Standard Bidding Document

Request for Proposal Procurement of Software and Hardware for the Project “National Semiconductor Human Resource Development Program (NSHRDP) Phase-I” (Non-Consultancy Services)

National

Single Stage-Two Envelope

CORRIGENDUM # 1	CORR-P74779-001
Initiation Date	August 20, 2026

August 20, 2026

Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB)),Assistant Manager Procurement
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PROCUREMENT NOTICE

PROCUREMENT OF NON-CONSULTANCY SERVICES

1. The **Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB))** has reserved Funds for the procurement planned for FY **2026-27**. The **Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB))** intends to apply part of the proceeds of this Fund to cover eligible payments under the contract for the "**Request for Proposal Procurement of Software and Hardware for the Project "National Semiconductor Human Resource Development Program (NSHRDP) Phase-I"**" with the reference of **"P74779"**

2. The **Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB))** invites Bids through **EPADS v2.0** from eligible Bidders registered on **EPADS v2.0** for provision of Non-Consultancy Services.

3. **Single Stage-Two Envelope** Procedure of Principal Method of Procurement (i.e. Open Competitive Bidding) will be used by adopting **Quality and Cost Based Selection (QCBS)** Technique for the subject procurement, in line with the Public Procurement Rules, 2004 and any Regulations, and Instructions issued by the Authority (from time to time).

4. All Bids must be accompanied by a Bid Security described in Bid Security Section in Bidding Document in the form of **Pay Order** or Bid Securing Declaration on the prescribed format described.

5. E-Bidding documents, containing detailed terms & conditions, specifications and requirements etc. are available on **e-Pak Acquisition and Disposal System (EPADS)** at **https://epads.gov.pk/opportunities/federal/procurements/74779**.

6. The e-bids, prepared in accordance with the instructions in the e-Bidding documents, must be submitted through **EPADS v2.0** on or before **Tuesday, September 8, 2026 03:00 PM**. E-bids will be opened on the same day at **Tuesday, September 8, 2026 03:30 PM**. Manual submission of Bids shall not be entertained. Those vendors who have not yet registered on the new

version of **EPADS v2.0,** may register themselves on https://vendors.epads.gov.pk/. A tutorial to explain the registration process is available at https://www.youtube.com/watch?v=MNW6T38v7tc

7. In terms of Rules 48 of Public Procurement Rules, 2004 Grievance Redressal Committee (GRC) is notified for the subject procurement and notification copy is available on the procuring agency's website and also available on **EPADS v2.0** as well as Authority's website at (www.ppra.org.pk).

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Instructions to Bidders

A. Introduction

1. **Scope of Bids**

1.1. The Procuring Agency (PA), as indicated in the **Bids Data Sheet (BDS)** invites Bids through **EPADS v2.0** for the provision of Non-Consultancy Services for as specified in the BDS and **in Section Evaluation Criteria, Specifications & Schedule of Requirements**. The name, identification, and number of items/deliverables are provided in the **BDS**. **Single Stage-Two Envelope** procedure of the open competitive method shall be used. The successful Bidders will be expected to provide the services within the specified period and timeline(s) as stated in the **BDS**.

2. **Source of Funds**

2.1. Source of funds is referred in Clause-1 of Invitation for Bids.

3. **Fraudualent & Corrupt Practices**

3.1. As defined under Rule 2(1)(f) of the Public Procurement Rules, 2004.

4. **Eligible Bidders**

4.1. A bidder is eligible to participate in a procurement process if the bidder:

4.1.1. possesses or has access to the technical competence, financial resources, equipment and other physical facilities, personnel, managerial capability, experience and reputation necessary to complete the procurement contract;

4.1.2. has the legal capacity to enter into a procurement contract;

4.1.3. is not insolvent, in receivership, bankrupt or being wound up and its activities or affairs are not suspended or being administered under any Act, by a court or by a judicial officer;

4.1.4. is not the subject of legal proceedings for any of the matters mentioned in sub-rule (c);

4.1.5. has fulfilled or has made substantial arrangements satisfactory to the relevant authorities, to fulfil its obligations to pay taxes and social security (where applicable) other contributions of its employees; and

4.1.6. has not, or in the case of a company, its owners and beneficial owners, directors or officers have not, been convicted of a criminal offence related to:

4.1.6.1. its professional conduct; or

4.1.6.2. a bidder (or, in the case of a company, its key individuals such as owners, beneficial owners, directors, or officers) must not have engaged in any prohibited practice, such as fraud, corruption, collusion, or coercion, within the time period stated in the bidding documents, which can be up to three years before the start of the procurement process. Additionally, the bidder must not have been debarred (i.e., banned) from participating in public procurement processes in Pakistan or by any international organization or country. If they have, they are ineligible to participate in the current bidding.

4.2. The procuring agency may require a bidder participating in the procurement process to provide the prescribed documentary evidence or other information to satisfy itself that the bidder is qualified in accordance with the criteria in sub-clause (1).

4.3. A procuring agency shall set out in the bidding document all the criteria for qualification to be applied in accordance with sub-clause (1).

4.4. Except as permitted under the Ordinance, Rules and Regulations, the procuring agency shall not establish a criterion for eligibility of a bidder that:

4.4.1. discriminates against or among a bidder or against categories of bidders; or

4.4.2. is not required for the performance of the procurement contract; or

4.4.3. is not related to the avoidance or management of legal, reputational or economic risk to the procuring agency unless it is in the national interest to do so, and the criteria is set out in the bidding documents.

4.5. A procuring agency shall assess the eligibility of a bidder for participation in the procurement process against the criteria for qualification under sub-clause (1).

4.6. In the case of a joint venture, consortium, or association, all members shall be jointly and severely liable for the execution of the contract in accordance with the terms and conditions of the contract. The joint venture, consortium, or association shall nominate a lead member as nominated in the BDS,

4.7. who shall have the Authority to conduct all business for and on behalf of any and all the members of Joint venture, consortium, or association during the bidding process, and in case of award of contract, during the execution of the contract.

4.8. The appointment of the lead Member in the joint venture, consortium, or association shall be confirmed by submission of valid power of Attorney to the procuring agency.

4.9. Subject to the limits specified in the BDS, the procuring agency may allow bidders to participate in the form of a Joint Venture (JV). However, each party in the JV must individually meet the eligibility criteria specified in the BDS

4.10. No Bidder can be a sub-contractor while submitting a Bids individually or as a member of a joint venture in the same Bidding process.

5. **Qualification of the Bidder**

5.1. All Bidders shall provide in Section VI, Bid Forms, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.

B. Bidding Documents

6. **Contents of Standard Bidding Document**

6.1. The Services required, bidding procedure, and terms and conditions of the contract are prescribed in the bidding document. In addition to the Invitation for Bids, the bidding document which should be read in conjunction with any addendum issued by the Procuring Agency include:

Section I -Invitation to Bid
Section II Instructions to Bidders (ITB)
Section III Bid Data Sheet (BDS)
Section IV Eligible Countries
Section V Evaluation Criteria, Specifications, Schedule of Requirements, and Technical Specifications.
Section VI Bidding Forms
Section VII Fraudaulent & Corrupt Practices
Section VIII – Material & Non-material deviation
Section IX General Conditions of Contract (GCC)
Section X Special Conditions of Contract (SCC)
Section XI Contract Forms

6.2. The Bidder is expected to examine all instructions, requirements, forms, terms and specifications in the bidding documents. Failure to furnish all the information required in the bidding document will be at the Service provider's risk and may result in the rejection of his bids.

7. **Clarifications**

7.1. Clarifications of the bidding documents may be requested in writing through EPADS v2.0 by any bidder up to three days prior to the deadline for the submission of bids.

The procuring agency shall respond promptly and in writing to any request by a bidder for clarification of the bidding documents and, in any event, no later than two days prior to the deadline for the submission of bids or proposals.

Responses to requests for clarification shall be communicated simultaneously and in writing to all bidders participating in the procurement proceedings.

No bidder shall be allowed to alter or modify his bid after the bids have been opened however, the procuring agency may seek and accept clarification to the bid that do not change the substance of the bid, through EPADS v2.0.

7.2. Procuring Agency's response will be uploaded on the EPADS v2.0, including a description of the inquiry.

7.3. Should the Procuring Agency deem it necessary to amend the bidding document as a result of a clarification, it shall do so following the procedure under **ITB 1.1.**

7.4. If indicated **in the BDS**, the bidder's designated representative is invited at the bidder's cost to attend a pre-bid meeting at the place, date and time mentioned **in the BDS**. During this pre-bid meeting, prospective bidder(s) may request clarification(s) regarding the schedule of requirements, the Evaluation Criteria or any other aspects of the bidding document.

7.5. Minutes of the pre-bid meeting, if applicable, including the text of the questions asked by bidders, and the responses given, together with any responses prepared after the meeting will be uploaded on EPADS v2.0. Any modification to the bidding document that may become necessary as a result of the pre-bid meeting shall be made by the Procuring Agency exclusively through the use of an Addendum.

7.6. To assist in the examination, evaluation and comparison of Bids of the Bidders, the Procuring Agency may, ask any Bidder for a clarification of its bid including breakdown of prices, through EPADS v2.0. Any clarification submitted by a bidder that is not in response to a request by the Procuring Agency shall not be considered.
No change in the prices or substance of the bid shall be sought, offered, or permitted.
The alteration or modification in the bid which in any way affect the following parameters will be considered as a change in the substance of a

bid:

7.6.1. evaluation & qualification criteria;

7.6.2. required scope of work or specifications;

7.6.3. all securities requirements;

7.6.4. tax requirements;

7.6.5. terms and conditions of bidding documents; and

7.6.6. change in the ranking of the bidders.

From the time of bid(s) opening to the time of contract award, if any bidder wishes to contact the procuring agency on any matter related to the bid, it should do so in writing or through electronic form that provides record of the content of communication.

8. **Amendment of Bidding documents**

8.1. Before the deadline for submission of bids, the procuring agency for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder or pre-bid meeting may modify the bidding documents by issuing addendum.

8.2. Any addendum issued including the notice of any extension of the deadline shall be part of the bidding document and shall be uploaded on EPADS v2.0 as well as Authority’s website. The procuring agency shall promptly publish the addendum at the procuring agency’s website indicated in the **BDS**:

Provided that the bidder who had either already submitted his bid, shall have the right to withdraw his already submitted bid and submit the revised bid, prior to the original or extended bid submission deadline.

8.3. To give prospective bidders reasonable time in which to take an addendum/corrigendum into account in preparing their bids, the Procuring Agency may, at its discretion, extend the deadline for the submission of bids:

Provided that the Procuring Agency shall extend the deadline for submission of bids, if such an addendum is issued within last three (03) days of the bid submission deadline.

C. Preparation of Bids

9. Documents Constituting the Bids

9.1. The bids prepared by the bidders shall constitute the following components: -

9.1.1. Forms of bid and Bid Prices completed in accordance with ITB BDS, GCC and SCC;

9.1.2. Documentary evidence established in accordance with BDS that services to be provided by the bidder are eligible services, and conform to the bidding documents;

9.1.3. Documentary evidence established in accordance with BDS that the bidder is eligible and/or qualified for the subject bidding process;

9.1.4. Documentary evidence established, that the bidder has been authorized to provide the services;

9.1.5. Bid security or Bids Securing Declaration furnished in accordance with BDS; and

9.1.6. Any other document required in the BDS.

10. **Documents Establishing Eligibility of the Services and Conformity to bidding documents**

10.1. To establish the conformity of the Non-Consulting Services to the Bidding document, the bidder shall furnish as part of its bid the documentary evidence that services provided conform to the requirements.

10.2. Standards for the provision of the Non-Consulting Services are intended to be descriptive only and not restrictive.

11. **Documents Establishing Eligibility and Qualification of the Bidder**

11.1. Pursuant to BDS, the bidder shall furnish, as part of itsbid, all those documents establishing the bidder's eligibility to participate in the bidding process and/or its qualification to perform the contract if its bid is accepted.

11.2. The documentary evidence of the bidder's eligibility to bids shall establish to the satisfaction of the procuring agency that the bidder, at the time of submission of its bid, is from an eligible country as defined in Section-IV titled as "Eligible Countries".

11.3. The documentary evidence of the bidder's qualifications to perform the contract if its bid is accepted shall establish to the satisfaction of procuring agency that:

11.3.1. the bidder has the financial, technical, and supply/production capability necessary to perform the Contract, meets the qualification criteria specified in BDS.

11.3.2. that the bidder meets the qualification criteria listed in the Bids Data Sheet.

12. **Form of Bid**

12.1. **The bidder shall fill the Form of Bid furnished in the bidding documents. The Bid Forms must be completed without any alterations to its format and no substitute shall be accepted.**

13. **Bids Prices**

13.1. The Bids Prices quoted by the bidder in the Forms of Bid and in the price schedule shall conform to the requirements specified or exclusively mentioned hereafter in the bidding document.

13.2. All items in the Schedule of Requirements must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced and neither explicitly mentioned, their prices shall be construed to be included in the prices of other items.

13.3. The Bid price to be quoted in the Forms of Bid shall be the total price of the bid, excluding any discounts offered.

13.4. The bidder shall indicate on the appropriate Price Schedule, the unit prices (where applicable) and total bid price of the services, it proposes to provide under the contract.

13.5. Prices quoted by the bidder shall be fixed during the currency of the contract and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and shall be rejected, unless otherwise price adjustment is permissible under Conditions of the Contract. (May be reviewed)

14. **Price Adjustment**

14.1. Price adjustment shall not be applicable.

14.2. Procuring agency may increase the remuneration of the human resources involved in non-consultancy services on annual basis as per agreement.

14.3. **Procuring agency shall incorporate the provisions to allow wage rate in compliance with Federal Government's minimum wage notification, subject to the applicability in that case.**

15. **Bids Currencies**

15.1. Prices shall be quoted in Pakistani Rupees unless otherwise specified in the BDS.

16. **Bid Validity Period**

16.1. Bid(s) shall remain valid for the period specified in the BDS after the bid submission deadline prescribed by the Procuring Agency. A Bid valid for a shorter period shall be rejected by the Procuring Agency as non-responsive. The period of bid validity will be determined from the complementary bid securing instrument i.e. the expiry period of bid security or bid securing declaration as the case may be.

17. **Bid Security or Bid Securing Declaration**

17.1. Unless otherwise specified in the BDS, the bidder shall furnish as part of its bid, in the amount and currency specified in the BDS or Bid Securing Declaration on the format provided in Section VI (Bid Forms) The scanned copy of the Bids Security shall be uploaded in the EPADS v2.0 while submitting bid, whereas the original forms of Bid Security shall be submitted to the procuring agency before the bid submission deadline. The bidder who failed to submit the original bid security before the submission deadline shall be disqualified straightaway.

17.2. The Bid Security or Bid Securing Declaration is required to protect the Procuring Agency against the risk of Bidder's conduct which would warrant the security's forfeiture.

17.3. The Bid Security shall be payable promptly upon written demand by the Procuring Agency in case any of the conditions listed in BDS, GCC and SCC are invoked.

17.4. Unsuccessful Bidders' Bid Security will be discharged or returned as promptly as possible after the award of contract, however in no case later than thirty (30) days after the expiration of the period of Bid Validity prescribed by the Procuring Agency. The Procuring Agency shall make no claim to the amount of the Bid Security, and shall promptly return the Bid Security document, whichever of the following that occurs earliest:

17.4.1. the expiry of the Bid Security;

17.4.2. the entry into force of a procurement contract and the provision of a Performance Guarantee, for the performance of the contract if such a guarantee, is required by the bidding document;

17.4.3. the rejection by the Procuring Agency of all Bids;

17.4.4. the withdrawal of the Bid prior to the deadline for the submission of bids, unless the bidding document stipulate that no such withdrawal is permitted.

17.5. The Bid Security may be forfeited or the Bid Securing Declaration executed:

17.5.1. if a bidder:

17.5.1.1. withdraws its bid during the period of bid validity as specified by the Procuring Agency, and referred by the bidder in the Forms of Bid, except as provided for in the ITBs; or

17.5.1.2. does not accept the correction of errors, or

17.5.2. in the case of a successful bidder fails:

17.5.2.1. **to sign the contract in accordance with SCC; or**

17.5.2.2. **to furnish Performance Guarantee in accordance with BDS and SCC.**

17.6. **The bid security shall be valid for a period specified in BDS. Bids with shorter bid security validity period shall be rejected straight away.**

18. **Alternative Bids by Bidders**

18.1. Alternatives will not be considered, unless specifically allowed for in the BDS.

18.2. When alternative times for completion are explicitly invited, a statement to that effect will be included in the BDS and the method of evaluating different time schedules will be described in Evaluation and Qualification Criteria.

19. **Withdrawal, Substitution, and Modification of Bids**

19.1. Before Bids submission deadline, any bidder may withdraw, substitute, or modify his bid after it has been submitted.

20. **Format and Signing of Bids**

20.1. The bidder shall prepare and submit his bid with due diligence after carefully reading all the terms and conditions before submission through

EPADS v2.0.

20.2. Any interlineations, erasures, or overwriting shall be valid only if they are signed by the person(s) signing the forms of bid.

D. Submission of Bids

21. **Submission of Bids through EPADS v2.0 before Dead deadline**

21.1. The Technical and Financial Bids as the case may be, shall be submitted in the due portion of the EPADS v2.0, before bid submission deadline. The bid submission option shall be automatically disabled once the deadline is over.

21.2. The Procuring Agency may, under exceptional circumstances and at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents. In such a case, all rights and obligations of the Procuring Agency and the Bidders that were previously subject to the original deadline shall thereafter be subject to the revised deadline.

E. Opening and Evaluation of Bids

22. **Opening & Evaluation of Bids by the Procurement Cell/Evaluation Committee**

22.1. The Procuring Agencies to constitute odd number Bid Evaluation Committee for the purpose of bid opening and evaluation of all procurements. As per Rules 29 & 30 of Public Procurement Rules, 2004,
The Procuring Agencyis required to establish a Procurement Cell/Evaluation Committee which shall Evaluate the Bids inaccordance with the evaluation criteria, terms and conditions given in the bidding documents.

23. **Opening of Bids**

23.1. The Bid Evaluation Committee of the Procuring Agency will open all bids through EPADS, in the presence of bidders' or their representatives who choose to attend, and other parties with a legitimate interest in the bid proceedings at the place, on the date and at the time, specified in the **BDS**. The Bidders' representatives present shall sign attendance sheet as proof of their attendance.

23.2. The bids shall be opened one at a time, and the following read out and recorded: (a) the name of the bidder; (c) the presence of a bid security, if required; and (d) any other details as the procuring agency may consider appropriate.

23.3. No bid will be rejected at the time of bid opening except for bids whose bid security has not been provided to the procuring agency before submission deadline**.**

23.4. The procuring agency shall prepare minutes of the bid opening. The record of the bid opening shall include, as a minimum: the name of the bidder and the bid price, if applicable.

24. **Confidentiality**

24.1. Information relating to the examination, clarification, evaluation and comparison of bids and recommendation of contract award shall not be disclosed to bidders or any other person(s) not officially concerned with such process, until the time of the announcement of the respective evaluation report.

24.2. Any effort by a bidder to influence the procuring agency processing of bids or award decision may result in the rejection of his bid.

25. **Preliminary Examination of Bids**

25.1. Prior to the detailed evaluation of bids, the procuring agency will determine whether each bid:

25.1.1. meets the eligibility criteria defined in **BDS**;

25.1.2. has been prepared as per the format and contents defined by the procuring agency in the bidding document;

25.1.3. is accompanied by the required securities; and

25.1.4. is substantially responsive to the requirements of the bidding document.

25.2. The procuring agency will confirm that the documents and information specified under **BDS, GCC and SCC** have been provided in the bids. If any of these documents or information is missing, or is not provided in accordance with the Instructions to Bidders, the bids shall be rejected.

25.3. If a bid is not substantially responsive, it will be rejected by the procuring agency and may not subsequently be evaluated for complete technical responsiveness.

26. **Examination of Terms and Conditions, Technical Evaluation**

26.1. The procuring agency shall evaluate the technical aspects of the bids submitted in accordance with **BDS,** to confirm that all requirements specified in **Evaluation Criteria, Technical Specifications and Schedule of Requirements**, prescribed inthe bidding document have been met without material deviation or reservation.

26.2. If after the examination of the terms and conditions and the technical evaluation, the procuring agency determines that the bid is not substantially responsive in accordance with BDS**,** it shall reject the bids.

27. **Correction of Errors**

27.1. Bids determined to be substantially responsive will be checked for any arithmetic errors. Errors will be corrected as follows: -

27.1.1. if there is a discrepancy between unit prices and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected, unless in the opinion of the procuring agency there is an obvious misplacement of the decimal point in the unit price, in which the total price as quoted shall govern and the unit price shall be corrected;

27.1.2. if there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail and the total shall be corrected; and

27.1.3. where there is a discrepancy between the amounts in figures and in words, the amount in words will govern.

27.1.4. Where there is discrepancy between grand total of price schedule and amount mentioned on the Forms of bid, the amount referred in Price Schedule shall be treated as correct subject to elimination of other errors.

27.2. The amount stated in the bid will be adjusted by the procuring agency in accordance with the above procedure for the correction of errors and, with the concurrence of the bidder that shall be considered as binding upon the bidder. If the Bidder does not accept the corrected amount, his bid will then be rejected, and the Bid Security may be forfeited or the Bid Securing Declaration may be executed.

28. **Conversion to Single Currency**

28.1. As per Rule 30 of Public Procurement Rules, 2004.

29. **Evaluation of Bids**

29.1. The procuring agency shall evaluate bids in accordance with Rule 30 of Public Procurement Rules, 2004 and compare only those bids determined to be substantially responsive.

29.2. In evaluating the Technical Bids of each Bidder, the Procuring Agency shall apply the evaluation criteria and methodologies specified in the Bid Data Sheet (BDS) and in accordance with the Statement of Requirements and Technical Specifications. No other evaluation criteria or methodologies shall be permitted.

29.3. In case of tie of bids, the bidders shall be provided an opportunity to offer their best and final monetary offer through EPADS. However, in no case the rates shall be higher than the original financial bids.

29.4. The Procuring agency evaluation of a bid will take into account:

29.4.1. the bid price, excluding provisional sums and the provision, if any, for contingencies in the summary bill of quantities, but including day work items, where priced competitively;

29.4.2. price adjustment for correction of arithmetic errors in accordance with **ITB 6;**

29.5. converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with **ITB 7**;

29.6. The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.

29.7. If these bidding documents allow bidders to quote separate prices for different lots, and the award to a successful bidder of multiple lots, the methodology of evaluation to determine the lowest evaluated lot combinations in the Form of Bid, is specified in the **BDS.**

30. **Determination of Most Advantageous Bids**

30.1. Selection technique will be adopted for determining the Successful Bid in accordance with the criteria referred in the **BDS** or prescribed in the separate section titled as Evaluation Criteria.

31. **Abnormally Low Financial Bids**

31.1. Procuring agency may reject a bid if it has determined that the price, in combination with other constituent elements of the bid, is abnormally low in relation to the subject matter of the procurement, such that it raises material concerns on the part of the procuring agency, as to the ability of the bidder to perform the procurement contract satisfactorily for the offered price.

A procuring agency shall not reject a bid as abnormally low under sub-clause (1) above unless the procuring agency –

31.1.1. requested in writing through EPADS from the bidder a written clarification of his bid, including a detailed price analysis of his bid price in relation to the subject matter of the procurement contract, scope, methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document; and

31.1.2. having taken account, the information provided by the bidder in response to a request under paragraph (a) and the information included in the bid, the procuring agency determines that the bidder has failed to demonstrate its ability to perform the procurement contract satisfactorily for the offered price.

The procuring agency shall promptly communicate to the bidder concerned its decision to reject the bid, including the reasons for the decision.

32. **Rejection of Bids**

32.1. As per Rule 33 of the Public Procurement Rules, 2004

33. **Single Responsive Bid**

33.1. The procuring agency may consider single responsive bid subject to underlying conditions of Rule 38(b) of the Public Procurement Rules, 2004.

34. **Arbitration**

34.1. As per Rule 49 of Public Procurement Rules, 2004.

F. Award of Contract

43. **Criteria of Award**

43.1. The procuring agency will award the Contract to the bidder whose bid has been determined to be substantially responsive to the bidding document and who has been declared as most advantageous Bid.

44. **Procuring Agency’s Right to reject All Bids**

44.1. The procuring agency reserves the right to reject all the Bids and to annul the procurement process at any time prior to acceptance of the bid(s), without thereby incurring any liability to the affected bidder(s).

44.2. Notice of the rejection of all bids shall be given promptly to all bidders that have submitted the bids. The procuring agency shall upon request communicate to any bidder the grounds for the rejection of his bid, but is not required to justify those grounds.

45. **Notification of Award**

45.1. Prior to the award of contract, the procuring agency shall issue a Final Evaluation Report giving justification for acceptance or rejection of the bids.

45.2. Bidder whose bid has been accepted, will be notified for the award by the Procuring Agency prior to expiration of the Bid Validity period through EPADS. The Letter of Acceptance will state the sum that the procuring agency will pay the successful bidder in consideration for the execution of the scope of works as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price).

45.3. The notification of award will constitute the formation of the Contract, subject to the condition that bidder furnish the Performance Guarantee and signing of the contract.

46. **Signing of Contract**

46.1. Promptly after notification of award, Procuring Agency shall send the successful bidder the draft agreement, incorporating all terms and conditions as agreed by the parties to the contract. The successful bidder and the procuring agency shall sign the contract.

47. **Performance Guarantee**

47.1. After the receipt of the Letter of Acceptance, the successful bidder, within the specified time, shall deliver to the Procuring Agency a Performance Guarantee in the amount and in the form stipulated in the **BDS**

and SCC, denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the Conditions of Contract.

47.2. Failure of the successful bidder to comply with the requirement of **BDS, SCC and GCC** shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the procuring agency may make the award to the next ranked bidder or call for new bids.

48. **Corrupt & Fraudulent Practices**

48.1. Procuring Agencies (including beneficiaries of Government funded projects and procurement) as well as Bidders/Contractors under Government financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts, and will avoid to engage in any corrupt and fraudulent practices.

G. Grievance Redressal & Complaint Review Mechanism

53. **Constitution of Grievance Redressal**

53.1. Procuring agency shall constitute a Grievance Redressal Committee (GRC) comprising of an odd number of persons with proper power and authorization to address the complaint. The GRC shall not have any of the members of Procurement Evaluation Committee.

54. **GRC Procedure**

54.1. Any aggrieved party or bidder as the case may be, may file grievance in accordance with Rule 48 of the Public Procurement Rules, 2004 and Redressal of Grievance Regulations, 2022

H. Blacklisting/ Debarment

55. **Procedure for Blacklisting/Debarment**

55.1. The procuring agency may initiate blacklisting proceedings against contractor/supplier in accordance with Rule-19 of the Public Procurement

Rules, 2004 , Mechanism for Blacklisting, Debarment Regulations, 2024 and Regulation on “procedure for filling and disposal of review petition under rule-19(3) of the Public Procurement Rules, 2004.

Bid Data Sheet

Bids Data Sheet (BDS)

The following specific data for the procurement of Non-Consultancy Services to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

BDS Clause Number
ITB Number

Amendments of, and Supplements to, Clauses in the Instruction to Bidders

A. Introduction

BDS Clause Number 1

Name of Procuring Agency: **Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB))**

The subject of procurement is: **Request for Proposal Procurement of Software and Hardware for the Project "National Semiconductor Human Resource Development Program (NSHRDP) Phase-I"**

Expected commencement date: **Monday, November 30, 2026**

BDS Clause Number 2

Financial year for the operations of the Procuring Agency: **2026-27**

Name and identification number of the Contract: **P74779**

BDS Clause Number 3

JV/Consortium or Association Allowed: **Yes**
Number of JV/Consortium Members: **3**

B. Bidding Documents

BDS Clause Number 4

The Bidders may seek clarifications through **EPADS v2.0**: Clarification Date: Wednesday, September 2, 2026

BDS Clause Number 5

Any addendum, in case issued, shall be published on **Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB))** website and on **EPADS v2.0**.

BDS Clause Number 6

List of documents required along with the bid:

1. Mandatory Documents Required in NSHRDP RFP (Software & Hardware for Semiconductor Design Training) 1. Mandatory Eligibility Criteria Checklist (Section covering Lot-1 & Lot-2) — the filled, signed & stamped checklist itself must be submitted, along with each of the following supporting items:

2. Certificate of Incorporation / registration proof (Companies, Partnerships, or Sole Proprietorships) — each JV member individually, if applicable

3. NTN Certificate + proof of Active Tax Payer status — each JV member individually

4. GST Certificate + proof of Active Tax Payer status — each JV member individually

5. Proof of office presence in at least one major Pakistani city (Lahore, Karachi, or Islamabad) — lead bidder, if JV

6. Manufacturer's Sole Authorization / Distribution Letter (for servers, EDA tools, network switches) and authorized re-seller letter (for laptops), in the bidder's name — may be submitted by lead or any JV partner

7. Audited Financial Statement for at least 1 of the last 3 completed financial years — lead or any JV partner

8. Original affidavit (not older than 1 month, on Rs.100+ stamp paper) confirming the bidder is not insolvent/bankrupt/blacklisted or debarred by PPRA/Government/etc. — lead bidder for JV

9. Undertaking on Rs.100+ stamp paper committing to delivery within agreed timelines post-PO/contract signing — lead bidder for JV

10. Confirmation of quoting all items in the applied Lot (100% technical compliance)

11. Supporting evidence for Relevant Experience criterion: • Project summaries (scope, beneficiaries, technical components, duration) • Client reference letters or completion certificates • Evidence of OEM/IP vendor partnerships (if applicable)

12. If bidding as a JV/Consortium, additionally: • Notarized JV/Consortium Agreement (or Power of Attorney) naming the Lead Bidder, roles, work/payment share, and duration • Each member: NTN certificate, Certificate of Incorporation, audited financial statement (lead/any member), evidence of relevant experience

BDS Clause Number 7

The qualification criteria to establish the supply / production capability of the bidder.

see Eligibility Criteria

BDS Clause Number 8

Services and Their related documents:
See section Required Services and Scope of Work

BDS Clause Number 9

Price schedule will be provided according to the format defined and acquired.
see section price schedule.

BDS Clause Number 10

Specifications:

see section of specifications.

C. Preparation of Bids

BDS Clause Number 11

The price shall be **Fixed**.

BDS Clause Number 12

Currency of the Bids shall be : **PKR**

BDS Clause Number 13

The Bids/Bid Validity period shall be: **90 Days**

BDS Clause Number 14

The amount of Bid Security shall be as defined in Bid Security Section for items and lots given in **BDS 6**
The Bid Security shall be in the form of: **Pay Order**

BDS Clause Number 15

The Bids security shall be valid for twenty-eight (28) days beyond the expiry of the Bids validity period specified in the bidding documents, for example the bid validity is 90 days so the bid security shall be valid for 90+28 = 118 days.

BDS Clause Number 16

Alternative Bids to the requirements of the bidding documents will not be permitted.

D. Submission of Bids

BDS Clause Number 17

Bid shall be submitted online on EPADS v2.0 whereas hard copy of the bid security should be submitted to the following;

6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory

Bids that are not submitted on EPADS v2.0 shall be disqualified.

The deadline for Bids submission is: **Tuesday, September 8, 2026 03:00 PM**

E. Opening and Evaluation of Bids

BDS Clause Number 18

The Bids opening shall take place on **EPADS v2.0**.

Day *:* ***Tuesday***

Date: ***Tuesday, September 8, 2026***

Time *:* ***03:30 PM***

BDS Clause Number 19

Selection technique adopted will be: **Quality and Cost Based Selection (QCBS)**
see Evaluation Criteria

F. Award of Contract

BDS Clause Number 20

The Performance guarantee shall: **5.00%**.

The Performance Guarantee shall be acceptable in the form of: **Bank Guarantee**

21.

51.1

Arbitrator shall be appointed by mutual consent of the both parties.

G. Review of Procurement Decisions

BDS Clause Number 22

Grievence against this procurement shall be submitted online on EPADS v2.0.

Eligibility Criteria

Bidder's Type	Required Registration
Sole Proprietorship Partnership Firm Company (Private Limited)	FBR (NTN) FBR (GSTN) Punjab (PRA) SECP AGPR (Gilgit-Baltistan Government) KPK (KPRA) Registrar of Firms

Eligibility Criteria	Document
Proof of Certificate of Incorporation or relevant registration authority (Companies, Partnerships or Sole proprietorships). In-case of JV, each member shall individually meet the above requirement.	Yes
Proof of NTN Certificate and proof of Active Tax Payer. In-case of JV, each member shall individually meet the above requirement.	Yes
Proof of GST Certificate and proof of Active Tax Payer In-case of JV, each member shall individually meet the above requirement.	Yes

The participating firm should have its office in at least one major city of Pakistan (i.e. Lahore, Karachi & Islamabad). In-case of JV, the lead bidder shall meet the above requirement.	Yes
Participating firm must provide Manufacturer's Sole Authorization / Distribution Letter (for servers and EDA Tools, and network switches), and authorized re-seller (laptops) from Principal in the name of tender undersigned (wherever is applicable). In-case of JV/Consortium, the required authorizations may be submitted by the lead partner or by any other JV partner, provided that the authorization cover the products being offered under the bid.	Yes
The bidder shall submit Audited Financial Statement for at least 01 financial year from among the last 03 completed financial years. In-case of JV/Consortium, the required audited financial statements may be submitted by the lead partner or by any other JV partner.	Yes
Original affidavit (not older than one month) on Stamp Paper(s) of worth Rs.100 or more that Bidder is not insolvent, bankrupt and is not blacklisted or debarred by PPRA, Government, Semi-Government, Private, Autonomous body. In-case of JV, the lead bidder shall submit original affidavit that any company/organization which is part of the JV/Consortium is not blacklisted by PPRA, Government, Semi-Government, Private, Autonomous body.	Yes
Undertaking on stamp paper worth Rs.100/- or more mentioning, all items will be delivered within agreed timelines after the issuance of purchase order/Contracts Sign. In-case of JV, the undertaking shall be submitted by the lead partner on behalf of JV. The undertaking shall be binding on all JV partners who shall remain jointly and severally liable for the performance of the contract.	Yes
Bidder must quote all items mentioned in a lot that bidder has applied for, otherwise the bid shall be rejected. Bids must meet 100% compliance to the technical specifications.	No
"TECHNICAL PROPOSAL – Procurement of Software and Hardware for Training in Semiconductor Design National Semiconductor Human Resource Development Program (NSHRDP) Bidders are to make sure that Financial Proposal is not part of the Technical Proposal in any form.	No

“FINANCIAL PROPOSAL - Procurement of Software and Hardware for Training in Semiconductor Design National Semiconductor Human Resource Development Program (NSHRDP)” The Financial Proposal should not be part of Technical Proposal in any form.	No

Evaluation Criteria

Quality and Cost Based Selection (QCBS)

Weightage

Technical Evaluation Weightage	Financial Evaluation Weightage
60	40

Technical Marks	140
Passing Marks	**98**
Technical Evaluation Criteria	
Firm/Bidder Profile (Registered age) Relevant registration certificate should be attached. (In-case of JV, the lead bidder registered age will be considered for scoring/evaluation.) (Quantitative)(Doc Required) Five (05) Years **(10)** Four (04) Years **(8)** Three (03) Years **(6)** two (02) Years **(4)** One (01) Year **(2)**	10

Financial position The bidder shall submit Audited Financial Statement for at least 01 financial year from among the last 03 completed financial years. In-case of JV, the accumulated annual turnover will be considered of JV/Consortium. (Quantitative)(Doc Required) Annual turnover +50 mil **(10)** Annual turnover 30-49 mil **(8)** Annual turnover 20-29 mil **(6)**	10
Relevant Experience of the Firm/Bidder/ JV Partner Copy of Purchase order(s)/Contract/Successful Completion certificate shall be attached as evidence. The bidder must have successfully implemented at least one (01) similar project within the last five (05) years (Quantitative)(Doc Required) Six (06) Projects **(30)** Five (05) Projects **(25)** Four (04) Projects **(20)** Three (03) Projects **(15)** two (02) Projects **(10)** One (01) Projects **(5)**	30

Qualification and Competence of the proposed Team Members–Full Time/Part time/ On- call (Form B4-I & B4- II) Qualification, Total experience, and Professional Certifications /Memberships of technical team (Must mention verifiable certification number#) Relevant work experience of team lead (One project=5.0 marks) (Quantitative)(Doc Required) two (02) Projects **(10)** One (01) Projects **(5)**	10
Qualification, Total experience, and Professional Certifications /Memberships of technical team (Must mention verifiable certification number#) Relevant experience of the team deployed on project (switching experts, trainers, installation experts, EDA tools experience) (One team member = 2.0 marks) (Quantitative)(Doc Required) Five (05) Team Members **(10)** Four (04) Team Members **(8)** three (03) Team Members **(6)** Two (02) Team Members **(4)** One (01) Team Member **(2)**	10
Component wise work plan & Timelines Submission of detailed work plan including key milestones with timelines (Quantitative)(Doc Required)	10
Proposed Methodology Equipment delivery, installation, testing and Commissioning as mentioned in scope of work (Quantitative)(Doc Required)	10
Proposed Methodology Support & Maintenance Plan Quality of the proposed support and maintenance plan will be taken into account while awarding score as mentioned in scope of work (Quantitative)(Doc Required)	10

Transfer of Knowledge Submission of training plan for PSEB’s designated staff (Quantitative)(Doc Required)	5
Transfer of Knowledge Provisioning of technical / user manuals (Quantitative)(Doc Required)	5
Technical Bid Completeness Technical bid completeness in accordance with the RFP (Quantitative)(Doc Required)	10
Presentation / Demonstration of the Proposed Solution Onsite presentation of proposed solutions by participating bidders (Quantitative)(Doc Required)	20

Required Services

Lot Title : Lot – 2 Hardware

Bid Security : 2000000 PKR

Position	Delivery Schedule	Quantity
High End Server for EDA tools	**Address:** 6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty	1/Qty

Position	Delivery Schedule	Quantity
High End server for Lab	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty	3/Qty

Position	Delivery Schedule	Quantity
Engineering Workstations (Student Terminals)	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 35/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 35/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 35/Qty	105/Qty

Position	Delivery Schedule	Quantity
Laser Printer for Lab	**Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty	3/Qty

Position	Delivery Schedule	Quantity
FPGA kits for Lab	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 20/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** With in 180-days after signing of contract **Quantity:** 20/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 20/Qty	60/Qty

Position	Delivery Schedule	Quantity
High End UPS for Lab	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty	3/Qty

Position	Delivery Schedule	Quantity
Core Switch	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty	3/Qty

Position	Delivery Schedule	Quantity
Access Switch	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 2/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 2/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 2/Qty	6/Qty

Position	Delivery Schedule	Quantity
Network Cable	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 6/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 6/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 6/Qty	18/Qty

Position	Delivery Schedule	Quantity
Patch Panel	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 4/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 4/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 4/Qty	12/Qty

Position	Delivery Schedule	Quantity
Cable Manager	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 4/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 4/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 4/Qty	12/Qty

Position	Delivery Schedule	Quantity
Face Plates	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty	180/Qty

Position	Delivery Schedule	Quantity
I/O	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty	180/Qty

Position	Delivery Schedule	Quantity
Copper Patch Cord	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty	180/Qty

Position	Delivery Schedule	Quantity
Fiber Patch Cords	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 12/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 12/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 12/Qty	36/Qty

Position	Delivery Schedule	Quantity
SFP	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 12/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 12/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 12/Qty	36/Qty

Position	Delivery Schedule	Quantity
Network/Server Rack (APC or Equivalent) imported rack	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty	3/Qty

Position	Delivery Schedule	Quantity
PVC Pipe / Duct	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty	180/Qty

Position	Delivery Schedule	Quantity
Services for Networking	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty	180/Qty

Position	Delivery Schedule	Quantity
Power Points	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 60/Qty	180/Qty
Laptops	**Address:** 6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory **Schedule:** Within 180 days after signing of contract **Quantity:** 12/Qty	12/Qty
Heavy Duty Colour Printers	**Address:** 6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty	1/Qty

Position	Delivery Schedule	Quantity
Heavy Duty Printer	**Address:** 6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty	1/Qty
Photocopier	**Address:** 6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty	1/Qty
LED (75”)	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 2/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 2/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 2/Qty	6/Qty

Position	Delivery Schedule	Quantity
Indoor Access Point	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty **Address:** UET, G.T Road, Staff Houses Engineering University Lahore, Lahore **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty	3/Qty
Heavy Duty Scanner	**Address:** 6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory **Schedule:** Within 180 days after signing of contract **Quantity:** 1/Qty	1/Qty

Lot Title : Lot 1 – Software Procurement

Bid Security : 1000000 PKR

Position	Delivery Schedule	Quantity

Digital IC Design Flow	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 210 days after signing of contract **Quantity:** 50/license **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 210 days after signing of contract **Quantity:** 50/license	100/license
Analog & Mixed-Signal IC Design Flow	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 210 days after signing of contract **Quantity:** 50/license **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 210 days after signing of contract **Quantity:** 50/license	100/license

IC Design Verification Flow	**Address:** NED University, Service Rd, NED University Of Engineering & Technology, Karachi **Schedule:** Within 210 days after signing of contract **Quantity:** 50/license **Address:** NUST, Scholars Ave, H-12, Islamabad **Schedule:** Within 210 days after signing of contract **Quantity:** 50/license	100/license

Related Services :

Yes

Lot – 2 Hardware

Position	Related Services
High End Server for EDA tools	1. Installation & commissioning 2. Training of end-users or staff 3. Technical support (e.g. minimum 1 year) 4. Warranty and after-sales service 5. On-site testing 6. Software configuration or updates
High End server for Lab	1. Installation & commissioning 2. Training of end-users or staff 3. Technical support (e.g. minimum 1 year) 4. Warranty and after-sales service 5. On-site testing 6. Software configuration or updates
Engineering Workstations (Student Terminals)	1. Installation & commissioning 2. Training of end-users or staff 3. Technical support (e.g. minimum 1 year) 4. Warranty and after-sales service 5. On-site testing 6. Software configuration or updates
Laser Printer for Lab	1. Installation & commissioning
FPGA kits for Lab	1. Installation & commissioning 2. Training of end-users or staff 3. Technical support (e.g. minimum 1 year) 4. Warranty and after-sales service 5. On-site testing 6. Software configuration or updates
High End UPS for Lab	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing

Position	Related Services
Core Switch	1. Installation & commissioning 2. Training of end-users or staff 3. Technical support (e.g. minimum 1 year) 4. Warranty and after-sales service 5. On-site testing 6. Software configuration or updates
Access Switch	1. Installation & commissioning 2. Training of end-users or staff 3. Technical support (e.g. minimum 1 year) 4. Warranty and after-sales service 5. On-site testing 6. Software configuration or updates
Network Cable	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing
Patch Panel	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing
Cable Manager	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing
Face Plates	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing
I/O	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing
Copper Patch Cord	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing
Fiber Patch Cords	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing
SFP	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing

Position	Related Services
Network/Server Rack (APC or Equivalent) imported rack	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing
PVC Pipe / Duct	1. Installation & commissioning
Services for Networking	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing
Power Points	1. Installation & commissioning 2. On-site testing
Laptops	1. Installation & commissioning 2.Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing 5. Software configuration or updates
Heavy Duty Colour Printers	1. Installation & commissioning
Heavy Duty Printer	1. Installation & commissioning
Photocopier	1. Installation & commissioning
LED (75”)	1. Installation & commissioning
Indoor Access Point	1. Installation & commissioning 2. Technical support (e.g. minimum 1 year) 3. Warranty and after-sales service 4. On-site testing
Heavy Duty Scanner	1. Installation & commissioning

Lot 1 – Software Procurement

Position	Related Services

Digital IC Design Flow	1. Installation & commissioning 2. Training of end-users or staff 3. Technical support (e.g. minimum 1 year) 4. On-site testing 5. Software configuration or updates
Analog & Mixed-Signal IC Design Flow	1. Installation & commissioning 2. Training of end-users or staff 3. Technical support (e.g. minimum 1 year) 4. On-site testing 5. Software configuration or updates
IC Design Verification Flow	1. Installation & commissioning 2. Training of end-users or staff 3. Technical support (e.g. minimum 1 year) 4. On-site testing 5. Software configuration or updates

Services Specifications

Lot Title : Lot – 2 Hardware

Position: High End Server for EDA tools

Specifications / Requirements:

Processor: 2 × Intel Xeon Gold/Platinum CPUs or higher (minimum 32 physical cores, 64 threads or more) Memory (RAM): Minimum 512 GB DDR5 ECC RAM, scalable up to 1TB to support concurrent multi-user environments Storage Configuration: Primary Storage: 1TBx2 NVMe SSD for OS and toolchain Secondary Storage: 3.8TBx4, SAS/SATA HDD in RAID-10 configuration for EDA project data Networking: 2x25GbE dual-port NIC with VLAN tagging and Jumbo Frame support Operating System Compatibility: Red Hat Enterprise Linux 9 or higher (RHEL) Virtualization Support: Support for KVM, Docker, or containerized EDA workflows Redundant Power Supply (1+1): 1400W Monitor (LED): 27-inch IPS LED monitor Ready Rails: Sliding Rails with Cable Management Arm Warranty: THREE Years OEM warranty

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Position: High End server for Lab

Specifications / Requirements:

High End server for Lab Processor: Dual Intel Xeon Silver 4310 or AMD EPYC 7313, Minimum 24 physical cores (48 threads). Memory (RAM): 256GB DDR5 ECC RAM (expandable to 512 GB) Storage Configuration: 2 x 1TB SSD for OS, 4 x 3.8TB HDD (RAID 1 or 5), Software RAID acceptable Networking: 2x25GbE dual-port NIC with VLAN tagging and Jumbo Frame support Operating System: Redhat Linux Enterprise 9 or higher Chassis: 2U Rack-mountable preferred. Use Cases: Local hosting of applications, storage, backups, or training resources. Redundant Power Supply (1+1): 1100W Monitor (LED): 27-inch IPS LED monitor Ready Rails: Sliding Rails with Cable Management Arm. Warranty: THREE Years OEM warranty

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Position: Engineering Workstations (Student Terminals)

Specifications / Requirements:

Processor: Intel Core i9, 14th Generation or AMD Ryzen 9, minimum 24 Cores (8 Performance + 16 Efficient Cores), up to 5.8 GHz Turbo Boost Motherboard: Intel Z790 chipset or equivalent, ATX form factor, DDR5 support, PCIe 5.0 x16 slot, minimum 4 × DIMM slots, 2.5 GbE LAN, Wi-Fi 6E preferred Storage (SSD): 1TB PCIe Gen4 NVMe M.2 SSD, minimum 5,000 MB/s read speed (For Linux OS) - 512GB SSD (For MS Windows OS) Memory (RAM): 32 GB DDR5 (2 × 16 GB), minimum 5600 MT/s, expandable to at least 128 GB Monitor (LED): 27” FHD (1920x1080) display mount compatibility. Operating System: Windows 11 Pro 64-bit (licensed), Red Hat Enterprise Linux OS v9 with basic development packages (GCC, Python, Git) Connectivity: USB 3.2 Gen 2, USB-C, Gigabit/2.5 Gigabit Ethernet, Wi-Fi 6E and Bluetooth 5.3 (preferred) Keyboard & Mouse: USB wired or wireless keyboard and optical mouse Warranty: Minimum 1 year manufacturer warranty

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Position: Laser Printer for Lab

Specifications / Requirements:

Laser Printer for Lab Functions: Print First page out: As fast as 6.1 sec Resolution: Up to 1200 x 1200 dpi Monthly duty cycle: Up to 80,000 pages Monthly Page Volume: 750 to 4,000 Print Technology: Laser Display: LED 2-line backlit LCD graphic display Processor speed: 1200 MHz Automatic Paper Sensor: Yes Connectivity: USB, Ethernet, WIFI System Requirement: MacOS, Microsoft Windows 11, 10, 8.1, 8, 7 Memory: 256 MB Paper handling input: 100-sheet multipurpose Tray 1, 250-sheet input Tray 2 Paper handling output: 150 sheet output bin Media sizes support: Letter, legal, executive, Oficio (8.5 x 13 in), 4 x 6 in, 5 x 8 in, envelopes (No 10, Monarch) Print speed: Upto 40 ppm Warranty: 1 year

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Position: FPGA kits for Lab

Specifications / Requirements:

FPGA kits for Lab FPGA Device: High-end FPGA (A7-100T or equivalent) Logic Cells: Minimum 100,000 logic cells. Embedded Memory: Minimum 4.86 Mb Block RAM. DSP Slices: Minimum 240 DSP48E1 slices. User I/O: Minimum 150 programmable I/O pins. Clock Sources: 100 MHz on-board oscillator with provision for external clock input. Configuration Interface: JTAG, USB-JTAG, Quad-SPI (QSPI) Flash. On-board Memory: Minimum 512 MB DDR2 SDRAM or better and minimum 16 MB Quad-SPI Flash. Programming Interface: USB, JTAG, and USB-UART (Serial Debug). Supported I/O Voltage Levels: 1.2V, 1.8V, 2.5V, and 3.3V. Expansion Connectors: Minimum four (4) PMOD expansion connectors and Arduino™/ChipKIT compatible shield header or equivalent expansion interface. Power Supply: 5V DC external power adapter and/or USB-powered operation. USB Interface: Micro-USB 2.0 for JTAG/UART programming and communication. User Interface: Minimum 16 user LEDs, 16 slide switches, minimum 5 push-buttons (including reset), seven-segment display, and RGB LEDs. Communication Interfaces: UART, SPI, I2C, USB-UART; Ethernet and CAN interfaces may be supported through external PMOD or expansion modules. Supported

Standards: RoHS compliant, CE and FCC certified or equivalent. Development Software Support: AMD/Xilinx Vivado Design Suite, Xilinx SDK/Vitis, and Adept programming utilities. PCB Dimensions: Approximately 120 mm × 100 mm or equivalent. Operating Temperature: Commercial grade (0°C to +70°C).

Position: High End UPS for Lab

Specifications / Requirements:

Minimum Backup Duration: 15KV UPS to support up to 60 minutes full load backup for the entire lab (servers, switches, and workstations) Topology: Online or Line-Interactive UPS with Pure Sine Wave Output Features: SNMP/USB monitoring support, replaceable batteries, surge protection. A minimum 1-year warranty with on-site support, hardware replacement commitment, and response SLA of 48 hours.

Position: Core Switch

Specifications / Requirements:

Fixed 24*1/10G SFP+ optical interfaces, 8*40G QSFP28 optical interfaces, 2Tbps+ Switching Capacity Forwarding Rate: 1540Mpps+ Ram: 4Gb, Flash 8GB, VLAN Support Full Managed IP Routing, Static Route, BGP Support Centralized Management Platform, Dual Power Supply Support Warranty 3 Years warranty verifiable from Principal / OEM Bidder must provide Manufacturing authorization letter for this RFP

Position: Access Switch

Specifications / Requirements:

24*100M/1G/2.5G/5G/10G mGig interfaces 4*10G SFP+ interfaces Uplink Ports, 560 GBps Switching Capacity 416 Mpps Forwarding Performance VLAN Support Centralized Management Platform Warranty Standard 3-year warranty verifiable from Principal / OEM Bidder must provide Manufacturing authorization letter for this RFP

Position: Network Cable

Specifications / Requirements:

Network Cable Roll Cat 6A (Schneider/Molex or equivalent) Ca Supply & Installation of Cat-6A U/UTP Cable, 10G Supported * Conductor Diameter: AWG 23 (0.57±0.005mm) * Insulation Diameter: 1.03±0.03 mm * Number of Pairs: 4 pairs * Conductor Type: Solid Bare Copper Standards: • Cables Cabling System Standard Fire Rating • IEC 61156-5 ed. 2 • ISO/IEC11801 ed.2 • LSZH: IEC 60332-1 • ANSI/TIA 568-C.2

Position: Patch Panel

Specifications / Requirements:

Supply & Installation of 24 Port Patch Panel with U/UTP Cat-6A Tool less Shuttered I/Os, Fully Loaded, 1G Supported

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Position: Cable Manager

Specifications / Requirements:

Supply & Installation of Cable manager

Position: Face Plates

Specifications / Requirements:

Supply & Installation of Single/Dual Port Face Plate without Shuttered, UK Style 86x86mm with Top Label Holder, Color Signal White Mandatory Features: * Single Port Without Shuttered Face Plate with Label holder with white label strip and transparent hinged cover * Keystone Fixing * UK standard single gang faceplate with 86 x 86 mm dimensions * Color Signal White * Compatible with all keystone jacks

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Position: I/O

Specifications / Requirements:

Supply & Installation of U/UTP Cat-6A Tool less Shuttered I/O, White, 10G Supported Mandatory Features: * Tool less Assembly * U/UTP I/O, White * Shuttered I/O * Keystone Fixing * Color White Standards: •SO/IEC 11801 Ed.2.2 •DIN EN 50173-1 •TIA EIA-568-C.2 •IEC 60603-7-51

Position: Copper Patch Cord

Specifications / Requirements:

UTP Cat-6A Patch Cord, RJ45 to RJ45, 1-Meter, PVC,

Position: Fiber Patch Cords

Specifications / Requirements:

Fiber Patch Cord SC/LC or LC/LC 3-Meter 10G Supported Bidder must provide MAL for this RFP.

Position: SFP

Specifications / Requirements:

10GBASE-SR, SFP+ optic (LC), Long range over Single mode (OEM) must be same brand as switch original SFP

Position: Network/Server Rack (APC or Equivalent) imported rack

Specifications / Requirements:

22U Data Rack Metal Body Black Color Double Section 600mm x 800mm with Fans

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Position: PVC Pipe / Duct

Specifications / Requirements:

PVC Pipe / Duct with Fixing Material Socket, Bend, Clip Adamjee or equivalent per point

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Position: Services for Networking

Specifications / Requirements:

Laying of Data Cat-6A Cable, Wall chiseling, Fiber Cable Laying, PVC Duct and PVC Pipe Fixing and Complete Installation of All Above Material. Termination / Tagging / Hanging of Material at Face Plate End and Patch Panel End Data and Wi-Fi Points and Fluke Testing of all nodes. Configuration and commissioning of secure Site-to-Site IPsec VPN connectivity between the three (03) Lab Servers and the Main/High Server.

Position: Power Points

Specifications / Requirements:

Electric Power Cabling plus (Pakistan Cable/Fast Cable (Ducting) per point Rate (including cable 3/29, and Duct) Face Plate with back Box Schneider supply and installation charge per point

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Position: Laptops

Specifications / Requirements:

Laptops Model: Business/Professional series or equivalent Generation: Ultra 7 or higher Processor Type: Intel Core Ultra 7 2GHz or higher Installed RAM: 32GB DDR5 or higher Hard drive size: 1 TB SSD NVMe or higher Display: IPS/UHD or higher Screen Size: 14 inches Graphics Card: Intel Integrated or equivalent Keyboard: Backlit. Ports/Slots: USB-C Thunderbolt, 2 x USB, HDMI, Headphone / mic combo Operating System: MS Windows 11 Pro (Licensed) Carry Case: Yes Warranty: 3 Years

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Position: Heavy Duty Colour Printers

Specifications / Requirements:

Functions: Print First page out black: 5.7 sec First page out color: 5.7 sec Resolution black: Up to 1200 x 1200 dpi Resolution color: Up to 1200 x 1200 dpi Monthly duty cycle: Upto 120,000 pages Print Technology: Laser Display: LED Processor speed: 1.2 GHz Automatic Paper Sensor: Yes Connectivity: USB, Ethernet, WiFi System Requirement: MacOS, Microsoft Windows 11, 10, 8.1, 8, 7 - Linux Memory: 1 GB Paper handling input: 100-sheet multi-purpose tray, 550-sheet input tray 2, 3 Paper handling output: 500-sheet output bin Media sizes support: letter, legal, A4, A5, A6, envelopes (C5, DL) Print speed black: Upto 60 ppm Print speed color: Upto 60 ppm Warranty: 1 year

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Position: Heavy Duty Printer

Specifications / Requirements:

Heavy Duty Printer Functions: Print First page out: As fast as 6.1 sec Resolution: Up to 1200 x 1200 dpi Monthly duty cycle: Up to 80,000 pages Monthly Page Volume: 750 to 4,000 Print Technology: Laser Display: LED 2-line backlit LCD graphic display Processor speed: 1200 MHz Automatic Paper Sensor: Yes Connectivity: USB, Ethernet, WIFI System Requirement: MacOS, Microsoft Windows 11, 10, 8.1, 8, 7 Memory: 256 MB Paper handling input: 100-sheet multipurpose Tray 1, 250-sheet input Tray 2 Paper handling output: 150 sheet output bin Media sizes support: Letter, legal, executive, Oficio (8.5 x 13 in), 4 x 6 in, 5 x 8 in, envelopes (No 10, Monarch) Print speed: Upto 40 ppm Warranty: 1 year

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Position: Photocopier

Specifications / Requirements:

Photocopier Functions: Print, Copy, Scan Print Speed: 45 ppm Technology: Laser Technology Print Color: Black mono Print Resolution: Print: 1200 x 1200, Copy: 600 x 600 Paper size: A3, A4, Letter, Legal Duplex Printing: Automatic Duplex Printing DSDF: Dual Scan Document Feeder with 290 Sheets Capacity minimum. (RADF Not Acceptable) Interface Connection: NETWORK Standard: 1000 Base-T/100Base- TX/10Base-T, WIFI KIT MUST Monthly Duty Cycle: 200,000 pages or higher Processor speed: 1.5 GHz Quad Core Memory: 5 GB RAM System Storage: 256 GB SSD Display: Min 10” LCD full functional touch screen display Paper handling Input: Standard: 500 x 2 Trays, By pass: 150 Sheets Multiple Copies: Up to 9,999 copies

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Position: LED (75”)

Specifications / Requirements:

Brand: TCL or Equivalent Type: Smart QLED TV Screen Size: 75 Inches Resolution: 4K Ultra HD (3840 x 2160) Panel Type: QLED (Quantum Dot) Refresh Rate: 144Hz Motion Clarity Pro Smart TV Platform: Google TV Processor: AiPQ Pro Processor Audio System: ONKYO 2.1 Hi-Fi with Dolby Atmos or Equivalent Connectivity: Wi-Fi, HDMI x4, USB ports, Ethernet LAN Energy Efficiency: Optimized for low power consumption

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Position: Indoor Access Point

Specifications / Requirements:

Wi-Fi 7 10 Gbps+ High-Density Indoor AP, Intelligent 5 GHz & 6 GHz Band Switching BeamFlex+ adaptive antennas with polarization diversity One 100M/1/2.5/5GbE (PoE) port and one 10M/ 100M/1GbE port Wireless protocol: 802.11a/b/g/n/ac/ax/be Radio design: 2x2 SU-MIMO* in tri-band mode. 4x4(5GHz) in dual-band, up to 4000 antenna pattren. Warranty Standard 3-year warranty verifiable from Principal / OEM Bidder must provide Manufacturing authorization letter for this RFP

Position: Heavy Duty Scanner

Specifications / Requirements:

Heavy Duty Scanner Type: Flatbed, ADF Resolution, optical: Hardware: 600 x 600 dpi; Optical: Up to 600 dpi Scan Speed: ADF: Up to 40 ppm / 80 ipm Duplex ADF scanning: Yes ADF capacity: Standard, 50 sheets Scan size (flatbed), maximum: ADF: 8.5 x 122 in Maximum; 2x2 in Minimum Media types: Paper (banner, inkjet, photo, plain), envelopes, labels, cards (greeting, index) Output resolution dpi settings: 75; 150; 200; 240; 300; 400; 500; 600; 1200 ppi Memory: Standard: 512 MB Processor speed: ARM-1176 666 MHz Duty cycle (daily): Recommended daily duty cycle: 4000 pages OS Compatibility: Windows 11, 10, 8/8.1, 7, Mac OS X v10.9 (Mavericks), OS X v10.10 (Yosemite) Connectivity, standard: Ethernet 10/100 Base-T, USB 3.0, WiFi 802.11 b/g/n, WiFi Direct Warranty: 1 Year Local

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Lot Title : Lot 1 – Software Procurement

Position: Digital IC Design Flow

Specifications / Requirements:

RTL Simulation Synthesis Design for Testability (DFT) & Automatic Test Pattern Generation (ATPG) Logic Equivalence Check Physical Design Timing Analysis Power Analysis RC Extraction and Signoff Signoff Design Rule Check and LVS Layout vs. Schematic (DRC/LVS) Vendor/ Manuf. Cadence, Synopsys, Siemens or equivalent

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Position: Analog & Mixed-Signal IC Design Flow

Specifications / Requirements:

IC Design & Physical Layout Tools DRC/LVS & Physical Verification Tools Parasitics Extraction Pre & Post Layout Simulation/ Verification Vendor/ Manuf. Cadence, Siemens, Synopsys, Altium, Or CAD CircuitMaker or equivalent

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Position: IC Design Verification Flow

Specifications / Requirements:

Linting & Formal Verification Tools UVM-based Verification Regression Analysis Vendor/ Manuf. Cadence, Synopsys, Siemens or equivalent

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Scope of Work

Introduction to PSEB

Pakistan Software Export Board (PSEB) is an entity under the Ministry of IT & Telecom mandated to act as One Stop Shop on behalf of Government of Pakistan and ensuring of sustainable growth, development of the industry and enhancing of IT & ITeS exports. One of the objectives of PSEB is availability of skilled resource equipped with latest technologies for the IT Industry. In order to help increase the employability and to fill the supply gap for industry-ready skilled resource, PSEB under the guidance of Ministry of IT and consultation with IT Industry is initiating a series of HR development program, one of the said programs is equipping of the IT professionals and ICT & Non-ICT graduates with latest technologies by the ICT Industry Professionals which will help in enhancing the number and quality of HR workforce available to Pakistan IT & ITeS industry

Introduction to the Project

The National Semiconductor Human Resource Development Program (NSHRDP) – Phase-I, under the guidance of the Government of Pakistan, invites proposals from qualified and experienced vendors for the supply, installation, configuration, and technical support of a comprehensive suite of hardware and software infrastructure. The purpose of this procurement is to establish advanced semiconductor training labs across the selected academic and research institutions to equip undergraduate, graduate, and professional learners with practical skills in integrated circuit (IC) and system-on-chip (SoC) design workflows.

This procurement directly supports **Component I** and **Component II** of the NSHRDP framework, namely:

- **Component I: Semiconductor Education and Research Clusters (SERCs)**: Focused on formal academic training, this component aims to strengthen undergraduate (BS/BE) and postgraduate (MS/PhD) programs in electronics, electrical engineering, and computer engineering disciplines, through access to state-of-the-art Electronic Design Automation (EDA) tools and compute infrastructure.

- **Component II: Upskilling Training Programs (USTPs):** Targeting professionals and industry practitioners, this component seeks to deliver fast-track, modular training in digital and analog chip design, verification, layout, and embedded systems, aligned with real-world industrial demands.
- **Component III: Centralized Electronic Design Automation (EDA) Tools:** This component plays a critical enabling role by providing shared access to industry-standard EDA software, silicon IP repositories, and remote design environments through a centralized on-prem server based infrastructure. This component ensures that both SERCs and USTPs have the necessary digital tools and support to deliver high-quality semiconductor education and training.

Objectives of Procurement

The scope of this procurement includes—but is not limited to—hardware such as high- performance computer servers, engineering workstations, laptops, network switches, and supporting infrastructure (UPS, cabling, etc.), as well as licensed software for front-end, back-end, and analog/mixed-signal semiconductor design.

By equipping universities with globally benchmarked design tools and lab facilities, NSHRDP aims to:

- Build a foundation for advanced VLSI education and research
- Increase the employability and international mobility of Pakistani engineers
- Enable partnerships with global chip design companies and MPW (multi-project wafer) programs
- Position Pakistan as a competitive contributor in the fabless semiconductor ecosystem
- Facilitate the annual Multi-Project Wafer (MPW) challenge to enable tape-out opportunities for students and faculty-designed ICs
- Provide access to a centralized repository of reusable silicon IPs to accelerate design workflows and promote IP reuse across institutions.

Through this RFP, NSHRDP seeks committed vendors with proven experience, OEM-authorized partnerships (for servers and EDA Tools, and network switches), authorized distributor (laptops, workstations) and the technical capacity to deliver turnkey EDA lab solutions.

In order to ensure greater clarity, specialization, and competitive participation, the scope of work in this RFP is divided into two distinct lots:

- Lot 1 – Software Procurement

- Lot 2 – Hardware Procurement.

Vendors may submit proposals for either or both lots, depending on their area of expertise and capability. This division enables targeted evaluation of proposals based on the specific technical and operational requirements of each lot, and encourages the participation of qualified vendors who specialize in software solutions, hardware infrastructure, or both. Each lot will be assessed independently, and contracts may be awarded separately or jointly, based on evaluation criteria, compliance, and value proposition. The participating bidder shall quote for the complete Lot, otherwise the bid will be rejected.

1. Lot-1: Procurement of Software Tools (TURNKEY Solution which is fully functional and ready for immediate use)

- **Software Requirements – Electronic Design Automation (EDA) Toolchain**

The Procuring Entity intends to invite proposals from qualified and experienced vendors for the provisioning, deployment, and operation of Electronic Design Automation (EDA) semiconductor tools, integrated with locally hosted on-prem server infrastructure, for the purpose of conducting semiconductor design and fabrication-related trainings.

The proposed solution shall be a complete TURNKEY solution, wherein the successful bidder shall be fully responsible for end-to-end delivery, including design, supply, installation, configuration, licensing, commissioning, training enablement, support, and ongoing operations for the duration of the contract.

The selected vendor shall provide, deploy, and support a comprehensive suite of Electronic Design Automation (EDA) software to enable the training of undergraduate and graduate- level students in semiconductor and integrated circuit (IC) design. The solution must encompass the full design flow from register-transfer level (RTL) specification to gate- level synthesis, physical implementation, verification, and system-on-chip (SoC) prototyping. The software licenses must be valid for academic, research and non- commercial continuing education use and support concurrent users in lab and training environments and cluster settings till 2030.

Software Tools

The following baseline bundles are final for this procurement. Bidders may offer functional equivalents only where explicitly labeled ‘or Equivalent’ in the compliance sheet, with documentation proving full flow-compatibility and PDK/technology-node support.

List of Items required:

Sr.#	Item
	Digital IC Design Flow
	Analog & Mixed-Signal IC Design Flow
	IC Design Verification Flow

<u>Note: Detail specifications are mentioned at Bill of Quantity (BOQ) Lot – 1 Software section</u>

<u>Centralized Licensing and Local on-prem Server Model</u>

All software tools must include support for:

- **Floating/Network Licenses:** License models should allow concurrent access by lab users across institutional domains.
- **License Server Integration:** Tools should support license server configuration (e.g., FlexNet), with administrator tools for monitoring and allocation.
- **Usage Tracking & Compliance:** Built-in analytics for license usage, user access reports, and compliance monitoring.
- **Local On-prem Sever Model:** The EDA tools will be hosted through a local on-prem server model where universities/ institutes are partners in the program will get specific number of accounts for usage through remote mechanism.

<u>Licensing Expectations</u>

- Licenses: The bidder shall provide 100 academic licenses for use across Components I & II Semiconductor Education & Research Clusters (SERCs), covering academic, research, and continuing-education activities, for a period of three (03) years.
- Model: The bidder shall clearly specify the license validity, scope of use, user/concurrency limits (if applicable), renewal terms, and pricing structure for the SERC licenses.

- Solution Options and Implementation Scope
- Standardized Solution Model (Pre-Decided)
- NSHRDP shall adopt a standardized deployment model for EDA access and licensing, finalized with the Technical Advisory Committee (TAC) prior to bid issuance.
- Bidders shall not propose alternative models which do not meet specifications; bids must conform to the standardized model summarized below:
- Model: On-prem license-server hosted at designated institutions, providing remote authenticated access for partners (Component I & II).
- Licensing: Floating/network licenses integrated with a centralized license server (e.g., FlexNet), with usage tracking and compliance analytics.
- Access: Account-based remote use via the local on-prem server model; role-based controls for students, faculty and trainees.
- (Detailed configuration and baseline tool bundles are provided in the compliance sheets/BOQ; bidders must quote strictly to these without alternate ‘solution options’.)

Lot-2: Hardware Infrastructure Requirements

The selected vendor shall supply, install, and configure a high-availability, performance-optimized hardware infrastructure to support the delivery of semiconductor education, research and continuing education. This infrastructure will be the technological foundation for hosting Electronic Design Automation (EDA) tools, simulating complex IC designs, and enabling hands-on learning in a multi-user academic setting.

The hardware must be purpose-built for compute-intensive EDA workloads, digital simulation, analog circuit verification, and SoC integration—aligned with the demands of modern chip design labs and high-throughput verification environments. The proposed solution must include all servers, workstations, network devices, storage systems, and power backup infrastructure required to operationalize training under the National Semiconductor Human Resource Development Program (NSHRDP) at university and institutional clusters.

4.2.1 List of Hardware Items required with Quantity

Sr. #	Items	Quantity
	High-Performance Computer (HPC) Servers	**01**
	High End Server for Lab	**03**
	Engineering Workstations (Student Terminals)	**105**
	Networking Infrastructure	**03**

	Power Backup (Uninterruptible Power Supply)	**03**
	FPGA kits for Lab	**60**
	Laser Printer for Lab	**03**
	Laptops	**12**
	Heavy Duty Color Printers	**01**
	Heavy Duty Printer	**01**
	Heavy Duty Scanner	**01**
	Photocopier	**01**
	LED (75”)	**06**
	Wifi Routers	**03**

<u>Note: Detail specifications are mentioned at Bill of Quantity (BOQ) Lot – 2 Hardware section</u>

1. Expected Outcomes

This hardware infrastructure will enable:

- Efficient operation of multiple EDA workflows in parallel.
- Real-time collaboration and design validation among students and instructors.
- Scalability for future expansion into chip tape-out, multi-node simulation, or EDA tools integration.

Technical Support and Services

As part of the end-to-end implementation of the Semiconductor Design Training Infrastructure, the selected vendor is required to deliver comprehensive technical support and professional services to ensure successful deployment, operational readiness, and knowledge transfer to institutional staff. These services are critical for enabling sustainable, long-term utilization of the Electronic Design Automation (EDA) toolchain and associated hardware systems across educational and research clusters.

The vendor will be responsible for installation, configuration, environment provisioning, instructor enablement, and technical support, both onsite and remote, in line with the project's capacity-building objectives.

- Installation and Configuration Services

The vendor must provide complete deployment of the hardware and software ecosystem, which includes:

End-to-End Software Installation: All procured EDA software suites (front-end, back-end, analog/mixed-signal, verification, SoC-level) must be installed and validated on:

- Computer servers
- Student workstations
- Centralized license servers

Environment Configuration: Customization and configuration of:

- Simulation and synthesis environments
- EDA libraries, design kits (PDKs), and technology nodes
- Lab environment templates for multi-user scheduling and access control
- Project directory structures, user quotas, and toolchain integration (e.g., PATH, TCL scripts, environment variables)

OS-Level Optimization: Includes Linux configuration for high-performance computing:

- Kernel tuning (e.g., shared memory parameters)
- Cron job automation for backups and logs

- Secure SSH access for instructors and admins

- License Server Deployment

The vendor must install, configure, and validate a centralized license management system, including:

License Server Deployment:

- Environment variable setup for client-side license paths

- Integration with all end-user nodes and computer systems

- Installation and activation of floating/network license servers

- Usage Monitoring & Administration Tools:

- Submit Monthly reports related to monitoring usage and compliance

- Scripts for automated license usage reports and alerts for administrators

- Redundancy Configuration (Optional): High-availability license server clustering or backup configuration

Price Schedule

For Individual Positions

#	Position Title	Quantity	Unit Price (PKR)	Total Price (PKR)	Delivery Location	Delivery Period / Year	Country of Origin
1							
2							

For Lots

#	Lot Title	Total Lot Price (PKR)	Country of Origin
1	[Lot 1 Title]		

General Conditions of Contract

A. General

1. **Definitions**

1.1. Unless the context otherwise requires, the following terms whenever used in this Contract shall have the same meaning and shall be interpreted as indicated

1.1.1. “Applicable Law” means the laws and any other instruments having the force of law in the Government’s Country, or in such other country as may be specified in the Special Conditions of the Contract (SC), as they may be issued and in force from time to time;

1.1.2. “The Contract” means an agreement enforceable by law;

1.1.3. “The Contract Price” means the price payable to the Contractor under the Contract for the full and proper performance of its contractual obligations;

1.1.4. “The Services” means the work to be performed by the Contractor pursuant to this Contract and as prescribed in the Specifications and Schedule of Activities included in the Contractor’s Bid;

1.1.5. “Ancillary Services” means those services ancillary to the provision of Services, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Contractor covered under the Contract;

1.1.6. “GCC” means the General Conditions of Contract contained in this section;

1.1.7. “SCC” means the Special Conditions of Contract by which the GCC may be amended or supplemented;

1.1.8. **“**Day” means calendar day unless indicated otherwise;

1.1.9. “Effective Date” means the date on which this Contract comes into force and effect;

1.1.10. “The Contractor” means the individual or corporate body whose Bids to provide the Services has been accepted by the Procuring Agency;

1.1.11. “The Project Site,” where applicable, means the place or places named in Bid Data Sheet and technical Specifications;

1.1.12. “Government” means the Government of Pakistan;

1.1.13. “Local Currency” means the currency of Pakistan;

1.1.14. “In Writing” means communicated in written form with proof of receipt;

1.1.15. “Completion Date” means the date of completion of the Services by the Contractor as certified by the Procuring Agency;

1.1.16. “Foreign Currency” means any currency other than the currency of the country of the Procuring Agency;

1.1.17. “Party” means the Procuring Agency or the Contractor, as the case may be, and “Parties” means both of them;

1.1.18. "Service" means any object of procurement other than goods or works;

1.1.19. “Subcontractor” means any entity to which the Bidder subcontracts any part of the Services.

2. **Applicable Law**

2.1. The contract shall be governed and interpreted in accordance with the laws of Pakistan, unless otherwise specified in SCC.

3. **Language**

3.1. The Contract as well as all correspondence and documents relating to the Contract exchanged between the Contractorand the Procuring Agency, shall be written in the **English language** unless otherwise stated in the **SCC** . Supporting documents and printed literature that are part of the Contract may be in another language provided these are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Contract, this translation shall govern.

4. **Notices**

4.1. Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram, or facsimile to such Party at the address specified in the **SCC**.

5. **Location**

5.1. The Services shall be performed at such locations as the Procuring Agency may approve and as specified in **SCC.**

6. **Authorized Representatives / Authority of Member in charge**

6.1. Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Procuring Agency or the Contractor may be taken or executed by the officials specified in the **SCC**.

B. Commencement, Completion, Modification, and Termination of Contract

7. **Effectiveness of Contract**

7.1. This Contract shall come into effect on the date the Contract is signed by both parties and such other later date as may be stated in the **SCC.**

8. **Commencement of Services**

8.1. The Contractor shall confirm availability of Key Experts and begin carrying out the Services not later than the number of days after the Effective Date specified in the **SCC.**

9. **Program schedule**

9.1. Before commencement of the Services, the Contractor shall submit to the Procuring Agency for approval a Program showing the general methods, arrangements, order and timing for all activities. The Services shall be carried out in accordance with the approved Program as updated.

10. **Starting Date/Expiration Date**

10.1. The Contractor shall start carrying out the Services Five (05) days after the date the Contract becomes effective, or at such other date as may be specified in the **SCC.**

10.2. Unless terminated earlier pursuant to Clause **GCC 14** hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the **SCC.**

11. **Entire Agreement**

11.1. This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.

12. **Modification**

12.1. Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any modification(s) or variation(s) made by the other Party.

12.2. In cases of any modification(s) or variation(s), the prior written consent of the Procuring Agency is required.

13. **Force Majeure**

13.1. **Definition**
For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Contractor and which makes a Contractor’s performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

13.2. **No Breach of Contract**
The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract in so far as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

13.3. **Extension of Time**
Any period within which a Contractor shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

13.4. **Payments**
During the period of their inability to perform the Services as a result of an event of Force Majeure, the Contractor shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

14. **Termination**

14.1. **By the Procuring Agency**
The Procuring Agency may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (e) of this Clause. In such an occurrence the Procuring Agency shall give at least thirty (30) calendar days' written notice of termination to the Contractor in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written notice in case of the event referred to in (e);

14.1.1. If the Contractor fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension;

14.1.2. If the Contractor becomes (or, if the Contractor consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;

14.1.3. If the Contractor fails to comply with any final decision reached as a result of arbitration proceedings;

14.1.4. If, as the result of Force Majeure, the Contractor is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;

14.1.5. If the Procuring Agency, in its sole discretion and for any reason whatsoever, decides to terminate this Contract;

14.2. **By the Contractor**
The Contractor may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Procuring Agency, in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause.

14.2.1. If the Procuring Agency fails to pay any money due to the Contractor pursuant to this Contract and not subject to dispute within forty-five (45) calendar days after receiving written notice from the Contractor that such payment is overdue;

14.2.2. If, as the result of Force Majeure, the Contractor is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;

14.2.3. If the Procuring Agency fails to comply with any final decision reached as a result of arbitration;

14.2.4. If the Procuring Agency is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Bidder may have subsequently approved in writing) following the receipt by the Procuring Agency of the Contractor’s notice specifying such breach.

C. Obligations of the Contractor

15. **General**

15.1. **Standard of Performance**

15.1.1. The Contractor shall perform the Services and carry out the Services with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Contractor shall always act, in respect of any matter relating to this Contract or to the Services, as a faithful adviser to the Procuring Agency, and shall at all times support and safeguard the Procuring Agency’s legitimate interests in any dealings with the third parties;

15.1.2. The Contractor shall employ and provide such qualified and experienced Experts and Sub-Contractors as are required to carry out the Services.

15.2. **Law Applicable to Services**
The Contractor shall perform the Services in accordance with the Contract and in accordance with the Law of Pakistan and shall take all practicable steps to ensure that any of its Experts and Sub-Bidders, comply with the Applicable Law.

16. **Conflict of Interests**

16.1. **Contractor Not to Benefit from Commissions and Discounts**
The remuneration of the Contractor shall constitute the Contractor’s sole remuneration in connection with this Contract or the Services, and the Contractor shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Contractor shall use their best efforts to ensure that the Personnel, any Subcontractors, and agents of either of them similarly shall not receive any such additional remuneration.

16.2. **Contractor and Affiliates Not to be Otherwise Interested in Project**
The Contractor agree that, during the term of this Contract and after its termination, the Contractor and its affiliates, as well as any Subcontractor and any of its affiliates, shall be disqualified from providing Services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.

16.3. **Prohibition of Conflicting Activities**
Neither the Bidder nor its Subcontractors nor the Personnel shall engage, either directly or indirectly, in any of the following activities:

16.3.1. during the term of this Contract, any business or professional activities in the Government's country which would conflict with the activities assigned to them under this Contract;

16.3.2. during the term of this Contract, neither the Contractor nor their Subcontractors shall hire public employees in active duty or on any type of leave, to perform any activity under this Contract;

16.3.3. after the termination of this Contract, such other activities as may be specified in the **SCC.**

17. **Insurance to be Taken Out by the Contractor**

17.1. The Contractor(a) shall take out and maintain, and shall cause any Subcontractors to take out and maintain, at its (or the Sub-contractors', as the case may be) own cost but on terms and conditions approved by the Procuring Agency, insurance against the risks, and for the coverage, as shall be specified in the **SCC**; and (b) at the Procuring Agency's request, shall provide evidence to the Procuring Agency showing that such insurance has been taken out and maintained and that the current premiums have been paid.

18. **Contractor's Actions Requiring Procuring Agency's Prior Approval**

18.1. The Contractor shall obtain the Procuring Agency's prior approval in writing before taking any of the following actions:

18.1.1. appointing such members of the Personnel not provided by the Contractor;

18.1.2. changing the Program of activities; and

18.1.3. any other action that may be specified in the **SCC.**

19. **Reporting Obligations**

19.1. The Contractor shall submit to the Procuring Agency the reports and documents in the numbers, and within the periods as prescribed by the Procuring Agency.

20. **Liquidated Damages**

20.1. **Payments of Liquidated Damages**
The Contractor shall pay liquidated damages to the Procuring Agency at the rate per day stated in the **SCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the **SCC**. The Procuring Agency may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

20.2. **Correction for Over-payment**
If the Intended Completion Date is extended after liquidated damages have been paid, the Procuring Agency shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in **SCC.**

20.3. **Lack of performance penalty**

If the Contractor has not corrected a Defect within the time specified in the Procuring Agency's notice, a penalty for Lack of performance will be paid by the Contractor. The amount to be paid will be calculated as a percentage of the cost of having the Defect corrected, assessed as specified in the Contractor

21. **Performance Guarantee**

21.1. Within the time stipulated in the acceptance letter from the Procuring Agency, the successful Bidder shall furnish the Performance Guarantee in shape and amount **specified in SCC.**

21.2. The proceeds of the Performance Guarantee shall be payable to the Procuring agency as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

21.3. The Performance Guarantee shall be denominated in the currency of the Contract, or in a freely convertible currency acceptable to the Procuring agency and shall be in the acceptable form as specified in **SCC**.

21.4. The Performance Guarantee will be discharged by the Procuring agency and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless otherwise **specified in SCC.**

22. **Sustainable Procurement**

22.1. The Contractor shall conform to the sustainable procurement contractual provisions, if and as specified in the **SCC.**

D. Contractor's Personnel

23. **Description of Personnel**

23.1. The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Contractor's Key Personnel. The Key Personnel listed by title as well as by name are hereby approved by the Procuring Agency.

24. **Removal and / or Replacement of Personnel**

24.1. Except as the Procuring Agency may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Contractor, it becomes necessary to replace any of the Key Personnel, the Contractor shall provide as a replacement a person of equivalent or better qualifications.

24.2. If the Procuring Agency finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Contractor shall, at the Procuring Agency's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Procuring Agency.

24.3. The Contractor shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

E. Obligations of the Procuring Agency

25. **Change in the Applicable Law**

25.1. If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the Services rendered by the Contractor, then the remuneration and reimbursable expenses otherwise payable to the Contractor under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred in the **SCC.**

26. **Services and Facilities**

26.1. The Procuring Agency shall make available to the Contractor and the Experts, for the purposes of the Services and free of any charge, the services, facilities and property described in the Terms of Reference, at the times and in the manner specified in the Terms of Reference.

26.2. In case that such services, facilities and property shall not be made available to the Contractor, the Parties shall agree on (i) any time extension that it may be appropriate to grant to the Contractor for the performance of the Services, (ii) the manner in which the Contractor shall procure any such services, facilities and property from other sources, and (iii) the additional payments, if any, to be made to the Contractor as a result thereof.

F. Payments to the Contractor

27. **Contract Price**

27.1. The price payable shall be in Pakistani Rupees unless otherwise specified in the **SCC**.

28. **Terms and Conditions of Payment**

28.1. Payments will be made to the Contractor according to the payment schedule stated in the **SCC** and as per actual invoice submitted by the Contractor.

28.2. Unless otherwise stated in the **SCC**, the advance payment shall be made against the provision by the Contractor of a bank guarantee for the same amount, and shall be valid for the period stated in the **SCC.** Any other payment shall be made after the conditions listed in the **SCC** for such payment have been met, and the Contractor have submitted an invoice to the Procuring Agency specifying the amount due.

29. **Quality Control Identifying Defects**

29.1. The principle and modalities of Inspection of the Services by the Procuring Agency shall be as indicated in the **SCC.** The Procuring Agency shall check the Contractor's performance and notify him of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Procuring Agency may instruct the Contractor to search for a Defect and to uncover and test any service that the Procuring Agency considers may have a Defect. Defect Liability Period is as defined in the **SCC**.

30. **Correction of Defects, and Lack of Performance Penalty**

30.1. The Procuring Agency shall give notice to the contractor of any Defects before the end of the Contract. The Defects liability period shall be extended for as long as Defects remain to be corrected.

30.2. Every time notice a Defect is given; the contractor shall correct the notified Defect within the length of time specified by the Procuring Agency's notice.

30.3. If the contractor has not corrected a Defect within the time specified in the Procuring Agency's notice, the Procuring Agency will assess the cost of having the Defect corrected, the contractor will pay this amount, and a Penalty for Lack of Performance.

31. **Settlement of Disputes Amicable Settlement**

31.1. The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

32. **Dispute Settlement**

32.1. **Arbitration**

If any dispute of any kind whatsoever shall arise between the procuring agency and the contractor in connection with or arising out of the Contract, including without prejudice to the generality of the foregoing, any question regarding its existence, validity or termination, or the execution of the contract, the parties shall seek to resolve any such dispute or difference by mutual consultation. If the parties fail to resolve such a dispute or difference even after negotiations or mediation, then the dispute shall be referred within fourteen (14) days in writing by either party to the Arbitrator, with a copy to the other party.

Any dispute in respect of which a notice of intention to commence arbitration has been given, in accordance with **GCC sub-clause 32.1**, shall be finally settled by arbitration. Arbitration may be commenced prior to or after completion of the Contract. Arbitration proceedings shall be conducted in accordance with Arbitration Act 1940. Notwithstanding any reference to arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless otherwise agreed. The Procuring Agency shall continue to pay the Contractor any undisputed amounts due under the Contract during the resolution of any dispute.

Special Conditions of Contract

SECTION VIII. SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

Number of GC Clause

Amendments of, and Supplements to, Clauses in the General Conditions of Contract

Definitions

The Procuring Agency is: Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB)), Assistant Manager Procurement 6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory

The Supplier is:

The title of the subject procurement is:Request for Proposal Procurement of Software and Hardware for the Project "National Semiconductor Human Resource Development Program (NSHRDP) Phase-I"

Number of GC Clause 2

Applicable/Governing Law:

The Contract shall be interpreted in accordance with the laws of Islamic Republic of Pakistan

Number of GC Clause 3

Language:

The language of the Contract, all correspondence and communications to be given, and all other documentation to be prepared and supplied under the Contract shall be in **English.**

Number of GC Clause 4

Notices:

The addresses for the notices are:

Procuring Agency:

Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB)), Assistant Manager Procurement
6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory
+92-331-598-2833
aurehman@pseb.org.pk

Contractor/ Bidder:

[Name, address and telephone number].

The Contractor/ Bidder's Representative(s)

[Name, address, telephone number and e-mail address]

Number of GC Clause 6.1

The Authorized Representatives are:

For the Procuring Agency:

Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB)), Assistant Manager Procurement
6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory
+92-331-598-2833
aurehman@pseb.org.pk

For the Bidder:

Name: ………………………

Designation: ……………..

Address: ……………………………..

Number of GC Clause 7

Effectiveness of the contract

The Contractor/Bidder shall be effective within ….. days from the date of signature of the Contract by both parties

Number of GC Clause 8

Commencement of Contract:

The Contractor/ Bidder shall provide Non-Consultancy Services from the effective date of contract.

Number of GC Clause 10.2

Expiration of Contract:

The time period shall be ………………….

Number of GC Clause 14

Termination

In the event of termination of the contract due to any reason as already defined in the General Conditions of Contract, the Bidder shall be responsible for providing to the Authority the Services till the time of alternate arrangements.

Number of GC Clause 16

Conflict of Interest:

The Procuring Agency reserves the right to determine on a case-by-case basis whether the Bidder should be disqualified from providing services due to a conflict of a nature described in Clause GCC C2**.**

Number of GC Clause 20

Liquidated Damages

If the Bidder fails to provide services as required under the contract or in case of any data loss/data breach or any incident compromising the data security or other such failures related to any services, the Bidder shall pay to the Procuring Agency as Liquidated Damages at a rate of **0.03%** to **2.00%** of the Contract value, in accordance with the extent of performance failure & the cost of investigating such incidents as judged by the Authority.

Number of GC Clause 21

Performance Guarantee:

The amount of performance guarantee shall be 5.00% of the contract price in acceptable form of Bank Guarantee

Number of GC Clause 27

Currency of Payment:

All the payment to be released to the contractor/Bidder shall be in Pakistani Rupees.

Number of GC Clause F

Payment terms:

Payment will be made to the Bidder against the procured Goods and services according to the actual invoice or running bills submitted by the Bidder against the services provided within the time given in the conditions of the contract.

Number of GC Clause F

Identifying Defects:

The Authority reserves the right at any time to inspect the premises of the provider to inspect the goods and monitor the goods being provided.

Inspections & Tests Requirements

For being Brand New, bearing relevant reference numbers of the equipment

For Physical Fitness having No Damages (Certificate from supplier)

For the Country of Origin as quoted by the Supplier (Certificate from manufacturer)

For conformance to specifications and performance parameters, through Prior to delivery inspection (Inspection Report by Procurement Committee / Inspection Team)

For successful operation at site after complete installation, testing and commissioning of the equipment (Installation, Testing and Commissioning Report by Procurement Committee / Inspection Team)

Installation and Configuration Services The vendor must provide complete deployment of the hardware and software ecosystem, which includes: End-to-End Software Installation: All procured EDA software suites (front-end, back-end, analog/mixed-signal, verification, SoC-level) must be installed and validated on: Computer servers Student workstations Centralized license servers

Environment Configuration: Customization and configuration of: Simulation and synthesis environments EDA libraries, design kits (PDKs), and technology nodes Lab environment templates for multi-user scheduling and access control Project directory structures, user quotas, and toolchain integration (e.g., PATH, TCL scripts, environment variables)

OS-Level Optimization: Includes Linux configuration for high-performance computing: Kernel tuning (e.g., shared memory parameters) Cron job automation for backups and logs Secure SSH access for instructors and admins

License Server Deployment The vendor must install, configure, and validate a centralized license management system, including: License Server Deployment: Installation and activation of floating/network license servers Integration with all end-user nodes and computer systems Environment variable setup for client-side license paths

Usage Monitoring & Administration Tools: Submit Monthly reports related to monitoring usage and compliance Scripts for automated license usage reports and alerts for administrators Redundancy Configuration (Optional): High-availability license server clustering or backup configuration

Delivery & Documents

Copies of the Supplier’s invoice showing Goods’ description, quantity, unit price, and total amount;

Original and two copies of the usual transport document (for example, a negotiable bill of lading, a non-negotiable sea waybill, an inland waterway document, an air waybill, a railway consignment note, a road consignment note, or a multimodal transport document) which the buyer may require to take the goods;

Copies of the packing list identifying contents of each package;

Insurance Certificate;

Manufacturer’s or Supplier’s Valid Warranty Certificate;

Inspection Certificate issued by the Nominated Inspection Agency (if any), and the Supplier’s Factory Inspection Report;

Certificate of Origin.

The above documents would be required even if the equipment has already been imported and is available with the supplier ex-stock

Delivery and Installation Period Software (Lot?1): EDA suites and license servers delivered, installed, and commissioned within 30 calendar days after hardware commissioning. Hardware (Lot?2): Delivered, installed, and fully commissioned within 90 calendar days from contract award.

Licensing Compliance All proposed software must be: Legally licensed for use in Pakistan Free of trial versions, evaluation restrictions, or hidden usage lock-ins Valid for the stated licensing term and intended academic/training use

The vendor shall be held accountable for any licensing violations, and any such software will be rejected at no cost to NSHRDP. The vendor shall provide 150 academic licenses for use across Components I & II

Semiconductor Education & Research Clusters (SERCs), covering academic, research, and continuing-education activities, for a period of three (03) years.

Number of GC Clause F 5 & 6

Following is the guidance for Dispute Resolution

i. If any dispute of any kind whatsoever shall arise between the Authority and the Bidder in connection with or arising out of the Contract, including without prejudice to the generality of foregoing, any question regarding its existence, validity, termination and the execution of the Contract – whether during developing phase or after their completion and whether before or after the termination, abandonment or breach of the Contract – the parties shall seek to resolve any such dispute or difference by mutual diligent negotiations in good faith within 14 (fourteen) days following a notice sent by one Party to the other Party in this regard**.**

ii. At future of negotiation the dispute shall be resolved through mediation and mediator shall be appointed with the mutual consent of the both parties**.**

iii. At the event of failure of mediation to resolve the dispute relating to this contract such dispute shall finally be resolved through binding Arbitration by sole arbitrator in accordance with Arbitration Act 1940. The arbitrator shall be appointed by mutual consent of the both parties**.** The Arbitration shall take place in Islamabad, Pakistan and proceedings will be conducted in English language.

iv. The cost of the mediation and arbitration shall be shared by the parties in equal proportion however the both parties shall bear their own costs and lawyer's fees regarding their own participation in the mediation and arbitration. However, the Arbitrator may make an award of costs upon the conclusion of the arbitration making any party to the dispute liable to pay the costs of another party to the dispute**.**

v. Arbitration proceedings as mentioned in the above clause regarding resolution of disputes may be commenced prior to, during or after completion of the contract.

Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree that the Authority shall pay the Bidder any monies due to the Bidder.

Arbitrator's fee:

The fee shall be specified in Pak Rupees, as determined by the Arbitrator, which shall be shared equally by both parties**.**

Appointing Authority for Arbitrator:

By the Mutual Consent or in accordance with the provisions of Arbitration Act, 1940, in case the parties fail to reach a consensus on the name of sole arbitrator, any party may submit an application to the Chief Justice Islamabad High Court for appointment of sole arbitrator. The Chief Justice IHC may appoint a former judge of any High Court or Supreme Court as the sole arbitrator to resolve the dispute between the parties.

Rules of procedure for arbitration proceedings:

Any dispute between the Authority and a Bidder who is a national of the Islamic Republic of Pakistan arising in connection with the present Contract shall be referred to adjudication or arbitration in accordance with the laws of the Islamic Republic of Pakistan including Arbitration Act 1940, however above provision shall prevail in referring the case to the Arbitrator.

Place of Arbitration and Award:

The arbitration shall be conducted in English language and place of arbitration shall be at Islamabad. The award of the arbitrator shall be final and shall be binding on the parties.

Bid Securing Declaration

Form 9: Bid Securing Declaration

Date: *[insert date (as day, month and year)]*

Bid No.:***P74779***

To: **Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB)), Assistant Manager Procurement 6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory**

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a Bid Securing Declaration.

We accept that we will be blacklisted and henceforth cross debarred for participating in respective category of public procurement proceedings for a period of (not more than) six months, if fail to abide with a bid securing declaration, however without indulging in corrupt and fraudulent practices, if we are in breach of our obligation(s) under the Bid conditions, because we:

1. have withdrawn or modified our Bid during the period of Bid Validity specified in the Form of Bid;
2. Disagreement to arithmetical correction made to the Bid price; or
3. having been notified of the acceptance of our Bid by the Procuring Agency during the period of Bid Validity, (i) failure to sign the contract if required by Procuring Agency to do so or (ii) fail or refuse to furnish the Performance Security or to comply with any other condition precedent to signing the contract specified in the Bidding Documents.

We understand this Bid Securing Declaration shall expire if we are not the successful

Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight (28) days after the expiration of our Bid.

Contract Form

SECTION IX: CONTRACT FORMS

THIS AGREEMENT made the _____ day of __________ 20_____ between **Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB)), Assistant Manager Procurement 6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory**

(hereinafter called "the Procuring Agency") of the one part and *[name of Bidder]* of *[city and country of Bidder]* (hereinafter called "the Bidder") of the other part:

WHEREAS the Procuring Agency invited Bids for provision of goods, viz., **Request for Proposal Procurement of Software and Hardware for the Project "National Semiconductor Human Resource Development Program (NSHRDP) Phase-I" (*P74779*)** and has accepted a Bids by the Bidder for the provision of Goods in the sum of *[contract price in words and figures]* (hereinafter called "the Contract Price").

NOW THIS CONTRACT WITNESSETH AS FOLLOWS:

1. In this Contract words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Contract, In the event of any ambiguity or conflict between the Contract Documents listed below, the order of precedence shall be the order in which the Contract Documents are listed below:-

   1. This form of Contract;
   2. the Form of Bids and the Price Schedule submitted by the Bidder;
   3. the Schedule of Requirements;
   4. the Technical Specifications;
   5. the Special Conditions of Contract;
   6. the General Conditions of the Contract;
   7. the Procuring Agency's Letter of Acceptance; and
   8. [*add here: any other documents*]

3. In consideration of the payments to be made by the Procuring Agency to the Bidder as hereinafter mentioned, the Bidder hereby covenants with the Procuring Agency to provide the Goods related services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Procuring Agency hereby covenants to pay the Bidder in consideration of the provision of Goods and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS whereof the parties hereto have caused this Contract to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by __________________the ________________ (for the Procuring Agency)

Witness to the signatures of the Procuring Agency:

………………………………………………

Signed, sealed, delivered by __________________the ________________ (for the Procuring Agency)

Witness to the signatures of the Bidder: ………………………………………………

Integrity Pact

Integrity Pact

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BYTHE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS.10.00 MILLION OR MORE

Contract Number: Contract Value: Contract Title:

Dated:

[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 or any administrative subdivision or agency thereof or any other entity owned or controlled by it (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, fee 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 consultations 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, representative or warranty.

[Name of Supplier] accepts full responsibility and strict liability for making and false declaration, not making full disclosure, misrepresenting fact 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 right and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding 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 time 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.

Performance Guarantee Form

Performance Guarantee Form

To: **Pakistan Software Export Board (PSEB) (Pakistan Software Export Board (PSEB)), Assistant Manager Procurement 6th Floor, New State Life Tower, Jinnah Avenue, Blue Area, Islamabad Capital Territory**

WHEREAS *[name of Bidder]* (hereinafter called "the Bidder") has undertaken, in pursuance of Contract No. *[reference number of the contract]* dated *[insert date]* for provision of Goods*(*hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Bidder shall furnish you with a Bank Guarantee by a reputable bank for the sum specified therein as security for compliance with the Bidder's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Bidders guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Bidder, up to a total of *[amount of the guarantee in words and figures]*, and we undertake to pay you, upon your first written demand declaring the Bidder to be in default under the Contract and without cavil or argument, any sum or sums within the limits of *[amount of guarantee]* as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the: *[insert date]*

Signature and seal of the Guarantors

[name of bank or financial institution]

[address]

[date}

Annexure

B1-Technical Proposal - Submission Form

B1. Technical Proposal - Submission Form

To: Project Director

Pakistan Software Export Board

6th Floor New Statelife Building, Blue area, Islamabad Islamabad, Pakistan

Tel: +92-51- 111 333 666

Fax: +92-51- 921-9075

Email: **NSHRDP@pseb.org.pk** Islamabad, Pakistan

Sir,

We, the undersigned, offer to provide the services for execution of "**Procurement of Software and Hardware for Training in Semiconductor Design National Semiconductor Human Resource Development Program (NSHRDP)"** in accordance with your Request for Proposal dated (Date, Month, 2026). We are hereby submitting our Proposal, which includes this Technical Proposal and Financial Proposal on E-Pads (**https://epads.gov.pk/**).

Our Technical Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, which is 90 calendar days from the closing date of proposal submission.

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

Yours sincerely,

Authorized Signature:

1. Name and Title of Signatory:

Name of Firm: Address:

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **B1-Technical Proposal - Submission Form** (page number: 140)

B2. Firms/Bidders Profile

1.

1.1. **B2. Firms/Bidders Profile**

For JV/Consortium bids, submit member?wise forms.

Sr. #	Criteria	Response
1	**Profile of the agency:** 1.1. Registered age of Firm 1.2. Names of Managers/ Owners/ CEO/ Directors/ Partners **In-case of JV, the lead bidder registered age will be considered for scoring/evaluation.**	
2	i. Location of Firm office/sub office 1.1. Number of relevant employees including their Names & Designations, Contact Numbers & Branch contact numbers	
3	**Financial Position** i. Name of Banks ii. The bidder shall submit Audited Financial Statement for at least 01 financial year from among the last 03 completed financial years. iii. In-case of JV, the accumulated annual turnover will be considered of JV/Consortium for scoring/evaluation.	

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **B2. Firms/Bidders Profile** (page number: 141)

B3. Relevant Experience of the firm/Bidder

1.

1.1. **B3. Relevant Experience of the firm/Bidder**

Experience of Providing Data Center equipment, installation, configuration and testing. For JV/Consortium bids, submit member?wise forms and a consolidated summary indicating aggregated experience and capacity mapped to the JV roles.

Title & Project Synopsis	Name and contact details of Focal Person of Bidder	Client Name, Organization, Focal Person Name & Phone Numbers	Project Worth	Project Duration

*Please attach relevant documents to corroborate your information.

*Copy of Purchase order(s)/Contract/Successful Completion certificate shall be attached as evidence.

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **B3. Relevant Experience of the firm/Bidder** (page number: 142)

B4-I. – Qualification, Total Experience and professional Certification/Membership Personnel Summary

B4-I. – Qualification, Total Experience and professional Certification/Membership Personnel Summary (Complete for each Team Member). Relevant work experience of team lead (One project=5.0 marks). Relevant experience of the team deployed on project (switching experts, trainers, installation experts, EDA tools experience) (One team member = 2.0 marks)

Name of Employee:

Position		
General Information	Name:	Date of Birth:
Telephone:		
Fax:		
Years with Present Employer:		

Employment Record:

Summarize overall professional experience in reverse chronological order.

DD/MM/YY	**Company/Project/Position/Specific Tech experience**	
From	**To**	

Relevant Experience:

Summarize relevant experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project:

DD/MM/YY	**Company/Project/Position/Specific Tech experience**	
From	**To**	

Education:

Highest Level of Degree	**Relevance of Degree to the Assignment**
MPhil	
Masters	
Bachelors	

Certification:

Memberships:

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

Date: *[Signature of staff member and authorized representative of the firm] Day/Month/Year*

Full name of staff member:

Full name of authorized representative:

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **B4-I. – Qualification, Total Experience and professional Certification/Membership Personnel Summary** (page number: 143)

B4-II – Composition of Proposed Project Management Team with Organogram

B4-II – Composition of Proposed Project Management Team with Organogram

Project Management Team

For JV/Consortium bids, submit member?wise forms and a consolidated summary indicating aggregated experience and capacity mapped to the JV roles.

Sr. #	Name/ Designation	Experience/ No. of years	Relevant Experience in Previous Assignments	Proposed Role in this Project

Organogram

For JV/Consortium bids, submit their respective organogram mapped to the JV roles.

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **B4-II – Composition of Proposed Project Management Team with Organogram** (page number: 147)

C1- Financial Proposal Submission Form

C1- Financial Proposal Submission Form

To: Project Director

Pakistan Software Export Board

6th Floor New Statelife Building, Blue area, Islamabad Islamabad, Pakistan

Tel: +92-51- 111 333 666

Fax: +92-51- 921-9075

Email: **NSHRDP@pseb.org.pk** Sir,

We, the undersigned, offer to provide services for execution of "**Procurement of Software and Hardware for Training in Semiconductor Design National Semiconductor Human Resource Development Program (NSHRDP)"** project in accordance with your Request for Proposal dated. (Day, Month) 2026 and our Proposal (Technical and Financial Proposals). Our attached Financial Proposal is for the sum of [Amount in words and figures]. This amount is inclusive of all the local taxes, duties, fees, levies and other charges applicable on our company, our sub-contractors and collaborations under the Pakistani law.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, which is 90 calendar days from the closing date of proposal submission.

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

Yours sincerely,

Authorized Signature: Name and Title of Signatory: Name of Firm:

Address:

Financial Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **C1- Financial Proposal Submission Form** (page number: 148)

C2– Summary of Costs

C2. – Summary of Costs

Particulars	Pak Rupees (PKR)
Total (without taxes) **All applicable Taxes** **Grand Total of Financial Proposal**	

Financial Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **C2– Summary of Costs** (page number: 149)

Annexure-I - Integrity PACT

Annexure-I - Integrity PACT

(To be submitted on Legal Stamp Paper for successful bidder only)

Affidavit

Tender Number:

Date:

Tender Value:

Tender Title:

[name of Firm] hereby declares that it has not obtained or induced the procurement of any contact, 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 it (GoP) through any corrupt business practice.

Without limiting the generality of the foregoing, [name of firm] 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 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 contact, right, interest, privilege or other obligation or benefit in whatsoever form from Purchaser, except that which has been expressly declared pursuant hereto.

[The Firm/Contractor] 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 the Purchaser and has not taken any action or will not take any action to circumvent the above declaration, representation or' warranty /

support.

[The Firm/Contractor] 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 / support. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to the Purchaser under any law, contract or other instrument, be voidable at the option of the Purchaser.

Notwithstanding any rights and remedies exercised by the Purchaser in this regard, [the Firm/Contractor] agrees to indemnify the Purchaser for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to the Purchaser in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by [the Firm/Contractor] 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 the Purchaser

Authorized Signature & Stamp

Subscribed and sworn to me this. Day of 20

Verified by the Notary Public

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **Annexure-I - Integrity PACT** (page number: 150)

Annexure?II – Undertaking for Bidders (NSHRDP Phase?I)

Annexure?II – Undertaking for Bidders (NSHRDP Phase?I)

It is hereby solemnly confirmed that the undertaking is submitted in respect of PSEB's tender titled "IT Industry Academia Bridge Program".

1. **Declaration**

It is to certify that I have read, clearly understood, and agreed upon to all the terms and conditions mentioned in the tender documents. Further, I certify that all of the information provided e.g. (certificates, etc.) in our bid is true and accurate and genuine. If at any stage the information provided is found to be false than I/We and my firm shall be held accountable, and our bid shall be rejected.

1. **Statement for Non–Blacklisting**

I, s/o Mr., Designation of M/s holding CNIC #hereby confirms that our firm/company is not blacklisted by any Ministry / Division / Department of the Government / Semi government / Autonomous body of Federal or Provincial Government in Pakistan.

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **Annexure?II – Undertaking for Bidders (NSHRDP Phase?I)** (page number: 151)

Annexure-III - Format for Performance Security Bond

Annexure-III - Format for Performance Security Bond

PERFORMANCE BOND GUARANTEE Date

To: Pakistan Software Export Board (PSEB)

6th Floor, New State Life Building Blue Area Islamabad.

SIR,

1.

1.1. Bank Guarantee Number:

1.2. Contract/Purchase Order No:

1.3. Name of Guarantor:

1.4. Address of Guarantor:

1.5. Amount of Guarantee in relevant currency:

1.6. Amount in words:

1.7. Date of Expiry of Guarantee:

Whereas your good self-have entered into Contract/Purchase Order No. with (vendor name with address) of hereinafter referred to as our customer and that one of the conditions of the Contract/Purchase Order is the submission of unconditional Bank Guarantee by our customer to your good self for a sum of (Amount in figure and words). In compliance with this stipulation of contract/Purchase Order, we hereby agree and undertake as under: -

1. To pay you unconditionally on demand and/or without any reference to our customer an amount not exceeding the sum of Rs/or relevant currency (amount in figure) as would be mentioned in your written Demand Notice.

2. To keep this Guarantee in force till (expiry date).

3. That we shall inform your office regarding termination of the validity of this Bank Guaranty one clear month before the actual expiry date of Guarantee.

4. That with the consent of our customer you may amend/alter any term/clause of contract/Purchase Order or add/delete any term/clause to/from this contract/Purchase Order without making any reference to us. We do not reserve any right to receive any such amendment/alteration or addition/deletion provided such like actions do not increase our monetary liability under this Bank Guaranty which shall be limited only to Rs/or relevant currency (Amount in figure and words).

5. That the Bank Guarantee herein before given shall not be affected by any change in the constitution of the Bank or Customer/Seller or Vendor. That this is unconditional

Bank Guarantee, which shall be en-cashed on sight on presentation without any reference to our customer/seller or vendor. Bank Guarantee will not be released unless No Objection Certificate (NOC) is provided by Headquarter PSEB Procurement Department.

Authorized Signature/Stamp Date

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **Annexure-III - Format for Performance Security Bond** (page number: 152)

ANNEXURE-IV SERVICE LEVEL AGREEMENT (SLA) LOT-1 – SOFTWARE (EDA TOOLS)

ANNEXURE-IV

SERVICE LEVEL AGREEMENT (SLA)

LOT-1 – SOFTWARE (EDA TOOLS)

Five (05) Year Support & Maintenance Agreement

1. **Objective**

This Service Level Agreement (SLA) establishes the minimum service levels, support commitments, maintenance obligations, response timelines, performance standards, and reporting requirements for all Electronic Design Automation (EDA) software supplied under Lot-1 of the National Semiconductor Human Resource Development Program (NSHRDP).

The objective of this SLA is to ensure uninterrupted access to industry-standard semiconductor design tools for teaching, research, and professional training throughout the contract period.

1. **Contract Duration**

The SLA shall remain valid for five (05) years from the date of Final Acceptance Certificate (FAC) or until expiry of the software subscription licenses, whichever is later.

1. **Scope of Services**

The Vendor shall provide comprehensive support covering:

- Complete EDA software suite
- Floating/network licensing
- License server management
- Remote access services
- Software installation
- Version upgrades
- Technical support
- Performance optimization
- License compliance monitoring
- Bug fixes
- Knowledge transfer
- Documentation

1. **Service Availability**

The Vendor shall ensure the following minimum service availability:

Service	**Minimum Availability**
License Server	99.90%
EDA Applications	99.50%
Helpdesk Portal	99.00%

1. **Helpdesk Services**

The Vendor shall maintain a centralized support facility throughout the contract period offering:

- 24×7 Helpdesk
- Support email and Whatsapp group
- Telephone support
- Remote desktop assistance
- Microsoft Teams/Zoom support
- Emergency escalation contact

1. **Incident Priority Matrix**

Priority	**Example**	**Response**	**Resolution**
Critical	License server failure, complete outage	60 Minutes	2 Business Days (Remote), 3 Business Days (Onsite if required)
High	Major software malfunction	2 Hours	4 Business Days
Medium	Configuration issue	4 Hours	5 Business Days
Low	User assistance/documentation	1 Business Day	6 Business Days

1. **Software Maintenance**

The Vendor shall provide, without additional cost:

- Major software releases
- Minor updates
- OEM bug fixes
- Performance improvements
- Compatibility updates
- Technology node updates (where applicable)

1. **License Management**

The Vendor shall:

- Maintain uninterrupted licensing
- Optimize concurrent user allocation
- Coordinate renewals
- Ensure uninterrupted training operations

1. **OEM's Portal Access**

The Vendor shall be responsible to give OEM's portal access to the users in order to comply with below:

- New software features
- Updated workflows
- Troubleshooting
- Best practices

1. **Escalation Procedure**

Level-1 Support Engineer

?

Level-2 Senior Engineer

?

Level-3 Product Specialist

?

Level-4 OEM Support

?

Level-5 Project Director

Vendor Responsibilities

The Vendor shall:

- Maintain software availability
- Resolve reported issues
- Coordinate with OEMs

- Maintain licenses
- Apply updates

Performance Measurement

The Vendor shall maintain:

- 99.5% Software Availability
- 95% SLA Compliance
- 90% Customer Satisfaction

Service Credits

Failure to achieve SLA targets may result in service credits or penalties as defined in the Contract Agreement.

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **ANNEXURE-IV SERVICE LEVEL AGREEMENT (SLA) LOT-1 – SOFTWARE (EDA TOOLS)** (page number: 153)

ANNEXURE-V SERVICE LEVEL AGREEMENT (SLA) LOT-2 – HARDWARE INFRASTRUCTURE

ANNEXURE-V

SERVICE LEVEL AGREEMENT (SLA)

LOT-2 – HARDWARE INFRASTRUCTURE

Five (05) Year Comprehensive Onsite Warranty & Support

1. **Objective**

This SLA defines the minimum support obligations, maintenance standards, response times, warranty services, and operational commitments for all hardware supplied under Lot-2 of the National Semiconductor Human Resource Development Program (NSHRDP).

The purpose is to ensure reliable operation of the semiconductor laboratory infrastructure throughout the five-year support period.

1. **Contract Duration**

The Vendor shall provide comprehensive onsite support for five (05) years from the date of Final Acceptance Certificate (FAC).

1. **Scope**

This SLA covers:

- HPC Servers
- High-End Servers
- Engineering Workstations
- Laptops
- FPGA Kits
- Network Switches
- UPS Systems
- Network Equipment
- Printers
- Scanners
- LED Displays
- All supplied accessories

1. **Comprehensive Warranty**

The Vendor shall provide:

- Five-year onsite warranty
- OEM-certified spare parts
- Labour
- Transportation
- Firmware updates
- Diagnostics
- Preventive maintenance

No additional charges shall apply.

1. **Service Availability**

Equipment	Availability
HPC Servers	99.90%
Lab Servers	99.90%
Network Infrastructure	99.90%
UPS Systems	99.90%
Storage Systems	99.90%

1. **Incident Classification**

Priority	Example	Response	Resolution
Critical	Server down, storage failure, switch failure	2 Hours	48 Hours
High	Multiple workstation failures	4 Hours	2 Business Days
Medium	Single workstation/laptop issue	1 Business Day	3 Business Days
Low	Configuration assistance	2 Business Days	5 Business Days

1. **Onsite Support**

The Vendor shall provide onsite technical support for:

- Hardware diagnostics
- Component replacement
- Firmware updates

- Configuration
- Network troubleshooting
- System restoration

1. **Spare Parts**

The Vendor shall maintain local availability of:

- RAM
- SSD/HDD
- Power supplies
- Cooling fans
- RAID controllers
- Network cards
- UPS batteries
- Switch modules
- Optical transceivers

1. **Equipment Replacement**

If critical equipment cannot be restored within forty-eight (48) hours, the Vendor shall provide temporary replacement equipment of equal or higher specifications until permanent repairs are completed.

Permanent replacement shall be completed within fifteen (15) working days.

1. **Preventive Maintenance**

Quarterly preventive maintenance shall include:

Servers:

- Hardware diagnostics
- Firmware updates
- RAID verification
- Temperature monitoring
- Storage health checks

Networking:

- Configuration backup
- Firmware upgrades
- Port testing

UPS:

- Battery testing
- Load testing
- Runtime verification

Workstations:

- Cleaning
- Hardware health checks
- Performance optimization

1. **Health Monitoring**

The Vendor shall monitor:

- CPU utilization
- Memory utilization
- Storage health
- RAID status
- Temperature
- Power supplies
- Network utilization
- UPS health

Monthly health reports shall be submitted.

1. **Asset Management**

The Vendor shall maintain:

- Asset inventory

- Warranty records
- Serial numbers
- Firmware versions
- Maintenance history
- Replacement history

1. **Documentation**

The Vendor shall maintain updated documentation including:

- Network diagrams
- Server configurations
- Asset inventory
- Maintenance records
- Backup procedures
- Recovery procedures

1. **Escalation Procedure**

Level-1 Field Engineer

?

Level-2 Resident Engineer

?

Level-3 Technical Manager

?

Level-4 OEM Support

?

Level-5 Country Manager

1. **Reporting**

Monthly reports shall include:

- Fault statistics
- Downtime
- Hardware replacements
- Preventive maintenance activities
- Warranty claims
- Outstanding issues
- Recommendations

1. **Performance Measurement**

The Vendor shall maintain:

- 99.9% Server Availability
- 99.9% Network Availability
- 95% SLA Compliance
- 90% Customer Satisfaction
- Quarterly Preventive Maintenance Completion

1. **Service Credits**

Failure to meet the agreed SLA targets may result in service credits or contractual penalties as specified in the Contract Agreement.

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **ANNEXURE-V SERVICE LEVEL AGREEMENT (SLA) LOT-2 – HARDWARE INFRASTRUCTURE** (page number: 156)

Procurement Forms

Additional Forms and Documents

7.1. B1. Technical Proposal - Submission Form

To: Project Director

Pakistan Software Export Board

6th Floor New Statelife Building, Blue area,

Islamabad Islamabad, Pakistan

Tel: +92-51- 111 333 666

Fax: +92-51- 921-9075

Email: NSHRDP@pseb.org.pk

Islamabad, Pakistan

Sir,

We, the undersigned, offer to provide the services for execution of "**Procurement of Software and Hardware for Training in Semiconductor Design National Semiconductor Human Resource Development Program (NSHRDP)"** in accordance with your Request for Proposal dated (Date, Month, 2026). We are hereby submitting our Proposal, which includes this Technical Proposal and Financial Proposal on E-Pads (https://epads.gov.pk/).

Our Technical Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, which is 90 calendar days from the closing date of proposal submission.

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

Yours sincerely,

Authorized Signature:

1. **Name and Title of Signatory:**

Name of Firm: Address:

7.1. B2. Firms/Bidders Profile

For JV/Consortium bids, submit member-wise forms.

Sr. #	Criteria	Response
1	**Profile of the agency:** i. Registered age of Firm ii. Names of Managers/ Owners/ CEO/ Directors/ Partners **In-case of JV, the lead bidder registered age will be considered for scoring/evaluation.**	
2	i. Location of Firm office/sub office ii. Number of relevant employees including their Names & Designations, Contact Numbers & Branch contact numbers	
3	**Financial Position** i. Name of Banks ii. The bidder shall submit Audited Financial Statement for at least 01 financial year from among the last 03 completed financial years. iii. In-case of JV, the accumulated annual turnover will be considered of JV/Consortium for scoring/evaluation.	

B3. Relevant Experience of the firm/Bidder

Experience of Providing Data Center equipment, installation, configuration and testing. For JV/Consortium bids, submit member-wise forms and a consolidated summary indicating aggregated experience and capacity mapped to the JV roles.

Title & Project Synopsis	Name and contact details of Focal Person of Bidder	Client Name, Organization, Focal Person Name & Phone Numbers	Project Worth	Project Duration

*Please attach relevant documents to corroborate your information.
*Copy of Purchase order(s)/Contract/Successful Completion certificate shall be attached as evidence.

B4-I. – Qualification, Total Experience and professional Certification/Membership Personnel Summary (Complete for each Team Member). Relevant work experience of team lead (One project=5.0 marks). Relevant experience of the team deployed on project (switching experts, trainers, installation experts, EDA tools experience) (One team member = 2.0 marks)

Name of Employee:

Position		
General Information	Name:	Date of Birth:
	Telephone:	
	Fax:	
	Years with Present Employer:	

Employment Record:

Summarize overall professional experience in reverse chronological order.

DD/MM/YY		Company/Project/Position/Specific Tech experience
From	To	

1. **Relevant Experience:**

   Summarize relevant experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project:

DD/MM/YY		**Company/Project/Position/Specific Tech experience**
From	**To**	

2. **Education:**

Highest Level of Degree	**Relevance of Degree to the Assignment**
MPhil	
Masters	
Bachelors	

Certification:

Memberships:

3. **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

______Date: *[Signature of staff member and authorized representative of the firm] Day/Month/Year*

Full name of staff member:

______

Full name of authorized representative:

______

B4-II – Composition of Proposed Project Management Team with Organogram

Project Management Team

For JV/Consortium bids, submit member-wise forms and a consolidated summary indicating aggregated experience and capacity mapped to the JV roles.

Sr. #	Name/ Designation	Experience/ No. of years	Relevant Experience in Previous Assignments	Proposed Role in this Project

Organogram

For JV/Consortium bids, submit their respective organogram mapped to the JV roles.

C1- Financial Proposal Submission Form

To: Project Director

Pakistan Software Export Board

6th Floor New Statelife Building, Blue area,

Islamabad Islamabad, Pakistan

Tel: +92-51- 111 333 666

Fax: +92-51- 921-9075

Email: NSHRDP@pseb.org.pk

Sir,

We, the undersigned, offer to provide services for execution of "**Procurement of Software and Hardware for Training in Semiconductor Design National Semiconductor Human Resource Development Program (NSHRDP)"** project in accordance with your Request for Proposal dated. (Day, Month) 2026 and our Proposal (Technical and Financial Proposals). Our attached Financial Proposal is for the sum of [Amount in words and figures]. This amount is inclusive of all the local taxes, duties, fees, levies and other charges applicable on our company, our sub-contractors and collaborations under the Pakistani law.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, which is 90 calendar days from the closing date of proposal submission.

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

Yours sincerely,

Authorized Signature:

Name and Title of

Signatory: Name of Firm:

Address:

C2. – Summary of Costs

Particulars	Pak Rupees (PKR)
Total (without taxes) **All applicable Taxes** **Grand Total of Financial Proposal**	

Annexure-I - Integrity PACT

(To be submitted on Legal Stamp Paper for successful bidder only)

Affidavit

Tender Number: ___________________

Date:______________________

Tender Value: ____________________

Tender Title: _____________________

[name of Firm] hereby declares that it has not obtained or induced the procurement of any contact, 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 it (GoP) through any corrupt business practice.

Without limiting the generality of the foregoing, [name of firm] 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 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 contact, right, interest, privilege or other obligation or benefit in whatsoever form from Purchaser, except that which has been expressly declared pursuant hereto.

[The Firm/Contractor] 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 the Purchaser and has not taken any action or will not take any action to circumvent the above declaration, representation or' warranty / support.

[The Firm/Contractor] 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 / support. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to the Purchaser under any law, contract or other instrument, be voidable at the option of the Purchaser.

Notwithstanding any rights and remedies exercised by the Purchaser in this regard, [the Firm/Contractor] agrees to indemnify the Purchaser for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to the Purchaser in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by [the Firm/Contractor] 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 the Purchaser

____

Authorized Signature & Stamp

Subscribed and sworn to me this_________. Day of _______20_____

Verified by the Notary Public

Annexure-II – Undertaking for Bidders (NSHRDP Phase-I)

It is hereby solemnly confirmed that the undertaking is submitted in respect of PSEB's tender titled "IT Industry Academia Bridge Program".

a. Declaration

It is to certify that I have read, clearly understood, and agreed upon to all the terms and conditions mentioned in the tender documents. Further, I certify that all of the information provided e.g. (certificates, etc.) in our bid is true and accurate and genuine. If at any stage the information provided is found to be false than I/We and my firm shall be held accountable, and our bid shall be rejected.

b. Statement for Non–Blacklisting

I, ___________________s/o Mr.______________, Designation of M/s _______________holding CNIC #_________________hereby confirms that our firm/company is not blacklisted by any Ministry / Division / Department of the Government / Semi government / Autonomous body of Federal or Provincial Government in Pakistan.

Annexure-III - Format for Performance Security Bond

PERFORMANCE BOND GUARANTEE Date________

To: Pakistan Software Export Board (PSEB)
6th Floor, New State Life Building Blue Area
Islamabad.

SIR,

1. Bank Guarantee Number:
2. Contract/Purchase Order No:
3. Name of Guarantor:
4. Address of Guarantor:
5. Amount of Guarantee in relevant currency:
6. Amount in words:
7. Date of Expiry of Guarantee:

Whereas your good self-have entered into Contract/Purchase Order No. with (vendor name with address) of hereinafter referred to as our customer and that one of the conditions of the Contract/Purchase Order is the submission of unconditional Bank Guarantee by our customer to your good self for a sum of (Amount in figure and words). In compliance with this stipulation of contract/Purchase Order, we hereby agree and undertake as under: -

a. To pay you unconditionally on demand and/or without any reference to our customer an amount not exceeding the sum of Rs/or relevant currency (amount in figure) as would be mentioned in your written Demand Notice.
b. To keep this Guarantee in force till (expiry date).
c. That we shall inform your office regarding termination of the validity of this Bank Guaranty one clear month before the actual expiry date of Guarantee.
d. That with the consent of our customer you may amend/alter any term/clause of contract/Purchase Order or add/delete any term/clause to/from this contract/Purchase Order without making any reference to us. We do not reserve any right to receive any such amendment/alteration or addition/deletion provided such like actions do not increase our monetary liability under this Bank Guaranty which shall be limited only to Rs/or relevant currency (Amount in figure and words).
e. That the Bank Guarantee herein before given shall not be affected by any change in the constitution of the Bank or Customer/Seller or Vendor. That this is unconditional Bank Guarantee, which shall be en-cashed on sight on presentation without any reference to our customer/seller or vendor. Bank Guarantee will not be released unless No Objection Certificate (NOC) is provided by Headquarter PSEB Procurement Department.

Authorized Signature/Stamp
Date______________________

ANNEXURE-IV

SERVICE LEVEL AGREEMENT (SLA)
LOT-1 – SOFTWARE (EDA TOOLS)
Five (05) Year Support & Maintenance Agreement

1. Objective

This Service Level Agreement (SLA) establishes the minimum service levels, support commitments, maintenance obligations, response timelines, performance standards, and reporting requirements for all Electronic Design Automation (EDA) software supplied under Lot-1 of the National Semiconductor Human Resource Development Program (NSHRDP).
The objective of this SLA is to ensure uninterrupted access to industry-standard semiconductor design tools for teaching, research, and professional training throughout the contract period.

2. Contract Duration

The SLA shall remain valid for five (05) years from the date of Final Acceptance Certificate (FAC) or until expiry of the software subscription licenses, whichever is later.

3. Scope of Services

The Vendor shall provide comprehensive support covering:
- Complete EDA software suite
- Floating/network licensing
- License server management
- Remote access services
- Software installation
- Version upgrades
- Technical support
- Performance optimization
- License compliance monitoring
- Bug fixes
- Knowledge transfer
- Documentation

4. Service Availability

The Vendor shall ensure the following minimum service availability:

Service	Minimum Availability
License Server	99.90%
EDA Applications	99.50%
Helpdesk Portal	99.00%

5. Helpdesk Services

The Vendor shall maintain a centralized support facility throughout the contract period offering:
- 24×7 Helpdesk
- Support email and Whatsapp group
- Telephone support
- Remote desktop assistance

- Microsoft Teams/Zoom support
- Emergency escalation contact

6. **Incident Priority Matrix**

Priority	Example	Response	Resolution
Critical	License server failure, complete outage	60 Minutes	2 Business Days (Remote), 3 Business Days (Onsite if required)
High	Major software malfunction	2 Hours	4 Business Days
Medium	Configuration issue	4 Hours	5 Business Days
Low	User assistance/documentation	1 Business Day	6 Business Days

7. **Software Maintenance**

The Vendor shall provide, without additional cost:
- Major software releases
- Minor updates
- OEM bug fixes
- Performance improvements
- Compatibility updates
- Technology node updates (where applicable)

8. **License Management**

The Vendor shall:
- Maintain uninterrupted licensing
- Optimize concurrent user allocation
- Coordinate renewals
- Ensure uninterrupted training operations

9. **OEM's Portal Access**

The Vendor shall be responsible to give OEM's portal access to the users in order to comply with below:
- New software features
- Updated workflows
- Troubleshooting
- Best practices

10. **Escalation Procedure**

Level-1 Support Engineer
↓
Level-2 Senior Engineer
↓
Level-3 Product Specialist
↓
Level-4 OEM Support
↓

Level-5 Project Director

11. Vendor Responsibilities

The Vendor shall:

- Maintain software availability
- Resolve reported issues
- Coordinate with OEMs
- Maintain licenses
- Apply updates

15. Performance Measurement

The Vendor shall maintain:

- 99.5% Software Availability
- 95% SLA Compliance
- 90% Customer Satisfaction

16. Service Credits

Failure to achieve SLA targets may result in service credits or penalties as defined in the Contract Agreement.

ANNEXURE-V

SERVICE LEVEL AGREEMENT (SLA)
LOT-2 – HARDWARE INFRASTRUCTURE
Five (05) Year Comprehensive Onsite Warranty & Support

1. Objective

This SLA defines the minimum support obligations, maintenance standards, response times, warranty services, and operational commitments for all hardware supplied under Lot-2 of the National Semiconductor Human Resource Development Program (NSHRDP).
The purpose is to ensure reliable operation of the semiconductor laboratory infrastructure throughout the five-year support period.

2. Contract Duration

The Vendor shall provide comprehensive onsite support for five (05) years from the date of Final Acceptance Certificate (FAC).

3. Scope

This SLA covers:

- HPC Servers
- High-End Servers
- Engineering Workstations
- Laptops
- FPGA Kits
- Network Switches
- UPS Systems
- Network Equipment
- Printers
- Scanners
- LED Displays
- All supplied accessories

4. Comprehensive Warranty

The Vendor shall provide:

- Five-year onsite warranty
- OEM-certified spare parts
- Labour
- Transportation
- Firmware updates
- Diagnostics
- Preventive maintenance

No additional charges shall apply.

5. Service Availability

Equipment	Availability
HPC Servers	99.90%
Lab Servers	99.90%
Network Infrastructure	99.90%
UPS Systems	99.90%

Equipment	**Availability**
Storage Systems	99.90%

6. Incident Classification

Priority	Example	Response	Resolution
Critical	Server down, storage failure, switch failure	2 Hours	48 Hours
High	Multiple workstation failures	4 Hours	2 Business Days
Medium	Single workstation/laptop issue	1 Business Day	3 Business Days
Low	Configuration assistance	2 Business Days	5 Business Days

7. Onsite Support

The Vendor shall provide onsite technical support for:

- Hardware diagnostics
- Component replacement
- Firmware updates
- Configuration
- Network troubleshooting
- System restoration

8. Spare Parts

The Vendor shall maintain local availability of:

- RAM
- SSD/HDD
- Power supplies
- Cooling fans
- RAID controllers
- Network cards
- UPS batteries
- Switch modules
- Optical transceivers

9. Equipment Replacement

If critical equipment cannot be restored within forty-eight (48) hours, the Vendor shall provide temporary replacement equipment of equal or higher specifications until permanent repairs are completed.
Permanent replacement shall be completed within fifteen (15) working days.

10. Preventive Maintenance

Quarterly preventive maintenance shall include:
Servers:

- Hardware diagnostics
- Firmware updates
- RAID verification
- Temperature monitoring

- Storage health checks

Networking:

- Configuration backup
- Firmware upgrades
- Port testing

UPS:

- Battery testing
- Load testing
- Runtime verification

Workstations:

- Cleaning
- Hardware health checks
- Performance optimization

11. Health Monitoring

The Vendor shall monitor:

- CPU utilization
- Memory utilization
- Storage health
- RAID status
- Temperature
- Power supplies
- Network utilization
- UPS health

Monthly health reports shall be submitted.

12. Asset Management

The Vendor shall maintain:

- Asset inventory
- Warranty records
- Serial numbers
- Firmware versions
- Maintenance history
- Replacement history

13. Documentation

The Vendor shall maintain updated documentation including:

- Network diagrams
- Server configurations
- Asset inventory
- Maintenance records
- Backup procedures
- Recovery procedures

14. Escalation Procedure

Level-1 Field Engineer
↓

Level-2 Resident Engineer
↓
Level-3 Technical Manager
↓
Level-4 OEM Support
↓
Level-5 Country Manager

15. Reporting

Monthly reports shall include:

- Fault statistics
- Downtime
- Hardware replacements
- Preventive maintenance activities
- Warranty claims
- Outstanding issues
- Recommendations

16. Performance Measurement

The Vendor shall maintain:

- 99.9% Server Availability
- 99.9% Network Availability
- 95% SLA Compliance
- 90% Customer Satisfaction
- Quarterly Preventive Maintenance Completion

17. Service Credits

Failure to meet the agreed SLA targets may result in service credits or contractual penalties as specified in the Contract Agreement.