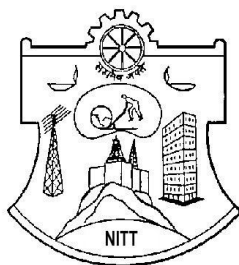


# NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI – 15

**Department of Metallurgical and Materials Engineering**

**Web : [www.nitt.edu](http://www.nitt.edu)**

**Phone : 0431 - 2503150**



## TENDER DOCUMENT

**Tender Notification No.:** NITT/R&C/MME/SK/ARDB/2012-13/10

**Date :** 5.9.2012

Name of the component(s) : **Micro-Tensile Testing Machine**

Quantity required : 1 No.

EMD Amount : Rs. 34,000/-

Delivery : within two to four months from the date of PO.

Last Date of submission of Tender : 28.09.2012 upto 3.00 p.m.

Address for submission of Tender : The Director  
National Institute of Technology  
Tiruchirappalli – 620 015

Kind Attention : Dr. S.Kumaran,  
Dept. of Metallurgical and Materials Engg.  
National Institute of Technology  
Tiruchirappalli – 620 015  
E-mail : [kumara@nitt.edu](mailto:kumara@nitt.edu)  
Phone No: 0431- 25013463  
Mobile : 09944434705

Date of opening of bid : 28.09.2012 at 03.30 p.m (Technical bid)



**NATIONAL INSTITUTE OF TECHNOLOGY  
TIRUCHIRAPPALLI – 15**

**DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING**

**Tender Notification No.:** NITT/R&C/MME/SK/ARDB/2012-13/10

**Date :** 5.9.2012

**NOTICE INVITING TENDER**

The National Institute of Technology, Tiruchirappalli (NITT) is an autonomous body under MHRD, GOI, imparting Technical Education and engaged in Research Activities. It is proposed to procure the following component for the departmental academic/research activities.

Sealed Quotations under **two cover system** are invited for the following component subject to the following terms and conditions, from the reputed manufacturers or their authorized dealers so as to reach this office on or before scheduled date and time. The technical cover will be opened on the same day in the presence of bidders or their authorized agents who may choose to be present.

Name of the component : Micro-Tensile Testing Machine

Quantity required : 1 No.

EMD : Rs. 34,000/-

Time for completion of supply after placing purchase order : within two to four months from the date of PO.

Last Date of submission of Tender : 28.09.2012 upto 3.00 p.m.

Tender to be submitted at the following address : The Director  
National Institute of Technology  
Tiruchirappalli – 620 015

Kind Attention : Dr. S.Kumaran,  
Dept. of Metallurgical and Materials Engg.  
National Institute of Technology  
Tiruchirappalli – 620 015  
E-mail : kumara@nitt.edu  
Phone No: 0431- 25013482 / 09944434705

**Place, Date and time of opening of bid** :

**Date: 28.09.2012 Time: 03.30 p.m Venue : The Dean (R&C) Office, Admin. Block, NITT**

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

## SECTION : 1 INSTRUCTION TO BIDDER

1. The bidder 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.

### 1.1 *Bids are to be submitted under two cover system.*

#### Cover 1:

##### Cover 1 should contain the following:

- a. *EMD – Earnest Money Deposit (EMD) is to be remitted by way of Demand Draft drawn on any Nationalised bank in India by Demand Draft drawn on any scheduled bank in favour of “The Director, NIT, Trichy” payable at Trichy should be submitted. EMD shall bear no interest. Any bid not accompanying with EMD is liable to be treated as non-responsive and rejected.*
  - b. *Technical pamphlets*
  - c. *Detailed technical specification*
  - d. *The agency should furnish copy of license certificate for manufacture/supply of the item.*
  - e. *The agency should furnish Income Tax PAN number*
  - f. *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.*
  - g. *Duly filled up technical questionnaire, if any*
  - h. *Duly filled up deviation schedules to technical specification*
  - i. *Copy of supply orders completed during the last three years ending 31.3.2012.*
  - j. *If the prices are revealed in the cover 1, the offer will be summarily rejected*
- 1.2 *The cover 1 shall be superscribed as ‘Technical cover’ duly indicating the Tender reference No. and the due date of opening.*

### 1.3 Cover 2:

#### Cover 2 should contain the following

*Cover 2 shall contain Price only and shall be superscribed as ‘Price Cover’ duly indicating the Tender Reference No. and the due date of opening.*

*Each Cover shall be sent in a double sealed cover. The inner covers (Cover 1 and Cover 2) should be sealed individually with the sellers’s distinctive seal and superscribed with the tender reference no. and due date of opening. Both the inner covers shall be placed in a common outer cover which shall also be sealed with seller’s distinctive seal and superscribed with the tender reference no. and due date of opening.*

*Mention “Kind Attention:....., and submit at the address given in the Notice Inviting Tender.*

*Cover 1 – will be opened on the scheduled date and time mentioned in the tender enquiry.  
Cover 2 – technically suitable offers alone will be opened on a date which will be intimated to the qualified bidders.*

2. The agencies should submit their rate as per the format given in Section 4 of the Notice Inviting Tender in this cover. Rate should be quoted in Indian Rupee. The rate should be quoted both in words and figures. All the pages of the bid should be signed affixing the seal. All corrections and overwriting should be initialed.
3. The tender will be acceptable only from the manufacturers or its authorized supplier.
4. The 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.
5. Details of quantity and the specifications are mentioned in Section 3 appended to this Notice Inviting Tender.
6. 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.
7. 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.
8. Performance Security of 5% of the 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.
10. **Validity of bids:** The rate quote should be valid for a minimum of 90 days. No claim for escalation of rate will be considered after opening the Tender.
11. **Imports:** In case, goods are to be imported, the Indian agent should furnish authorization certificate by the principles abroad for submission of the bid in response to this Notice Inviting Tender.
12. **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.
13. **Amendment of tender document:** At any time prior to the last date of 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.
14. ***The Institute may at its own discretion extend the last date for the receipt of bids.***
15. 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.

16. The Institute reserves the right of accepting any bid other than the lowest or even rejecting all the bids without assigning any reasons therefor. The decision of the Institute Purchase Committee is final in all matters of tender and purchase.
17. 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 (EMD) will be forfeited and I/we am/are liable to be banned from doing business with NIT, Trichy and /or prosecuted.

**Signature of the Bidder** : .....

**Name and Designation** : .....

**Business Address** : .....  
.....  
.....

**Place :**

**Date :**

**Seal of the Bidder's Firm**

18. 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

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1. The rates should be quoted in Indian Rupee F.O.R. NIT, Trichy for supply within India.
2. In case of import both CIF and / or FOB rate should be quoted. All components of expenditure to arrive at Chennai need to be explicitly specified.
3. The bidder shall indicate the excise duty exemption for the goods if applicable
4. The Institute is eligible for customs duty and excise duty exemption.
5. The rate quoted should be on unit basis. Taxes and other charges should be quoted separately, considering exemptions if any.
6. Rate quoted should be inclusive of Testing, commissioning and installation of equipment and training.
7. **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 after installation and performance security need to be submitted at the time of LC commitment.
8. Guarantee and Warrantee period should be specified for the complete period conforming to the section 3 of this tender document.
9. Period required for the supply and installation of item should be specified conforming to the section 3 of this tender document.
10. In case of dispute, the matter will be subject to Tiruchirappalli, Tamil Nadu Jurisdiction only.
11. **Liquidity Damages**: If the bidder/supplier, after accepting the Purchase order for the supply of Goods/Services, fails to deliver any or all of the Goods or to perform Services within the period(s) specified in the order. National Institute of Technology, Tiruchirappalli shall, without prejudice to its other remedies under the Rules of Purchase, proceed to cancel the order or agree to accept a delayed delivery on the condition of payment of liquidated damages by the bidder/supplier a sum equivalent to 0.50% of the total cost as indicated in the Purchase order (which will be deemed as agreed price) for each week or part thereof of delay until actual delivery or performance is completed and such penal charges shall be limited to a maximum of 5% of the agreed price. Once the maximum is reached National Institute of Technology, Tiruchirappalli may proceed on its own to consider the termination/cancellation of the order and may inform the bidder about the cancellation of the said purchase order.

**SECTION : 3 SCHEDULE OF REQUIREMENTS, SPECIFICATIONS AND ALLIED DETAILS**

1.Name of the Component to be procured : Micro-Tensile Testing Machine, 50kN

Technical Specification

<b>Frame</b>	Dual column with anti-backlash ball screws, precise DC servo motor, programmable limit switches & emergency stop. It shall have maximum capacity of 50kN for conducting tensile, compression & flexural tests as per International standards like ASTM & ISO. The machine should have the in-built capability to generate report in the absence of computer. It should have an easy to read backlit liquid crystal display that can be switched between a numerical and graphical display. All data shown on this display is obtained in real time, with auto ranging graphical display showing the test curve of the specimen under test. Instrument shall be capable of testing metals, composites & other rigid materials.
<b>Load Measurement &amp; accuracy</b>	Load measurement shall be through load cell of 50kN capacity having following features: <ul style="list-style-type: none"> <li>• Auto identification, scaling &amp; calibration</li> <li>• Shall conform to EN10002-2, ASTM E4, DIN51221, ISO7500-1</li> <li>• Shall have measurement range of 2% to 100% with <math>\pm 0.5</math> to 1% accuracy of applied force</li> <li>• 150% mechanical overload protection</li> <li>• 20% digital load tare while maintaining full load cell capacity</li> </ul>
<b>Strain Measurement</b>	Shall meet or exceed requirements of ASTM E83, EN 10002-4, BS 3846 & ISO 9513
<b>Cross head displacement</b>	1100mm or more (excluding grips)
<b>Horizontal space between columns</b>	405mm or more
<b>Cross head speed</b>	0.001–500mm/min or better
<b>Return speed</b>	0.001–750mm/min or better
<b>Speed resolution</b>	0.001mm/min or better
<b>Speed accuracy</b>	$\pm 0.005\%$ of set speed or better
<b>Position accuracy</b>	0.01% of reading or better
<b>Frame Stiffness</b>	100kN/mm or better
<b>Alarms</b>	Automatic motor drive alarms which will monitor over/under voltage, current and temperature
<b>Communication</b>	High Speed RS232 port
<b>Motor</b>	DC servo motor
<b>Power</b>	220V/240V, single phase, 50Hz



<b>Grips</b>	Self tightening wedge grips suitable for gripping high strength material in parallel & dumbbell form, 50kN capacity, 50mm gripping length, max. specimen thickness 15mm ( This grip can be used for high temperature testing up to 200 deg C )
	Variable span 3 point flexural attachment, adjustable span 25 to 200mm
	Compression platens, 50mm / 100mm through hardened
	Bollard grip with the capacity of 20KN for testing light rope, ductile wire and cord
	Miniature grip for the specimen having gauge length of 4mm.
<b>Extensometer</b>	Clip-on type strain gage axial extensometer, 50mm gage length, 50% elongation, 0.15% linearity
<b>Computer &amp; Software</b>	<p>Suitable high end computer either Desktop or Laptop</p> <p>Original software of the principal shall have the following features</p> <ul style="list-style-type: none"> <li>• Compatible with Windows 7 OS</li> <li>• Built-in library of ASTM &amp; ISO methods for testing metals, composites &amp; other similar materials in tensile, compression, flexural, slow frequency cyclic &amp; hold tests</li> <li>• Tabbed navigation for easy user interface</li> <li>• Customizable report format with full flexibility of adding &amp; removing items in terms of layout, content, logo, graphing to suite the exact test requirement.</li> <li>• Fully customizable screen layout</li> <li>• Real time data display &amp; curves. Automatic values like modulus, tensile strength should appear as the test proceeds</li> <li>• Option of multiple graphs on the same screen &amp; report to observe multiple events at the same time</li> <li>• Curve regenerations, post data analysis should be possible</li> <li>• Shall have off-line mode to analyse data, generate methods on the secondary PC which is not connected to machine</li> <li>• Advanced windows style password security shall be available to manage &amp; secure data</li> </ul>
<b>Warranty</b>	2 years warranty (One year warranty + One year service warranty)

**SECTION: 4 PRICE SCHEDULE**

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

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- 1. Component Name :
- 2. Specifications (confirming to Section 3 of Quotation document-enclose additional sheets if necessary) :
- 3. Currency and Unit Price :
- 4. Quantity :
- 5. Item cost (Sl.No.3 & Sl.No.4) (in Indian Rupee) :
- 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 (confirming to the Section 3 of Quotation document. This should be mentioned in Technical bid also in order to get qualified for Financial bid) :
- 8. Delivery Schedule (confirming to the Section 3 of Quotation 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 :**

**Date :**

**Seal of the Bidder's Firm**

**SECTION : 5 CONTRACT FORM**

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

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1. {Name of the Supplier's Firm) hereby abide to deliver the .....by the delivery schedule mentioned in the Section 3 quotation 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 quotation document without any defect and deviations.
3. Warranty will be given for the period mentioned in the quotation document and service will be rendered to the satisfaction of NIT, Trichy during this period.

**Signature of the Bidder** : .....

**Name and Designation** : .....

**Business Address** : .....  
.....  
.....

**Place :**

**Date :**

**Seal of the Bidder's Firm**