



INVITATION TO TENDER Tender for Web Based Simulations Development

Elementary and Secondary Education Foundation Khyber Pakhtunkhwa invites sealed bids on **SINGLE STAGE SINGLE ENVELOPE PROCEDURE** form the well reputed IT firms/companies/agencies/individuals/consultants registered with income Tax, Sales Tax, Khyber Pakhtunkhwa Revenue Authority & other relevant bodies and on active taxpayers list of the Federal Board of Revenue & KPPRA to develop the web based software application, as details given below under Khyber Pakhtunkhwa Public Procurement of Goods, Works and Services Rules, 2014.


S.NO	ITEM
1.	Development of Web Based Simulations and integration to website

The details bidding document can be obtained from the office of undersigned during the office hours till 25/01/2023 free of cost. It can be submitted till 26/01/2023 up to 11: 00 AM, which shall be opened on the same day and place at 02: 30 PM. The same are also available at the official website of KPPRA <http://kppra.gov.pk/> and (<https://kpsc.gov.pk> & <http://eef.org.pk>).

The procurement entity reserves the right to reject any or all bids under KPPRA rules 2014 with valid reasons.


Director HR & Admin

Elementary and Secondary Education Foundation, Khyber Pakhtunkhwa
Plot No. 20 Street No. 13, Sector E-8
Phase-07, Hayatabad Peshawar.
Phone No. 091-9219999


5/1/23

TENDER DOCUMENT

Name of The Firm: _____ Address: _____

Telephone No. _____ Email: _____

NTN: _____

TERMS & CONDITIONS:

1. All Taxes will be deducted as per Govt. Rules.
2. All pages of the tender document must be signed and stamped by the authorized person of the firm.
3. Tender document must be accompanied with bid security of 2% in the shape of Call Deposit Receipt (CDR) in the name of the undersigned.
4. Sealed bids may be sent through registered mail/courier service, which must be reached to the office of the undersigned by 25th January, 2023.
5. The bids received after the due date shall not be entertained.
6. Incomplete/conditional bids shall not be acceptable.
7. Documents shall be submitted in hard copies in a sealed envelope on the given postal address.
8. Undertaking regarding non/blacklisting of firm/company/ agency/individual or consultant from any government/semi-government organizations (procuring entity) under administrative control of the Federal/Provincial government.
9. The I.T Firm/Company/Agency/Individual/Consultant should be a registered body. (Proof should be provided).
10. Proof of NTN, GST, & KPRA Registration.
11. The Bidder shall practically demonstrate at least 5 experiments to procurement committee.
12. Declaration statement that the proposed solution is indigenously developed by the Bidder/JV partner or is fully customizable solution based on the open-source and the Bidder has full rights for its customization and updating.
13. Valid Certificate of Registration with SECP/KPITB/NITB

14. The technical & inspection committee/team of ESEF will inspect and test the software and simulation at the time of the delivery. Payment will be made on receipt of satisfactory report from the said technical & inspection committee/team.
15. No, separate installation/Hosting charges will be paid for installation of the Software.
16. Elementary and Secondary Education Foundation, Khyber Pakhtunkhwa has the right to accept or reject the tender partially or entirely.
17. Firm will train at least three officials of ESEF free of cost.
18. The following are the Technical Details of software:

A. Activities and Tasks

The following are indicative development activities that we anticipate:

1. Project management
2. Content strategy
3. Sitemap
4. Prototype (wireframes)
5. Visual design
6. Back-end coding
7. Responsive design
8. Testing and quality assurance
9. Website management training/handover

B. Outline of Website

The vendor is expected to develop and approve the design of unique pages (front end pages) of website and simulation from the concerned officials of ESEF Peshawar and following are main modules with detail:

Modules

- Main page to show all the details and subjects.
- Every page of the subject should list all the practicals.
- Each practical includes following tabs:
 - Theory
 - Procedures
 - Simulator
 - Viva Voce

- Resources

Simulations

- Easy to use
- Details
- Instructions
- To Generate Clear Result(s)
- Printable and downloadable Result(s)

C. Important Website Features and Characteristics

Security:

The website must be security oriented and meet or exceed industry security best practices at the time of its launch.

Responsive Design (Mobile/ iPad Friendly):

We expect the website to be mobile friendly and easily accessible from all mobile devices, including tablets, without compromising any design or functional elements.

Fast Load Times:

The website should load quickly because it is important for good usability and should be SEO optimized.

Browser Consistency:

The website should appear and act consistently across all major browsers.

Social Network Integration:

The website should be integrated with social media platforms

Error Handling:

The website should display a description as an on-screen message, such as an in case of error message.

Performance:

All elements of the website should work seamlessly. The consultant should fix all page errors and poorly constructed website elements, if any. This could include broken links, typographical errors etc.

Hosting services:

The developer will host the final website as per requirement of the ESEF Peshawar.

D. Deliverables and Phases

Phases	Activities
Phase 1: Requirements gathering	<ul style="list-style-type: none">• Undertake requirements gathering exercise/meetings with the ESEF Peshawar team• Develop project plan
Phase 2: Documentation	<ul style="list-style-type: none">• Create comprehensive SRS (Software Requirement Specifications) document• Acquire ESEF Peshawar's feedback and approval
Phase 3: UX and UI Designing	<ul style="list-style-type: none">• Design Simulation and web pages based upon latest UX and UI practices• Finalize theme and site map• Acquire ESEF Peshawar's feedback and approval
Phase 4: Front End Development	<ul style="list-style-type: none">• Finalize front-end development of all web pages• Acquire ESEF Peshawar's feedback and approval
Phase 5: Back-end development	<ul style="list-style-type: none">• Finalize back-end development of all pages using latest tools and technologies• Acquire ESEF Peshawar's feedback and approval
Phase 6: Upload and Testing	<ul style="list-style-type: none">• Testing of entire system including both front-end and back- end by both parties• Upload/ Web hosting• Deliver final presentation• Make it live

E. Duration and Location

This assignment is expected to be completed within 30 days.

F. List of Practical experiments for Development of Web Based Simulations and integration to website

1. Chemistry Practicals for Class 9th 2023:

- I. To determine the melting point of naphthalene.
- II. To determine the boiling point of ethyl alcohol.

- III. Separate the given mixture of alcohol and water by distillation
- IV. Prepare pure copper sulphate crystal from the given impure sample.
- V. To demonstrate sublimation using Solid Ammonium Chloride.

2. Chemistry Practicals for Class 10th 2023:

- I. Identify sodium, Calcium, Strontium, Barium, Copper and Potassium ions by flame test
- II. Standardize the given NaOH solution volumetrically
- III. Determine the exact molarity of the Na₂CO₃ solution volumetrically
- IV. Identify aldehydes using Fehling's test and Tollen's Test
- V. Identify ketones using 2,4-dinitrophenyl Hydrazine test
- VI. Identify saturated and unsaturated organic compounds by KMnO₄ test

3. Biology Practicals for Class 10th 2022:

- I. Activity to compare the breathing rate at rest and after exercise.
- II. Demonstration of the presence of tar in cigarette smoke and also showing by charts and pictures the difference of lungs of smokers and non-smokers.
- III. Examination of the structure of the Kidney (Sheep Kidney / Model).
- IV. Identify the different parts and draw a labelled diagram of the longitudinal section of the eye of a sheep or a bull.
- V. Observation of binary fission in Amoeba by using slides, Photomicrographs, and Charts.

4. Biology Practicals for Class 9th 2023:

- I. Study of different types of Bacteria, Amoeba, Paramecium, Volvox with the help of prepared slides and from fresh culture / Charts.
- II. Microscopic examination of an animal cell (Blood) and a plant cell (e.g., from onion epidermis) using appropriate temporary techniques such as iodine or methylene blue.
- III. Determination of the effect of tonicity on plasmolysis and de-plasmolysis in plant cells or in a red blood cell.
- IV. Observation of various stages of mitosis and meiosis by slides, model, and charts.

V. Investigation of pathway of water in a cut stem using a suitable stain

5. Physics Practicals for Class 9th:

- I. Measure the area of cross section of a solid cylinder by measuring its diameter with vernier calipers.
- II. Determine the volume of a solid cylinder by measuring its length and diameter.
- III. Verify the principle of moments by using a meter rod balanced on a wedge.
- IV. Study the effect of length of simple pendulum on its time period and hence find the value of 'g' by calculation.
- V. Prove that time period of a simple pendulum is independent of mass of the Pendulum.

6. Physics Practicals for Class 10th:

- I. Verify the laws of refraction by using a glass slab.
- II. Find the focal length of a convex lens by parallax method.
- III. Verify Ohm's law (using wire as a conductor).
- IV. Study resistors in a series circuit.
- V. Study Resistors in a parallax circuit.
- VI. Trace the Magnetic field using a bar magnet.

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Acceptance Note:

We, hereby, accept all the above-mentioned terms and conditions as a whole prescribed for the Software Development.

**Signature of the Bidder
with Seal**