

DATE CORRIGENDUM

Tender Notification. No. Met-Mat/IRGC/TFSR/764/2018-19/4

Date: 30/11/2018

The last date for submission of the tender has been extended up to 31/12/2018 at 3.00pm

The date of opening of tender: - 31/12/2018 at 3.30 pm (if possible)



Dr. S. ANANDHAN
Professor & Head
Department of Metallurgical &
Materials Engineering
National Institute of Technology Karnataka, Surathkal
Post Srinivasnagar, Mangaluru - 575 025
Karnataka, India

[Signature of HOD With Seal]
Department of Metallurgical and Materials engineering,
NITK Surathkal

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

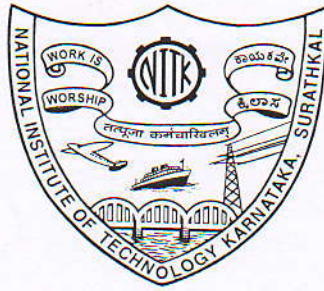
POST SRINIVASNAGAR, MANGALORE – 575 025 (D K)
A DEEMED UNIVERSITY

Phone: (0824) 2474000.

E- mail: info@nitk.ac.in

Fax: (0824) 2474033

Website: <http://www.nitk.ac.in>



TENDER DOCUMENT

Tender Notification. No. Met-Mat/IRGC/TF SR/764/2018-19/4

Dated 30/11/2018

Name of Goods : Thin Film Spectroscopic Reflectometer

Estimated amount put to Tender : Rs 4 lakhs

E M D Amount : Rs 8000/-

Time for Supply of item
after release of Purchase order : 20 Days.

Last Date for submission of tender : 20/12/2018 before 3.00 PM

Address for Submission of Tender :

Dr. Saumen Mandal,
Assistant Professor,
Department of Metallurgical and Materials engineering,
NITK Surathkal 575025
Ph: 0824-2473752

Date of opening of technical bid : 21/12/2018 at 3.30 PM (if possible)



NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

Department of Metallurgical and Materials Engineering
POST SRINIVASNAGAR, MANGALORE – 575 025
A DEEMED UNIVERSITY

Phone: (0824) 2474000
E- mail: info@nitk.ac.in

Fax: (0824) 2474033
Website: http://www.nitk.ac.in

Tender Notificatin.No : Met-Mat/IRGC/TFSR/764/2018-19/4

Date: 30/11/2018

NOTICE INVITING TENDER (NIT)

The National Institute of Technology Karnataka, Surathkal (in short – NITK, Surathkal) is an autonomous body under Ministry of HRD Govt of India , a Deemed University , imparting Technical Education and engaged in Research Activities. It is proposed to procure the items for the departmental academic/research activities.

Sealed Tenders are invited for the following items in **two cover system** (i.e., Technical bid and financial bid) subject to the following terms and conditions, from the reputed manufacturers or its authorised dealers so as to reach this office on or before scheduled date and time. The tender (Technical bid) will be opened on the same day if possible in the presence of bidders or their authorized agents who may choose to be present. The financial bid of only such bidders whose technical bid is accepted shall be opened on the same day or later pre-informed date.

1. Name of Goods : **Thin Film Spectroscopic Reflectometer**
2. Estimated Cost : **Rs 400000/- (Rupees four lakhs only)**
3. E M D : **Rs 8000/- (Rupees eight thousand only)**
4. Time for completion of Supply after Placing Purchase Order : **20 Days**
5. Last date at time for submission of Tender : **20/12/2018 before 3.00 PM**
6. Tender to be submitted at the following address :

Dr. Saumen Mandal,
Assistant Professor,
Department of Metallurgical and Materials engineering,
NITK Surathkal 575025
Ph: 0824-2473752

7. Place, Date and Time of opening of technical bid:
Date : 21/12/2018 Time : 3.30 PM VENUE: Board Room, NITK Surathkal

Note: Institute shall not be responsible for any postal delay about non-receipt /non delivery of the bids or due to wrong addressee.


[Signature of HOD With Seal]

Dr. S. ANANDHAN
Professor & Head
Department of Metallurgical &
Materials Engineering

National Institute of Technology Karnataka, Surathkal
Post Srinivasnagar, Mangaluru - 575 025
Karnataka, India

SECTION 1 : INSTRUCTION TO BIDDER (ITB)

1. The bid should be submitted in two cover system-Technical Bid and Financial Bid:

1.1 **Envelope No.1 – Technical Bid:** The agencies should give details of their technical soundness and provide list of customers of previous supply of similar items to Universities, Institutes or Government Departments/ Undertakings/ public sectors with contact details. The details of the agency/ profile should be furnished along with the copy of all related documents. This envelope should be sealed and duly super-scribed as “**Envelope No. 1 – Technical Bid**”. Full name and address of the agency should also be mentioned on envelope and should be addressed to The Director, NITK, Surathkal.

1.2. Documents to be submitted in the technical bid :

- a) The agency should possess Licence certificate for manufacture /supply of the item.
- b) List of Owner/partners of the firm and their contact numbers
- c) The agency should possess Income tax PAN number.
- d) The agency should possess VAT registration and TIN number.
- e) Catalogue of the Product with detailed product specifications.
- f) List Service Centres
- g) List of customers with contact details.
- h) The average annual turnover should not be less than 30% of the estimated cost put to tender/quotation for the job work. The copy of the Balance sheet, Profit & Loss A/c., Trade or Manufacturing A/c for the last 3 years should be enclosed
- i) **Warranty Period Offered for the tendered item to be specified. If the Warranty period is not conforming with the schedule of requirements given in section 3 of the document, the bid is liable to be treated as non-responsive and rejected.**
- j) **EMD in original form valid for minimum six months, through Bank Guarantee only drawn on any scheduled bank in favour of “Director NITK, Surathkal”, payable at Surathkal should be submitted. EMD shall bear no interest. Any bid not accompanying with EMD is liable to be treated as non-responsive and rejected.**
- k) **Contract form given in section 5 need to be submitted.**

The above documents should be furnished in the technical bid envelope.

2. **Envelope No.2 – Financial bid:** The agencies should submit their financial bid as per the format given in Section 4 of the Notice Inviting Tender in this cover. The rate should be quoted both in words and figures. All the pages of the financial bid should be signed affixing the seal. All corrections and overwriting should be initialled. This envelope should be duly superscribed as “**Envelope No. 2 – Financial bid**”. Full name and address of the agency should also be mentioned on the envelope and should be addressed to The Director, NITK, Surathkal.

Both the Envelope No. 1 and 2 should be kept in another separate envelope duly superscribed with the following details.

(i) Tender Notification Number (ii) " Tender for the supply of.....", (iii) Not to Open before (Date and Time)

Mention “Kind Attention : Contact Person’s Name and Phone Number ” , and submit at the address given in the Notice Inviting Tender.

3. The tender will be acceptable only from the **manufacturers or its authorised supplier.**
4. The Institute **reserves the right to visit to the factory** before or after issue of supply order to satisfy itself regarding quality of production . In case of any remarks /default noted, the EMD will be forfeited even if pre-qualified.
5. **The Financial bid shall be in the format of Price Schedule given in Section 4. The Contract form as per format given in section 5 shall be submitted. Incomplete or conditional tender will be rejected.**
6. Details of item to be carried out, approximate quantity and the specifications are mentioned in **“Section 3 ”** appended to this Notice Inviting Tender.
7. **The item to be used is strictly according to the specification and subject to test by the institute/concerned authorities. It must be delivered and installed in good working condition.**
8. The Institute **reserves the right to cancel or reduce the quantity** included in the schedule of requirements at any time after acceptance of the tender with a notice. The Contractor/Supplier shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the work/supply in full but he did not derive in consequence of the foreclosure of the whole or part of the works.
9. **Performance Security of 5 % of contract value in terms of Bank Guarantee by scheduled banks shall be given by the successful bidder for the total period of Warranty.**
9. **Release of EMD :** The EMD shall be released after receipt of performance security from successful bidder.
- 11 **Validity of bids:** The rate quoted should be valid for a minimum of 90 days.
No claim for escalation of rate will be considered after opening the Tender.
12. **Imports : In case, Goods are to be Imported, the Indian agent should furnish authorisation certificate by the principles abroad for submission of the bid in response to this Notice Inviting Tender.**
13. Clarification of Tender Document:
A prospective bidder requiring any clarification of the Tender Document may communicate to the contact person given in this notice inviting tender. The contact person will respond to any request for clarification for the Tender Document received not later than 5 working days prior to the last date for the receipt of bids
14. Amendment of Tender document: At any time prior to the last date for receipt of bids, Institute may for any reason, whether at its own initiative or in response to a clarification requested by prospective bidder, modify the Tender document by an amendment.
15. **Institute may at its own discretion extend the last date for the receipt of bids.**

- 16. The bids shall be written in English language and any information printed in other language shall be accompanied by an English translation, in which case for the purpose of interpretation of the bid , the English translation shall govern.
- 17. The Institute reserves the right of accepting any bid other than the lowest or even rejecting all the bids. The decision of the Institute Purchase Committee is final in all matters of tender and purchase.
- 18. The bidder should give the following declaration while submitting the Tender.

DECLARATION

I/we have not tampered/modified the tender forms in any manner. In case , if the same is found to be tampered/modified, I /we understand that my/our tender will be summarily rejected and full Earnest money deposit will be forfeited and I /we am/are liable to be banned from doing business with NITK, Surathkal and / or prosecuted.

Signature of the Bidder : _____

Name and Designation : _____

Business Address : _____

Place :
Date :

Seal of the Bidder's Firm

- 19. Any other details required may be obtained from the contact person given in the notice inviting tender during the office hours.

SECTION 2 : CONDITIONS OF CONTRACT.

1. The rates should be quoted for preferably FOR destination from supply within India.
2. In case of import both CIF and/ or FOB rate should be quoted . All components of expenditure to arrive at Bangalore need to be explicitly specified.
- 3 The bidder shall indicate the excise duty exemption for the goods if applicable.
- 3 The institute is eligible for customs duty exemption, excise duty exemption, issuance of form D.
4. The rate quoted should be on unit basis. Taxes and other charges should be quoted separately, considering exemptions if any.
5. Rate quoted should be inclusive of Testing, commissioning and Installation of equipment and Training.
6. Payment: No advance payment will be made. Payment will be made only after the supply of the item in good and satisfactory condition and receipt of performance security by supplier.
In case of Imports, the payment will be made through LC / Sight Draft / After Installation, and performance security need to be submitted at the time of LC commitment / issue of sight draft.
7. Guarantee and Warrantee period should be specified for the complete period conforming to the section 3 of this tender document.
8. Period requirement for the supply and installation of item should be specified conforming to the section 3 of this tender document.
9. In case of dispute, the matter will be subject to Mangalore Jurisdiction only.

SECTION 3 : SCHEDULE OF REQUIREMENTS, SPECIFICATIONS AND ALLIED DETAILS

[To be filled up by the Department / Center of NITK, Surathkal]

Item(s) Name to be Procured : Thin Film Spectroscopic Reflectometer

Type (Equipment / Software / Furniture / Others) : Equipment

Brief Specifications of the Item(s)
(Attach Additional Sheet if necessary) : Attached

Quantity : One

Any other details / requirement : Nil

Warranty Period required : One Year

Delivery Schedule expected
after release of Purchase order
(in Weeks) : 20 days

EMD (in Rupees) : Rs 8000/-

Performance Security to be given
by Successful Bidder after release of
Purchase Order (in Rupees) : Rs 20000/-

Specification

Thin Film Spectroscopic Reflectometer

| | |
|---|---|
| Film Thickness range: | 25 nm – 3.5 μ m |
| FFT Thickness range: | 3500 nm - 35 μ m |
| Spectrometer wavelength range: | 314 nm – 940 nm |
| Reflectance Wavelength range: | 320 nm - 940 nm |
| Light source: | Tungsten Halogen Quartz Lamp, 20 and 50 W (customized) |
| Detector: | CCD linear array, 3648 pixels |
| Transmittance method: | Bi-furcated fibre (Glass core and PMMA cladding) |
| Precision for thin film stack: | $\pm < 1$ nm |
| Accuracy for same stack: (Compared with SEM) | $\pm < 2$ nm (without roughness) |
| Spot size on sample: | 5 mm, 2.3 mm (customized with lens) |
| Working distance: | 3 mm |
| Optical fibre: | Multimode bi-furcated fibre with SMA |
| Scanning: | Manual (micrometer controlled 15 mm scanning) |
| Reference sample: | Bare NSF66/Bare aluminum (customized)/ Normal slide |
| Dark sample: | N-Bk7 black coated / Al Mirror kept at 45° (customized) |
| Standard sample: | SiO ₂ thin film on NSF-66 Substrate / Bk7 substrate. |
| Measuring modes: | Curve fitting / Regression Algorithms, FFT, FFT + Curve Fit |
| Dispersion formulas: | Cauchy, Sellmeier & Empirical Models |
| EMA models: | Linear EMA, Bruggemann, Maxwell Garnett models |
| PC interface: | USB |

Laptop (with license software) specifications:

| | |
|---------------------------|-----------------|
| Screen size: | 15.6 inches |
| Processor: | AMD |
| Processor type: | E-series |
| RAM size: | 4 GB |
| Memory technology: | DDR4-1866 SDRAM |
| Hard drive size: | 1 TB |
| Operating system: | Windows 10 Home |
| Maximum memory supported: | 16 GB |

Features:

- Analyze single and multi-layer films (indirect method)
- Fiber optic probe for reflectance measurement at normal incident angle
- CCD linear array detector for absolute reflectance measurement
- User extendable materials library
- Data can be saved as an Excel file for extraction of optical properties
- FFT based thick layer thickness measurement standardized with PET films

- Parameterized dispersion models such as Cauchy, Sellmeier, combination and Drude for n and k value
- Absorption and transmittance studies
- Linear, Bruggemann and Maxwell Garnet approximation models for roughness measurement
- Levenberg-Marquardt curve-fitting algorithm for thickness measurement

SECTION 4 : PRICE SCHEDULE

[To be used by the bidder for submission of the bid]

-
1. Item Name :
 2. Specifications
(Conforming to Section 3 of
Tender document- Enclose additional
sheets if necessary) :
 3. Currency and Unit Price :
 4. Quantity :
 5. Item Cost (Sl No. 3 * Sl. No. 4) :
 6. Taxes and Other Charges :
(i) Specify the type of taxes and duties
in percentages and also in figures.
(ii) Specify Other Charges in figures.
 7. **Warranty Period** :
**(Conforming to the Section 3 of
Tender document- This should be
mentioned in technical bid also in
order to get qualified for financial bid)**
 8. Delivery Schedule :
(Conforming to the Section 3 of
Tender document
 9. Name and address of the Firm for
placing purchase order :
 10. Name and address of Indian authorized
agent (in case of imports only) :

Signature of the Bidder : _____

Name and Designation : _____

Business Address : _____

Place :

Seal of the Bidder's Firm

Date :

SECTION 5 : CONTRACT FORM

[To be provided by the bidder in the business letter head]

1. (Name of the Supplier's Firm) hereby abide to deliver the goods or items as per the delivery schedule mentioned in the section 3 tender document for supply of the items if the purchase order is awarded.
2. The item will be supplied conforming to the specifications stated in the tender document without any defect and deviations.
3. Warranty will be given for the period mentioned in the tender document and service will be rendered to the satisfaction of NITK, Surathkal during this period.

Signature of the Bidder : _____

Name and Designation : _____

Business Address : _____

Place :

Seal of the Bidder's Firm

Date :