### NITD/MM-RIG/AKM/Plasma/2020/1 NIT DURGAPUR NOTICE INVITING TENDER (E-PROCUREMENT MODE)

### NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR

MAHATMA GANDHI AVENUE

DURGAPUR –713 209, WEST BENGAL, INDIA

Department of Metallurgical and Materials Engineering

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Contact No.: +91-9434788110

NOTICE INVITING TENDER NO.: NITD/MM-RIG/AKM/Plasma/2020/1	Date: 02/03/2020

National Institute of Technology Durgapur is in the process of purchasing following item(s) as per details as given as under.

6	
Items	To fabricate (i) Melting Chamber for transfer arc plasma generation (ii)
	Gas purification system at Department of Metallurgical & Materials
	Engineering, NIT Durgapur.
Earnest Money Deposit to be submitted	<b>Rs. 5,000/-</b> (E-Payment)
Installation and Commissioning	Required, Department of Metallurgical & Materials Engineering, NIT
	Durgapur.
Warranty	Onsite warranty of minimum 2 years from the date of delivery and
	installation at NIT Durgapur
Performance Security/ Performance	The successful bidder must submit before release of payment a valid
Bank Guarantee (PBG)	bank guarantee payable to "NIT Durgapur" on any nationalized bank
	amounting to 5 % of the order value towards Performance Security
	during the warranty period.
Calendar Completion/Delivery Period	Within 90 days from the date of issuing Purchase Order/Work Order/
	Award of Contract.

Tender Documents may be downloaded from ITI e-Wizard Portal of MHRD <u>https://mhrd.euniwizarde.com</u> Aspiring Bidders who have not enrolled / registered in e-Wizard should enrol/ register before participating through the website <u>https://mhrd.euniwizarde.com</u>. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.

Tenderers can access tender documents on the NIT DURGAPUR website (<u>https://nitdgp.ac.in</u>) Tenders@NITD.

(For searching in the ITI E-wizard site, kindly go to Department Select option and select 'NIT DURGAPUR'. Thereafter, filling CAPTCHA and Click on "Search" button to view all NIT Durgapur tenders). Select the appropriate tender, fill them with all relevant information, and submit the completed tender document online on the website <u>https://mhrd.euniwizarde.com</u> as per the schedule given in the next page. No manual bids will be accepted. All quotation (both Technical and Financial should be submitted in the E-Wizard portal).

# **SCHEDULE**

Name of Organization	National Institute of Technology
Tender Type (Open/Limited/EOI/Auction/Single)	Open
Tender Category (Services/Goods/works)	Goods
Type/Form of Contract (Work/Supply/	Buy
Auction/Service/Buy/Empanelment/ Sell)	
Product Category (Civil Works/Electrical Works/Fleet	Laboratory Equipments
Management/Computer Systems/ Laboratory	
Equipments)	
Source of Fund (Institute/Project)	RIG fund
Is Multi Currency Allowed	NO
Date of Issue/Publishing	02/03/2020
Document Download/Sale Start Date	02/03/2020
Bid submission start date	02/03/2020
Document Download/Sale End Date	23/03/2020 (17:00 Hrs)
Last Date and Time for Uploading of Bids	23/03/2020 (17:05 Hrs)
Date and Time of Opening of Technical Bids	24/03/2020 (10.00 Hrs.)
Tender Processing Fee	Rs. 885 /- (E-Payment)
EMD	5,000/- ( E-Payment )
No. of Covers (1/2/3/4)	02
Bid Validity days (180/120/90/60/30)	90 days (From last date of opening of price
	bid)
Address for Communication	Dr. Arup Kumar Mandal
	Assistant Professor,
	Department of Metallurgical & Materials
	Engineering,
	National Institute of Technology Durgapur
Contact No.	Durgapur – 713209, West Bengal, India +91-9434788110
Email Address	arup.mandal@mme.nitdgp.ac.in
	Helpdesk Number - 011-4960 6060/06122520545
ITI Helpdesk Contact No. and mail address	ewizardhelpdesk@gmail.com
	Mr SK Tariq- 9355030608
	ewizardtariq@gmail.com
	Mr Siddharth Ghosh – 9355030604
	ewizardsiddharth@gmail.com
	Mr Sanjeet Kumar Jha – 8882495599
	ewizardsanjeet.kumar@gmail.com

### **PROCEDURE FOR SUBMISSION OF E-TENDER**

The bidders are required to submit soft copies of their bid electronically on the ITI e-Wizard Portal using valid Digital Signature Certificates. Below mentioned instructions are meant to guide the bidders for registration on the e-Wizard Portal, prepare their bids in accordance with the requirements and submit their bids online on the ITI e-Wizard Portal. For more information, bidders may visit the ITI e-Wizard Portal https://mhrd.euniwizarde.com

### 1. REGISTRATION PROCESS ON ONLINE PORTAL

- a. Bidders to enroll on the e-Procurement module of the portal <u>https://mhrd.euniwizarde.com</u> by clicking on the link "Bidder Enrolment" as per portal norms.
- b. The bidders to choose a unique username and assign a password for their accounts. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the e-Wizard Portal.
- c. Bidders must provide the details of PAN number, registration details etc as applicable and submit the related documents. The user id will be activated only after submission of complete details. The activation process will take minimum 24 working hours. After completion of registration payment, you can also send your acknowledgement copy on our help desk mail id **ewizardhelpdesk@gmail.com** for activation of your account.
- d. Bidders to register upon enrolment their valid Digital Signature Certificate (DSC: Class III Certificates with signing key and encryption usage) issued by any Certifying Authority recognized by CCA India with their profile.
- e. A bidder should register only one valid DSC. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others, which may lead to misuse. Foreign bidders are advised to refer "DSC details for Foreign Bidders" for Digital Signature requirements on the portal.
- f. Bidder then logs in to the site through the secured login by entering their user ID/password and the password of the DSC / e-Token.

### 2. Tender Document Search

- a. Various built-in options are available in the e-Wizard Portal to facilitate bidders to search active tenders by several parameters. These parameters include Tender ID, organization, location, date, value, etc.
- b. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, a form of contract, location, date, other keywords, etc. to search for a tender published on the Online Portal.
- c. Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective '**Interested Tenders**' folder. This would enable the Online Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- d. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification/help from the Helpdesk.

### **3.** Bid Preparation

- a. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- b. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
- c. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that needs to be submitted. Any deviations from these may lead to rejection of the bid.
- d. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in PDF/XLS/PNG, etc. formats. Documents in PDF format with maximum Five (5) Mb file can be uploaded.

### 4. Bid Submission

- a. Bidder to log into the site well in advance for bid submission so that he/she uploads the bid in time i.e., on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- b. The bidder to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- c. Bidders must pay required payments (Form fee, EMD, Tender Processing Fee etc) as mentioned before submitting the bid
- d. Bidder to select the payment option mode as specified in the Schedule (EMD/FORM FEE Section) to pay the form fee/ EMD wherever applicable and enter details of the instrument.
- e. A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders to note that they should necessarily submit their financial bids in the prescribed format and no other format is acceptable.
- f. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, the opening of bids, etc. The bidders should follow this time during bid submission.
- g. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data, which cannot be viewed by unauthorized persons until the time of bid opening.
- h. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- i. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- j. Kindly have all relevant documents in a single PDF file.
- k. The off-line tender shall not be accepted and no request in this regard will be entertained whatsoever.

### 5. Amendment of bid document

At any time prior to the deadline for submission of proposals, the institutions reserve the right to add/ modify/ delete any portion of this document by the issuance of a Corrigendum, which would

be published on the website and will also be made available to the all the Bidder who has been issued the tender document. The Corrigendum shall be binding on all bidders and will form part of the bid documents.

### 6. Instruction to Bidders

- a. Process for Bid submission through ITI Ewizard portal is explained in Bidder Manual. Bidders are requested to download Bidder Manual from the home page of website (https://mhrd.euniwizarde.com). Steps are as follows:
   (Home page > Downloads > Bidder Manuals).
- b. The tenders will be received online through portal https://mhrd.euniwizarde.com. In the Technical Bids, the bidders are required to upload all the documents in .pdf format.
- c. Possession of Valid Class III Digital Signature Certificate (DSC) in the form of smart card/ e-Token in the company's name is a prerequisite for registration and participating in the bid submission activities through **https://mhrd.euniwizarde.com**. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available on the web site **https://mhrd.euniwizarde.com** under the link 'DSC help'.

Tenderers are advised to follow the instructions provided in the `User Guide and FAQ' for the e-Submission of the bids online through the ITI e-Wizard Portal for e-Procurement at https://mhrd.euniwizarde.com

- d. The bidder has to "**Request the tender**" to portal before the "**Date for Request tender**" document", to participate in bid submission.
- **7.** All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.
- **8.** Any order resulting from this e-tender shall be governed by the terms and conditions mentioned therein.
- **9.** No deviation to the technical and commercial terms & conditions allowed.
- **10.** The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of the bids

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Contact No.: +91-9434788110

I	NOTICE INVITING TENDER NO.: NITD/MM-RIG/AKM/Plasma/2020/1	Date: 02/03/2020
	Sub: NOTICE INVING E-TENDER FOR "Supplying fabricated (i) Melting Chamber f	for transfer arc plasma
	generation (ii) Gas purification system at Department of Metallurgical & Materials Engineering, N	NIT Durgapur".

#### **Invitation for Tender Offers**

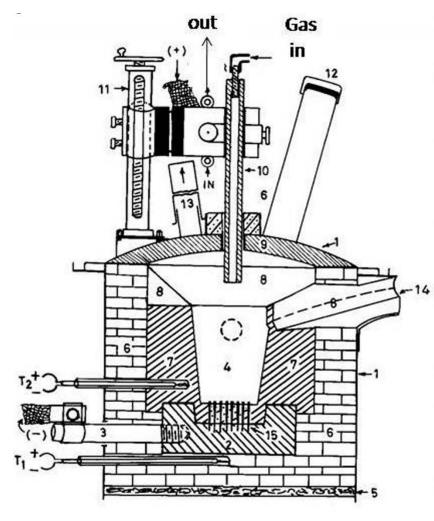
National Institute of Technology Durgapur invites online Bids (Technical bid and Commercial bid) from eligible and experienced furnace fabricator for supplying a fabricated laboratory scale (2 kg capacity) Transferred arc plasma generation unit , lined with refractory materials with the suitable gas purification system and temperature measurement system of liquid metal for performing melting and reduction experiments on site comprehensive warranty (for two years) from the date of installation of the material as per terms & conditions specified in the tender document, which is available on ITI e-procurement Portal **https://mhrd.euniwizarde.com** 

# **TECHNICAL SPECIFICATIONs:**

SI. No.	Specification	Detailed Description
Melting Chamber for transfer arc plasma generation		
01	Electrode	<ul> <li>Diameter of the solid electrode 16 mm and 610 mm long</li> <li>Hollow electrode having 4 mm bore diameter and 610 mm long drilled in the electrode for the flow of plasma gas</li> </ul>
02	Electrode Holder	<ul> <li>The half portion of the electrode holder should be made of copper, and another half made of steel.</li> <li>It should be attached on the top of the roof having a hand wheel to provide upward and downward electrode movement.</li> <li>To protect the copper from the intense heat, provision of water circulation system for cooling the holder</li> </ul>
03	Furnace Body and Roof	<ul> <li>Body should be made with Mild steel (MS) sheet of minimum 3-mm thickness</li> <li>Shape of the body should be cylindrical shape having 300 mm diameter and 280 mm height.</li> <li>The top of the furnace should be an arched shape swinging lid, made of 5-mm-thick steel plate</li> <li>Provision of looking door/ charging door on the lid</li> </ul>
04	High-Temperature Electrical Connector	<ul> <li>A graphite block of 120-mm diameter and 80-mm height should be provided for electrical connection to the charge through the bottom of the crucible</li> <li>Graphite block should be connected by a 250 mm long threaded stainless steel rod with the one point of electrical source by copper strip for electrical connection</li> <li>Around 20–25 steel nails (i.e., hard steel wire), of 3 mm</li> </ul>

Name of the Equipment:

		diameter and 35 mm long to be fixed on the top of the graphite block embedded by refractory lining for making electrical connection between melt and graphite block
05	Lining	<ul> <li>Capacity of melting MS or SS is 2-5 kg</li> <li>Crucible diameter of about 80 mm and depth about 90 mm.</li> <li>Lining materials from the shell to centre of crucible in this order: Mica sheet insulation → Insulation bricks → Ramming mass</li> <li>Inner side of the Lid should be anchored with nails to hold ramming mass lining.</li> <li>Ramming mass should be Magnesite (basic), Fire clay (acidic) as per requirement</li> </ul>
		• For hardening purpose, sodium silicate gel to be applied
06	Temperature measurement system	<ul> <li>Supply of a continuous temperature measurement system is needed.</li> <li>The provision of a continuous temperature measurement of liquid metal by a portable infrared spectrometer or online spectrometer to be fitted with this system is required.</li> </ul>
		Gas purification system
01	Plasma gas flow control system	<ul> <li>A gas purification train to be designed and fabricated with mixing and flow control system to pass desired plasma gas (nitrogen/ hydrogen) or their mixture.</li> <li>This system should permitted the dry gas flow in a range of 8×10<sup>-6</sup> to 33×10<sup>-6</sup> m<sup>3</sup>/s.</li> <li>The purification train provided mainly to remove moisture in all gasses and moisture plus oxygen in nitrogen as well as to control backfiring of hydrogen gas.</li> <li>Gas flow through purification train from cylinder: Blank bottle → CaCl<sub>2</sub> → Pyrogallol → CaCl<sub>2</sub> → Blank Bottle → Electrode</li> <li>Purification train should be provision of mixing two gases</li> <li>For the collection of molten samples during melting operation, a suction pipette made of silica tube with rubber suction bulb</li> </ul>
		Other terms and conditions
the date	ndor must certify ava <u>of purchase.</u> of quotation required:	ilability of the spare for items quoted for at least 5 years from 90 days
Warrant		Id come with minimum 2 years <b>onsite</b> (24×7) warranty from the
running	at Department of Me	commissioning, complete demonstration and successful tallurgical and Materials Engineering, NIT, Durgapur.
		the date of placement of purchase order
		of Metallurgical and Materials Engineering, NIT, Durgapur
	ion and commissionin rials Engineering, NIT	<b>g</b> : Installation and commissioning at Department of Metallurgical , Durgapur



## Legend

- 1. M.S. Plate
- 2. Graphite block
- 3. Stainless steel
  - Connecting rod
- 4. Magnesite crucible
- 5. Asbestos sheet
- 6. Insulating bricks
- 7. Magnesite
- 8. Fire clay
- 9. Magnesite roof
- 10. Hallow graphite electrode
- 11. Electrode holder
- 12. Peep window/ charging chute
- 13. Gas exit to dust catcher
- 14. Spout
- 15. Steel wire
- T<sub>1</sub>/T<sub>2</sub> Thermocouple

# A complete set of tender documents may be downloaded by prospective bidder from the website <u>https://mhrd.euniwizarde.com</u>

### **Documents to be submitted in the Technical Folder:**

1. Digitally signed copy of the filled in Notice Inviting Tender (NIT)

# 2. Detailed technical specifications and literature/ drawings/ manuals of the goods/products/ services have to be furnished,

- 3. Authorized dealership certificate from the original manufacturer, if applicable,
- 4. Scanned copy of EMD.
- 5. Warranty Period (2 years Comprehensive **onsite** (24×7))
- 6. Credentials and list of organizations with proof where the bidder supplied similar items.
- 7. List of other important documents (OID)

Sl. No.	Category	Sub Category	Sub Category Description
1	Certificate	GST Registration Certificate	GST Registration Certificate
	Details	Partnership Deed (If applicable)	Partnership Deed
		Permanent Account Number	Permanent Account Number Details
		Power of Attorney (If applicable)	Power of Attorney
		Registration Certificate	Trade license certificate/shops & establishments certificate, PAN card, Certificate of incorporation (if applicable) etc. If trade license for FY (18-19) is not available till last date of submission, then self- attested stamped copy of renewal receipt from concerned municipality along with last FY (17-18) trade license is to be provided (both offline & online). This is provisional only.
2	Purchase Order	Purchase Orders	Purchase Orders
	Details		
3	Work Details	Work Completed Certificate Copies	Work Completed Certificate Copies

# **Terms & Conditions Details**

Sl. No.	Particulars / Specification
1	Due date: The tender has to be submitted on-line before the due date. The offers received after the
	due date and time will not be considered. No manual bids will be considered.
2	Preparation of Bids: The offer/bid should be submitted in two bid systems (i.e.) Technical bid
	and financial bid. The technical bid should consist of all technical details along with commercial
	terms and conditions. Financial bid should indicate item wise price for the items mentioned in the
	technical bid in the given format. The Technical bid and the financial bid should be submitted
	Online.
3	EMD (if applicable):
	The bidder should submit an EMD amount of Rs: 5,000/-as EMD amount Through E-Payment.
	The Technical Bid without EMD would be considered as UNRESPONSIVE and will not be
	accepted. The EMD will be refunded without any interest to the unsuccessful bidders after the
	award of contract. Earnest Money Deposit (EMD / Bid Security (BS) has to be submitted by
	bidders except those who are registered with National Small Industries Corporation (NSIC)/
	Ministry of Micro Small Medium Enterprises or as per GFR 2017 guidelines. However, this
	certificate should be for manufacturing of the item indented and not for selling items manufactured
	by other firms. The certificate should be valid up to bid the bid validity
4	Refund of EMD: The EMD will be returned to unsuccessful bidders only after the tenders are
	finalized. In case of successful bidder, it will be retained till the successful and complete installation
	of the equipment.
5	<b>Opening of the tender</b> : The online bid will be opened by a committee duly constituted for this
	purpose. Online bids (complete in all respect) received along with EMD (if any) will be opened as
	mentioned at "Annexure: Schedule" in presence of representative each bidder if available. Only one
	representative of each bidder will be allowed to participate in the tender opening. Bid received
	without EMD (if present) will be rejected straight way. The technical bid will be opened online first
	and it will be examined by a technical committee (as per specification and requirement). The
	financial offer/bid will be opened only for the offer/bid which technically meets all requirements as
	per the specification. The bidders if interested may participate on the tender opening Date and
	Time. The bidder should produce authorization letter from their company to participate in the
(	tender opening.
6	Acceptance/ Rejection of bids: The Committee reserves the right to reject any or all offers
7	without assigning any reason.
7	Pre-qualification criteria:
	(i) Bidders should be the manufacturer / authorized dealer. Letter of Authorization from original
	equipment manufacturer (OEM) on the same and specific to the tender should be enclosed.
	(ii) An undertaking from the OEM is required stating that they would facilitate the bidder on a
	regular basis with technology/product updates and extend support for the warranty as well. (Ref.
	Annexure-II)
	<ul><li>(iii) OEM should be internationally reputed Branded Company.</li><li>(iv) Non-compliance of tender terms, non-submission of required documents, lack of clarity of the</li></ul>
	specifications, contradiction between bidder specification and supporting documents etc. may lead
	to rejection of the bid.
	(v) In the tender, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself
	can bid but both cannot bid simultaneously for the same item/product in the same tender.
	(vi) If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid
	on behalf of another Principal/OEM in the same tender for the same item/product.
8	Performance Security/ Performance bank Guarantee (PBG): The supplier shall require to
	submit the performance security in the form of irrevocable bank guarantee issued by any Indian
	Nationalized Bank for an amount which is stated in the tender document, within 21 days from the
	reactionalized bank for an amount which is stated in the tender document, wrann 21 days from the

	date of receipt of the purchase order/LC and should be kept valid for a period of 60 days beyond the
	date of completion of warranty period or the same will be deduced from the bill/ invoice before payment is made. The same will be released on application by the supplier after the said interval
	(warranty period $+$ 60 days).
9	<ul> <li>Force Majeure: The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.</li> <li>For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.</li> </ul>
	• If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
10	<b>Risk Purchase Clause</b> : In event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from the other source on the total risk of the supplier under risk purchase clause.
11	Packing Instructions: Each package will be marked on three sides with proper paint/indelible         ink, the following:         i. Item Nomenclature         ii. Order/Contract No.         iii. Country of Origin of Goods         iv. Supplier's Name and Address         v. Consignee details         vi. Packing list reference number
12	Delivery and Documents:
	Delivery of the goods should be made within a maximum of 90 days from the date of placement of official purchase order. Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by cable/telex/fax/e mail the full details of the shipment including contract number, railway receipt number/ AAP etc. and date, description of goods, quantity, name of the consignee, invoice etc. The supplier shall mail the following documents to the purchaser with a
	copy to the insurance company: 1. 4 Copies of the Supplier invoice showing contract number, goods' description, quantity, unit price, total amount;
	<ul> <li>3. Insurance Certificate if applicable;</li> <li>4. Manufacturer's/Supplier's warranty certificate;</li> <li>5. Inspection Certificate issued by the nominated inspection agency, if any</li> <li>6. Supplier's factory inspection report; and</li> </ul>
	<ul> <li>7. Certificate of Origin (if possible by the beneficiary);</li> <li>8. Two copies of the packing list identifying the contents of each package.</li> <li>9. The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses</li> </ul>
13	<b>Delayed delivery:</b> If the delivery is not made within the due date for any reason, the Committee will have the right to impose penalty 1% per week and the maximum deduction is 10% of the contract value ( price)
14	contract value / price. Prices:
	<ul> <li>a) The contract shall be for the full quantity as described above</li> <li>b) All duties, entry taxes, transport, insurance and other levies payable by the contractor under the contract shall be included in the total price F.O.R. NIT Durgapur.</li> </ul>
	<ul> <li>c) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustments on any account.</li> <li>d) The Prices should be quoted in Indian Rupees only.</li> </ul>
	e) The base price includes all type of prices except GST etc.

15	<b>Notices:</b> For the purpose of all notices, the following shall be the address of the Purchaser and
	Supplier. <b>Purchaser</b> Dr. Arup Kumar Mandal
	Assistant Professor,
	Department of Metallurgical & Materials Engineering
	National Institute of Technology, Durgapur – 713209
	Supplier:
	(All supplier's should submit its supplies information as per Annexure-II).
16	Due group of Community Willington and the later of the la
10	<b>Progress of Supply</b> : Wherever applicable, supplier shall regularly intimate progress of supply, in writing, to the Purchaser as under:
	1. Quantity offered for inspection and date;
	2. Quantity accepted/rejected by inspecting agency and date;
	3. Quantity dispatched/delivered to consignees and date;
	4. Quantity where incidental services have been satisfactorily completed with date;
	5. Quantity where rectification/repair/replacement effected/completed on receipt of any
	communication from consignee/Purchaser with date;
	6. Date of completion of entire Contract including incidental services, if any; and
	7. Date of receipt of entire payments under the Contract (In case of stage-wise inspection, details
17	required may also be specified). <b>Inspection and Tests:</b> Inspection and tests prior to shipment of Goods and at final
17	acceptance are as follows:
	• After the goods are manufactured and assembled, inspection and testing of the goods
	• After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check
	whether the goods are in conformity with the technical specifications attached to the
	purchase order. Manufacturer's test certificate with data sheet shall be issued to this effect
	and submitted along with the delivery documents. The purchaser shall be present at the
	supplier's premises during such inspection and testing if need is felt. The location where
	the inspection is required to be conducted should be clearly indicated. The supplier shall inform the purchaser about the site preparation, if any, needed for installation of the goods
	at the purchaser's site at the time of submission of order acceptance.
	• The acceptance test will be conducted by the Purchaser, their consultant or other such
	• The acceptance test will be conducted by the Furchaser, then consultant of other such person nominated by the Purchaser at its option after the equipment is installed at
	person nonlinated by the Furchaser at its option after the equipment is instaned at purchaser's site in the presence of supplier's representatives. The acceptance will involve
	trouble free operation and ascertaining conformity with the ordered specifications and
	quality. There shall not be any additional charges for carrying out acceptance test. No
	malfunction, partial or complete failure of any part of the equipment is expected to occur.
	The Supplier shall maintain necessary log in respect of the result of the test to establish to
	the entire satisfaction of the Purchaser, the successful completion of the test specified.
	• In the event of the ordered item failing to pass the acceptance test, a period not exceeding
	one weeks will be given to rectify the defects and clear the acceptance test, failing which
	the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra
	cost to the Purchaser.
	• Successful conduct and conclusion of the acceptance test for the installed goods and
	equipment shall also be the responsibility and at the cost of the Supplier.
18	<b>Resolution of Disputes</b> : The dispute resolution mechanism to be applied pursuant shall be as follows:
	• In case of Dispute or difference arising between the Purchaser and a domestic supplier relating
	to any matter arising out of or connected with this agreement, such disputes or difference shall
	be settled in accordance with the Indian Arbitration & Conciliation Act, 1996. The dispute shall
	be referred to the Director, National Institute of Technology Durgapur and if he is unable or
	unwilling to act, to the sole arbitration of some other person appointed by him and willing to act
	as such Arbitrator. The award of the said arbitrator so appointed shall be final, conclusive and

	binding on all parties to this order.
	• In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be
	settled by arbitration in accordance with provision of sub-clause above. But if this is not
	acceptable to the supplier then the dispute shall be settled in accordance with provisions of
	UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.
	• The venue of the arbitration shall be the place from where the order is issued.
19	Applicable Law: Settlement of any dispute will be made under the jurisdiction of Durgapur Court.
20	Right to Use Defective Goods
20	If after delivery, acceptance and installation and within the guarantee and warranty period, the
	operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to
	continue to operate or use such goods until rectifications of defects, errors or omissions by repair or
	by partial or complete replacement is made without interfering with the Purchaser's operation.
21	Supplier Integrity
	The Supplier is responsible for and obliged to conduct all contracted activities in accordance with
	the Contract using state of the art methods and economic principles and exercising all means
	available to achieve the performance specified in the contract.
22	Training
	The Supplier is required to provide training to the designated Purchaser's technical and end user
23	personnel to enable them to effectively operate the equipment.
25	Installation & Demonstration
	Installation and demonstration of the equipment within one month of the arrival of materials at the
	NIT Durgapur will carried out at the site of installation.
	In case of any mis-happening/ damage to equipment and supplies during the carriage of supplies
	from the origin of equipment to the installation site, the supplier has to replace it with new
	equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance
24	<ul><li>company as per his convenience. NIT Durgapur will not be liable to any type of losses in any form.</li><li><b>Insurance:</b> For delivery of goods at the purchaser's premises, the insurance shall be obtained by</li></ul>
24	the supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse"
	(final destinations) on "All Risks" basis including War Risks and Strikes. The insurance shall be
	valid for a period of not less than 3 months after installation and commissioning.
25	Incidental services: The incidental services also include:
23	Furnishing of 01 set of detailed operations & maintenance manual.
26	Warranty:
20	
	(i) Warranty period shall be from date of installation of Goods at the NIT Durgapur site of installation. The Supplier shall, in addition, comply with the performance and/or consumption
	guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees
	are not attained in whole or in part, the Supplier shall at its discretion make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to
	attain the contractual guarantees specified in the Contract at its own cost and expense and to carry
	out further performance tests. The warranty should be comprehensive on site.
	out further performance tests. The warranty should be comprehensive on site.
	(ii) The Purchaser shall promptly notify the Supplier in writing of any claims arising under this
	warranty. Upon receipt of such notice, the Supplier shall immediately within in 02 weeks arrange to
	repair or replace the defective goods or parts thereof free of cost at the ultimate destination. The
	Supplier shall take over the replaced parts/goods at the time of their replacement. No claim
	whatsoever shall lie on the Purchaser for the replaced parts/goods thereafter. The period for
	rectification of defects in the warranty period is 02 weeks. If the supplier having been notified fails
	to remedy the defects within 01 weeks, the purchaser may proceed to take such remedial action as
	may be necessary, at the supplier's risk and expenses and without prejudice to any other rights,
	which the purchaser may have against the supplier under the contract.
	parenaser maj mare agamst die supplier ender die contract
	(iii) The warranty period should be clearly mentioned. The maintenance charges (AMC) under
	different schemes after the expiry of the warranty may also be mentioned. The comprehensive
	onsite warranty will commence from the date of the satisfactory installation/commissioning of the
	equipment against the defect of any manufacturing, workmanship and poor quality of the
	components.
	(iv)After the warranty period is over, Annual Maintenance Contract (AMC)/Comprehensive

	Maintenance Contract (CMC) up to next two years should be started. The AMC/CMC charges will not be included in computing the total cost of the equipment.
27	<b>Governing Language</b> The contract shall be written in English language. English language version of the Contract sha
	govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.
28	Applicable Law (Sl. No. 18)
	The Contract shall be interpreted in accordance with the laws of the Union of India and all dispute shall be subject to place of jurisdiction.
29	<ul> <li>Notices</li> <li>Any notice given by one party to the other pursuant to this contract/order shall be sent if</li> </ul>
	the other party in writing or by cable, FAX or e mail and confirmed in writing to the other party's address.
	<ul> <li>A notice shall be effective when delivered or on the notice's effective date, whichever later.</li> </ul>
30	Taxes
	Suppliers shall be entirely responsible for all taxes, duties, license fees, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. However, GST in respect of the transaction between the Purchaser and the Supplier shall be payable extra, if so stipulated in the order.
31	Duties
	NIT Durgapur is exempted from paying custom duty and necessary "Custom Duty Exemption Certificate" can be issued after providing following information and Custom Duty Exemption Certificate will be issued to the shipment in the name of the Institute, (no certificate will be issued to third party): The procured product should be used for teaching, scientific and research wo only.
	<ul><li>a) Shipping details i.e. Master Airway Bill No. and House Airway No. (if exists)</li></ul>
	b) Forwarder details i.e. Name, Contact No., etc.
	<ul> <li>NIT Durgapur is exempted from paying Excise Duty and necessary Excise Duty Exemption</li> <li>Certificate will be provided for which following information are required.</li> <li>b) Quotation with details of Basic Price, Rate, Tax &amp; Amount on which ED is applicable</li> <li>c) Supply Order Copy</li> <li>d) Professory Length Comp</li> </ul>
32	d) Proforma-Invoice Copy. Payment:
	100% payment shall be made by the Purchaser within 8 weeks after successful installation commissioning and acceptance of the equipment at Department of Metallurgical and Materia Engineering, NIT Durgapur in good condition and to the entire satisfaction of the Purchaser and or production of unconditional performance bank guarantee (PBG) as specified in Clause 8 of tend terms and conditions.
33	<b>User list:</b> Brochure detailing technical specifications and performance, list of industrial and Educational establishments where the items enquired have been supplied must be provided. (Re Annexure-III)
34	Manuals
	<ul><li>(i) Before the goods and equipment are taken over by the Purchaser, the Supplier shall supplied operation and maintenance manuals. These shall be in such details as will enable the Purchaser operate, maintain, adjust and repair all parts of the works as stated in the specifications.</li><li>(ii) The Manuals shall be in the ruling language (English) in such form and numbers as stated</li></ul>
	the contract.
	(iii) Unless and otherwise agreed, the goods equipment shall not be considered to be completed f the purposes of taking over until such manuals and drawing have been supplied to the Purchaser.
35	<b>Application Specialist</b> : The bidder should mention in the Techno-Commercial bid to availability and names of Application Specialist and Service Engineers in the nearest region office (Ref. to Appendix III)
	office. (Ref. to Annexure-III)
36	Application Specialist: The bidder should mention in the Techno-Commercial bid the

	Spare Parts
	The Supplier may be required to provide any or all of the following materials, notifications, and
	information pertaining to spare parts manufactured or distributed by the Supplier:
	i. Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this
	election shall not relieve the Supplier of any warranty obligations under the Contract; and
	ii. In the event of termination of production of the spare parts:
	iii. Advance notification to the Purchaser of the pending termination, in sufficient time to
	permit the Purchaser to procure needed requirements; and
	iv. Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings
	and specifications of the spare parts, if requested.
	Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for
	the Goods, such as graphide electrode, refractory bricks for lining, ramming mass, graphite
	blocks, SS nails, threaded SS rod for current discharge, graphite mould for pouring, sodium
	silicate gel for lining, safety googles for melting, pyrogallol solution, CaCl <sub>2</sub> for gas purification
	train, rubber bellow fitted with silica tube for pin sampling etc. Other spare parts and
	components shall be supplied as promptly as possible but, in any case, within six months of
	placement of order.
37	Defective Equipment: If any of the equipment supplied by the bidder is found to be sub-
	standard, refurbished, un-merchantable or not in accordance with the description/specification or
	otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of
	such equipment shall be refunded by the bidder with 18% interest if such payments for such
	equipment have already been made. All damaged or unapproved goods shall be returned at
	suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the
	supplier. Defective part in equipment, if found before installation and/or during warranty period,
	shall be replaced within 30 days on receipt of the intimation from this office at the cost and risk of
	supplier including all other charges. In case supplier fails to replace above item as per above terms
	& conditions, NIT Durgapur may consider "Banning" the supplier.
38	Termination for Default
	The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice
	of default sent to the Supplier, terminate the Contract in whole or part:
	i. If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order,
	or within any extension thereof granted by the Purchaser; or
	or within any extension thereof granted by the Purchaser; or
	or within any extension thereof granted by the Purchaser; or ii If the Supplier fails to perform any other obligation(s) under the Contract.
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	<ul> <li>or within any extension thereof granted by the Purchaser; or</li> <li>ii If the Supplier fails to perform any other obligation(s) under the Contract.</li> <li>iii If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.</li> <li>□ For the purpose of this Clause:</li> <li>i. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.</li> </ul>
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	<ul> <li>or within any extension thereof granted by the Purchaser; or</li> <li>ii If the Supplier fails to perform any other obligation(s) under the Contract.</li> <li>iii If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.</li> <li>□ For the purpose of this Clause:</li> <li>i. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.</li> <li>ii. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Indenter, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Indenter of the benefits of free and open competition;"</li> </ul>
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### Annexure I

### Name of the Equipment:

Name of the Equipment:			
SI. No.	Specification	Detailed Description	
Melting Chamber for transfer arc plasma generation			
01	Electrode	<ul> <li>Diameter of the solid electrode 16 mm and 610 mm long</li> <li>Hollow electrode having 4 mm bore diameter and 610 mm long drilled in the electrode for the flow of plasma gas</li> </ul>	
02	Electrode Holder	<ul> <li>The half portion of the electrode holder should be made of copper, and another half made of steel.</li> <li>It should be attached on the top of the roof having a hand wheel to provide upward and downward electrode movement.</li> <li>To protect the copper from the intense heat, provision of water circulation system for cooling the holder</li> </ul>	
03	Furnace Body and Roof	<ul> <li>Body should be made with Mild steel (MS) sheet of minimum 3-mm thickness</li> <li>Shape of the body should be cylindrical shape having 300 mm diameter and 280 mm height.</li> <li>The top of the furnace should be an arched shape swinging lid, made of 5-mm-thick steel plate</li> <li>Provision of looking door/ charging door on the lid</li> </ul>	
04	High-Temperature Electrical Connector	<ul> <li>A graphite block of 120-mm diameter and 80-mm height should be provided for electrical connection to the charge through the bottom of the crucible</li> <li>Graphite block should be connected by a 250 mm long threaded stainless steel rod with the one point of electrical source by copper strip for electrical connection</li> <li>Around 20–25 steel nails (i.e., hard steel wire), of 3 mm diameter and 35 mm long to be fixed on the top of the graphite block embedded by refractory lining for making electrical connection between melt and graphite block</li> </ul>	
05	Lining	<ul> <li>Capacity of melting MS or SS is 2-5 kg</li> <li>Crucible diameter of about 80 mm and depth about 90 mm.</li> <li>Lining materials from the shell to centre of crucible in this order: Mica sheet insulation → Insulation bricks → Ramming mass</li> <li>Inner side of the Lid should be anchored with nails to hold ramming mass lining.</li> <li>Ramming mass should be Magnesite (basic), Fire clay (acidic) as per requirement</li> </ul>	
06	Temperature measurement system	<ul> <li>For hardening purpose, sodium silicate gel to be applied</li> <li>Supply of a continuous temperature measurement system is needed.</li> <li>The provision of a continuous temperature measurement of liquid metal by a portable infrared spectrometer or online spectrometer to be fitted with this system is required.</li> </ul>	
01	Plasma gas flow control system	<ul> <li>Gas purification system</li> <li>A gas purification train to be designed and fabricated with mixing and flow control system to pass desired plasma gas (nitrogen/ hydrogen) or their mixture.</li> </ul>	

		<ul> <li>This system should permitted the dry gas flow in a range of 8×10<sup>-6</sup> to 33×10<sup>-6</sup> m<sup>3</sup>/s.</li> <li>The purification train provided mainly to remove moisture in all gasses and moisture plus oxygen in nitrogen as well as to control backfiring of hydrogen gas.</li> <li>Gas flow through purification train from cylinder: Blank bottle → CaCl<sub>2</sub> → Pyrogallol → CaCl<sub>2</sub> → Blank Bottle → Electrode</li> <li>Purification train should be provision of mixing two gases</li> <li>For the collection of molten samples during melting operation, a suction pipette made of silica tube with rubber suction bulb</li> </ul>
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OEM/vendor must certify availability of the spare for items quoted for at least 5 years from the date of purchase.

Validity of quotation required: 90 days

**Warranty:** The instrument should come with minimum 2 years **onsite** (24×7) warranty from the day of installation.

Payment: 100 % Installation, commissioning, complete demonstration and successful running at Department of Metallurgical and Materials Engineering, NIT, Durgapur.

**Delivery Period:** 90 days from the date of placement of purchase order

**Place of Delivery**: Department of Metallurgical and Materials Engineering, NIT, Durgapur **Installation and commissioning**: Installation and commissioning at Department of Metallurgical and

Materials Engineering, NIT, Durgapur

I have also enclosed all relevant documents in support of my claims, (as above) in the following pages. Signature of Bidder with date Name: Designation: Organization Name: Contact No. : E-mail Id:

### ANNEXURE-II

## <<Organization Letter Head>>

### **DECLARATION SHEET**

We/I, \_\_\_\_\_\_\_ hereby certify that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

This is certified that our organization has been authorized (Copy attached) by the OEM to participate in Tender. We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, OEM has agreed to support on regular basis with technology / product updates and extend support for the warranty.

The prices quoted in the financial bids are subsidized due to academic discount given to NIT Durgapur.

We, further specifically certify that our	NAME & ADDRESS OF THE Vendor/
organization has not been Black Listed/De	Manufacturer / Agent
Listed or put to any Holiday by any	
Institutional Agency/ Govt. Department/	
Public Sector Undertaking in the last three	
years.	
Phone No.:	
Fax	
E-mail	
Contact Person Name	
Mobile Number	
TIN Number	
PAN Number	
(In case of on-line payment of EMD)	
RTGS/NEFT challan No (For EMD) with	
date:	

#### (Signature of the Tenderer with date)

Name:

Seal of the Company

### **ANNEXURE-III**

# LIST OF GOVT. ORGANIZATION/DEPTT

List of Government Organizations for whom the Bidder has undertaken such work during last			
	two years (must be supp	orted with work orders)	
S1.	Name of the organization with address	Name of Contact Person	Contact No.
No.			

Name of application specialist / Service Engineer who have the technical competency to handle and support the quoted product during the warranty period.			
Sl.	Name of the organization with address	Name of Contact Person	Contact No.
No.			

Signature of Bidder with date Name: Designation: Organization Name: Contact No. : E-mail Id:

# **SUBMISSION OF BID**

The Online bids (complete in all respect) must be uploaded online in **two** Envelops as explained below:

<b>Envelope – 1</b> (Following documents to be provided as single PDF file)			
Sl. No.	Documents	Content	File Types
1	TECHNICAL	Compliance Sheet as per Annexure – I	.PDF
2	BID	Organization Declaration Sheet as per Annexure – II	.PDF
3		List of organizations/ clients where the same products .PDF	
		have been supplied (in last two years) along with their	
		Contact number(s). (Annexure-III)	
4		Technical supporting documents in support of all claims	.PDF
Envelope – 2			
Sl. No.	TYPES	Content	File Types
1	<b>Financial Bid</b>	Price bid should be submitted in .xls format	. xls