



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR – 721 302

No. IIT/KGP/SR/MTECH/ELE-LAB/2018-19/01

Date: 8th October, 2018

Sub : Procurement of “Inverter with diode bridge rectifier” at Centre for Railway Research (CRR), IIT Kharagpur

Indian Institute of Technology Kharagpur, an Institute of National Importance, invites sealed two part bids from the vendors for **Supply and Installation of “Inverter with diode bridge rectifier” (As per Annexure – I) at Centre for Railway Research, IIT Kharagpur.**

Technical Specification as per Annexure – I ,Eligibility Criteria as per Annexure – II, Technical bid Document as per Annexure – III ,Signed & Stamped Declaration - Annexure – IV, General Terms & Conditions as per Annexure – V and Format of Price Bid as per Annexure – VI under a Two-Bid System.

Interested vendors are requested to submit two sealed envelopes containing EMD amount of Rs.9,600/- and Technical Bid (Envelope-I) and Commercial Bid (Envelope-II) placed in a larger sealed envelope super- scribing with reference number (**Tender Notice No. IIT/KGP/SR/MTECH/ELE-LAB/2018-19/01, Date: 8th October, 2018**) to **Prof. Subhransu Roy, Professor-in-Charge, Centre for Railway Research (CRR), Indian Institute of Technology Kharagpur, Kharagpur, PIN:721302, West Bengal, INDIA on or before 31st October, 2018 at 3:00 p.m.**

The technical bid submitted by the Vendors will be evaluated first by a technical committee and the price bids (as per Annexure – VI) submitted by the technically qualified vendors will be opened for price comparison.

The Technical bids will be opened on 31st October, 2018 at 4:00 p.m. in the office of **Prof. Subhransu Roy, Professor-in-Charge, Centre for Railway Research (CRR), IIT Kharagpur.**

**Prof. Subhransu Roy
Professor-in-Charge
Centre for Railway Research
Indian Institute of Technology Kharagpur
Kharagpur – 721302, West Bengal**

To,

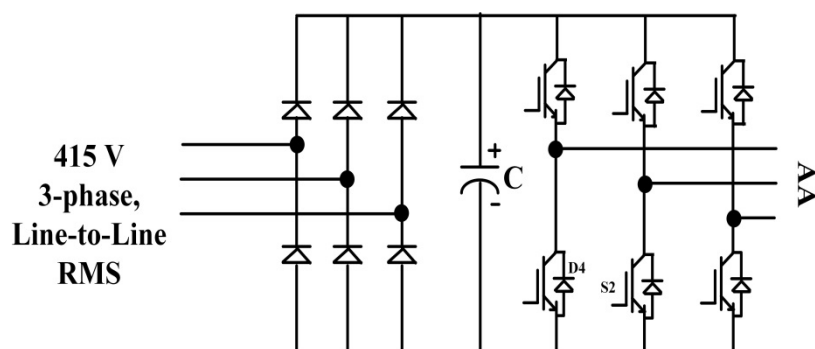
1. Institute Website
2. CPP Portal
3. Internal Notice Board

SPECIFICATIONS

Sl. No.	Item	Specifications	Purpose	Qty. required	Estimated total Cost (Rs.)
1.	Inverter with diode bridge rectifier	Provided below	3 Inverters for propulsion setup, 2 Inverters to emulate traction load and 1 Inverter for hotel load converter testing	06	4,80,000/-

Detailed Specifications:

- Power rating of each basic unit: ≥ 10 kVA, 3 limbed Half-bridge topology.



Analog and digital signal connectors to be provided for interface with DSP. Please note that DSP is not within the scope of supply of the vendor.

Fig: Circuit diagram of one basic unit

- 1200 V, dual-pack IGBTs, Switching frequency: ≥ 10 kHz
- DC Bus
 - insulation level 2 kV
 - maximum dc voltage (operating): 700 V
 - capacitance 1000 μ F or more with approx 50K ohm discharge resistor connected in parallel to the capacitor
- Internal protection
 - Gate drive with shoot-through fault protection at hardware level
 - **Boot-strap gate drive SHOULD NOT BE used.**
 - **No hardware dead-band generation should be there.**
 - 3-phase Isolator (MCCB) on AA side of the unit to ensure complete de-energization
- Signal availability
 - Gate drive signals (6 gate drive signals to be used by a DSP). **The DSP is not within the scope of supply of the vendor.**
 - Fault signal from each gate driver
 - LEM current sensors for all the three phases (isolated).
 - LEM voltage sensor for the dc link (isolated).

MINIMUM ELIGIBILITY CRITERIA:

- (a) Proof of Registration of the bidder under relevant law, such as Companies Act, and / or Shops & Establishment Act or Trade License from appropriate authority etc.
- (b) All bidders should submit the copy of PAN Card, GST Registration Certificate.
- (c) The bidder must submit copies of acknowledgement of Income Tax return for the last three years.
- (d) Must have necessary dealership/distributors certificate in case of Authorised Dealer/ Distributor.
- (e) Filled in declaration as per the Annexure –IV.

Bidders must submit the documentary proof in support of meeting the minimum eligibility criteria. Simply an undertaking by the Bidder for any item of the criteria shall not suffice the purpose. All the documentary proof must be listed on the letter head, to be submitted with the Tender Document signed and stamped.

TECHNICAL BID DOCUMENT

FORMAT TO BE FILLED BY THE OEM OR AUTHORIZED VENDORS FOR SUBMITTING TENDER FOR SUPPLY OF INVERTER WITH DIODE BRIDGE RECTIFIER AT CENTRE FOR RAILWAY RESEARCH (CRR), IIT KHARAGPUR AS PER ANNEXUE-I

1. Name of the Tenderer(Copy of Registration Certificate/
Trade License) :
2. Status of the Tenderer(attach documents, if
registered company/partnership/propriety ship) :
3. Details of key top official/authorized official with tele-links for
Contact persons (attach details) :
4. Copies of PAN Card, GST Registration certificate,
IT Return for last three financial years :
5. Copy of product literature, technical leaflet for which prices
have been quoted :
6. Signed copy of the tender document, with company seal :
7. **Details of EMD - Bank Draft No. and date** :
8. Compliance statement for each component along with
Make & Model :

Certified that all above information are correct to the best of my/our information, knowledge and belief.

Dated signature & seal of the Vendor

NOTE : This must be submitted in the **“TECHNICAL BID”**.

DECLARATION

1. I, -----Son /Daughter of Shri -----
-----Proprietor/Partner/CEO/MD/Director/Authorized Signatory of M/s.-----
-----am competent to sign this declaration and execute this tender document.
2. Tender ref no: _____ dt: _____ . I have carefully read and understood all the terms and conditions of the tender and hereby convey my acceptance of the same.
3. The information/ documents furnished along with the above application are true and authentic to the best of my knowledge and belief.
4. I/we am/are well aware of the fact that furnishing of any false information/ fabricated document would lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.
5. Each page of the tender document and papers submitted by my Company is authenticated, sealed and signed, and I take full responsibility for the entire documents submitted.
6. I/we hereby confirm and declare that I/we am/are not blacklisted /De-registered / debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services.

Signature of the Authorized Person

Date: -----

Full Name: -----

Place: -----

Company Seal: -----

GENERAL TERMS AND CONDITIONS

(1) **Important Dates:**

- **Last Date of Submission of Sealed Bids: 31stOctober, 2018 at 3:00 p.m.**
- **Date of opening of the Technical Bids: 31stOctober, 2018 at 4:00 p.m.**

(In the Office of Prof. Subhransu Roy, Professor-in-Charge, Centre for Railway Research (CRR), IIT Kharagpur)

2.(i) **Rate :** The **rate quoted must be inclusive of installation and all admissible taxes.** All the charges like Installation charges etc., as applicable must be shown separately. The stores are required to be dispatched on F.O.R. IIT Kharagpur. The risk of damage or loss in transit if any will be that of the suppliers. Manufacturer's price list, Technical leaflet, samples, catalogue whenever applicable, should invariably be submitted.

(ii) **GST: Must be shown separately**

(iii) Indian Institute of Technology Kharagpur is a public Funded Academic & Research institute under the minister of Human Resource Development and is eligible for GST @5% vide Notification No.47/2017 dated:14.11.2017 and 10/2018- Integrated Tax (Rate) dated:25.01.2018 by the Ministry of Finance, Department of Revenue. Necessary certificate in this regard will be issued as per requirement and on request of the successful bidder.

(iv) Discount, if any, should be indicated separately/prominently.

3. **Delivery and Installation:** The stores are required to be delivered and installed within 90 days from the date of the purchase order. **No mobilization advance is payable against the Purchase Order. Custom Duty Exemption (51/96) Certificate will be provided by the Institute on request by the vendor.**

4. **Payment Terms:**

100% Payment shall be made after successful installation and commissioning duly certified by the concerned Head of the Department.

No advance/mobilization support, is payable against supply of stores/works.

In the event of failure to deliver the stores beyond the specified date, liquidated damages @ 1% per month or part thereof in respect of the value of stores will be deducted, subject to a maximum of 5%; alternately the order will be cancelled and the undelivered stores purchased from elsewhere at the risk and expense of the vendor.

5. **Quality & Specification of Stores :** The stores offered should be of best quality available, unless otherwise specified, conforming strictly to the National/International specification. The Institute reserves the right to reject such stores if found unacceptable on these grounds. The guarantee and warranty offered be specifically mentioned.

6. **Period of Validity** : A quotation shall remain valid for acceptance at least for a period of 90 days from the date of opening of the Price Bid.

7. **Earnest Money Deposit (EMD)**: An amount of Rs. 9,600.00 (Rupees Nine Thousand Six Hundred only) in the form of Demand Draft be enclosed along with the bid. The E.M.D. shall be from any scheduled Bank and to be drawn in favour of “Indian Institute of Technology Kharagpur”, payable at Kharagpur. The validity of the EMD should be 6 (six) months from the date of issue. **Any bid without EMD will not be considered.** This will be refunded to the unsuccessful vendors once the process of technical and price bid opening is complete. No interest is payable on refunds. EMD shall be forfeited if the selected vendor accepts the supply order, but is unable to execute the same. **EMD should be enclosed separately in an envelope and stapled with the Technical Bid document super-scribing EMD.**

8. **Guarantee/Warranty** : **1 years Comprehensive Warranty**, from the date of successful installation and/or commissioning of the items.

9. The addendum/corrigendum if any shall be published on Institute’s **Website i.e. www.iitkgp.ac.in and on CPP Portal.**

10. **Rejection of Offers** : The Institute reserves the right to ignore or reject any offer including the lowest without assigning any reason. The Institute does not bind itself to accept the lowest offer.

11. **Dispute** : In case of any dispute, the decision of the Director of this Institute shall be final and binding on the bidders.

12. **All tenders are to** be submitted or handed over to the office of **Prof. Subhansu Roy, Professor-in-Charge, Centre for Railway Research (CRR), IIT Kharagpur**. The bids (technical and price bids) once submitted shall be the property of the Institute and shall not be returned to the vendor in future.

13. **The person/officer signing** the tender/bid documents should be delegated with an appropriate authority.

14. **Opening of Price Bids** : The Price Bid(s) of only those vendor(s) who are found technically qualified will be opened and the same will be opened before the technically qualified vendor(s). **The date for opening of price bids will be notified separately. Price Comparison will be done as per total amount of each table basis. The bidder may supply and install the items mentioned in all the groups (A to E as per ANNEXURE – VI) or any one or more than one tables as per bidder’s capacity.**

15. Tenderer or his/her authorized representative (with proper authorization letter for opening of technical bids and also for opening of price bids) may choose to be present at the time of opening of Technical Bids/Price Bids.

16. **Installation and Commissioning**: Free of cost at the Centre for Railway Research, IIT, Kharagpur.

17. The benefit of any downward price revision (revision on account of budget/financial policy, tax revision, EPZ etc.) is to be given to IIT Kharagpur by the selected OEM/vendor.

18. The Institute does not bind itself to offer any explanation to those bidders whose technical bids have not been found acceptable by the Technical Evaluation Committee of the Institute.

19. **JURISDICTION:**

All questions, disputes, or differences arising under, out of or in connection with the contract, if concluded, shall be subject to the exclusive jurisdiction at the place from which the acceptance of Tender is issued i.e. Jurisdiction of KOLKATA HIGH COURT. Acceptance to this effect is also necessary at the time of opening of Technical Bid.

20. **IMPORTANT**

1. A bid submitted with false information will not only be rejected but also the OEM/vendor will be debarred from participation in future tendering process.
2. The OEMs/Vendors need to submit a certificate during opening of technical bids that they are not currently debarred or blacklisted in IIT Kharagpur for any supplies, products or services, or at present in any national organization or educational institute/university.
3. In case of any dispute, the decision of the Director of this Institute shall be final and binding on the bidders.
4. The Institute at its discretion may change the quantity/upgrade the criteria/drop any item or part thereof at any time before placing the Purchase Order.
5. For any query pertaining to this bid document, correspondence be addressed to

Prof. Subhransu Roy
Professor-in-Charge
Centre for Railway Research,
Indian Institute of Technology Kharagpur, Kharagpur-721 302
[e-mail : suroy@iitkgp.ac.in, crritkgp@gmail.com,
Ph : 03222-282968, 282401

In case the due date for opening and submission of tender **happens to be a holiday, the same will be opened on the next working day.** The timings will however remain unchanged. **Please Note that the Institute remains closed during Saturdays & Sundays.**

NOTE : If the material or finished work are not found acceptable, the Bidder shall arrange for the replacement of materials required for re-executing the work as per Purchase Order.

ANNEXURE-VI

No.: IIT/KGP/SR/MTECH/ELE-LAB/2018-19/01

Date: 8th October, 2018

FORMAT FOR PRICE BID

Sl. No.	Item	Specifications	Make & Model	Qty. Req.	Per Unit Price	Taxes	Total Amount
1.	Inverter with diode bridge rectifier			06			
Total Amount in Word :							Total Amount in Figure :

Dated signature & seal of the Vendor