time stamp. • Allow users to change passwords. • Facility to disable/enable user accounts. • Sending Bulk messages/notifications to users. • Define policies related to password strength and password change. • Grant/revoke/modify access rights. • Maintain an audit log of all activities performed by a user. • Track user access history and failed login attempts for security auditing. • Permit only a single active login per user at a time. If a user is already logged in, prevent any other logins using the same credentials. • Display the user's status to indicate if they are currently logged in, track their

		last login details, and monitor the activities performed during their session.
29.	Learning Management Module	<p>The learning management module should include the following features:</p> <ul style="list-style-type: none"> • Ability to view and join online classes. • Conduct online quizzes/exams. • Download homework and assignments, lectures, and e-learning contents. • Submit homework and assignments to instructors. • Send messages and emails to instructors. • Distribute class-related content through forums and message boards. • Chat facility for student interactions and quick instructor response. • Ensure simultaneous access to a large number of users (approx. 10,250 users may be extended, if needed). • The system should not collapse in case of full usage. • Smooth streaming of videos when accessed simultaneously. • Incorporation of gamification elements like badges, points, and leaderboards to increase student engagement. • Mechanisms for students to provide feedback on courses and instructors. • Integration with calendars for scheduling classes, deadlines, and reminders. • Incorporates Virtual reality/ Augmented reality and Artificial intelligence-based Modules.
30.	Instructor/Teacher Module	<p>The instructor/teacher module should include the following features:</p> <ul style="list-style-type: none"> • The Teacher’s Portal should be integrated with other core modules of LMS to perform teacher-specific tasks.

		<ul style="list-style-type: none"> • View complete student profiles. • Ability to create/delete/view/modify e-learning classes and courses. • Develop e-learning subjects and online exams/quizzes. • Upload multimedia (video) e-learning contents. • Upload e-learning content assignments by students. • Monitor student uploads of homework and assignments, tracked by time. • Send messages and chat with students and PSF administration. • Collaborate and share documents with peers, instructors, and students. • Participant’s management for each scheduled online class. • Ability to enroll/register students in courses. • Marking grades on student submissions. • Incorporate tools to create and conduct polls and surveys within the course for instant feedback or interactive learning. • Provide detailed analytics and insights on course engagement, completion rates, and student performance. • Facilitate interactive discussion boards for each course for enhanced student engagement and discussion. • Facility to copy courses for future use and backup course content for safety. • Real-time notifications and alerts for course updates, student submissions, and other important events.
31.	Student Portal	The student portal should include the following features:

		<ul style="list-style-type: none"> • Students should access the portal using their own login ID and password. • Facility to view and update personal information. • View and modify email, contact number, and mailing address. • View class schedules, organized events, and generalized message boards. • Join online classes within the portal. • View and submit subject-wise assignments/Quizzes to respective faculty members. • Submit requests for appointments with any faculty member. • View curriculum of subjects and uploaded multimedia (video) files. • Student notifications. • Tools for students to track their progress through courses, including visualization of completed and pending tasks • Mechanisms for students to provide feedback on courses and instructors.
32.	Web Module	<p>The web module should include the following features:</p> <ul style="list-style-type: none"> • Functionality to create unlimited web pages to publish content for the public. • Support to display events, news, and similar content on the home page. • The authorized user account should be able to create, update, and delete web pages. • Support to create horizontal/vertical menus for navigation. • Robust security measures to protect the website and its data from unauthorized access and cyber threats.

		<ul style="list-style-type: none"> • Integration with web analytics tools to track visitor behavior and gather insights on web page performance. • Ensure web pages are responsive and compatible with various devices, including desktops, tablets, and cell phones. • Capability to integrate with social media platforms for sharing content directly from the website without any trouble shooting.
33.	Sample LMS presentation should be submitted with the proposal bid in soft form.	

Important Note:

1. Specifications/working of the STEM LMS should be according to the modules developed by PSF and keeping in view the PC-I allocation.
2. Successful Bidder/Firms should enlist, share their work plan, deliverables and payment plan along with the financial proposal.
3. The quoted rate lump sum and cost including all direct or indirect costs, and technical support of other resources must be included.
4. All the applicable govt. taxes would be deducted at the time of making payment.

Company's Stamp

Signature with date

xi. List of Major Projects Completed

#	Clients / Organization	Description of Project	Place / City	Overall Approx. Cost of Project	Duration	Completion Year or Ongoing

Use extra sheet in the same format (if required).

Company's Stamp

Signature with date

xii. List of Clients

I / We have provided supplies/services to the following **Clients** (along with their details):

#	Category	Clients / Organization Served	Concerned Officer of Client / Organization (if available)	Contact No. / Email (if available)

Use extra sheet in the same format (if required).

Company's Stamp

Signature with date

xiii. Details of Staff

#	Name	Designation	Qualification	Years of Experience

Use an extra sheet in the same format (if required).

Company's Stamp

Signature with date

xiv. List of Offices with Contact Persons

#	Based at City	Partner / Concerned Officer	Contact Address	Contact No.

Use extra sheet in the same format (if required).

Company's Stamp

Signature with date

xv. Financial Proposal Proforma**Option:1**

Item. No	Description	Cost (RS) including all Taxes
1.	STEM LMS Development Costs from Existing LMS (i.e. Moodle)	
2.	Testing and Quality Assurance	
3.	Hosting Server (Cloud Infrastructure) Requirement (Yearly Basis) 1. Bandwidth and Storage 2. Backup and Recovery	
4.	Maintenance and Support Services Requirement (Yearly Basis) 1. 24/7 technical support for troubleshooting and resolving any issues	
5.	Training and Documentation 1. Preparation of user manuals and training materials 2. Training sessions for PSF members, resource persons/master trainers, and teachers	
Total Cost		

Option-2:

Item. No	Description	Cost (RS) including all Taxes
1.	STEM LMS Development Costs from Scratch	
2.	Testing and Quality Assurance	
3.	Hosting Server (Cloud Infrastructure) Requirement (Yearly Basis) 1. Bandwidth and Storage 2. Backup and Recovery	
4.	Maintenance and Support Services Requirement (Yearly Basis) 1. 24/7 technical support for troubleshooting and resolving any issues	
5.	Training and Documentation 1. Preparation of user manuals and training materials 2. Training sessions for PSF members, resource persons/master trainers, and teachers	
Total Cost		

xvi. TERMS & CONDITIONS for Bidders

1. Bidder firms having nationwide presence will be preferred (if applicable)
2. The bidder/firm shall be responsible for the complete “Development of STEM Learning Management System (LMS)” for 65 institutions across the country.
3. The bidder/firm will design LMS for 500 modules/activities/videos/experiments in accordance with the specified modules/activities/videos/experiments/projects being developed (an ongoing process) by STEM-PSF team, in consultation with STEM-PSF officials, and obtain approval from PSF upon finalization.
4. The bidder/firm must enclose product details of the STEM LMS with the technical proposal.
5. The bidder/firm will offer POC on site before the evaluation deadline.
6. The financial proposal should mention all the itemized costs in terms of one-time costs and support costs (if any) for the project life and one year/ 12 months after the project life i.e. (14-10-2024).
7. The bidder/firm must provide a technical support till one year/ 12 months after the project life i.e. (14-10-2024) of the STEM LMS to STEM-PSF Officials/Students and Teachers.
8. The successful firm would provide up to 5% of contract values performance warranty in the shape of bank guarantee (where applicable)
9. The bidder/firm will work to the satisfaction of STEM-PSF for designing, standardizing, optimizing the LMS and bringing it to international standards.
10. The bidder/firm shall help in training the STEM teachers and master trainers on STEM LMS.
11. The developed STEM LMS cannot be developed for any other organization/School/Education system without the prior written permission of PSF.
12. The bidder/firm shall provide services to the STEM-PSF Team after the provision of STEM LMS. The services include any changes in the developed LMS advice/suggestions of the PSF STEM team.
13. Bidder/Firm will complete the order within the stipulated time initially decided or agreed.
14. Bidder/Firm will provide the source code of the LMS to the STEM-PSF official.
15. Bidder/Firm will provide the LMS documentation and manuals.
16. Bidder/Firm will provide the template policies and procedures for using the LMS.
17. Bidder/Firm will provide video content delivery network (CDN) Slabs

18. Bidder/Firm will provide the root access of both Virtual Private Server (VPS).
19. The Bidder/Firm will submit complete specifications of the required Provisioning, Installation, and commissioning of a Learning Management System (LMS) with pictures and complete specifications and compliance with requirements/specifications/deliverables required in the technical proposal for approval of STEM-PSF.
20. The Bidder/Firm shall provide a Support SLA Matrix with a Diagram and contact details.
21. Detail of any arbitration/litigation (If any) of similar proceeding against Government / Autonomous / Private body showing extent and results may be enclosed.
22. The bid documents should be submitted within 15 days of publication of this advertisement at the mentioned addresses. The bids will be opened on the same day at 11:30 am. **FINANCIAL PROPOSALS** are requested with this proposal.
23. PSF will not consider any proposal from the bidder/firm, blacklisted or declared defaulted by any forum/organization. The bidder/firm should provide an affidavit that it is not blacklisted, nor it will resort to any litigation regarding the tendering/procurement procedure.
24. Partial Delivery/Partial Payment will be allowed subject to an undertaking by the bidder/firm to complete the whole consignment/STEM LMS within a specified time. The bidder/firm will start the task on receipt of a written Purchase/Work Order from PSF in accordance with the given terms, conditions, and specifications.
25. Incomplete proposals or those received after the due date and time will not be entertained.
26. PSF reserves the right to cancel the process or reject one or all bids based on technical reasons mentioned in the Tender Documents.
27. Performance Guarantee in shape of bank guarantee of 5% of contract value would be given by the successful bidder/firm, where it is applicable.
28. The bidders/firms would submit 2% of the bid amount as earnest money in shape of DD/PO in favor of PSF, STEM at the time of submission of Financial Proposal.
29. **In case of any dispute, the case will be referred to the Chairman, PSF who will be sole arbitrator and his decision will be binding on both parties.**

Company's Stamp

Signature with date

For further information and clarification, please contact:

To, Project Director (STEM)
Pakistan Science Foundation
1-Constitution Avenue, G-5/2
Islamabad.
051-9204033

**xvii. (LEGAL PART)
SCHEDULE - F TO BID**

**only for successful bidder. No need to submit this part.*

**1. (INTEGRITY PACT)
DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC.**

Payable by the suppliers of goods, services & works in contracts worth Rupees.10.00 Million or more

Contract No.: _____
Dated: _____
Contract Value: _____
Contract Title: _____

_____ [Name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan (GOP) or any administrative subdivision or agency thereof or any other entity owned or controlled by GOP through any corrupt business practice.

Without limiting the generality of the foregoing, [Name of Supplier] _____ represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GOP, except that which has been expressly declared pursuant hereto.

_____ [Name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GOP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

_____ [Name of Supplier] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GOP under any law, contract or other instrument, be voidable at the option of GOP.

Not with standing any rights and remedies exercised by GOP in this regard, _____ [Name of Supplier] agrees to indemnify GOP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GOP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Supplier] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GOP.

Name of Employer:

Name of Contractor/Supplier:

Signature: _____

Signature: _____

[Seal]

[Seal]

xviii. PERFORMANCE SECURITY BOND (Bank Guarantee)

Guarantee No. _____
Executed On _____
Expiry Date _____

(Letter by the Guarantor to Pakistan Science Foundation, PSF)

Name of Guarantor (Scheduled Bank in Pakistan) with address:

Name of Principal (Contractor) with address:

Penal Sum of Security (express in words and figures)

Letter of Acceptance No. _____ . Dated _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bidding Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the request of the said Principal we, the Guarantor above named, are held and firmly bound unto the (hereinafter called PSF) _____ in the penal sum of the amount stated above, for the payment of which sum well and truly to be made to the PSF, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has accepted the PSF's above said Letter of Acceptance for (Name of Contract)

_____ for the _____

(Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the PSF, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of the said Documents that may hereafter be made, notice of which

modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Clause 9, Remedying Defects, of Conditions of Contract are fulfilled.

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

We _____, (the Guarantor), waiving all objections and defenses under the Contract, do hereby irrevocably and independently guarantee to pay to the PSF without delay upon the PSF's first written demand without cavil or arguments and without requiring the PSF to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the PSF's written declaration that the Principal has refused or failed to perform the obligations under the Contract, for which payment will be effected by the Guarantor to PSF's designated Bank & Account Number.

PROVIDED ALSO THAT the PSF shall be the sole and final judge for deciding whether the Principal (Contractor) has duly performed his obligations under the Contract or has defaulted in fulfilling said obligations and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the PSF forthwith and without any reference to the Principal or any other person.

IN WITNESS WHEREOF, the above bounded Guarantor has executed this Instrument under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Guarantor (Bank)

Witness:

1. Name _____ . Signature _____

(Title & Address)

Corporate Guarantor (Seal)

2. Name _____ Signature _____

(Title & Address)

Corporate Guarantor (Seal)