



Tender No.:36/NITS/EEE/Power System Protection Lab/2020-21/102

Date: 12th March 2021

Notice Inviting Tender

The National Institute of Technology Sikkim invites tenders/bids under two bid system (Technical Bid & Financial Bid both in separate sealed envelopes) in sealed envelope for **Supply and Installation of Equipments for Power System Protection Laboratory for Dept. of Electrical and Electronics Engineering** as per the specifications, terms and conditions given in this tender. The tender documents can be downloaded free of cost from the website www.nitsikkim.ac.in or from the Central Public Procurement Portal.

Schedule of Requirements

S.No.	Particular	Qty	Place of Delivery	Delivery Period
1	Supply and Installation of Equipment for Power Protection Laboratory for Dept. of Electrical & Electronics Engineering as per the Technical Specifications given in this tender document.	As given in Annexure-I	NIT Sikkim	120 Days

Details	Information
Bidding System	Two Bid system: Technical Bid & Financial Bid (Separate Sealed)
Tender Floating Date	12 th March 2021
Tender Closing Date & Time	05 th April 2021, 11:00 AM
Technical Bid Opening Date & Time	05 th April 2021, 03:00 PM
Financial Bid Opening Date & Time (Tentative)	06 th April 2021, 11:00 AM (Tentative)
EMD (Earnest Money Deposit)	Rs.1,50,000/- (Rupees One Lakh Fifty Thousand Only) By Demand Draft in favour of "Director, NIT Sikkim" payable at State Bank of India, Ravangla Branch (IFSC SBIN0007218).
Address for communication	The Registrar NIT Sikkim, Ravangla, South Sikkim - 737139
For any Clarification	registrar.office@nitsikkim.ac.in
Institute Website	www.nitsikkim.ac.in
Tender Submission	Tender may be deposited in the tender box or submitted in the Administrative Block at Reception/Registrar office.
Number of pages in the tender document	27

Registrar

Note Carefully: The Bidders are required to read carefully and understand all the terms and conditions, specifications, formats, instructions, etc. given in the Tender/Bid document with full understanding of its implications. Failure to furnish all information required for submission of a bid or bids not substantially responsive in every respect may result in outright rejection. The Bidder is required to give confirmation of their acceptance of all the terms and conditions mentioned in the Tender/Bid document. Failure to do so may result in rejection of Tender/Bid submitted by the Bidder.

General Terms & Conditions

1. In this tender document the Institute means “National Institute of Technology Sikkim (NIT Sikkim)”, the BUYER means NIT Sikkim and SELLER/SUPPLIER means the successful bidder awarded the Purchase Order (PO)/work order. The word “Tender” and “Bid” is used interchangeably having same meaning. Here, the word supply/agreement/contract/project mean the Purchase order for the goods/services given in the scope of the work. Goods/Items/Stores means the items/service mentioned in the scope of work. A tender/bid document means all the pages of this document consisting of terms and conditions, specifications, bid formats, undertaking, etc.
2. **Scope of Work:** Supply and installation of “**Equipments for Power System Protection Laboratory**” as per specification for NIT Sikkim. Suppliers with track record of supply of similar type of goods/equipment may bid for the same.
3. **Format for submission of bid:**

The bid shall be submitted only in the *forms and formats* attached with this bid document and **each page of the bid document should be signed and stamped by the authorized person**. The bid should be forwarded by the bidder under their original memo/letter head inter alia furnishing all the required details like GST number, PAN, Bank details etc. and complete contact details (Postal address, email, fax, contact numbers) of their office. All bidding documents including technical and financial bids must be in English. One signed copy of the tender document, with bidding firm’s sign and seal, agreeing to the terms & conditions and declaration etc. must also form the part of the submitted bid.

4. **Two Bid system:**

The bidding process shall consist of **Two** bid system. The bid must be submitted in two parts comprising:

Part-I: Technical Bid [Annexure-II] & Part-II: Financial/Commercial/Price Bid (all have same meaning) [Annexure-V].

The Part-I (Technical bid) should contain the EMD, compliance/non-compliance of detailed technical specifications as per the BID/TENDER document along with other desired information/certificate, eligibility documents etc.

The Part-II (Financial Bid) shall only contain the price offered in the Bid format provided with document along with other desired information/certificate, etc, if any.

Both the Bids should be properly placed in two **separate sealed envelopes** and marked accordingly (**must super-scribed TECHNICAL BID or FINANCIAL BID on the top of each respective envelope**) for their proper identification. These should again be sealed in a third bigger **envelope super-scribing, “Bid for Supply and installation of Equipments for Power System Protection Laboratory”**.

The Part-I (Technical bid) will be opened on the date of tender opening and the Part-II (Financial Bid) after evaluation of Part-I. The Part-II (Financial Bid) of only technically qualified bidders shall be opened, as decided by the Bid Technical Evaluation Committee (TEC). The decision of the TEC

shall be final and binding on all the bidders. If both the bids (Technical Bid and Financial Bid) are sealed together in same envelop, the bids shall be rejected.

5. **Enclosures:**

The bidder must attach the suitable supporting documents. The **Technical and Financial bids** will be submitted in the specific formats enclosed with this tender document in separate sealed envelopes. All the enclosures attached with the bid shall also be signed and stamped by the bidder. Please ensure following:

(a) **Technical bid** must comprise of following:

- (i) A clause by clause compliance on Terms and Conditions of the tender and the pointwise compliance of all Technical Specifications, etc. for all the items.
- (ii) Duly filled, signed and stamped **Technical Bid (Bidder Profile)** on the **letter head of the bidder [Annexure-II]**.
- (iii) Duly filled, signed and stamped **Technical Specification Compliance Statement (Technical Criterion)** on the **letter head of the bidder [Annexure-III]**.
- (iv) Duly filled, signed and stamped **undertaking** on the **letter head of the bidder [Annexure-IV]**.
- (v) All the certificates and declarations required under the Specific Conditions of this TENDER/BID document.
- (vi) The bidder must submit supply records and satisfactory supply certificate of completing similar item to IIT's, NIT's, and Government/Public undertakings/Organizations of National Importance in last two years by the bidder or OEM.
- (vii) Income Tax Returns or Annual report/audited annual accounts showing the turnover of the bidder.
- (viii) EMD in the form of Demand Draft must be enclosed with the Technical Bid.
- (ix) **The bidder should provide complete technical details, printed literature/brochure of the manufacturer along with model/make and the same should be verifiable from the website of the Bidder/OEM. Mere copying the technical specification provided in the Annexure-I will lead to rejection of the bid.**
- (x) Brief description about the company including orders executed with Government organizations/Institutions, showing size, cost and completion details of each supply.
- (xi) The **GST registration** number and photocopy of certificate.
- (xii) **The PAN number** of proprietor/firm/companies with photocopy of the PAN card.
- (xiii) **OEM certificate or authorized dealership/supplier certificate for the equipment/goods quoted in the tender.**
- (xiv) The enclosed formats in original should be used for the Bids. All sheets submitted must be signed by the authorized signatory of the company and duly affixed with firm's stamp. Additional sheets duly authenticated may be attached to elucidate specific issue, if any.
- (xv) The bidder must submit a self-certified declaration that the bidding firm/ manufacturer or the consortium (any partner of consortium) has not been blacklisted from participating in the tendering/bidding process by any Central or any State Government Institute/Organization (including autonomous Institute/ Organization) in Last Three Years.

Noncompliance of any of the above may result in rejection of the bid summarily and no query in this regard shall be entertained.

(b) Financial Bid/Price Bid:

Financial bid will comprise of duly filled, signed and stamped Financial Bid in the format given at **Annexure-V**. Financial Bid/Price Bid only and must be placed in separate envelope duly sealed and signed. This envelop must be super-scribed with "**Financial Bid for supply and installation of Equipments for Power System Protection Laboratory**". If Financial Bid is placed with the Technical Bid in the same envelop, the bid shall be rejected.

NIT Sikkim being a Public Funded Research Institution, vide Notification No. 45/2017 Central Tax (Rate) and No 47/2017-Integrated Tax (Rate) is eligible for concessional rate of GST on purchase of research items. Further concession on customs duty is also available on customs duty vide notification No. 51/96-Cus. DSIR certificate shall be provided by the Institute to claim such concessional rate. Bidders are required to take into account the said concession in the Financial Bid. The concessional rate of GST is 5%.

6. Bid Security:

The Bid Security of **Rs.1,50,000/- (Rupees One Lakh Fifty Thousand Only)** (i.e. Earnest Money Deposit, EMD) in the form of Demand draft from any scheduled bank drawn in favour of "Director, NIT SIKKIM" payable at RAVANGLA, South Sikkim-737139 must accompany with **Technical Bid. No interest shall be paid on the submitted EMD. The demand draft must be drawn from the bank after the date of publication of tender and must carry minimum validity of 3 months, failing which the bid shall be rejected.** Offer without EMD will be rejected summarily except in case of exempted bidders holding valid MSME/NSIC license exempting such bidders from furnishing of EMD. No exemption from the EMD (Bid Security) is allowable to the Trader/Reseller as per MSME guidelines.

The Bid Security of unsuccessful bidders shall be refunded after finalization of bid/award of contract to successful bidder. EMD of the unsuccessful Bidders will be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract in original form (i.e. Demand Draft submitted along with bid).

The Bid Security of the successful Bidder will be returned after the receipt of Performance Security as called for in the contract/adjusted towards performance security. No interest shall be payable to any bidder on the EMD with the Institute. The EMD of the technically disqualified bidders may be returned in original (i.e. the Demand Draft submitted along with bid).

The Bid Security shall be forfeited, (i) if a Bidder withdraws its bid during the period of bid validity; or (ii) if a Bidder makes any statement or submits any information which turns out to be false, incorrect and/or misleading at any time and / or conceals or suppresses material information: or (iii) in case of successful Bidder, if the Bidder fails to execute the order or withdraws the offer or uses means to secure the order which is prohibited as per the terms and conditions in this document. The decision of the Institute authorities shall be final and binding on the bidder(s).

7. Amendment in Bid/Tender Document:

At any time up to the last date of receipt of Bids, the Institute may, for any reason, whether at its own initiative or in response to a clarification requested by a Bidder, modify the Bid/tender document by an amendment. The amendment will be notified in writing through Institute website or email (if provided) to all the prospective Bidders, the same shall be binding on all the prospective bidders.

The Institute may, at its discretion, extend the last date for the receipt of Bids/cancel the Bidding process. It shall be the responsibility of the interested bidder(s) to regularly visit the website for any amendment/ information.

8. Bid Disqualification:

The proposal is liable to be disqualified in the following cases, however, the decision of the Institute committee shall be final and binding on all the bidders:

- (a) Proposal not submitted in accordance with instructions provided in this document.
- (b) Proposal is received in incomplete form.
- (c) Proposal is received after due date and time.
- (d) Proposal is not accompanied by all requisite supporting documents mentioned in the tender document.
- (e) The Financial Bid/Price Bid is placed in the same envelope as the Technical Bid.
- (f) If bid is not accomplished with EMD as per the clause given in this bid document.
- (g) Canvassing by the Bidder in any form, unsolicited letter and post-tender correction will invoke summarily rejection of the bid and may result in forfeiture of EMD.
- (h) Conditional tenders/Bids will be summarily rejected.
- (i) Any false/misleading/ incorrect information/document.
- (j) Bidder fails to deposit the Bid Security/Performance security or fails to enter into a contract within specified date of notice of award of contract or within such extended period, as may be specified by the Institute.

9. Queries and Clarification:

The queries and clarification in this Bid/Tender must be addressed to “Registrar” and the same must be sent through conventional mail as well as email/Fax in the format below:

S. No.	Clause No. (as per the Bid/Tender)	Your understanding/ interpretation	Clarification sought from Institute

10. Clarification regarding contents of the Bids:

During evaluation and comparison of bids, the Buyer (NIT Sikkim) may, at its discretion, ask the bidder for clarification of his/her bid. The request for clarification will be given in writing (post/fax/email) and no change in prices or substance of the bid will be sought, offered or permitted. The clarification must be provided within the time stipulated by the Institute else the bid submitted may be rejected. No post-bid clarification on the initiative/request of the bidder will be entertained.

11. Withdrawal of Bid Submitted:

Bidders unwilling to participate in the bidding process after submitting the bid must ensure that intimation to this effect must reached the Registrar, NIT Sikkim before the due date and time of the opening of the Bids, failing which the defaulting Bidder may be delisted and will result in forfeiture of EMD.

12. Right to Accept/ Reject Bids:

The Institute reserves the right not to accept any bid and to annul the tender/bid process and reject all bids at any stage, without thereby incurring any liability or assigning any reason to the affected Bidders or any obligation to inform the affected Bidders on the grounds for such action.

13. Only One Bid Per Bidder:

Each firm is allowed to submit only one bid either by himself or as partner in joint venture or as a member of consortium. If any firm found to submit more than one bid, all the bid shall be summarily rejected.

14. Confidentiality:

Institute and the seller (Awardee of the Contract) or their personnel shall not, either during the term or after expiration of this work order, disclose any proprietary or confidential information relating to the services, agreement or the business or operations without the prior written consent from the Institute or vice versa.

15. Force Majeure:

During the pendency of the service agreement if the performance in whole or part thereof, by either party is prevented/delayed by causes arising due to any war, hostilities, civil commotion, act of public enemy, sabotage, fire, floods, explosion, epidemics, non-availability of raw material and other consumables, or any other causes including breakdown of equipment beyond their reasonable control. Neither of the two parties shall be made liable for loss or damage due to delay or failure to perform the contract during the pendency of forced conditions provided that the happenings are notified in writing within 7 days from the date of occurrence. The work shall be resumed under the contract as soon as possible after the restoration of normalcy. The Institute reserves the right to grant time period extension on the request of bidder or otherwise.

16. Termination of Purchase Order: The Institute may, without prejudice to any other remedy for breach of agreement, may terminate the purchase order/agreement in whole or in part, by written notice of default sent to the Bidder, and the performance guarantee shall stand forfeited if:

- (a) The Bidder fails to deliver any or all of the obligations within the time period(s) specified in the purchase order/ work order/contract/agreement, or any extension thereof granted by the Institute.
- (b) The Bidder fails to perform any other obligation(s) under the work order/agreement and fails to rectify it within the notice period for the rectification of the same.
- (c) Information/document submitted in technical proposal is found to be misrepresented, incorrect or false accidentally/unwittingly or otherwise at any time during the processing of the bid/contract (no matter at what stage) or during the tenure of the contract including the extension period if any. This may also invite any action (legal/debarring future participation in the bids) against the defaulter as deemed fit by the Institute.
- (d) The loss incurred due to termination of the work and addition cost incurred in completion of the work by any other firm, selected by the Institute shall be recovered from the defaulted firm/party.

17. Termination for Insolvency:

The Institute may at any time terminate the work order by giving written notice to the Bidder without compensation, if the Bidder becomes bankrupt/insolvent, provided that such termination shall not prejudice or affect any right of action or remedy which has accrued thereafter to the Institute.

The termination shall be based on the advice of Technical Committee constituted by the Institute.

18. Bid Evaluation Criteria:

The broad guidelines for evaluation of Bids will be as follows:

- (a) Only those Bids will be evaluated which are found to be fulfilling all the eligibility and qualifying requirements of the Bid/TENDER document, both technically and financially.

- (b) In respect of Two-Bid system, the technical Bids Submitted by the Bidders will be evaluated by the Buyer's Tender Evaluation Committee (TEC) with reference to the eligibility criteria and technical specifications of the goods as mentioned in the BID/TENDER document. The technical compliance of each bid will be determined on the basis of the parameters and specifications specified in the BID/TENDER document and as decided by the TEC. The Financial bids of only those Bidders will be opened whose Technical Bids shall qualify the technical evaluation.
- (c) The Bidders are required to spell out the **rates of GST, etc.** in unambiguous terms; otherwise their offers will be loaded with the maximum rates of duties and taxes for the purpose of comparison of prices.
- (d) **The price bid shall be evaluated on a collective basis for all the items put together as a package. Price of individual items shall not be considered separately.**
- (e) If there is a discrepancy between the **unit price and the total price** that is determined by multiplying the unit price and quantity, the **unit price** will prevail and the total price will be corrected by the Institute Committee. If there is a discrepancy between words and figures, the amount in words will prevail for calculation of price and comparison of bids.
- (f) NIT Sikkim reserves the right to modify in exceptional case any of the stipulated terms and conditions on merit / genuine and justifying grounds if it is in the larger interest of the Institute. The final acceptance of the bid rests entirely with the NIT Sikkim who does not bind himself to accept the lowest tender. The lowest price may not be the sole criteria for deciding the successful bidder, the Institute is free to take other factors in deciding the successful bidder for award of purchase order/ work order/contract/agreement in the interest of the Institute and its stakeholders. The Institute committee reserves all rights in this regard and no query or complaints in this regard shall be entertained. The selection will be made purely on the basis of committee's recommendation, genuineness of the firm and based on the technical specification of various products as per printed catalogues, details on website and also on the basis of experience, performance, promptness of delivery and requirements of the Institute.
19. **Firms/Bidders shall be required to accept all the Terms and Conditions mentioned in this BID/TENDER or modified/amended and shall be the part of the purchase order/work order/contract/agreement.**
20. **Placement of Order:**
- The **Purchase/Work Order** will be placed on successful completion of the process to the successful bidder called the "SUPPLIER/SELLER". Once the order is placed, it will be the firm/vendor's responsibility to supply the goods and complete the work awarded to the satisfaction of the Institute. It shall be the sole responsibility of the firm/vendor (Successful Bidder) to make the project functional in all respect. **Any additional cost incurred on account of this, for which the firm/vendor has not bid/quoted at the time of submission of the bid offer, will be borne by the firm/vendor. The Institute reserves the right for pre-inspection of the goods/ equipment quoted by the bidder before issue of P.O.**

21. **Arbitration:**

All disputes or differences arising out of or in connection with the purchase order/work order/contract/agreement shall be settled by bilateral discussions. Any dispute, disagreement or question arising out of or relating to the Contract or relating to the performance, which cannot be settled amicably, may be resolved through arbitration. The standard clause of arbitration will be as per the Institute norms/decision. All disputes, differences, claims and demands arising under or pursuant to or touching the agreement shall be referred to the sole arbitrator to be appointed by the Institute.

The award of the sole arbitrator shall be final and binding on both the parties under the provisions of the Arbitration and Conciliation Act, 1996 or by statutory modification/re-enactment thereof for the time being in force. Such arbitration will be held at NIT SIKKIM. It is clarified that Civil court shall have no jurisdiction to entertain any such disputes.

22. Jurisdiction of Courts:

In all matters and disputes arising here under, the appropriate Courts at Sikkim/New Delhi only shall have jurisdiction to entertain and try them only after the failure of arbitration process, if any.

Specific Terms & Conditions

1. The bidder must either be an Original Equipment Manufacturer (OEM) or an authorized dealer/supplier/licensed distributor of the item offered in the bid. The certificate of OEM/ Authorized Dealership/supplier should be enclosed with the bid, else bid will be rejected.
2. Bidder should have valid GST registration. Only invoices/Bills with serial numbers and printed with GSTIN number shall be accepted.
3. The bidder/OEM should have prior experience in supply of similar type of goods/equipment in IIT's, NIT's, and Government/Public undertakings/Organizations of National Importance in last two years. The bidder must enclose purchase order or satisfactory supply certificate from the respective organization with the technical bid submitted against this tender.
4. The bidder must submit a self-certified declaration that the bidding firm/manufacturer or the consortium (any partner of consortium) has not been blacklisted from participating in the tendering/bidding process by any Central or any State Government Institute/Organization (including autonomous Institute/Organization) in **Last Three Years**.
5. The bidder must have an average turnover of **Rs.1,00,00,000/- (Rupees One Crore only)** in the related trade in the two previous financial years. The bidder must enclose annual report/audited annual accounts or income tax return as proof for the same.
6. Bid or order may be cancelled or delivered items may be not be accepted fully or partially at any time if it is found that **Goods** differs or deviates from the mentioned and accepted specification and quality in the bid. The decision of the committee constituted by the Institute for this purpose shall be final and binding on the supplier(s). Any action under this clause shall make the EMD/security deposit liable to be forfeited.
7. **Packing, forwarding, insurance, freight, loading, unloading, etc. charges should be inclusive in the price. Prices must be quoted on F.O.R basis.** For any damage/loss during transit, **supplier** shall be solely responsible and damaged/lost items must be replaced by supplier at his/her own cost.
8. **Validity:** Bids shall remain valid for 180 days from date of the Tender closing Date.
9. All the terms and conditions mentioned herein must be strictly adhered to by all the bidders/ firms/suppliers. Conditional tenders shall not be accepted on any ground and shall be rejected straightway.
10. The information/orders/notices, etc. communicated through **E-mail/Fax** provided to the firms/ suppliers shall be treated authentic means of communication for all purposes. Providing the **correct contact details (Telephone/mobile Nos., official E-mail ID, address, etc.)** shall be the sole responsibility of the bidders/firms/suppliers. No reason for non-receipt or non-acceptance of the information/orders, etc. through **E-mail** shall be entertained by the Institute. **The Institute may not send the above through formal postal services, if firms/suppliers so wishes may collect the Hard copy form the concern office of the Institute.** It is mandatory to sign and stamp all important documents/orders/notices, etc. to be considered valid.

- 11. Delivery and Installation Period:** Total delivery period for the items shall be **120 days from date of issue of Purchase Order**. The Institute reserves the right to extend the delivery time on the request with valid reason. Liquidity damage as per the tender document shall be levied in case of failure to abide by the delivery period. If supplier fails to deliver the Goods within the delivery period, NIT Sikkim may cancel full order or parts of the order and EMD will not be returned to the bidder. NIT Sikkim also reserves the right to place the order for the GOODS to any other bidder/firm/supplier in case of failure of the successful bidder.
- 12. Place of Delivery:** National Institute of Technology, Ravangla, South Sikkim, Sikkim, Pin-737139, India (**26 km from Namchi, Sikkim, 140 km from Siliguri, West Bengal**). The consignee for the contract is Registrar/Store Officer of the Institute.
- 13. Payment** shall be made in Indian Rupees as follows: Satisfactory Delivery & Inspection – 70 - 80% of total cost; Satisfactory installation and Acceptance – 20 - 30% of total cost.
- 14. Advance Payments:** No advance payment(s) will be made.
- 15. Paying Authority:**
- The Director, NIT Sikkim shall be the payment authority. The payments shall be released on fulfilment of all obligations under the purchase order/tender/contract to the satisfaction of the Institute authorities. The Institute authority reserves the right to withhold payment. The payments of bills will be made on submission of the following documents by the seller to the paying authority;
- Ink-signed copy of Commercial invoice/contingent bill/seller's bill in triplicate copy.
 - Exemption certificate for GST, if applicable (BY BUYER).
 - Details for electronic payments viz. Account holder's name, Bank name, Branch name and address, Account type, Account number, IFSC code (if these details are not incorporated in supply order/contract).
 - Performance Security as per the tender document.
 - Any other document/certificate that may be provided for in the Supply Order/Contract.
- (Note: From the above list, the documents that may be required depend upon the peculiarities of the procurement being undertaken)*
- 16. Responsibility of ensuring quality with specification** lies with the supplier. Deviation of technical specification from the approved sample may lead to rejection of delivery or cancellation of order along with forfeiture of EMD. The specification (Annexure-I) given in the bid document shall form the integral part of this bid document and the P.O.
- 17.** The Bidder/tenderer/OEM should have a 24 x 7 technical assistance, preferably in Eastern/Central part of India and the bidder/OEM must have service centres of their own preferably in eastern India/West Bengal with engineers qualified to handle the repair & maintenance work.
- 18.** Bidder must quote for all the items mentioned in the tender otherwise bid will be rejected without assigning any reason.
- 19. Warranty/Guarantee: Three (03) Years** onsite comprehensive warranty from the date of successful installation should be provided by the bidder. Certificate mentioning acceptance of this clause should be enclosed with the bid. Authorization certificate from the OEM/Principal assuring full guarantee and warrantee obligations during the liability period, for the goods offered. The supplier has to confirm supply of back up of spares for a min period of 5 years.
- 20.** Equipment/items should be supplied with operating manual, installation manual along with having testing procedure, machine BOM, electrical connection along with foundation drawing, etc. in hard or soft copy.

21. Bidder may depute authorized representative with proper authorization letter for attending bids opening as per the schedule notified by the Institute time to time.
22. A bid submitted with false information will not only be rejected but also the bidder will be debarred from participation in future tendering process of NIT Sikkim and may even invite a legal action against such bidder(s).
23. Any type of defect pointed out by the authorized representative/committee of the Institution in the goods/items, etc. in the scope of this tender, the same shall be rectified in reasonable time as per the directions of the Institute authority. It may consist of replacement of goods/ onsite rectification at supplier's own cost. Noncompliance of the Institute directions in stipulated time may invite other clause of this bid document, such as blacklisting of the firm.
24. The bidder must enclose certificates evidencing quality, or statutory compliance along with the bid documents duly certified to be true copies. Brochures/manuals of quoted model should also be attached with the bid documents. **The bidder should provide complete technical details (printed literature of the manufacturer along with model/make) and the same should be verifiable from the website of the vendor/OEM. Mere copying the technical specification provided in the Annexure-I will lead to cancellation of the bid.**
25. NIT Sikkim may waive any minor informality or non-conformity or irregularity in a bid, which does not constitute a material deviation, provided such a waiver, does not prejudice or affect the relative ranking of any bidder.
26. The items to be supplied under this contract shall conform to the standards mentioned in the technical specifications. And when no applicable standard is mentioned, the authoritative standard appropriate to the goods' country of origin and such standards shall be the latest issued by the concerned institution/Organization in the country or otherwise.
27. NIT Sikkim reserves right to award the order to one or more bidder.

28. Performance Security:

Within 10 days (Ten Days) of the completion of order/ work order/contract, the successful bidder shall furnish a Performance Guarantee of an **amount equivalent to 5% of the order value or as per Govt. of India directions**. Performance Guarantee submitted shall be from a Scheduled Commercial Bank only. Performance Bank Guarantee (PBG) in the form of Demand Draft, Fixed Deposit Receipt/Bank Guarantee in the standard format from a scheduled commercial bank shall only be acceptable. Performance Bank Guarantee (PBG) should be valid upto 60 days beyond the date of warranty/last date of contract period. In case of failure to submit the performance security, equivalent amount shall be deducted from the bill payable and kept as security till the PBG is submitted.

29. Liquidated Damages (LD) and Penalty Clause for Delay:

In the event of the Suppliers/firms failure to supply the goods and conduct trials, installation of equipment, training, etc. as specified in this contract, the Buyer may, at his discretion, withhold any payment until the completion of the required work(s) to the satisfaction of the Institute. The BUYER may also deduct any amount/penalty from the SELLER/SUPPLIER (successful bidder) payment due as deemed necessary. Liquidated damages for the delayed/undelivered stores/goods/services/installation as mentioned above, subject to the maximum value of the Liquidated Damages being not higher than 15% of the total PO/contract value.

In case of delay attributed solely to the negligence of the firm (service provider) in the execution of supply of goods, service, etc., penalties at the following rates shall be imposed;

- (a) 1% of the total cost for delay up to 15 days;
- (b) 2% of the total cost for delay more than 15 days but less than 30 days;

- (c) 5% of the total cost for delay more than 30 days but less than 60 days;
- (d) 10% of the total cost for delay more than 60 days but less than 90 days;
- (e) 15% of the total cost for delay more than 90 days.

The competent authorities of the Institute reserve the right to increase the supply/installation/service etc. time period on the request of the firm or its own reasons or waive off the penalty. Maximum delay of 150 days is tolerable, beyond which the order/agreement is liable to be cancelled. The loss incurred due to non-performance of the firm/vendor will be recovered from the firm/vendor and firm shall be blacklisted/prohibited for atleast 2 year from participation in any bid of NIT Sikkim.

30. Effective Date of the Supply Order:

The work/supply/contract Order shall come into effect from the date **three days** later of its issuance by the NIT Sikkim. The firm has to acknowledge the same and shall remain valid until the completion of the obligations of the parties under the Order. The deliveries supplies and performance of the services shall commence from the effective date of the Order. In case of nonreceipt of acknowledgement from the Bidder, effective date of the Purchase Order/Contract will be **three day from the date of signing this Order**. The information/orders/notices, etc. communicated through **E-mail** provided to the firms/suppliers shall be treated authentic means of communication for all purposes.

31. Penalty for use of Undue influence:

The Seller undertakes that he has not given, offered or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contracts/work orders or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the present Contract or any other Contract with the Institute for showing or forbearing to show favour or disfavour to any person in relation to the present Contract or any other Contract with the Institute. Any breach of the aforesaid undertaking by the Seller or any one employed by him or acting on his behalf (whether with or without the knowledge of the Seller) or the commission of any offers by the Seller or anyone employed by him or acting on his behalf shall entitle the Buyer to cancel the contract and all or any other contracts with the Seller and recover from the Seller the amount of any loss arising from such cancellation. A decision of the Buyer or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the Seller. Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the Seller towards any officer/employee of the Buyer or to any other person in a position to influence any officer/employee of the Buyer for showing any favour in relation to this or any other contract, shall render the Seller to such liability/penalty as the Buyer may deem proper, including but not limited to termination of the contract, imposition of penal damages, forfeiture of the PBG and refund of the amounts paid by the Buyer.

32. Termination of Contract:

The Buyer shall have the right to terminate this Contract in part or in full in any of the following cases:

- (a) Contract can be cancelled/ terminated unilaterally by the buyer in case items are not received within the contracted delivery period. Extension of contracted delivery period will be at the sole discretion of the Buyer with applicability of LD (Liquidated Damages) clause mentioned above.
- (b) The Seller is declared bankrupt or becomes insolvent.
- (c) The delivery of material is delayed due to causes of Force Majeure by more than three months or as decided by the Institute.

- (d) The Buyer has noticed that the Seller has utilized the services of any Indian/Foreign agent in getting this contract and paid any commission to such individual/company etc.
- (e) As per decision of the Arbitration.

33. Notice:

Any notice required or permitted by the contract shall be written in the English language and may be delivered personally or may be sent by E-mail/FAX or registered pre-paid mail/airmail, addressed to the last known address of the party to whom it is to be sent.

34. Transfer and Sub-letting:

The Seller has no right to give, bargain, sell, assign or sublet or otherwise dispose of the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the present Contract or any part thereof.

35. Amendments:

No provision of present Contract shall be changed or modified in any way (including this provision) either in whole or in part except by an instrument in writing made after the date of this Contract and signed on behalf of both the parties and which expressly states to amend the present Contract. However, NIT Sikkim reserves the rights to do so and bidder have to accept the same.

36. Risk and Expense Clause:

- (a) Should the stores/goods or any instalment thereof not be delivered within the time or times specified in the contract documents, or if defective delivery is made in respect of the stores or any instalment thereof, the Buyer shall after granting the Seller 30 days to cure the breach, be at liberty, without prejudice to the right to recover liquidated damages as a remedy for breach of contract, to declare the contract as cancelled either wholly or to the extent of such default.
- (b) Should the good/stores or any instalment thereof not perform in accordance with the specifications/ parameters provided by the SELLER during the check proof tests to be done in the BUYER, the BUYER shall be at liberty, without prejudice to any other remedies for breach of contract, to cancel the contract wholly or to the extent of such default.
- (c) In case of a material breach that was not remedied within 30 days, the BUYER shall, having given the right of first refusal to the SELLER be at liberty to purchase, manufacture, or procure from any other source as he thinks fit, other stores of the same or similar description to successful completion of the project in all respect.
- (d) Any excess of the purchase price, cost of manufacturer, or value of any stores procured from any other supplier as the case may be, over the contract price appropriate to such default or balance shall be recoverable from the SELLER.

37. Quality: The quality of the stores/goods delivered according to the present Contract shall correspond to the technical specifications and standards valid for the deliveries of the same stores for in Seller's country or specifications enumerated as per BID/TENDER and shall also include therein modification to the stores suggested by the Buyer.

38. Inspection Authority: The Inspection will be carried out by a Technical Committee appointed by the Institute for this purpose. The mode of Inspection will be Technical Committee Inspection/or as defined by the Institute. The committee may suggest the seller with respect to above quality clause for compliance.

39. Franking Clause: The following Franking clause will form part of the contract placed on successful Bidder:

- (a) Franking Clause in the case of Acceptance of Goods “The fact that the goods have been inspected after the delivery period and passed by the Inspecting officer/committee will not have the effect of keeping the contract alive. The goods are being passed without prejudice to the rights of the Buyer under the terms and conditions of the contract”.
- (b) Franking Clause in the case of Rejection of Goods “The fact that the goods have been inspected after the delivery period and rejected by the Inspecting officer/committee will not bind the Buyer in any manner. The goods are being rejected without prejudice to the rights of the Buyer under the terms and conditions of the contract.” In this case action will be taken as per the clause given in this bid document.

40. Claims:

The following Claims clause will form part of the contract placed on successful bidder:

- (a) The claims may be presented either;
 - (i) On quantity of the stores, where the quantity does not correspond to the quantity shown in the Packing List/Insufficiency in packing.
 - (ii) On quality of the stores/goods, where quality does not correspond to the specifications/quality mentioned in the contract.
- (b) The description and quantity of the stores are to be furnished to the Seller along with concrete reasons for making the claims. Copies of all the justifying documents shall be enclosed to the presented claim. The Seller will settle the claims within 30 days from the date of the receipt of the claim at the Seller’s office. In case no response is received during this period the claim will be deemed to have been accepted.
- (c) The Seller shall collect the defective or rejected goods from the location mentioned by the Buyer and deliver the repaired or replaced goods at the same location under Seller’s arrangement.
- (d) Claims may also be settled by reduction of cost of goods under claim from Performance Security submitted by the Seller or payment of claim amount by Seller through demand draft drawn on an Indian Bank in favour of the Director/Registrar of the Institute.
- (e) The quality claims will be raised solely by the Buyer and without any certification/ countersignature by the Seller’s representative stationed in India and seller has to rectify/ replace/upgrade to ensure the same during contract liability period, i.e. warranty period.

41. After Sale Service:

The successful bidder/seller/contract Awardee has to provide the after-sale services as per the terms & conditions of this contract. Any equipment or part is found to be not adhering the quality at any stage of the contract period, the bidder/seller/contract Awardee has to rectify/replace that equipment within 15 days, else her/his firm will be blacklisted.

Note Carefully:

1. The Bidder is required to read and examine all the terms and conditions, specifications and instructions given in the TENDER/BID document with full understanding of its implications.
2. Failure to furnish any information required for submission of a bid or bids not substantially responsive in every respect may result in outright rejection.

3. The Bidder is required to give an undertaking of understanding and acceptance of all the terms and conditions mentioned in the Bid document.
4. The sole responsibility to comply with all terms and conditions, specifications and instructions in all respect lies with the bidder and NIT Sikkim shall not be held responsible in any respect in this regard.

Registrar

The Detailed Technical Specification for Power System Protection Laboratory

S. No.	Item specification	Qty
1	<p><u>Numerical Over Current and Earth Fault Relay Trainer</u></p> <p><u>Salient Features</u> The Control software should be capable of:</p> <ul style="list-style-type: none"> - Remote operation of the test in aid to manual function with all related feedback data & event logging in PC for relay live status and monitoring controlling and data acquisition - Graphical representation and tabulation of test data and fault to ensure characteristic data of particular relay on PC and can be executed in printable format - Multi-connection (more than one device) supported via mobile app - The change trend analysis accessible via special chart mode - Voice warning supported, which assures measurement safety - Smart voice-reading accessible - Should be display with + 3(5/6)-digit full scale reading, - Should be supported Bluetooth 2.0 version - supports mobile device with Android 4.0 or above OS <p>The trainer should have following specifications:</p> <p>Numerical over current relay</p> <ul style="list-style-type: none"> - Single phase, high-set, non-directional Over current relay with instantaneous or definite time function - Low-set non -directional Earth fault Relay with inverse definite minimum time (IDMT) or definite time characteristics - Password protection - 2 line 16 characters industrial grade LCD with back-lit module for numerical display of setting values and measured values which is user friendly - Trips for default/previously selected curve if the fault occurs during settings of the relay - Membrane key pad for easy operation, dust proof front panel - Enabling /Disabling of High-Set - LED indications for power, pick-up, phase fault trip or Earth Fault trip for IDMT and High-set - Relay test facility with relay trip & without relay trip - Separate heavy duty output contacts provided for time delayed phase fault with high-set and time delayed Earth Fault with high-set <p>Current Injunction Source</p> <ul style="list-style-type: none"> - One number of auto transformer provided for current adjustment - One number of loading transformer used for current source - Current output applied to CT. - One number of digital ammeter used to indicate current - Specification: current range: 0-20Amp AC. (continuously variable) - One number of automatic relay tripping time measurement circuit - One number of start/stop push-to on switch provided for time measurement circuit - One number of digital timer provided to measure relay tripping time - One number of reset switch provided for timer reset - One number of NO contacts @ 220V ,10Amp rating - One number of NC contacts @ 220V ,10Amp rating 	01

2	<p><u>Directional over Current Relay Test Bench- (Numerical)</u></p> <p>Salient Features</p> <p>The Control software should be capable of:</p> <ul style="list-style-type: none"> - Remote operation of the test in aid to manual function with all related feedback data & event logging in PC for relay live status and monitoring controlling and data acquisition - Graphical representation and tabulation of test data and fault to ensure characteristic data of particular relay on PC and can be executed in printable format - Multi-connection (more than one device) supported via mobile app - The change trend analysis accessible via special chart mode - Voice warning supported, which assures measurement safety - Smart voice-reading accessible - Should be display with + 3(5/6)-digit full scale reading, - Should be supported Bluetooth 2.0 version - Should support mobile device with Android 4.0 or above OS <p>The trainer should have following specifications:</p> <ul style="list-style-type: none"> - Integrated Relay with cutout and terminals - Type -Directional over Current Relay, - CT Input 2A, - Function IDMT/DMT Curve IDMT/DMT curve, - Features Self powered / supply 48vdc, - One number of variable AC current Source of 0-20A, - One number of Autotransformer is provided to adjust the current output continuously - Provision to change the direction of current source., - One number of digital AC Ammeter (0-30A) /3.5 digit / VERITEK Make to measure the current input in amp, - One number of Automatic trip time measurement circuit (ATTM Circuit) - One number START push button in ATTM Circuit, - One number STOP push button in ATTM Circuit, - One number LCD - Digital stop Clock in ATTM Circuit to measure relay trip time in S, S/10, S/100, - One number reset switch in front panel to restart the digital stop clock - Software to download Disturbance Records - Disturbance Records (to be available to be plotted in a spreadsheet) - Disturbance data for further analysis in any Power System analysis tool - RS232 – USB Converter Included 	01
3	<p><u>Under/Over Voltage Relay Test Bench- (Numerical)</u></p> <p>Salient Features</p> <p>The Control software should be capable of:</p> <ul style="list-style-type: none"> - Remote operation of the test in aid to manual function with all related feedback data & event logging in PC for relay live status and monitoring controlling and data acquisition - Graphical representation and tabulation of test data and fault to ensure characteristic data of particular relay on PC and can be executed in printable format - Facilitate easy and safe wiring using 4mm sturdy shrouded banana patch chords - Multi-connection (more than one device) supported via mobile app - The change trend analysis accessible via special chart mode - Voice warning supported, which assures measurement safety - Smart voice-reading accessible - Should be display with + 3(5/6)-digit full scale reading, - Should be supported Bluetooth 2.0 version - supports mobile device with Android 4.0 or above OS 	01

The relay test bench should

- Have sturdy enclosure with colorful overlays showing circuit diagrams and its connections for easy understanding of students
- Set of instruction working manual
- Stage under/over voltage (27/59)
- Numerical, true RMS measurement
- Wide voltage setting ranges
- Multiple inverse characteristics (160)

Control Panel

- The relay has 8 output contacts
- Trip/alarm for both elements 2 N/O
- Common starter for both elements 1 N/O
- Element 1 operated 1 N/O
- Element 2 operated 1 N/O
- Protection Unhealthy 1 N/C
- Timer 1 N/O
- Trip circuit fail 1 N/O
- Timer for capacitor bank to switch to safer value before successive switching of the breaker

Monitoring

- Trip circuit supervision
- Self-monitoring facility
- User Interface
- Sealable front cover to prevent unauthorised access
- Other Features
- Drawout modular case
- Compact design
- Non-volatile memory for trip indication
- Voltage Input Rating upto 230V A.C (same terminals)
- Frequency (Fn) 50 Hz Nominal
- Auxiliary Supply
- Nominal Voltage Voltage Range
- 24/30/48/110V DC 18-135VDC
- 48/110/220V DC 43-280VDC (or) 110V AC
- DC Input
- Nominal Voltage Voltage Range
- 24/30V DC 18 - 36V DC
- Settings
- Element 1 : UV, OV or OFF
- Element 2 : UV, OV or OFF
- Voltage Setting
- 5V to 275 V in steps of 1 V

Voltage Injection Source

- One number of auto transformer to be used for Voltage adjustment
- Voltage output must be terminated in the banana-sockets
- One number of digital meter to be used to indicate output voltage
- Specification of the Voltage range: 0-300V AC (Continuously variables)

List of Experiments that should be possible

- Study & testing of DMT type Over/Under-Voltage Relay with different voltage & time setting
- Study & testing of IDMT type Over/Under-Voltage Relay with differential voltage & time setting
- Plotting of IDMT characteristics of OV/UV relay in PC
- How to program a numerical relay

Detailed manual with theory and practical guidance with tables and charts

4	<p><u>Percentage Biased Differential Relay Test Bench (Numeric)</u></p> <ul style="list-style-type: none"> • The relay test bench should be provided with Software for oscillographic harmonic recording up to max 1200 cycles and programmable Pre fault and Post fault cycles. • The oscillographic records should be able to transferred to PC via USB in COMTRADE format. <p>The Control software should be capable of:</p> <ul style="list-style-type: none"> - Remote operation of the test in aid to manual function with all related feedback data & event logging in PC for relay live status and monitoring controlling and data acquisition - Graphical representation and tabulation of test data and fault to ensure characteristical data of particular relay on PC and can be executed in printable format - Facilitate easy and safe wiring using 4mm sturdy shrouded banana patch chords. - Be supplied measuring instrument with data logger - Have multi-connection (more than one device) supported via mobile app - Be capable of analysis of the change trend accessible via special chart mode - Voice warning supported, which assures measurement safety - Smart voice-reading accessible - display with + 3(5/6)-digit full scale reading, - Should be supported Bluetooth 2.0 version - supports mobile device with Android 4.0 or above OS <p>The relay test bench should</p> <ul style="list-style-type: none"> - Have sturdy enclosure with colorful overlays showing circuit diagrams and its connections for easy understanding of students. - Detailed manual with theory and practical guidance with tables and charts <p>This set up should be</p> <ul style="list-style-type: none"> - With one number of Single-phase numerical transformer protection relay - With Resistive load - Based on DSP Based Digital Algorithms - With minimum Trip Time - 30ms - Password protected - 20x4 LCD Display - Power system frequency 50Hz - Field Configurable CT Secondary 1A or 5A - Configurable to Dual Slope Characteristic - Be able to demonstrate Transformer Differential Protection (ANSI CODE: 87) - With 2 number of output contacts - Capable to store history of last 20 Events - Capable to store disturbance record of last 10 Events - Configurable to Pre and Post Fault Cycles - With communication Port: Front-RS232 and Rear-RS485 - With communication Protocol: Modbus - With draw-out facility with inbuilt CT shorting <p>1. SINGLE PHASE TRANSFORMER:</p> <ul style="list-style-type: none"> - One Number of Single-phase with rating: 200VA, 230/48 V Stepdown transformer is to be provided, - One Number of Single-phase with rating: 200VA, 24-0-24/ 24-0-24 Open type transformer is to be provided. <p>2. CONTROL PANEL should have:</p> <ul style="list-style-type: none"> - Digital voltmeter and ammeters in the primary and secondary sides - Suitable fault resistances. <p>This set up should be capable of studying the various protection schemes of:</p> <ol style="list-style-type: none"> 1. Three phase transformer. 2. Single Phase Transformer. 	01
5	<p><u>Phase Distance Protection Relay Test Bench (Numeric)</u></p> <p>The Set up should be:</p>	01

	<ul style="list-style-type: none"> - Provided with Software for oscillographic harmonic recording up to max 1200 cycles and programmable Pre-fault and Post-fault cycles. - The oscillographic records should be able to transferred to PC via USB in COMTRADE format - Have sturdy enclosure with colorful overlays showing circuit diagrams and its connections for easy understanding of students. - Set of instruction working manual. - Supplied measuring instrument with data logger <p>The software should be capable of:</p> <ul style="list-style-type: none"> - Remote operation of the test in aid to manual function with all related feedback data & event logging in PC for relay live status and monitoring controlling and data acquisition - Graphical representation and tabulation of test data and fault to ensure characteristical data of particular relay on PC and can be executed in printable format - Facilitate easy and safe wiring using 4mm sturdy shrouded banana patch chords - multi-connection (more than one device) supported via mobile app - the change trend analysis accessible via special chart mode - voice warning supported, which assures measurement safety - smart voice-reading accessible - Should be display with + 3(5/6)-digit full scale reading, - Should be supported Bluetooth 2.0 version - supports mobile device with Android 4.0 or above OS <p>The relay test bench set up should be fitted with:</p> <ul style="list-style-type: none"> - Integrated Single Phase Distance Relay - MCB - Auxiliary Contactor for Trip - 3 Phase 4 wire 415 V 50 Hz Input - Power On /Off Rocker Switch for auxiliary power supply of relay - Loading transformer for current source - Current Controlled by input variac - Voltage Controlled by input variac - Digital Panel Ammeter - Digital Panel Voltmeter - Current Angle variation in steps of 30 degree (Upto 330 degree) - Time Totalizer with ATTM circuit in built - Reset timer switch <p>The relay test bench set up should be supplied with:</p> <ul style="list-style-type: none"> - Connecting Probes supplied along with the equipment - Detailed manual with theory and practical guidance with tables and charts 	
6	<p><u>Numerical Relay Development Environment Test Bench (NRDE)</u></p> <p><u>Features</u></p> <ul style="list-style-type: none"> - 8 Analog Input Channels configurable as Voltage and Current channels - 4 Digital Binary programmable I / O Channels - 4 Relay based potential free programmable Outputs - 4 LED based programmable indicators - 3 Inbuilt Keys programmable - In system hard reset option - Programmable RS 232 communication port - Programmable display through 4 X 20 LCD - Power Supply – Included - DAC Setup for Lab based simulation - Analysis Software Package - CT PT Card for Real Scenario implementation - Packaged Software Library with IDE (Downloadable) <p><u>Numerical Relay Development Test Bench must be able to</u></p>	01

- Implement and test any relay algorithm for applicability in real time environment.
- Take input from software simulated data to have any simulated condition.
- Carry out research.
- Use for simulation of COMTRADE file generated by relay in field.

Numerical Relay Development Test Bench must be able to:

- Perform the simulation of the developed and coded Relay Algorithm, uploaded through NRDE Setup using RS232 port
- Program the LCD Display, Soft push buttons and Status Indicator LED using RS232 port, provided for data exchange
- Generate the required Voltage and Current Waveform using Computer software and DAC Card provided. The same has to be fed into NRDE Main unit using 8 Analog input channels provided based on the requirements.
- Show the relay operation for respective algorithm and analog inputs using the LCD Display and LED Status indicators.
- Give a stopping input signal using NRDE Relay trip command.
- Fetch digital input to take external trigger command if required by the algorithm.

Hardware Components of Numerical Relay Development Test Bench

- DAC card to convert the output of PC-based waveform into analog signals
 - 100k sample/s and voltage range of +/- 10 Vp
 - PC based waveform through any EMTP type simulation package or from COMTRADE file
- Data acquisition through 8 analog input channels
 - Two 3-phase channels
 - Two 1-phase channels (can be any analog data)
- The A/D converts analog signal into samples and the Fourier technique to compute the magnitude of the signal
- Implementation to be based on very high-speed DSP controller
- Serial interface for programing the relay algorithm
- Output options
 - 4x20 LCD Display
 - 4 Status LED
 - 4 Digital trip command (will stop the input signal)
- Digital trip command to be configured to PC through the DAC card
- Flash memory (planned enhancement)
 - Waveform capture – similar to disturbance recorder in relays
 - Variable capture – to save the variable in algorithm. Will help to access the performance of the scheme
- Serial port to exchange the files in Flash memory
- Digital inputs
 - The algorithm can take external trigger command through this
- Optional GPS time synchronization

Software Components of Numerical Relay Development Test Bench

NRDE application

- For configuring NRDE analog channels
- For feeding simulation data to NRDE
 - Option to generate steady state waveforms
 - Option to read simulation data from text file
- MPLAB X IDE
 - Platform for developing the relay algorithm (embedded C language)
- COMTRADE viewer
 - For viewing COMTRADE files
 - For converting COMTRADE file to text file compatible with NRDE

	<ul style="list-style-type: none"> - Pre-defined Firmware libraries in MPLAB - NRDE Hardware initialization - Instantaneous and RMS value of all channels - Real and Imaginary components of all channels - Phase angle computation - 1ms counter. - LCD display function - LED indication function - Relay trip command function - External trigger input function <p><u>Deliverables</u> Complete System Integration with the following:</p> <ul style="list-style-type: none"> - Concept Relay Hardware Test Bench - Programming IDE (Software) - Programmer - Test Setup - Testing Software <p><u>The Institute will provide</u></p> <ul style="list-style-type: none"> - Desktop/Laptop Computer - Table to keep the setup - Required power supply 	
7	<p><u>Over Current Relay Test Bench– (Electromechanical Type)</u></p> <p>Salient Features</p> <p>The trainer:</p> <ul style="list-style-type: none"> - Should be consist of set of associated relay testing sub sets mounted in a light weight sturdy aluminum profile flat demo panel system. - Should not need any separate testing kit - Should facilitate easy and safe wiring using 4mm sturdy shrouded banana patch chords - Must have sturdy enclosure with colorful overlays showing circuit diagrams and its connections for easy understanding of students. - Must be with set of instruction working manual. - Must be supplied measuring instrument with data logger - Must be multi-connection (more than one device) supported via mobile app - Must be able to provide the change trend analysis accessible via special chart mode - Must be voice warning supported, which assures measurement safety - Must be with accessible smart voice-reading - Should be able to display with + 3(5/6)-digit full scale reading, - Should be supported Bluetooth 2.0 version - Should support mobile device with Android 4.0 or above OS <p>The trainer should have following specifications:</p> <ul style="list-style-type: none"> - Electromechanical Over current relay <ul style="list-style-type: none"> • Single Pole /element Over Current Relay, • PMS 50% - 200% in steps of 25%, • TMS 0.1 to 1 in steps of 0.1s, • Function IDMT, Curve, • IDMT curve of 3sec as per IEC-255, • Self-powered Hand reset type-Mechanical Flag Indicator, - Current Injection Source <ul style="list-style-type: none"> • One number of auto transformer provided for current adjustment • One number of loading transformer used for current source • Current output applied to CT. • One number of digital ammeter used to indicate current • Specification: current range: 0-20Amp AC. (continuously variable) • One number of automatic relay tripping time measurement circuit 	01

	<ul style="list-style-type: none"> • One number of start/stop push-to on switch provided for time measurement circuit • One number of digital timer provided to measure relay tripping time • One number of reset switch provided for timer reset • One number of NO contacts @ 220V ,10Amp rating • One number of NC contacts @ 220V ,10Amp rating 	
8	<p><u>Over Voltage Relay Test Bench- (Electromechanical Type)</u></p> <p>The trainer:</p> <ul style="list-style-type: none"> - consist of set of associated relay testing sub sets mounted in a light weight sturdy aluminum profile flat demo panel system. - With the testing kit should be in the main module. - Should facilitate easy and safe wiring using 4mm sturdy shrouded banana patch chords - Should have sturdy enclosure with colorful overlays showing circuit diagrams and its connections for easy understanding of students. - Should have set of instruction working manual. - Should have supplied measuring instrument with data logger - Should have multi-connection (more than one device) supported via mobile app - Must be able to provide the change trend analysis accessible via special chart mode - Must be voice warning supported, which assures measurement safety - Must be with accessible smart voice-reading - Should be able to display with + 3(5/6)-digit full scale reading, - Should be supported Bluetooth 2.0 version - Should support mobile device with Android 4.0 or above OS <p>Electromechanical Type – Over Voltage relay</p> <ul style="list-style-type: none"> - Electromechanical type – IDMT Type - With Plug setting & Time setting multiplier - 110V , With “NO” & “NC” Contact @5A Ratings - Banana connectors for external voltage input <p>Voltage Injection Source</p> <ul style="list-style-type: none"> - One number of auto transformer to be used for Voltage adjustment - Voltage output should be terminated in the banana-sockets - One number of digital meter to be used to indicate output voltage - Specification of Voltage range: 0-300V AC. (Continuously variables) 	01

Note:

It shall be the responsibility to supply complete set of equipments/items/parts/accessories necessary for installation and working of the all the Equipments. And if anything is missing from the specification, the bidder must quote the same and may bring to the notice of the Department.

(Annexure-II)

Part-I: Format for Submission of Technical Bid (Bidder Profile)

(To be enclosed with Technical Bid)

S. No.	Particulars	Fill-in Details	Ref No/ remarks, if any
01	Name and address of the bidder		
02	Whether the bidder is Proprietary/Partnership Firm/Private Ltd./Public Ltd./ Others.		
03	Name of Proprietor/Partner/Director/Managing Director		
04	Name & contact detail of Authorized representative: (Designation, Address, Mobile No., E-mail ID)		
05	Month and Year of Establishment		
06	Number of years of experience in this field		
07	Registration Number		
08	Valid GSTIN Number		
09	PAN of the Firm/Company or Proprietor		
10	Showroom/Outlet/service center Address		
11	Turnover of the bidder	2019-20: 2018-19:	
12	OEM/Authorized Dealership/Supplier Certificate from OEM		
13	Detail of Demand Draft submitted for EMD of Rs.	DD No. Date:	
14	Relevant documents as in the Tender Document		

**All fields are mandatory to fill with the copy of duly signed and stamped proof. These above points together constitute eligibility criteria.*

(Annexure-III)

COMPLIANCE STATEMENT

(Technical Criterion)

The following is the Model Quoted against the mentioned Specification:

S. No.	Item	Make and Model No.	Detailed technical specification (Write Attached or Not attached)	OEM or Authorized Dealership (Write Attached or Not attached)
1	As mentioned in Detailed Technical Specification (Annexure-I)			

S. No	Following Equipment as per the specifications given in this Bid	Brochure page no. and OEM weblink to verify the detailed specification along with operation, procedure, etc.
1	Numerical Over Current and Earth Fault Relay Trainer	
2	Directional over Current Relay Test Bench-(Numerical)	
3	Under/Over Voltage Relay Test Bench- (Numerical)	
4	Percentage Biased Differential Relay Test Bench (Numeric)	
5	1 Phase Distance Protection Relay Test Bench (Numeric)	
6	Numerical Relay Development Test Bench (NRDE)	
7	Over Current Relay Test Bench- (Electromechanical Type)	
8	Over Voltage Relay Test Bench- (Electromechanical Type)	

(Annexure-IV)

Undertaking

(On the letter head of the bidder)

To,**The Registrar
National Institute of Technology Sikkim
Ravangla, South Sikkim-737139**Sub.: Undertaking for *Tender No:* *Date:*

Dear Sir,

This is to undertake that I/We, owner(s)/authorized signatory of M/s, of ...<name of city>.... have read all the terms and conditions, specifications etc. of this Tender document and I/We fully understood all of them and I/We are fully aware of their implications. We undertake that if I/We were given the Purchase Order (PO), will abide by all the terms and conditions of the Tender document and provide all the goods/items to the satisfaction of the Institute authorities.

I further undertake that after reading and understanding all and their implications, all the pages of this tender document are signed and stamped by the authorized person of the firm.

The undersigned further certify and undertake that the bidding firm/manufacturer or the consortium (any partner of consortium) has not been blacklisted from participating in the tendering/bidding process by any Central or any State Government Institute/Organization (including autonomous Institute/Organization) in Last Three Years.

The documents and information furnished by the firm/undersigned (on behalf of the firm) are correct in all respect and if anything found incorrect, I shall be liable for the action as per the terms and conditions given in this tender document.

Signed by

(Name)

Authorized Signatory of M/s

Official Stamp Date:

Place:

(Annexure-V)

PART-II: Financial Bid

(To be sealed in a separate envelope duly signed)

S. No.	Name of items	Unit Price (Rs.)	GST (@ %)	Qty	Total Unit Price (Rs.)	Total (Rs.) inclusive all taxes
1	Numerical Over Current and Earth Fault Relay Trainer			01		
2	Directional over Current Relay Test Bench-(Numerical)			01		
3	Under/Over Voltage Relay Test Bench- (Numerical)			01		
4	Percentage Biased Differential Relay Test Bench (Numeric)			01		
5	1 Phase Distance Protection Relay Test Bench (Numeric)			01		
6	Numerical Relay Development Test Bench (NRDE)			01		
7	Over Current Relay Test Bench- (Electromechanical Type)			01		
8	Over Voltage Relay Test Bench- (Electromechanical Type)			01		
Total Price of Package						

Total Amount (In figure):**(In words):**

Total unit quoted price should be inclusive all charges (taxes, transportation, etc.). No extra charges will be paid. Rate quoted must be F.O.R. NIT Sikkim.

##NIT Sikkim being a Public Funded Research Institution vide Notification No. 45/2017-Central Tax (Rate) and No 47/2017-Integrated Tax (Rate) is eligible for concessional rate of GST on purchase of research items. Further concession on customs duty is also available on customs duty vide notification No. 51/96-Cus. DSIR certificate shall be provided by the Institute to claim such concessional rate. Bidders are required to take into account the said concession in the Financial Bid. The concessional rate of GST is 5%.

Bank Account Details for Direct Payment

(To be submitted by the Bidder)

S. No.	Particulars	Details
01	Firm (Beneficiary) Name	
02	Please enclose a cancelled cheque	
03	Complete Bank Account No. of the Firm [beneficiary]	
04	Bank Name & Address	
05	IFS Code No.	
06	Mobile No.& Email ID for information	

We undertake that all information provided above is correct and NIT Sikkim will not be responsible in case of any error on the part of firm.

(Signature & Seal of the Company/Firm/Agency)