



# NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR

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DURGAPUR –713 209, WEST BENGAL, INDIA

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**BID REFERENCE:** NITD/CHE/INNO-INDIGO/2016-17/07

**Date:** 01.12.2016

To

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\_\_\_\_\_

Dear Sir,

**SUB: Invitation for quotations for supply and installation of High Temperature Furnace under “DBT-INNO INDIGO joint research project.**

1. You are invited to submit your most competitive quotation (**two bid systems: technical and price bid**) for the listed items of **High Temperature Furnace** as per **Annexure-I**. For each item, please quote separately in separate envelope superscripted with ITEM Name.

**2. Bid Price**

- a) The contract shall be for the full quantity as described above. Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
  1. For indigenous items all duties, taxes and other levies payable by the contractor under the contract shall be included in the total price **F.O.R. NIT Durgapur**.
  2. The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
  3. The bid price must be quoted in **Indian Rupees**.
- b) For imported items vendor should quote in C.I.F. Kolkata basis i.e. in foreign currency

**3. The bid submitted by the bidder must comprise the following:**

- (a) Detailed technical specifications, conforming to the given, and literature /drawings /manuals of the goods/services are to supply.
- (b) Authorized dealership certificate from the original manufacturer
- (c) Credentials and list of organizations where the bidder supplied similar items
- (d) Warranty period (2 year comprehensive on-site)
- (e) Valid sales-tax / VAT clearance certificate

**4. Validity of Quotation**

Quotation shall remain valid for a period not less than 60 days after the deadline date specified for submission.

**5. Evaluation of Quotations**

The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e.

- (a) which are properly signed and
- (b) Conform to the terms and conditions, and specifications.

## 6. Award of contract

The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive, technologically acceptable and who has offered the lowest evaluated quotation price.

- 7.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.
- 7.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
8. Delivery shall be made at **Department of Chemical Engineering at NIT, Durgapur for indigenous item**
9. Payment shall be made immediately within 30 days after satisfactory installation, commissioning and acceptance of the good for indigenous supply.
10. **100%** payment shall be made by the purchase by account payee cheque within a period of thirty (30) days after the installation and satisfactory working of the goods against the submission of a valid **bank guarantee of 10%** of the order value towards **Performance security** to be retained during the warranty period. (Quoted in **Indian Rupees**).
11. **For imported items 90% payment should be done through Letter of credit after getting order acknowledgement from foreign principal. Remaining 10% will be released after satisfactory installation. 10% of the order value will be deposited for Performance Bank Guarantee to be retained during the warranty period.**
12. Comprehensive onsite warranty shall be applicable to the supplied goods for a period of **24 months** from the date of installation.
13. The Institute is **exempted from payment of custom and excise duty** on items mentioned below:
  - a) Scientific and technical instruments, apparatus, equipment (including computers)
  - b) Accessories, spare parts and consumables thereof
  - c) Computer software, CD-ROM, recorded magnetic tapes, microfilms, and microchips.
14. Settlement of any dispute will be made under the jurisdiction of Durgapur Court.
15. You are requested to provide your offer latest by 11.00 hours on December 21, 2016.
16. The purchaser will open the bids at 11.30 hours on December 21, 2016 in the HOD office of Chemical Engg Department
17. The bid document must be signed and sealed and enclosed with the bid as a token of acceptance of all terms and conditions in the bid document by the bidder.
18. The items must be delivered within **6-8 weeks** from the date of placement of purchase order/LC opening at the respective department.
19. Comprehensive onsite warranty for **24 months** from the date of satisfactory installation shall be applicable for offered goods.
20. All other terms and conditions of GFR 2005 of the Government of India will be applicable.
21. **Place of Delivery: Dept. of Chemical Engineering, NIT Durgapur.**
22. **Installation / commissioning / demonstration requirement: Installation, commissioning, complete demonstration and successful running at Dept. of Chemical Engineering, NIT, Durgapur.**
23. **The technical bid and the price bid must be enclosed in separate envelopes properly sealed by the bidder, and submitted both the aforesaid envelopes inside a cover sealed envelope failure of which may lead to cancellation of the bid by the tender committee.**

I look forward to receiving your quotations and thanking you,

**Head, Chemical Engineering Department**

**The bid must be addressed to:**

**Dr. Mrinal Kanti Mandal (PI)**  
**Assistant Professor**  
**Department of Chemical Engineering**  
**NIT, Durgapur -713209, W.B.**  
**Telephones: + 91-9434788188**

## High Temperature Furnace & Accessories

Item A:	Technical Specification
<p><b>High Temperature Furnace</b></p> <p><b>Quantity:1</b></p>	<ul style="list-style-type: none"> <li>• Maximum temperature: 1750<sup>0</sup>C or more</li> <li>• Continuous operating temperature: 1700<sup>0</sup>C for at least 30 hours or more</li> <li>• Heating rate: 1 to 5<sup>o</sup> C/min</li> <li>• Temperature control accuracy: +/- 1<sup>o</sup>C and temperature uniformity : +/- 5<sup>o</sup>C</li> <li>• Minimum Chamber furnace size: 90 X 150 X 150mm (w X d X h) or minimum volume 2 litre or more</li> <li>• Gas supply system: for inlet and outlet of N2 , Helium and Argon gas with shut off valve and flow meter with control valve with gas cylinders, regulators with suitable connection of inlet and outlet to furnace chamber</li> <li>• Round Saggar with lid: minimum 4 circular loads (80mm diameter with thickness of 7mm per load) at a time</li> <li>• Adjustable FUME DAMPER/chimney with fan</li> <li>• Furnace outer temperature should be less than 60<sup>0</sup>C including door and furnace surface</li> <li>• Time approx. (upto 30 mins) to reach maximum Temperature ( without charge)</li> <li>• Automatic Digital PID programmable temperature controller with minimum of 10 programmes and 20 segments</li> <li>• OTP (over temperature protection): control to be provided with system</li> <li>• Suitable tongue and gloves (2 pairs)</li> </ul>

<b>Item B:</b>  <b>Pre-furnacing equipment/ Drier</b>	<ol style="list-style-type: none"> <li>1. Maximum temperature : 300°C</li> <li>2. Minimum dimension of heating chamber : 35X35X35cm (w X d X h)</li> <li>3. Minimum removable shelves supplied : 3</li> <li>4. Microprocessor PID control with clear temperature display</li> <li>5. Horizontal, Forced air circulation with temperature uniformity of +/- 5 °C</li> <li>6. Exhaust air outlet</li> <li>7. Outer temperature should be near atmospheric temperature including door and furnace surface and can be mounted on floor without any foundation</li> </ol>
<b>Certification</b>	<ul style="list-style-type: none"> <li>• System should be designed and manufactured under ISO-9001, CE certification required: Should meet the applied harmonized standard or better</li> </ul>
<b>Warranty &amp; Declarations:</b>	<p>➤ <b>Warranty: Minimum 2 year and 3 years AMC after normal warranty period</b></p> <p>ISO-9001 and CE certificates should be attached.</p> <p>Application support from Kolkata centre followed by efficient service support as &amp; when needed. Please give the details of the concerned persons with contact details &amp; Experience.</p> <p>Vendors of the OEM must have supplied at least 10 similar furnaces to IITs, IISERs OR other Govt. institutes of national repute in the past 10 years.</p> <p>Please attach the reference list of 10 such users with phone numbers and email addresses.</p> <p>Please provide your complete website address company details &amp; details of quoted Model.</p> <p>Please attach Principal Exclusive Authorization letter Specific for this tender.</p>

**Optional Items:**

1. RS232C interface with operating software for computer communication
2. Computer specification: 8gb RAM, i5 processor, 1tb hard disk or more
3. Tool kit
4. Suitable tray which can withstand Temp. of 1800 °C or more: 02 nos.
5. Suitable crucible with cap which can withstand Temp. of 1800 °C or more: 02 nos