



E-TENDER NOTICE

Sealed online e-Tender in two bid system are hereby invited by the undersigned for the supply of following items on behalf of the Director, NIT, Hamirpur from the Eligible/ Experienced/ Resourceful, manufacturer's dealer/authorized distributor etc. having experience in appropriate field and who have successfully completed works of similar type, so as to reach in the office of the undersigned as per date & time mentioned below.

Sr. No.	Name of works/item	Qty/ No.	Earnest Money In Rs.	Time Limit
1	Supply and installation of Synchronization / Paralleling of two three phase alternator trainer For detailed specifications etc please refer to SBD	1	26,600	60 days

1. Availability of bid document and mode of submission:-The bid document is available online and bid should be submitted in online mode on website <http://www.eprocure.gov.in/> and <http://www.nith.ac.in/>. Bidder would be required to register in the web-site which is free of cost. For submission of bids, the bidder is required to have Digital Signature Certificate (DSC) from one of the authorized certifying authorities (CA).

2. Key dates: (1)

1	Date of online publication	29.08.2026 at 6.00 PM
2	Document download start and end date	29.08.2026 to 21.09.2026 10.30 AM
3	Bid submission start and end date	29.08.2026 to 21.09.2026 10.30 AM
4	Physical submission of EMD, technical documents and cost of tender document etc.	On or before 05.30 PM on 21.09.2026
5	Date of opening of technical bid	22.09.2026 at 11.30 AM

- (II) Objections/representation if any against the bidders will be entertained only within three days after publication/uploading of technical bid opening summary on net and thereafter that the date of opening of financial bid of technically qualified bidders will be published /uploaded on net.

3. Tender Details:-The tender Documents shall be uploaded in 2 cover:-

Cover 1:-Shall contain scanned copies of all "Technical Documents/Eligibility information".

Cover 2:- Shall contain "BOQ/Financial Bid", where supplier will quote his offer for each item.

- (a) Submission of Original Documents: The bidders are required to submit (a) original demand draft towards the cost of bid document if any and (b) original bid security/Earnest Money deposit (EMD) and other technical documents in the Store & Purchase section, NIT Hamirpur-177005 (HP) as specified in the key dates of **Sr. no.2**

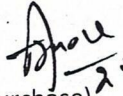
on tender opening dates & schedule, failing which the bids will be declared non-responsive. EMD in the form of DD/FDR must be attached with in favour of Director, NIT, Hamirpur (H.P) -177 005. The EMD should remain valid for a period of 90 days beyond the final bid validity period. EMD of unsuccessful bidders shall be returned after the expiry of the final bid validity or before the 30th day of the award of contract. The EMD of the successful bidder shall be released after successful execution of supply order.

4. **BID OPENING DETAIL:** - The bids shall be opened as per schedule specified in the key dates of Sr. no.2. in the store & Purchase section, NIT, Hamirpur by the authorized officer. In their interest the tenderer are advised to be present along with original documents at the time of opening of tenders. If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time & venue.
5. The bids shall remain valid for acceptance for a period of not less than 120 days after the deadline date for bid submission. Other details can be seen in the bidding documents. The officer inviting tender shall not be held liable for any delays due to system failure beyond its control. Even though the system will attempt notify the bidder of any bid updates. The Employer shall not be liable for any information not received by the bidder. It is the bidders responsibility to verify the website for the latest information related to the tender.
6. The copy of enlistment order & renewals, Copy of PAN issued by Income tax Department and copy of GST Certificate must accompany in the cover-1
7. The bidder preferably must have successfully supplied similar items in recent years. The bidders shall have to produce supporting documents giving date of award, date of commencement and completion from the concerned competent authority and should be included in cover-1
8. Destination: F.O.R. destination i.e. NIT, Hamirpur (HP) and the rates must include the charges for Packing, Forwarding, Freight, etc., if any.
9. Price/Rate: The price of items may be quoted in Indian rupees.
10. GST:- All the firms may invariably mention their GST/PAN numbers on tender failing which quotations may not be considered valid. Further, this Institution does not issue any Concessional form, so the GST applicable as per actual rates must be mentioned in the offer. In case GST is not mentioned, the rates shall be treated as inclusive of all taxes.
11. The bidders/firms have to supply the complete catalogue/brochure of the products to be supplied along with the Technical bid.
12. The technical bids will be evaluated on the basis of terms & conditions of the tender and details of the product to be supplied as per condition 11 of the tender notice. The committee reserves the right to reject any technical bid on the basis of technical specifications/catalogue/brochure submitted.
13. Conditional/ telegraphic tenders shall summarily be rejected.
14. For any clarifications bidders are requested to contact FI (Purchase), NIT Hamirpur at his E-mail ID i.e. fip@nith.ac.in.
15. The tender/bid shall be kept in a sealed envelope superscribed as "Tender for (Name of work and date of opening _____)".
16. The jurisdiction of the law of court shall be at Hamirpur (HP).

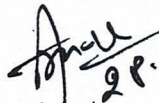
No: NIT/HMR/DoEE/S&PS/ 2026/386-388

Copy forwarded to the following for information please:-

1. The HOD, DoEE, NIT, Hamirpur


FI (Purchase) 28.8.21
Dated: 28-08-2026

2. Dr. Jiwanjot Singh, Assistant professor, DoEE, for information please.
3. The FI (CC), for getting the advertisement displayed in the Institute website for wider publicity under head: - **Supply and installation of Synchronization / Paralleling of two three phase alternator trainer For Electrical Engineering Department of NIT Hamirpur.**


28.8.21
FI (Purchase)



राष्ट्रीय प्रौद्योगिकी संस्थान हमीरपुर हमीरपुर 177005-(हि.प्र.)

NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P.)-177005

[An Institute of National Importance under Ministry of Education (शिक्षा मंत्रालय)]

NIT-SBD

Subject: - Supply and installation of Synchronization / Paralleling of two three phase alternator trainer For Electrical Engineering Department of NIT Hamirpur.

Sealed online E-Tender in two bid system are hereby invited by the undersigned for the supply of following items on behalf of the Director, NIT, Hamirpur from the Eligible/ Experienced/ Resourceful, manufacturer's dealer/authorized distributor etc. having experience in appropriate field and who have successfully completed works of similar type, so as to reach in the office of the undersigned as per date & time mentioned in the tender notice.

Sr. No.	Name of works/item	Qty/ No.	Earnest Money In Rs.	Time Limit
1	Supply and installation of Synchronization / Paralleling of two three phase alternator trainer For Electrical Engineering Department of NIT Hamirpur. For detailed specifications etc please see below:-	1	26600	60 days

Detailed Technical Specification for **Supply and installation of Synchronization / Paralleling of two three phase alternator trainer** For Electrical Engineering Department of NIT Hamirpur.

Sr.	Items Specifications	Qty
1	Synchronization / Paralleling of two three phase alternator trainer Featuers: • Facilitates easy & safe wiring by students due to use of 4mm sturdy shrouded banana patch cords & shrouded socket arrangements. • All machines are mounted on finely painted sturdy base frame with easy machine interchangeability Use of gear coupling facilitates screwless coupling. • With due emphasis on student safety machines operate upto 3HP power levels & upto 1500 RPM, without compromising didactic use Able to draw all graphs. • DC Integrated machine is used as Dynamometer for loading other machines (Motors / generators both); unlike magnetic powder brake or eddy current brake which can load only coupled Motors & not	01

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generators, with facility to measure shaft power using electronic torque / speed measurement

- Each experiment is IoT-enabled, allowing real-time acquisition, monitoring, recording, and visualization of electrical and mechanical parameters through a digital/IoT interface.
- IoT connectivity enables remote monitoring and data logging, making the trainer suitable for modern smart laboratory and Industry 4.0-based learning environments.

Motor Specifications:

3 phase AC Synchronous motor coupled to DC Shunt motor setup (Motor-Generator setup):

1) 3AC Synchronous motor/Generator with following specs: Voltage: 415VAC, 50Hz, Capacity: 3HP/4 pole/ 1500RPM, Rotor construction: Star connected, four terminals including star point brought out on 4 slip rings mounted on shaft, Stator construction: Six terminal are brought out to start the machine using star-delta starter, Frame/mounting: 100 frame approx., chassis mounted, 19mm approx. shaft dia with easily swappable gear coupling. = 1 No

2) 3 Salient pole alternator: Voltage: 415VAC, 50Hz, Capacity: 2KVA/4 pole/ 1500RPM, Rotor construction: Star connected, four terminals including star point brought out on 4 slip rings mounted on shaft, Stator construction: Separately excited field winding with laminated solid yoke, 4 pole, brought out on Two terminal, Frame/mounting: 100 frame approx., chassis mounted, 19mm approx. shaft dia with easily swappable gear coupling. = 1 No

3) DC Shunt motor with following specs: Voltage: $V_{arm} = 180V$, $V_{field} = 180V$, Capacity: 3HP /2 pole/ 1500RPM/6 terminals, Rotor construction: Standard commutator / brush arrangement with laminated stack, brought out on 2 terminals, Stator construction: Separately excited field winding with laminated solid yoke 2 pole & series winding brought out on 4 terminals, Frame/mounting: 100 frame approx., chassis mounted, trunnion mounted m/c for use as dynamometer with torque & speed sensors. = 2 Nos

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Technical Specifications:

Aluminum profile sturdy approx.. 4x3 flat panel (table top) system, carrying various high voltage components housed in enclosures (panel) to minimise shock possibility.

Input 3 phase DOL Starter panel

- 4 pole MCB of 415 V/4A approx
- DOL 9A Contactor with 230V / 50 Hz / 11VA Coil approx...
- Bimetallic thermal O/L relay with range 1.4A - 2.3A approx..

Integrated Data Logger

Parameters such as Voltage, Current, Power, Power Factor, Frequency, Speed, Torque, and Efficiency can be monitored and logged during experiments.

Web application

Web application for each experiment to record and analyses of each experiment also having admin and student login feature for future analysis of data and result, Graph plotting, analysis of parameter, error detection.

Integrated AC 3 phase measurement panel

- Consist of 1 no of (96X96mm approx..) Digital meters for 3 Measures V, I, PF

(0.2 lag - unity 0.2 lead), Hz.

- Current specs for 3 ϕ meter = 5A approx..

FWD/REV, Star-Delta starter panel

- FWD/REV, 3 pole 3 way switch with centre OFF, 6A/440V.
- Star/Delta switch 3 pole, 3 way with centre OFF, 6A/440V.

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3 Phase wound Rotor & Sync. Motor panel

- Rotor resistors of 30ohm/5A approx with 3 taps of 0E, 15E, 21E, 30E(each 3 nos)
- Rotor resistor selector switch, 3 pole.6 Way .6A/440 V.
- DC Rotor excitation over current Circuit Bracker (3Amp approx)

DC voltmeter & DC ammeter panel

- a) DC voltmeter (0-300V)
- b) DC Ammeter (0-5A) with polarity protection diode
- c) Field failure relay to control Armature supply. Both 6A/6B needed simultaneously.

SCR Actuator (variable DC) cum sensor signal conditioning panel

- Full bridge SCR based 0V-195V / 5 Amp cosine firing with linear characteristics.
- Supports signal conditioning circuit for speed, torque in kg wt to output 0-2.5Vdc (FS).
- 3 Nos. of these supplies required for DC Armature, motor field.

Instrumentation Power supply panel

- (a) +/-12 V, 500 mA approx..
- (b) +5V, 300mA approx..
- (c) Unregulated 20V dc/ 1A approx
- (d) line synchronizing signal.
- (e) 13V / 3 Amp. approx
- (f) Multi channel DPM for digital display of torque, speed etc

Variable AC/DC power Supply Panel

- Ac output 0 to 270V / 3 Amp. Approx.

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- Dc output 0 to 230V / 10 Amp. approx

Synchronization Panel

- Synchronization Digital Meter.
- Synchronization switch
- 15W lamp x6 Nos. approx

Resistor Load

(1) AC Resistors = 10K/5K/3.5K/2.5K/2K/1.5K/200WX3 phases/ 6 taps

(2) DC Resistors= 750E/600E/300E/212E/162E/125E/112E/100E/400W / 6 taps + OFF + separate 60E tap for DC series Gen.

List of Experiments :

- 1) **DC motor:** Speed torque curve of i) Shunt motor,
- 2) **DC generator:** V-I, Efficiency curve for i) DC shunt generator ii) OCC of shunt generator.
- 3) **3 phase AC motor:** i) speed torque curve of wound rotor I.M. with rotor shorted & with different rotor resistance, ii) DOL/Star-Delta starter, rotor resistance starter, iii) Application of sync. Motor as pf improvement device-V curves.
- 4) **3phase Generator:** Synchronous generator V-I curves.
- 5) **Synchronizing / Paralleling with diff. method :**
 - i) Dark lamp method [all lamps are dark]
 - ii) Bright lamp method [all lamps are bright]
 - iii) 1 Dark 2 bright lamp method.

*Note: each experiment is IOT enabled with web application for data record and analysis with integrated AI agent.

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Other Terms & Conditions

- Inclusive of 1 Year of onsite warranty and trainer should be modular panels for easy site servicing not close control; panel box no wiring should not be there and shrouded 4 mm banana patch cords and shrouded sockets arrangements for the safety of the students.
- Vendor participating must be responsible for integration of all hardware items with software items.
- Vendor participating can be called for onsite demonstration with sample product for quality and feature analysis during the technical evaluation.
- Technical committee / Indenter can accept or reject any bid based upon the product quality & unsatisfactory operation of the equipment.
- Bids will be rejected in case of any technical deviation in compliance.
- Vendors should provide a one-year warranty against all performance and manufacturing defects whatsoever.
- No extra cost will be provided for delivery and installation of the equipment.
- Vendor has to give demonstration and training for the supplied equipment at NIT Hamirpur, Department of Electrical Engineering.

TERMS AND CONDITIONS:-

1. **Validity:** Minimum validity of the quotation will be 03 months from the date of opening of the quotation/tenders.
2. **Time Limit:** - The firm/supplier has to supply and install the equipments within 60 days from the date of the award letter.
3. **Guarantee/warranty:** - The supplier has to provide equipment guarantee/warranty supplied for 01 years from the date of successful installation of the equipment supplied. (Certificate of the same to be given by the supplier)
4. **Demonstration & Training:-** The supplier will have to demonstrate and impart training to concerned users at NIT, Hamirpur after successful supply & installation. (Certificate of the same to be given by the concerned user/indenter).
5. **EMD: EMD in the form of DD/FDR /Bank Guarantee must be attached in favour of Director, NIT, Hamirpur (H.P) -177 005.** The EMD should be remained valid for a period of 120 days beyond the final bid validity period. EMD of unsuccessful bidders shall be returned after the expiry of the final bid validity or before the 30th day of the award of contract. The EMD of the successful bidder shall be released only after submission of 3 % **Performance bank Guarantee** which should be valid till expiry of warranty period. EMD/PBG exemption is permissible as per Govt. rules.
6. **Make in India preference:-** NIT Hamirpur shall compare all substantially responsive bids to determine the lowest evaluated bid. The Institute is following and abide with the revised Public Procurement (Preference to Make in India), Order No. P- 45021/2/2017 – PP (BE-II) dated 16.09.20 issued by DPIIT, Ministry of Commerce and Industry, Govt. of India & subsequent instructions of Ministry. Accordingly, preference will be given the make in India products while evaluating the bids. However, it is sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India along with respective documentary evidence in the technical bid itself.
7. **Technical Evaluation:-** Technical evaluation of the participating firms will be done strictly on the basis of catalogues/brochures/literature/technical details of the product to be supplied along with relevant experience & fully complying all the terms & conditions of the SBD & tender notice. **It is mandatorily to physically submit the technical literature/catalogue of**

the product to be supplied along with make & model no. failing which the technical bid of the participating bidder will be straightforward rejected. NIT Hamirpur also reserves the right to seek clarification from any of the participating firm during technical evaluation. The participating bidder has to submit undertaking that they fully complies to our above-mentioned technical specifications.

8. **Destination:** F.O.R. destination i.e. NIT, Hamirpur (HP) and the rates must be quoted inclusive of all taxes and charges.
9. **Penalty:** In case the firm/vendor fails to supply the equipments within the stipulated period penalty without assigning any reasons @ 1/2% (half percent) of the total value of the item covered in order as penalty per day subject to a maximum of 5% (five percent) will be imposed unless extension is obtained in writing from the office on valid ground before expiry of delivery period
10. **Price/Rate:** The price of equipment/items may be quoted as per BOQ clearly mentioning the Basic rate & GST in the specified columns of BOQ in Indian rupees. **Tender will be awarded to the participating bidder who will be lowest in terms of total of all items**
11. **GST:** - All the firms may invariably mention their GST/PAN numbers on quotation/tender failing which quotations may not be considered valid. Further, this Institution does not issue any C/D Concessional form, so the GST applicable as per actual rates must be mentioned in the offer. In case GST is not mentioned, the rates shall be treated as inclusive of all taxes.
12. **NIT/NIQ Opening:** Representative of the firm may be present at the time of opening of the Quotations, if it wishes.
13. **Payment:** 100% payment shall be made immediately after receipt of material in good condition and successful installation of the same.(Certificate of the same to be given by the indenter/inspection committee NIT, Hamirpur)
14. **Right of Acceptance/Rejection:** Right of acceptance and rejection of any tender/quotation in part or full without assigning any reason are reserved with the institution authorities. The number of items to be purchased could be increased or decreased depending on the requirement of end user.
15. In case of any dispute the jurisdiction of Hamirpur (HP) Courts shall apply. For any clarifications please contact:- Dr. Jiwanjot Singh (Mobile 9872581018)


28.8.26

FI (Purchase)

Annexure I - Bidder's Information

(Bidder should duly fill and send with technical documents via post/courier)

1	Name of the Bidder	
2	Address of the Bidder	
3	PAN No.	
4	GSTIN No.	
5	E-mail ID	
6	Contact Person's Name & Designation	
7	Mobile No.	
8	Email ID	

Annexure II -Questionnaire

(Bidder should duly fill and send with technical documents via post/courier)

Sr.No.	Questions	Response
1	Whether all the terms and conditions of the NIT document have been complied. Compliance (Yes/No)	
2	Whether all the items specified in the technical specification has been compiled and have been quoted in the bidding engine. Compliance (Yes/No)	
3	Confirm that you have read all the instructions carefully and have complied with the instructions accordingly. Compliance (Yes/No)	
4	In case bidder does not manufacture goods offers to supply have submitted Manufacturer's Authorisation letter. Compliance(Yes/No)	
5	Mention Delivery period	
6	Mention Warranty of the material	
7	Mention HSN/SAC code of the material	
8	In case of import supplies whether you have mentioned nearest international port of shipment in the technical bid (if not applicable please mention 'NIL').	

Signature and Seal of the Manufacturer / Bidder

Place: _____

Date: _____

ANNEXURE III – DECLARATION OF LOCAL CONTENT

(To be given on company letter head - For tender value below Rs.10 crores)
(To be given by Statutory Auditor/Cost Auditor/Cost Accountant/CA for tender value above Rs.10 crores)
(Bidder should duly fill and send with technical documents via post/courier)

Date: _____

To,

The Faculty Incharge Purchase,
National Institute of Technology,
Hamirpur-177005 (HP)

Sub: Declaration of Local content

Tender Reference No: _____

Name of Tender: - _____

1. Country of Origin of Goods being offered: _____

2. We hereby declare that items offered has _____ % local content.

3. Details of Location at which local value addition is made _____

"Local Content" means the amount of value added in India which shall, be the total value of the item being offered minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.

The bidders cannot claim services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc as local value addition.

*"*False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law."*

Yours faithfully,
(Signature of the Bidder, with Official Seal)