

**INDIAN INSTITUTE OF TECHNOLOGY
(INDIAN SCHOOL OF MINES), DHANBAD**



E-TENDER DOCUMENT

Notice Inviting Tender (NIT)

for

Supply and Installation of Induction Melting Furnace 30 Kw Capacity.

Tender No.: **W-INS-057-22-23**

Date: 6 July 2022

Bid Submission deadline: 27.07.2021, 1:00 P.M.

DEPUTY REGISTRAR (PURCHASE & STORES)

Indian Institute of Technology (Indian School of Mines), Dhanbad

DHANBAD –826004 (INDIA)

www.iitism.ac.in, purchase@iitism.ac.in

GSTIN : 20AAAAI0686D1ZA

Registration:-

Registration with M/s ITI Ltd: - Intending bidders are requested to register themselves with M/s ITI Ltd (if not registered earlier) through <https://mhrd.euniwizarde.com> for obtaining user-id, by paying a registration fee (Rs. 2000/- +18% GST per year charge), and online tender processing fee (2500/-+18% GST, NOT REFUNDABLE) etc. **Bidders are also required to obtain Digital Signature Class-III (Signing + Encryption) for participating in the e-tender.**

E-Tender Processing Fee (2500/-+18% GST, NOT REFUNDABLE), pay to "ITI LTD. Through e-payment Gateway.

For participating in the e-Tendering process of Indian Institute of Technology (Indian School of Mines), Dhanbad the contractor shall have to get them registered on the site <https://mhrd.euniwizarde.com> by making required payment through only online payment mode so that they will get user ID and Password. This will enable them to access the website, <https://mhrd.euniwizarde.com> with the help of Digital Signature by which they can participate in E-Tender of Indian Institute of Technology (Indian School of Mines), Dhanbad.

For any Query contact to our helpdesk Number 011- 4960 6060, 23710092 Email - HELPDESKEUNIWIZARDE@GMAIL.COM, Mr. Dipak Kumar Jha (08448288981) &Mr. Kumar Prakash (8448288985).

NOTICE INVITING TENDER(E-TENDER)

Subject: Supply and Installation of Induction Melting Furnace 30 Kw Capacity.

Quotations are invited for the supply and installation of the following items at Indian Institute of Technology (Indian School of Mines) Dhanbad

Sl. No.	Description of Materials	Unit	Quantity	Indenting Deptt./section
1.	Supply and Installation of Induction Melting Furnace 30 Kw Capacity. (Detailed Specification given in Annexure – I)	No.	01 No	Mech

Tender Schedule

Particulars	Date & Time
Bid Security or Earnest Money Deposit	Rs.70,000.00 (Rupees Seventy Thousand only)
Start date and Time for Submission of Tenders	06.07.2022 at 1:00 P.M.
Last date and time for submission of tenders	27.07.2022 at 1:00 P.M.
Date and time of opening of tenders	28.07.2022 at 4.00 P.M.

1. You are requested to quote your lowest rates for the supply of above items in price bid.
2. Tender documents and bids should be submit through online mode only.

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CHAPTER 1

Instructions to Bidders

IIT (ISM), Dhanbad was formerly known as Indian School of Mines (ISM) and was a Deemed University before it got converted into an Institute of National Importance under the Institutes of Technology (Amendment) Act, 2016 passed by the Parliament of India and got the assent of President of India. The Indian School of Mines, now IIT (ISM), Dhanbad, was formally opened on 9th December 1926, by Lord Irwin, the then Viceroy of India to address the need for trained manpower related to mining activities in the country with disciplines of Mining and Applied Geology. In 1967, it was granted the status of a deemed to be university under Section 3 of UGC Act, 1956 and it was renamed as Indian Institute of Technology (Indian School of Mines) in 2016. It started as an institution to impart mining education, and today, has grown into a technical institution with various academic departments. IIT(ISM) is located in the mineral-rich region of India, in the city of Dhanbad in the state of Jharkhand. It is the third oldest institute [after IIT Roorkee and IIT (BHU) Varanasi] which got converted into an IIT.

IIT (ISM), Dhanbad intends to procure the equipment “Welding Robot” to enrich its teaching and research facility at Dhanbad.

Reputed manufactures or authorized distributors are invited to submit their bid for “Welding Robot” for IIT (ISM), Dhanbad as per this tender document in a Two-Bid System: - (a) Techno-Commercial (also termed as technical bid) bid (Part-1) consisting of all technical details of the item along with commercial terms and conditions, EMD and (b) Price bid (Part-2) indicating price for their items mentioned in the technical bid. All instructions and terms and conditions must be followed, failing which bid(s) will liable to be rejected.

INSTRUCTIONS

1. Offer should be submitted under TWO-BID system i.e. “Techno-commercial bid” and “Price bid” in online mode only through <https://mhrd.euniwizarde.com>.
2.
 - a) In a tender, either the Indian agent on behalf of the principle/ OEM and the Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.
 - b) If an agent submit bid on behalf of the principle/ OEM, the same agent shall not submit a bid on behalf of another principle/ OEM in the same tender for the same item/product.
3. Bidder(s) must submit GST Certificate / TIN and Scanned Copy of PAN with the bid.
4. The offer must be submitted online in **Two-Bid** system through <https://mhrd.euniwizarde.com> Please send EMD in the form of DD issued from any Nationalized/Scheduled commercial Bank in favour of Registrar, IIT(ISM), Dhanbad payable at Dhanbad in the office of **Deputy Registrar (Purchase & Stores), IIT (ISM), Dhanbad– 826004 (Jharkhand, India)** only. Scan copy of the same should be submitted online.
5. The tenderers who are currently registered and shall continue to remain registered during the tender validity period with Central Purchase Organisation (CPO) or as a Micro and Small Enterprise (MSE) as defined in MSEs Order 2012 issued by Ministry of Micro, Small and Medium Enterprises (MSME) or as a Start-up as recognised by Department for Promotion of Industry and Internal Trade (DPIIT), are exempted from payment of Tender Fee and Earnest Money Deposit (EMD) / Bid Security. In case the tenderer falls in these categories, it should furnish certified copy of its valid registration details (registration with CPO or as a MSE or Start-up, as the case may be). Micro & Small Enterprises must attach Registration Certificate issued by DIC / KVIC / KVIB / Coir Board / NSIC / Directorate of Handicrafts and Handlooms, or any other body specified by MSME for authentication such as updated Udyog Aadhaar Memorandum / Acknowledgment.

6. Bid document(s) and all enclosures must contain the signature and seal of the authorised representative of the bidder.
7. The bidder quoting for item(s) as per this tender should be the registered to provide the item/services with the appropriate government authority. Copy of registration certificate should be submitted with the tenders.
8. The Bank/RTGS detail on the letter-head of the bidder(s) must be submitted along with the technical BID.
9. The Eligibility, Purchase Preference and other conditions will be as detailed in Order No. P45021/2/2017-P(BE-II) dated : 04th June 2020 issued by DIPP, Ministry of Commerce and Industries, Gol. Bidders are mandatory to indicate whether they are under Class – I local supplier, Class – II local supplier or Non- local supplier. **Non -Local supplier is not eligible to bid in this tender.** Bid received from Non- Local supplier will be treated as non-responsive and will not be considered for evaluation. Please refer terms and condition for details.
10. After opening of the price bid no query pertaining to technical aspects will be entertained.
11. IIT (ISM) Dhanbad will provide Concessional GST Certificate, if equipment is purchased for research purpose.

CHAPTER 2

Terms and Conditions

The offer must comprise of the following, failing which it will be treated as non-responsive bid hence will be rejected:

1. The bids under Two-Bid System will consist of two parts as per following details:-

- a)** Techno-Commercial bid (Part 1) consisting of all technical details along with required EMD amount, cost of tender form (if any), technical offer (catalogue/brochure/specifications etc.), supportive documents related to eligibility criteria (Copies of documents/Certificates like GST Registration/ PAN/ Authorization letters/ PO or Work order copies as proof of supply/work done, tax related documents etc.) along with ALL applicable forms / annexures of this tender except (Price Schedule). All the pages included as Tender Document should be legible, neatly numbered and signed by authorized person with official seal of the Firm as acceptance of the terms and conditions. Offers with Counter Conditions will be liable for Rejection. No information regarding price should be mentioned in this part. Any price indication in the Technical Bid will be summarily rejected. Techno-Commercial bid to be submitted in online mode only through <https://mhrd.euniwizarde.com>.
- b)** Price bid (Part 2) indicating price for the items / services mentioned in tender documents. Price Schedule exactly as per format duly filled and to be submitted online mode only through <https://mhrd.euniwizarde.com>.

In stage-one, only the Techno-Commercial (Part 1) shall be opened and evaluated. In stage-two, the Price bids (Part 2) of only the technically qualified and acceptable offers will be opened, for further evaluation.

Important Note: Offers submitted not in line with the above guidelines will be liable for rejection.

- 2.** All relevant technical specifications/details of offered items, drawings, printed technical leaflets, and commercial details which are necessary to ensure that offer is complete in all respects should be attached with the techno-commercial bid documents.
- 3.** A 'Compliance Statement' (Form-6) along with status of compliance.
- 4.** All applicable forms duly filled, signed and sealed must be submitted along tender documents in bid. The bidder is expected to examine all instructions, forms, terms and specifications in the Bid Document. Failure to furnish all information required as per the tender document or submission of a bid not substantially responsive to the tender document in all respect will be at the Bidder's risk & responsibility and may result in rejection of their bids.
- 5.** IIT(ISM) does not bind itself to offer any explanation to those bidders whose Technical Bids have not been found acceptable by the Evaluation Committee of the Institute.
- 6.** Following documents have to be furnished by the bidders with the techno-commercial bids (part-1):
 - (a) Technical literature/catalogue with the detail specification of the material
 - (b) Satisfactory performance certificate from their customers for same/similar supply/service must be enclosed along with the technical bid.
 - (c) A copy of this tender document must be signed and sealed on all pages by the bidder(s) accepting the instructions and terms & conditions of the NIT and must be attached with the BID.
 - (d) All relevant / applicable forms as per tender documents.
- 7.** The Bidder shall indicate on the appropriate price schedule form (provided with the Tender in the Price Bid), the unit prices of the goods / services it proposes to supply under the contract.
- 8.** Price should be quoted exactly as per the format as mentioned. Multiple rates for a single item/variable rates unless solicited in the tender will not be accepted and would lead to rejection of offer. Price bids with conditions /Counter

conditions are liable for rejection. Detailed Break up of charges may please be furnished. In case all-inclusive price is quoted without detailed price break up, then IIT (ISM) Dhanbad will not be able to consider re-imbursement of any increase in statutory levies, if any.

9. Educational discounts, if any, should be factored while quoting. Justification of the price quoted must be provided with the Bid. For this, Price List of the OEM and purchase order of govt. organizations / IITs/ NITs/ CSIR Labs / ISRO labs etc. should be attached. Price bids of only technically qualified tenderers shall be opened in on a pre-notified date and time. Decision of IIT (ISM), Dhanbad in this regard will be final and binding by all the bidders.
10. IIT (ISM), Dhanbad is entitled for GST Concession under Govt. of India notifications and is registered with DSIR, Govt. of India for this purpose. This may be taken into consideration while quoting minimum possible rate.
11. Bid Security or Earnest Money Deposit (EMD) Required Amount for EMD must be submitted in the form of Demand Draft issued from any Nationalized/Scheduled commercial Bank in favour of Registrar, IIT (ISM), Dhanbad payable at Dhanbad with the bid (part-1). Bid received without EMD in part-1 (techno-commercial bid) will be rejected. No interest will be payable by IIT (ISM), Dhanbad on the Earnest Money Deposit. The earnest money of all the unsuccessful bidder(s) will be returned to the respective bidder(s) through bank / RTGS transfer without any interest within 60 (sixty) days only after placing the order / awarding the contract. The Earnest Money of successful bidder(s) shall be returned on receipt of Performance Security (Performance Bank Guarantee / PBG) as mentioned in this tender document. If the successful bidder(s) fails to furnish the performance security or fails to deliver/provide the item/installation/service as per the order's terms and conditions within stipulated period, the earnest money shall be liable to be forfeited. An undertaking to this is to be submitted.

The bid security shall be in Indian Rupees. The bid security shall be in one of the following forms at the bidders' option:

- a. A bank guarantee issued/confirmed by a Scheduled Commercial Bank in India in the form provided in the bidding documents and valid for 45 days beyond the validity of the bid. In case a bidder desires to submit a BG issued from a foreign bank, then the same should be confirmed by a Scheduled commercial bank in India; or
- b. Fixed Deposit receipt pledged in favour of the Registrar, IIT (ISM), Dhanbad
- c. Through RTGS/NEFT;
- d. Bid Securing Declaration (as per Form-1)
- e. **EMD shall be submitted in the electronic format online (by scanning) while uploading the bid. This submission shall mean that EMD is received electronically. However, BG/FDR should each in original to the designated officer through post (by mentioning NIT No. and date on envelope) or by hand so as to reach by the time of tender opening. In case of exemption of EMD, the scanned copy of the document in support of exemption will have to be uploaded by the bidder during bid submission.**

11.1 The bid security may be forfeited:

- a. If a Bidder withdraws or amends or modifies or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
- b. In case of a successful Bidder, if the Bidder fails to furnish order acceptance within 14 days of the order or fails to sign the contract and/or fails to furnish Performance Security within 21 days from the date of contract/ order.

- 12. Performance Security or Performance Bank Guarantee (PBG):-** The successful bidder(s), on whom order will be placed, has to submit a performance security of 3% of the total order value at the earliest as per PO terms before release of any payment. Performance security has to be submitted in the form of Bank Guarantee/Demand Draft/FDR from any Nationalized/Scheduled commercial Bank in favour of the Registrar, IIT (ISM), Dhanbad. Performance security should remain valid for a period of two months beyond the date of completion of all contractual obligations of the successful bidder(s). No interest will be payable by IIT (ISM) Dhanbad on the Performance Security deposited. In case the contractor fails to provide satisfactory service, the Performance Security submitted by the bidder(s) is liable to be forfeited. An undertaking to this is to be submitted within 21 days of receipt of the notification of award/PO, the Supplier shall furnish performance security (PS).

The performance security must be received within 21 days. However, the Purchaser has the powers to extend the time frame for submission of Performance Security (PS). Even after extension of time, if the PS is not received, the contract is liable to be cancelled.

12.1 In case of submission of Bank Guarantee, the bidder should ensure that the concerned bank sends a copy of Bank Guarantee to IIT(ISM), Dhanbad immediately through Registered Post/Speed post/courier/email (purchase@iitism.ac.in).

13. Validity Period: -

The validity period of the tender should be clearly specified. It must be at least for **180 (One Hundred Eighty) days** from opening of Technical bid.

In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (by post, fax or e-mail). The bid security provided shall also be suitably extended failing which the bid would be summarily ignored. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.

- 14. Finalization criteria:** L1 bidder will be decided on Overall L1 basis i.e. on Supply, Installation & Commissioning of Welding Robot.

- 15. Award of purchase order/Contract:** Order will be placed on the selected party after evaluation and approval of competent authority. However, Registrar IIT (ISM) Dhanbad reserves the right to cancel/discontinue this order at any point of time, with a notice to the supplier.

- 16. Warranty:** The item supplied/ service rendered should provide comprehensive warranty for a period of **Twelve months** after the goods / services have been delivered, acceptance and successful installation as per terms of the contract.

16.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

16.2 Goods requiring warranty replacements must be replaced on free of cost basis to the purchaser.

- 17. Comprehensive Annual Maintenance Contract / Annual Maintenance Contract (AMC/CAMC):** The charges towards AMC/CAMC should be provided separately for extension of warranty for additional years (which is beyond the normal warranty period) in the price bid if applicable.

- 18. Denial Clause:** That no increases in price on account of any statutory increase in or fresh Imposition of customs duty, excise duty, Sales Tax, CST, VAT or on account of any other taxes/duty, including custom duty, leviable in respect of the Stores specified in the said contract which takes place after original delivery period; shall be admissible on such of the said Stores, as are delivered after the said delivery period.

That notwithstanding any stipulation in the contract for increase in price on any other ground including foreign exchange rate variation, no such increase which takes place after original delivery period shall be admissible on

such of the said Stores as are delivered after the said delivery period.

19. **Delivery Period:** As time is the essence for this procurement, hence the ordered materials/work complete in all respects are required to be delivered and installed within 60 days from issue of Purchase Order / Work Order to successful bidder. Terms of Delivery will be F.O.R.IIT (ISM), Dhanbad only.
20. **Liquidated Damage:** Liquidated damages of 1% per week for the delayed period subject to maximum of 5% of the total basic value of the order shall be deducted from the invoice of the supplier. Earliest/expected delivery period should be clearly indicated.
21. **Inspection:** Inspection shall be carried out at IIT (ISM), Dhanbad after arrival of the materials and decision of the Institute in this regard shall be final.
22. **Rejection and Replacement:** Rejection, if any, shall be notified to the supplier within 30 days of receipt and inspection of the material/workmanship. Rejected materials/work is to be removed by the supplier at his own risk and cost from IIT (ISM) Campus within 15 days of intimation of rejection. Defective Supplies are required to be replaced within 15 days of the removal of the rejected materials/work.
23. **Risk Purchase:** IIT (ISM) shall be at liberty to realize from the supplier the differential amount, if any, which it shall have to incur on purchase of the material/work at higher price(s) from elsewhere in the market, if the supplier, due to their fault, fails to supply the ordered quality and quantity of the material/work within the stipulated time.
24. **Conditional offer / counter condition** will not be accepted.
25. **Payment:** Payment may be released through RTGS / online payment mode against complete execution of the purchase order (PO)/ work order and submission of all the required documents as per the order preferably within 30 days after satisfactory supply, inspection, installation / commissioning & acceptance and on submission of pre-receipted tax invoice, delivery challan, warranty certificate and installation report in triplicate and Performance Bank Guarantee. The invoice should be duly certified by the Head of Deptt. of IIT (ISM), Dhanbad to which supply is made or any other IIT (ISM) official authorized for this purpose. Advance payment may not be released. Payment will be released through bank/ RTGS/Wire transfer after statutory deductions.
26. Any payment will be released only after satisfactory completion of the work/installation, Submission as well as confirmation from issuing bank of the PBG and certified bill(s) / invoice(s) along with Warranty Certificate.
27. All communications are to be addressed to the Deputy Registrar (Purchase & Stores), IIT (ISM), Dhanbad through Email (purchase@iitism.ac.in) quoting the Tender No. and Date.
28. IIT (ISM), Dhanbad reserves the right to accept or reject or cancel any or all tender notice or bid(s) or order(s) at any stage without assigning any reason thereof.
29. For any dispute, the place of jurisdiction shall be Dhanbad (Jharkhand, India) only.
30. **Governing Law:** The order, placed, will be the contract between the successful bidder(s) and IIT (ISM), Dhanbad and shall be governed by the LAWS of India and under the contract shall be taken by the parties only in Dhanbad (Jharkhand, India) to competent jurisdiction.
31. Bid(s) shall be as per tender document only. If submitted in any other form / format, the same shall be rejected. All pages must be numbered properly and there must be seal and sign of the bidder(s) on all the pages of its bid.
32. The bid is liable to be rejected if complete information is not given therein, or if the particulars and data (if any) asked for in the Schedule to the tender are not filled-in properly.

33. The successful bidder(s) will indemnify IIT (ISM), Dhanbad, in case of any damage or liability, which may arise on account of any act or omission directly/indirectly attributable to the bidder(s).
34. Dispute, if any arising out of providing the said service(s) shall be settled mutually or arbitration by sole Arbitrator to be appointed by the Registrar, IIT (ISM), Dhanbad at Dhanbad, mutually agreed as per the provisions of the Indian arbitration and Conciliation Act, 1996 and the Rules framed there under. The award passed by the said sole Arbitrator, will be binding upon the parties. The arbitration proceedings shall be held at Dhanbad only.
35. The bidder(s) should be registered with Income Tax, GST etc. and to enclose the copies of the relevant certificate along with the technical bids. The agency must be authorized by appropriate government authority to deliver the items/services at the IIT (ISM) Dhanbad.
36. The successful bidder(s) will ensure that its employees/staff/personnel would strictly follow all the security instructions and rules and regulations of IIT (ISM), Dhanbad during their visit in the campus.
37. Necessary corrigendum(s), if required, may be issued at any stage, which must be acceptable to the bidder(s). Any corrigendum will be published on our website www.iitism.ac.in , <https://mhrd.euniwizarde.com> and <https://eprocure.gov.in/epublish/app> . Bidder(s) must be in touch with our website www.iitism.ac.in, <https://mhrd.euniwizarde.com> and <https://eprocure.gov.in/epublish/app> for corrigendum(s). It will be sole responsibility of the bidder(s) that they will go through the corrigendum(s) published, if any, on our website www.iitism.ac.in , <https://mhrd.euniwizarde.com> and <https://eprocure.gov.in/epublish/app> and submit its tender accordingly.
38. Shortlisted bidder(s) may be called for presentation / demonstration / meeting at IIT (ISM), Dhanbad office with a short notice (Minimum seven days time). Request from the bidder(s) to change the date and time of presentation / demonstration / meeting will not be accepted. If the bidder(s) will not attend for the same, then their bid(s) will be treated as non-responsive and hence the bid(s) will not be considered for further process.
39. Price bids will be opened for those bidder(s) who are shortlisted and declared as technically qualified bidder(s) by the Committee of the IIT (ISM), Dhanbad. In this regard, decision of IIT (ISM), Dhanbad will be final and binding to all the bidder(s).
40. Part supply of the Purchase Order / Work Order is not acceptable unless until it is explicitly mentioned in Purchase Order / Work Order.
41. Bid complete in all respect must be submitted through applicable mode before submission deadline / last date & time for submission of the bids. The bids will be opened as per IIT(ISM) rules. In case bid opening-date is a holiday/declared as a holiday, then next working date will be the opening date of tender. Submission deadline or bid opening date & time will not be changed upon any request from the bidder side. However, it may be changed as per IIT(ISM) rules. In this regard, decision of the IIT (ISM), Dhanbad will be final and binding to all the bidders.
42. For the items / services, the bidders must ensure the required quality, quantity, materials, dimensions & other parameters (HSN Code etc.) and quote accordingly. In case items / services provided are not same as quoted/ordered, the claim for payment shall not be accepted. No payment, claims for such items / services shall be released. In this regard, decision of IIT (ISM), Dhanbad will be final and binding to the bidders.
43. IIT (ISM), Dhanbad at its discretion may change the quantity/quality/parameters/upgrade the criteria/drop any item(s) or part thereof at any stage. In case of any dispute, the decision of IIT(ISM) shall be final and binding on the bidders/tenderers.

44. IIT (ISM), Dhanbad reserves the right to accept or reject any or all the bids in part or in full without assigning any reason. The decision of the competent authority of IIT (ISM), Dhanbad will be final and binding to the bidder(s).
45. Professional(s) to be deployed by the successful bidder(s) for the supply of the item / installation / execution of the work in order to provide the item(s) /service(s) as per order must be well qualified.
46. ***If any fraudulent document submitted by the vender/firm is detected at any stage during the procurement or after the procurement, the institute will take appropriate legal action against the vender/firm including the recovery of two times of purchase order/award of work and equipment/items will not be returned.***
47. All the tenders received will first be scrutinized to see whether the tenders meet the basic requirements as incorporated in the tender enquiry document. The tenders, who do not meet the basic requirements, are to be treated as non-responsive and ignored. The following are some of the important points, for which a tender may be declared as unresponsive and to be ignored, during the initial scrutiny:
- The Bidder is not eligible.
 - The Bid validity is shorter than the required period.
 - The Bidder has quoted for goods manufactured by a different firm without the required authority letter from the proposed manufacturer.
 - Bidder has not agreed to give the required performance security or has not furnished the bid security.
 - The goods quoted are sub-standard, not meeting the required specification, etc.
 - Against the schedule of Requirement (incorporated in the tender enquiry), the bidder has not quoted for the entire requirement as specified in that schedule.
 - The bidder has not agreed to some essential condition(s) incorporated in the tender enquiry.
48. **Purchase Preference (Gol no. P-45021/2/2017-PP (BE-II), dated 04/06/2020) P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021**
- A. Subject to the provisions of above Order and to any specific instructions issued by the Nodal Ministry or in pursuance of Gol no. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021 Purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified here under.
- B. **In the procurements of goods or works, which are covered by** para 3(b) of order no. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021 and which are divisible in nature, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure.
- Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.
 - If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference (the margin of purchase preference shall be 20%), and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.

C. In the procurements of goods or works, which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

- i) Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.
- ii) If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.
- iii) In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

D. "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

E. Non -Local supplier is not eligible to bid in this tender. Bid received from Non- Local supplier will be treated as non-responsive and will not be considered for evaluation.

F. Definitions: As prescribed in DIPP Order No. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021:

- '**Local content**' means the amount of value added in India which shall, unless otherwise prescribed by the Noda! Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.
- '**Class-I local supplier**' means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under said Order.
- '**Class-II local supplier**' means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under said Order.
- '**Non -Local supplier**' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%, as defined under above Order.

G. *Non local supplier is not eligible to bid in this tender. Bid received from non local supplier will be treated as non- responsive and will not be consider for evaluation.*

49. Bid Prices: Bidders are requested to note that they should necessarily submit their price bids in the format provided and no other format is acceptable. Bidder shall indicate on the appropriate price schedule form, the unit prices and total bid prices of the goods it proposes to supply under the contract. Bidders are required to quote each and every item in price bid. Failing to this bid may be liable for rejection.

Note: IIT (ISM) Dhanbad will not be responsible or liable to pay if bidder fails to mentioned packing, forwarding, freight, insurance charges, taxes etc. in its price bid.

50. Pre-bid Conference(PBC): A Pre-bid Conference may be held, if indicated in invitation to bid. All prospective bidders are requested to kindly attend the Pre-bid Conference. In order to facilitate the purchaser the proper conduct of the Pre-bid Conference, all prospective bidders are requested to kindly submit their queries (with envelope bearing Tender No. and Date on top and marked "Queries for Pre-bid Conference") so as to reach the purchaser as indicated in invitation to bid. **Bidder may also email pre-bid queries to purchase@iitism.ac.in highlight tender no., tender date, tender name while communicating.** The purchaser shall answer the queries during the pre-bid conference, which would become a part of the proceedings of the Pre-bid Conference. The proceeding of the Pre-Bid Conference would be hosted on the website of the purchaser. Before formulating and submitting their bids, all prospective bidders are advised to surf through the purchaser's website after the Pre- bid Conference, in order to enable them take cognizance of the revised tender conditions.

51. If the successful bidder(s) commits breach of any of the above or Order's terms and conditions or is not able to deliver the item / provide the services / complete the work on time, the contract will be cancelled and security deposit shall be forfeited and a damage liability at the discretion of IIT (ISM), Dhanbad will be imposed on the bidder(s).

52. Eligibility in case of Land Border Share: I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority as per order F.N. 6/18/2019-PPD dated 23 July 2020.

CHAPTER 3: Other Forms**Form-1**
Bid-Securing Declaration FormDate: _____
Bid No. _____

To,
The Registrar,
Indian Institute of Technology (Indian School of Mines),
DHANBAD– 826004.

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

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

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of two year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

a) have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or

b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or refuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration).

Name: (insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of : (insert complete name of Bidder) Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

Form-2
Contract Form

To,
The Registrar,
Indian Institute of Technology (Indian School of Mines),
DHANBAD– 826004.

Ref.: Your Notice Inviting Tender No. IIT-ISM / W-INS-057-22-23, Dated: 6 July 2022

Sir/ Madam,

1. I/We have gone through all Chapters of the tender document such as Instructions and Terms and conditions, minimum eligibility criteria, schedule of requirements, Specifications and allied technical details etc. as enlisted by you in your Notice Inviting Tender for the subject under reference.
2. I/We, hereby confirm that we have understood all the above and confirm my/our commitment to abide by them.
3. If our tender is accepted, I/we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the tender document.
4. I/We agree to keep our tender valid for acceptance for a period upto as required in tender documents or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender upto the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. I/We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.
5. I/We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.
6. I/We hereby declare that all statements/details made in this tender are true, complete and correct to the best of my knowledge and belief. I/We understand that in the event of any information being found false or incorrect at any stage or we do not satisfy any of the stated criteria, our offer is liable to be cancelled automatically and IIT (ISM), Dhanbad may take an action against this firm for such false information including legal action.

Documents Required	Document No. (Submit a copy of the same)
Photo identity of Authorized signatory (i.e. PAN Card/Voter ID/Aadhaar Card/Official ID Card)	
GSTIN of Bidder	
PAN of Bidder	

Date:

Signature:

Name of Authorized Signatory:

Designation of Authorized Signatory:

Name of Bidder:

Address of Bidder:

Seal of Bidder:

Form-3**FORMAT FOR BANK GUARANTEE FOR PERFORMANCE SECURITY**
(PERFORMANCE BANK GUARANTEE)

To
The Registrar
Indian Institute of Technology
(Indian School of Mines) Dhanbad-826004 (JHARKHAND)

Reference :P.O.No. _____ dated _____

Dear Sir,

GUARANTEENO. _____ date: _____

AMOUNT OF GUARANTEERS. _____

GUARANTEECOVERSFROM _____ TO _____

LAST DATE FOR LODGEMENT OF CLAIM: _____

This deed of Guarantee executed by the (_____ name of the Bank) constituted under _____
Act, _____ having its Central Office at _____
_____ and amongst other places a
branch at _____ (hereinafter referred to as "The Bank") in favour of The
Registrar, Indian Institute of Technology (Indian School of Mines), Dhanbad-826004 (hereinafter referred to as "The
Beneficiary" for an amount of not exceeding Rs _____
(Rs. _____) at the request of M/s _____
(hereinafter referred to as the
"Contractor(s)"/"Supplier(s)").

In consideration of The Registrar, Indian Institute of Technology (Indian School of Mines), Dhanbad-826004
(hereinafter called the Purchaser) having entered into an agreement vide their Purchase Order No.
_____ dated _____ with M/s _____ (hereinafter called the
Supplier) to carry out the supply and installation of the _____ (Name
of the equipments/work/Job)

at their Indian Institute of Technology (Indian School of Mines), Dhanbad as per their above order, the supplier
agreed to execute a Bank Guarantee for _____% of the supply order value viz. Rs. _____ (Rupees
_____) towards Performance Warranty obligation for a period of _____
year(s) from _____ to _____.

We, the _____ Bank, _____ Branch (hereinafter referred to as a Guarantor) at
the request of the supplier, irrevocably undertake to indemnify and to keep indemnify the Company without any
demur to the extent of Rs. _____ (Rupees _____) in the event of
the aforesaid supplier failing to comply the Warranty Obligation as per the agreed terms to the full satisfaction of the
Company.

We _____ Bank, further agree that the Guarantee herein contained shall remain in full force and affect during the period that would be taken for the performance of the equipment as stated in the Purchase Order issued by the Company and that it shall continue to be enforceable till the completion of the period and certified that warranty obligation have been fully carried out by the supplier and accordingly discharges the Guarantee subject. However, the Company shall have no right under after the expiry of the Guarantee, i.e. _____ (date).

We, _____ Bank undertake not to revoke this Guarantee, during its currency except with the previous consent of the Company in writing.

Notwithstanding anything contained herein.

1. Our liability under the Bank Guarantee shall not exceed Rs. _____ (Rupees _____).
2. This Bank Guarantee shall be valid up to _____.
3. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before expiry of date (i.e. _____).

NOTWITHSTANDING anything contained herein above, our liability under this Guarantee is restricted to Rs. _____ (Rupees _____ only) our guarantee shall remain in force until. Unless a Demand or claim under the guarantee is made on our bank in writing on or before _____ all your rights under the said guarantee be forfeited and we shall be relieved and discharged from all liabilities thereunder.

Details of the Issuing Bank

Name of the Bank	
Branch Name	
Branch Code	
IFSC Code	
E-mail Id	
Phone/Mobile No.	

Seal & Signature of the Bank

Note: Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send a copy of the same by Email (purchase@iitism.ac.in) to IIT (ISM) with a covering letter to compare with the original BG for the correctness, genuineness, etc.

Form-4**FORMAT OF BANK GUARANTEE TOWARDS BID SECURITY**
(EARNEST MONEY DEPOSIT)

To
The Registrar
Indian Institute of Technology (Indian School of Mines)
Dhanbad-826004 (JHARKHAND)
Reference: NIT. No. _____ dated _____

Dear Sir,

GUARANTEE NO. _____ date: _____

AMOUNT OF GUARANTEES. _____

Whereas _____ (hereinafter called "the Bidder") has submitted its bid dated _____ (date of submission of bid) for the supply of _____ (name and/or description of the goods) (here in after called "the Bid") against Notice Inviting Tender (Tender Document) No. _____ dated _____ of the Indian Institute of Technology (Indian School of Mines), Dhanbad. KNOW ALL PEOPLE by these presents that WE _____ (name of bank) of _____ (name of country), having our registered office at _____ (address of bank) (hereinafter called "the Bank"), are bound unto _____ (name of Purchaser) (hereinafter called "the Purchaser") in the sum of _____ for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this _____ day of _____ (year).

THE CONDITIONS of this obligation are:

- 1) If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
- 2) If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity:
 - a) fails or refuses to execute the Contract Form if required; or
 - b) fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders; We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand,

Without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions. This guarantee will remain in force up to Six/ Eight Months from the date of opening of tender or the period of the bid validity whichever is later and any demand in respect thereof should reach the Bank not later than the above date.

Details of the Issuing Bank

Name of the Bank	
Branch Name	
Branch Code	
IFSC Code	
E-mail Id	
Phone/Mobile No.	

Deal & Signature of the Bank

Note: Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

Details of the Bank Account of IIT (ISM) Dhanbad for Bank Guarantee purpose

INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD	
Bank Account Details for Bank Guarantee purpose	Bank: State Bank of India Branch: I.S.M. Campus Branch, Dhanbad – 826004 (Jharkhand) Branch Code: 01641 IFSC: SBIN0001641 A/c No.: 37052696309
PAN	AAAAI0686D
GSTIN	20AAAAI0686D1ZA
TIN / TAN Number	RCHI 00063A
DSIR Certificate No. (for custom duty and excise duty exemption)	No.: TU/V/RG-CDE(367)/2020, Dated: 28th September 2020

Registrar

Form-5**MANUFACTURERS' AUTHORIZATION FORM**

The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer and be enclosed with the technical bid.

Date:

Tender No.:

Address of the Manufacturer:

We do hereby authorize *[insert complete name and address of Bidder]* to submit the bid as per above-mentioned tender no. and to subsequently negotiate and sign the Contract. This is to confirm that the item(s) as per the tender is/are manufactured by our firm.

We hereby extend our full guarantee and warranty in accordance with Clause 14 of the Terms & Conditions, with respect to the Goods offered by the above firm.

We hereby confirm the compliance of the technical specifications submitted by our authorized Bidder (Form-7)

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Duly authorized to sign this Authorization on behalf of: *[insert complete name of Bidder]*

Dated on _____ day of _____ *[insert date of signing]*

Form-6**COMPLIANCE STATEMENT FORM**

S. No. (as per NIT)	Required Specifications /Parts/Accessories of Tender Enquiry	Quoted specification including Model No. if any	Compliance (Yes / No)	Deviation, if any to be indicated with technical justification (The compliance/ deviation should be supported with relevant Technical literature/brochure)

Seal and Sign of Bidder

UNDERTAKING BY THE BIDDER

- ❖ If the bidder offers more than one model, then the Compliance Statement must be enclosed for each and every model separately.
- ❖ The technical and commercial deviations should be indicated separately.
- ❖ If the bidder fails to enclose the technical compliance statement, the bid will be rejected.
- ❖ If the bidder furnishes document(s) (including compliance) or makes statement(s)/declaration(s) which is found to be false/wrong/forged at any point of time prior/during/post purchase process, the EMD of the bidder will be forfeited including cancellation of the bid, blacklisting of bidder/Manufacturer and appropriate legal action by the Institute. The decision of the Institute will be final in such cases.
- ❖ After opening of the price bid no clarification/query on technical aspects will be entertained by the Institute.

Signature and Seal of the Bidder

Place:-

Date:-

Form-7**Declaration by bidder****(Please specify Class of Supplier and Local Content percentage)****In accordance and manner as specified in Order No. P45021/2/2017-PP (BE-II) dated : 04th June 2020 and 2th March 2021 issued by DIPP, Ministry of Commerce and Industries, GoI.**

To,

The Registrar,

Indian Institute of Technology (Indian School of Mines)

Dhanbad -826004

Respected Sir,

In accordance with the order No. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021 I hereby declare that

- i) I am aware about all provision mentioned in Tender No. W-INS-057-22-23 as well as order No. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021 and abides by the same.
- ii) I declare that for this tender, I am a **Class-I local supplier / Class-II local supplier / Non-local supplier** (Strike out whichever is not applicable) and classification is based on local content of goods/services/work offered by bidder in this tender.
- iii) **Local content (in percentage) in offered** good/services/work is: _____%

Whereas 'Local Content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

- iv) The services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. are not included as Local content in case of imported products.
- v) The local content for all inputs which constitute the said goods/services/works has been verified and bidder is responsible for the correctness of the claims made therein.

Date:

Signature:

Name of Authorized Signatory:

Name of Bidder:

Seal of Bidder:

Form-8**Quality Control Requirements / Declaration by Tenderer**

[Supplier shall fill the following format and submit along with the bid.]

Subject: Tender Enquiry No.W-INS-057-22-23dated06 July 2022

Sl No.	Para-Meters	Requirements	Offered	Deviation, (if any.)
1.	Specifications	I shall supply, install & commission the material exactly as per specifications in ANNEXURE-I	Accepted	
2.	Contract Form	Duly filled, signed and sealed is to be submitted in the prescribed format as per form-2	YES (Page no. ____)	
3.	Seal/Signature	All the pages of the Tender Documents are numbered, sealed, signed & Submitted.	YES	
4.	Authorization certificate	Tenderers have to submit Manufacturer's Authorization form certificate along with bid.(Form-5)	YES (Page no. ____)	
5.	Other Essential Certificate	GST Certificate, TIN and Scanned Copy of PAN with the bid	YES (Page no. ____)	
6.	Catalogue/ Brochures /technical literature	Catalogue giving the Technical details of Welding Robotis attached.	YES (Page no. ____)	
7.	Purchase orders	Copies of previous Purchase orders/Work Orders pertaining to Experience and Past Performance against Qualification/Eligibility criteria (if applicable)	YES (Page no. ____)	
8.	Payment terms	Payment terms as per tender conditions is accepted	YES (Page no. ____)	
9.	Delivery schedule	Successful bidder should supply, install & commission the item within 60 Days after placement of Purchase Order	YES (Page no. ____)	
10.	Compliance Statement	Submitted as per Form-6	YES (Page no. ____)	
11.	EMD	Submitted in form of DD/PBG/Bid Securing declaration/ Valid Exemption Certificate	YES (Page no. ____)	
12.	Bank Detail	The Bank/RTGS Detail on the letter head of the bidder(s)	YES (Page no. ____)	
13.	Vendor's Registration Certificate	Registration Certificate to provide the Item/ services with the appropriate Govt. Authority.	YES (Page no. ____)	
14.	Warranty Clause	Warranty clause as per tender conditions is accepted.	YES (Page no. ____)	
15.	Class Of Supplier	Class of Supplier -----(Class I/class II/Non-local Supplier) in accordance with Order No. P45021/2/2017-PP (BE-II) dated 04 th June 2020 issued by DIPP, Ministry of Commerce and Industries, GoI. (to be enclosed with the technical bid) Form No.: 7	YES (Page no. ____)	

Yours faithfully,

Date:

Signature:

Name of Authorized Signatory:

Name of Bidder:

Seal of Bidder:

SPECIFICATION OF INDUCTION MELTING FURNACE

<u>APPLICATION REQUIREMENTS</u>		
1. Alloy to be melted	<u>Aluminium</u>	<u>Steel</u>
2. Melt temperature	<u>750°C</u>	<u>1650°C</u>
<u>CHARACTERISTICS OF RECOMMENDED POWER UNIT</u>		
1. Rated KW	<u>30 KW</u>	
2. Maximum KW	<u>30 KW</u>	
3. Nominal Furnace Frequency	<u>9600 Hz</u>	
4. Line Power Factor	<u>0.95 and above</u>	
5. KVA required at input	<u>35 KVA on load</u>	
6. Power Connection	<u>415 V, 3 Phase, 50 Hz</u>	
<u>CHARACTERISTICS OF RECOMMENDED MELTING FURNACE</u>		
1. Nominal capacity (Aluminium Capacity)	<u>10 KG</u>	
2. Nominal capacity (Steel Capacity)	<u>25 KG</u>	
3. Style of Furnace	<u>Duraline</u>	
4. Pouring Mechanism	<u>Hydraulic tilt</u>	
5. Furnace Lining	<u>Crucible</u>	
One Chiller	Suitable for 30 KW Panel	
Handle operated furnace selector switch	02 nos.	
MCCB	01 set	
LT cables	01 lot	
Pipelines and fittings	01 set	
Pyrometer	01 set	

POWER UNIT**I. ELECTRICAL PANEL**

1. CABINET Metal cabinet, duly painted fitted with panel doors, gasketed and equipped with locks. In addition, micro switches to be provided which illuminate a lamp on the monitor board and shut off power to prevent injury to personnel when the lift off panel or doors are opened. Power connections easily made through the top and water connections through the side of the cabinet.

2. PROTECTION

a) Fast acting MCCB used to isolate the equipment from the input supply line.

b) Fast acting semi-conductor fuses.

3. RECTIFIER SECTION WITH FILTER

a) Diodes with snubbers for rectification. The rectifier is to be designed to minimize line harmonics compared to phase-controlled rectifier. Instantaneous trip circuit facility to be provided for the protection of the rectifier.

b) Air core encapsulated current limiting reactor(s).

c) DC capacitors located in capacitor section. This design of the converter and filter section should reduce losses compared to iron core current limit reactor(s) and help to provide constant DC voltage to the voltage fed inverter. This design should help to achieve the conversion efficiency not less than 96%.

4. INVERTER SECTION

This section to contain inverter panel containing high power inverter SCRs with snubbers, anti -parallel diodes and DI/DT reactors. To provide full power throughout the melt cycle.

5. CAPACITOR SECTION

a) This section should contain all the required DC filters and medium frequency AC capacitors.

b) One pressure switch, installed in each capacitor.

c) One indicating lamp located on the monitor board to notify the operator when the capacitor pressure switch has been actuated

6. GROUND/METAL LEAK DETECTOR

One sensing ground/metal leak detector ready to sense and indicate any ground and metal leak. Consisting of indicating lamp, millimeters, probe disconnect switch to disconnect the probe from the power supply.

7. CONTROL AND MONITOR SYSTEM

- a) Three direct reading instruments including frequency meter, kilowatt meter and furnace voltmeter.
- b) One main control board for controlling of the equipment, which eliminates electronic complexity and simplifies maintenance. This board to be located in a compartment. A cooling fan is to be provided for temperature control.
- c) ON/OFF push buttons to be provided on the control door.
- d) One power control knob to be provided on the control door to set the desired power level.
- e) One circuit monitor for monitoring and indicating functional parameters, such as water pressure, water temperature and other electrical faults.

8. INTERNAL CLOSED WATER SYSTEM (INSIDE THE CABINET) This should contain one feed manifold with temperature and pressure switches and one drain manifold with temperature sensors for different paths of cooling system.

HYDRAULIC POWER UNIT One hydraulic pumping unit (without oil and starter) to supply pressurized fluid to the tilting cylinders complete with pump, pump motor, fluid reservoir, pressure relief valve, pressure gauge, return line filter and filter air breather cap all mounted on a common base with seamless pipes and fittings.

MELTING FURNACE (02 nos. – One for Aluminium and one for Steel / Cast Iron)

IV. TILTING FURNACE Hydraulically tilted coreless melting furnace for housing and providing rigid support to the induction coil. Constructed out of cast aluminium alloy side plates, top and bottom made out of refractory with stainless steel fiber reinforcement. This coreless Duraline without shunts should be designed to help in reducing energy loss. Included in each furnace will be: 1. A set of shrouded hydraulic cylinders with check valve for the hydraulic tilting of the furnace. 2. Manually operated hydraulic direction control valve for tilting. 3. Leak detector assembly with stainless steel probe wires and hardware. 4. Set of flexible water-cooled power leads for connection between the power induction coil and power supply unit. Water-cooled leads are with sleeves for protection against metal splash. 5. Furnace to be mounted on the pair of self-aligning, pillow block type pivot bearings.

V. INTERCONNECTING ARRANGEMENT A suitable size of air/water cooled copper conductor is to be provided to connect the power panel with the melting furnace.

C. DRAWINGS & MANUALS Equipment layout drawings, wiring, water diagrams, equipment outline, furnace cross section drawing and an operating and maintenance manual.

The Vendor should have record for Supply and Installation of Induction Melting Furnace 30 Kw Capacity to IIT, NIT or any PSU's.

The Vendor should have an Annual Turnover (for the last F.Y.) of about 10 crores or more.

All Components should be of standard quality and should be as per IS Standards.

The supplier should submit Compliance Statement and Technical Literature of their concerned product.

The Price should include Supply, Installation, Training and Taxes.

PRICE SCHEDULE / PRICE BID (ANNEXURE – II)**Tender Inviting Authority: INDIAN SCHOOL OF TECHNOLOGY INDIAN SCHOOL OF MINES DHANBAD****Name of Work: Supply and Installation of Induction Melting Furnace 30 Kw capacity****Tender No: W-INS-057-22-23 (To be submitted in soft copy only)****PRICE SCHEDULE****(This FORM must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)****If packing charges, transportation charges, insurance chrges, Installation Commissioning & Training charges aready included in unit price then please mentioned zero "0" in respective cell.**

	Name of the bidder													
NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make/ HS N Code	Quantity	Units	Quoted Currency in INR	UNIT PRICE without any tax In Figures To be entered by the Bidder Rs.	SUB TOTAL AMOUNT Without Taxes	Packing & Forwarding if any (in INR)	Charge for Inland Transportation, Insurance etc in INR	Installation Commissioning & Training in INR	TOTAL AMOUNT Without Taxes	GST in Percentage	TOTAL AMOUNT With Taxes	TOTAL AMOUNT IN WORDS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.01	Supply and Installation of Induction Melting Furnace 30 Kw capacity		1.000	set	INR		0.00					0.00	0.00	

