

राष्ट्रीय प्रौद्योगिकी संस्थान पुदुच्चेरी  
कारैक्काल – 609 609  
**NATIONAL INSTITUTE OF TECHNOLOGY  
PUDUCHERRY**  
Karaikal – 609 609

CORRIGENDUM

Correction notified in yellow shade



**Tender Document**

for

**Supply of Vibration Test System**

**Tender Enquiry No.: NITPY/CIV/SDP/2017/005**

**Dated: 28.08.2017**

at

**National Institute of Technology Puducherry  
Thiruvettakudy, Karaikal – 609 609  
Union Territory of Puducherry  
India.**

National Institute of Technology Puducherry @ Karaikal an autonomous Institute established under Ministry of Human Resource Development, Government of India would like to procure the following items.

<b>Particulars of the work</b>	:	Vibration Test System consist of : <ul style="list-style-type: none"> <li>- 01 number of 6-channel data acquisition system along with parent software.</li> <li>- 06 number of uniaxial accelerometer with 10 meter cables and allied accessories</li> <li>- Modal Analysis Software to perform modal analysis with ODS and OMA.</li> </ul> 01 number of Display unit (Laptop).
<b>Tender Enquiry No</b>	:	NITPY/CIV/SDP/2017/005 <b>dated : 28.08.2017</b>
<b>Due Date (For submission of bids)</b>	:	<b>04.00 P.M. 20.09.2017</b>
<b>Technical Bid Opening time</b>	:	<b>04.15 P.M. 21.09.2017</b>
<b>Financial Bid Opening Time</b>	:	<b>4.15 P.M. 28.09.2017</b>
<b>EMD</b>	:	The bidders shall furnish, as part of the bid, a Earnest money deposit (EMD) / Bid security for an amount of Rs.45,000/- should be paid through online State Bank Collect mode under the payment category of Administrative Miscellaneous <a href="https://www.onlinesbi.com/prelogin/icollecthome.htm">https://www.onlinesbi.com/prelogin/icollecthome.htm</a> .The EMD or Performance security will bear no interest whatsoever. The copy of the payment receipt should be enclosed along with the Technical bid of tender document. EMD exemption is applicable to bidders registered with NSIC.
<b>Eligibility Criteria</b>	:	The Contractors / Tenderer/Firms should have experience in supply of similar item with <b>ONE</b> similar work of Rs.30,00,000/- or above (or) <b>TWO</b> similar works each of Rs.15,00,000/- or above executed during the <b>last 8 years</b> with reputed educational institutions, Govt. of India organizations, etc., along with the copy of orders.
<b>Submission of Offer</b>	:	<b><u>Two Bid System:</u></b> Two bid system will be followed for this tender. In this system, the bidder must submit his offer in <b>two separate sealed envelopes</b> . Both the technical bid and financial bid envelopes should be securely sealed and stamped separately and clearly marked as “ <b>Envelope No: 1 – Technical Bid</b> ” and “ <b>Envelope No: 2 – Financial Bid</b> ” respectively. EMD should be placed in the Envelope No: 1, Technical Bid.
<b>Place of Submission</b>	:	Please send the tenders in a sealed envelope super scribed as “ <b>Supply of Vibration Test System</b> ” Tender Notification NO: NITPY/CIV/SDP/2017/005 <b>dated : 28.08.2017</b> so as to reach The Registrar (i/c) National Institute of Technology Puducherry” Thiruvattakudy, Karaikal – 609 609 Union Territory of Puducherry India.

## INSTRUCTIONS TO BIDDERS

1. This document set contains the following:
  - a) Terms and conditions of the Tender
  - b) Details of the Firm offering this Quote
  - c) Technical Compliance Form
  - d) Quotation form (Price Bid)
  - e) Currency Form (quoted on behalf of the foreign suppliers)
  - f) NIT Puducherry's check list copy
2. The bidder's copy is for your future records. **Please fill in and return only NIT Puducherry's copy.**
3. 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.
4. Read through the terms and conditions given and affix your signature and seal if you find them acceptable. Any deviations may be recorded. Read carefully list of specifications that we have enclosed.
5. Fill in the questionnaire regarding the Firm.
6. The downloaded documents 'Technical Compliance Form' and 'Quotation Form (Price Bid)' should be TYPE WRITTEN USING CAPITAL LETTERS ONLY. At the time of filling the "Quotation Form (Price Bid)" make sure that you have not missed anything. Specify the model number & specification for each item. The form should be filled item-wise. Do not leave blank fields. If you are not quoting for a specific item, you should specify "NOT QUOTING".
7. **Do not use ambiguous terms like "yes", "complied" or "available". Specifically mention the matching specification of the product offered by you. Make sure that all the documents should be duly signed by you with date and seal.**

<b>CHECKLIST TO BE FILLED IN BY BIDDER</b>	
List of documents to be enclosed	Completed & Signed
1. Terms and Conditions form	YES / NO
2. Details of the Firm offering this Quote	YES / NO
3. NIT Puducherry's Quotation form (Technical & Price Bid)	YES / NO
4. Currency Form(quoted on behalf of the foreign suppliers)	YES / NO
5. Other technical specifications & pamphlets	YES / NO

- Note:** 1. "Cover" should contain the following:
- a. Form of "**Acceptance of Terms and Conditions**".
  - b. Form of "**Firm details**"
  - c. Pamphlets, if any (in a separate sealed cover)
  - d. Quotation Form (Technical, Price Bid and Currency Form)

**-Please retain this page with you for your future reference-**

**Envelope 1: EMD and Technical Bid**

**EMD**

The bidders shall furnish, as part of his bid, Earnest money deposit (EMD)/ Bid security for above mentioned amount should be paid through online State Bank Collect mode under the payment category of Administrative Miscellaneous <https://www.onlinesbi.com/prelogin/icollecthome.htm>. The EMD or Performance security will bear no interest whatsoever. The copy of the payment receipt should be enclosed along with the Technical bid of tender document.

EMD exemption is applicable to bidders registered with NSIC.

**Technical Bid**

(Should be super scribed as ‘Technical Bid’ duly indicating the Tender reference No. and the due date of opening)

Should contain:

- a. Technical pamphlets
- b. Detailed technical specification
- c. Copy of license certificate for manufacture/supply of the item\*
- d. Income Tax PAN number & TIN number.\*
- e. Last three years balance sheet approved by the CA and the IT clearance certificate.\*
- f. Warranty period offered for the tendered item to be specified. If the warranty period is not conforming to the schedule of requirements given in section 3 of the Tender document, the bid is liable to be treated as non-responsive and will be rejected.
- g. Duly filled up technical questionnaire, if any
- h. Duly filled up deviation schedules to technical specifications, if any
- i. Copy of supply orders completed during the last three years

\* Appropriately pertaining to the country of origin.

**Envelope 2: Financial Bid**

(Should be super scribed as ‘Financial Bid’ duly indicating the Tender reference No. and the due date of opening)

Should contain:

- a. Price bid as per the format in Section-4 of the tender document
- b. Price of each item should be quoted in Indian rupees.

**Note:**

- a. If the prices are revealed in **Envelope 1**, the offer will be summarily rejected.
- b. Each Cover shall be sent in a double sealed cover. The inner covers (**Envelope 1** and **Envelope 2**) should be sealed individually with the Sellers’s distinctive seal and superscribed with the tender reference No. and due date of opening. All 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.

## SECTION : 2 – TERMS AND CONDITIONS FORM

1. The Bidders are requested to give detailed tender in their **own forms** in two bids.  
**Part-1** : **Technical Bid**  
**Part-2** : **Financial Bid**
2. Tenders, which are submitted without following the two bid offer system will summarily be rejected.
3. The tender document can be downloaded from the National Institute of Technology Puducherry website [www.nitpy.ac.in](http://www.nitpy.ac.in)
4. **Technical Evaluation Committee**
  - i) A committee duly constituted by The Registrar (i/c), NIT Puducherry will go through the technical aspects of the tender and recommend short listed firms. The recommendation of the technical committee shall be final and binding on all the parties.
  - ii) The technical committee will examine all the technical aspects of the bids received. Further, the technical committee may seek additional information from the existing users at NIT Puducherry or from other Institutes and also call for technical presentations from the bidders if required.
  - iii) The bidders are required to submit the sample for evaluation before the stipulated time.
  - iv) No cost will be paid by NIT Puducherry for sample.
5. **Opening of Financial Bids**
  - i) NIT Puducherry will open commercial bids of only the shortlisted bidders in the presence of the bidders or their authorized representatives who choose to attend the financial bid opening. The representatives of shortlisted firms only will be allowed for financial bid opening.
  - ii) No sub-contracting is allowed with regard to installation, commissioning, training, warranty, maintenance and after sales service. This is the sole responsibility of the principals / their authorized agents.
  - iii) The NIT Puducherry reserves the right to accept the offer in full or in parts or reject summarily or partly.
6. **Delivery Period / Timelines**

The deliveries and installation must be completed within 04 - 06 weeks from the date of purchase order. The time is the essence of the contract. It is mandatory for the bidders who respond to this bid to meet this expectation.
7. **Locations for the supply / services**

The items covered by this document is required to be supplied and installed at National Institute of Technology Puducherry  
Thiruvattakudy, Karaikal – 609 609  
Union Territory of Puducherry, India
8. NIT Puducherry will not provide any accommodation / transportation for the engineers / representatives for attending installation, commissioning and demonstration work. It is the absolute responsibility of the principal supplier / agent to make their own arrangements.

**9. Purchasers right to vary quantities at the time of award**

NIT Puducherry reserves the right at the time of award of contract to increase or decrease the quantity of items specified in the schedule of requirements without any change in price or other terms and conditions.

**10. Price**

The price quoted shall be considered firm and no price escalation will be permitted. The quote should be for **FOR Destination** at National Institute of Technology Puducherry, Thiruvattakudy, Karaikal – 609 609, Union Territory of Puducherry.

- i) The packing, forwarding, freight, insurance and commissioning charges, if any extra may be quoted separately in commercial bid.
- ii) The actual GST percentage (without form “C”) if any, should be specified.

**11. Performance Bank Guarantee**

The vendor will have to furnish performance bank guarantee for 10% of the total purchase order value, to be valid for **one year plus two months** from the date of installation and acceptance.

**12. Installation**

- i) Bidder shall be responsible for installation / demonstration as applicable and for after sales service during the warranty and thereafter.
- ii) Installation and demonstration to be arranged by the supplier within 15 days of the arrival of the equipment at site.
- iii) Training for 2 persons for operation of hardware, software and troubleshooting should be provided for free of cost.

**13. Warranty / Support**

- i) The items supplied shall carry a **minimum 1 Years Warrantee**, operation & Maintenance from the date of acceptance of the equipment.
- ii) The defects, if any, during the guarantee / warranty period are to be rectified free of charge by arranging free replacement wherever necessary. This includes cost, insurance, freight, custom duty, octroi, local taxes if any and should be borne by the beneficiary or his agent. A clear confirmation should be given for this item.

**14. Indemnity**

The vendor shall indemnify, protect and save NIT Puducherry against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any law pertaining to patent, trademarks, copyrights etc., or such other statutory infringements in respect of all the items supplied by him.

**15. Freight and Insurance**

The items to be supplied will be insured by the vendor against all risks of loss or damage from the date of shipment till such time it is delivered at NIT Puducherry permanent campus.

**16. Payment**

90% payment shall be made at site against delivery, installation, commissioning and acceptance as per purchase order and balance 10% shall be made after receipt of performance bank guarantee. If no bank guarantee is given, the balance 10% will be paid after the warranty period plus two months.

**17. Penalty for delayed services / LD**

- i) As time is the essence of the contract, delivery period mentioned in the purchase order should be strictly adhered to. Otherwise the NIT Puducherry will forfeit EMD and also LD clause will be applied / enforced.
- ii) If the supplier fails to supply, and fix the item as per specifications mentioned in the order within the due date, the supplier is liable to pay liquidated damages of 1% of order value for delay of every week or part here of subject to a maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the supplier.
- iii) NIT Puducherry reserves the right to cancel the order in case the delay is more than 10 weeks. Penalty as at (ii) above, will be deducted from the security deposit.

**18. Jurisdiction**

The disputes, legal matters, court matters, if any, shall be subject to Karaikal Court Jurisdiction only.

**19. Force Majeure**

NIT Puducherry may consider relaxing the penalty and delivery requirements, as specified in this document, if and to the extent that the delay, in performance or other failure to perform its obligations under the contract, is the result of a force majeure.

**20. Arbitration**

All disputes of any kind arising out of supply, commissioning, acceptance, warranty maintenance etc., shall be referred by either party (NIT Puducherry or the bidder) after issuance of 30 days notice in writing to the other party clearly mentioning the nature of dispute and will be referred to the arbitrator to be nominated by The Registrar (i/c), NIT Puducherry, Karaikal. The Venue for arbitration shall be Karaikal, Union Territory of Puducherry, India.

**21. Interpretation of the clauses in the Tender Document / Contract Document**

In case of any ambiguity / dispute in the interpretation of any of the clause in this tender document, interpretation of The Registrar (i/c), NIT Puducherry, and Karaikal shall be final and binding on all parties.

22. Purchase Order may be issued to the supplier based on the lowest price of the each item.

**-Sd-**  
**Registrar (i/c)**  
**NIT Puducherry**

**“DETAILS OF THE FIRM OFFERING THIS QUOTE”  
(Write or print or type in block letters)**

1. Name of the firm: \_\_\_\_\_ Date of incorporation: \_\_\_\_\_
2. Nature of the company (tick one): Government / Public / Private Company / Partnership / Proprietorship
3. Specify the number of years in this line of activity by the Company: \_\_\_\_\_
4. Quantity of sales in the last three years for the “.....” (same model that you have quoted):

2013-2014	2014-2015	2015-2016

5. Turnover in the last three years (Lakh Indian Rupees):

2013-2014	2014-2015	2015-2016

6. Provide the postal address, telephone & fax numbers, and email address of the nearest service center.
7. Number of service engineers in the above location trained on the product quoted along with their educational qualification, certification and designation (applicable only for instruments):
8. Assured response time for service calls in hours:
9. Delivery period from the date an official purchase order placed (in weeks):
10. Enclose the list of customers to whom you have supplied “.....” during the last 3 years ending 31/12/2016 with full postal address and name of the contact person with phone, FAX numbers, and E-Mail id. Certificate regarding satisfactory performance of the “.....” from the minimum three end users should be furnished.
11. Enclose the certificate regarding the authorized dealer or distributor for the products quoted.
12. On Manufacturer’s Side to whom NIT Puducherry have to contact in case of delayed in supply and other issues committed by the authorized dealer / distributor / reseller :

Contact Person Name: \_\_\_\_\_

Address: \_\_\_\_\_

E-mail ID: \_\_\_\_\_

Telephone / Cell Phone: \_\_\_\_\_



**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 Puducherry and /or prosecuted.

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

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

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

.....

.....

**Place:**

**Date: Seal of the Bidder's Firm**

## SECTION : 3 – SPECIFICATION

### 1. 6 CHANNEL DATA ACQUISITION SYSTEM

Sn.	Parameters	Description
1	Universal inputs	6 universal inputs,
2	Outputs	2 outputs
3	Dynamic range	$\geq 140\text{dB}$
4	Accuracy	$< \pm 0.02 \text{ dB} / < \pm 0.02^\circ$
5	Resolution	24 bit
6	Frequency range	1kHz to 40 kHz/ Channel
7	Sampling rate	$> 100 \text{ kS/s}$
8	Input range	$\pm 40\text{V}_{\text{peak}}$
9	Dc In	10 to 28 V
10	Power	$< 30 \text{ VA}$
11	Operating temperature range	up to $50^\circ\text{C}$
122	Weight	$< 5 \text{ kgs}$
13	Real time analysis	2 Embedded Force DSP's for local computation of results and real time analysis
14	Field recording option	LCD screen and command buttons for standalone operation(As additional option)
15	Remote access	Wi-Fi access capability for remote access
16	Storage	Embedded 64Gb SSD storage or better + 2x USB port for storage on external devices
17	Battery	Inbuilt battery
18	Input Coupling	DC, HP filters selectable 1Hz, 10Hz and LP filter 2 kHz
19	EMC Compliance	Equivalent to or better than EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC
20	Safety Approval	Equivalent to UN38.3 and IEC 62133 regulations certifications

### 2. MODAL ANALYSIS SOFTWARE

Sn	Parameter	Description
1	Modal analysis module for buildings:	<p><b>Manual design:</b> Node, line, surface creation with an oriented grid</p> <p><b>Standard elements library:</b> Line, circle, cube, trapezia, cylinder,</p>

		<p>sphere, user designed element</p> <p><b>Local coordinate system:</b> Cartesian, cylindrical, spherical</p> <p><b>Display &amp; Animation:</b> Display options: Show/Hide node, node number, coordinate system, Input/output tag <b>Animation action:</b> Start/Pause/Stop animation <b>Animation options:</b> Setup amplitude, speed, zoom Sequencer Creation of measurement sets for ODS, EMA or OMA test with display on the geometry – auto run <b>Transducer:</b> Transducer definition and in database storage <b>Output signals:</b> Random noise, sine, chirp for test with shaker <b>Trigger:</b> Free run, manual, Impact hammer edge detection, source synchronization <b>Data control:</b> Manual accept – overload rejection – double hit rejection Signal processing</p>
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**Note:** Windows based licensed software should provide following:

- i. Data recording and Post Analysis in time and frequency domain
- ii. Weighing functions: Uniform, Hamming, Hanning, flat-top, Kaiser Bessel
- iii. Averaging: Linear, Exponential, Peak hold, referenced peak hold
- iv. Markers: Peak, Max, Harmonics, Power band, side band, peak with 32 steps resolutions between each FFT lines.
- v. Complex Display: Magnitude/phase, real/imaginary, polar
- vi. Facility to monitor velocity and Displacement.

### 3. UNI-AXIAL ACCELEROMETER

Sn.	Parameter	Description
1	Voltage sensitivity	10 mV/m/s <sup>2</sup>
2	Range	490 m/s <sup>2</sup>
3	Frequency range + 5%	1 kHz to 10 kHz
4	Amplitude non linearity	<1%
5	Mounted Response frequency	≥35 KHz
6	Max. Continuous sinusoidal vibration limit	>200 g
7	Base Type	Non-magnetic (Adhesive/Stud)
8	Temperature	up to 125°C
9	Accelerometer Type	Isotron/peizometric
10	Cables - 6 Nos. coaxial type (compatible with each accelerometer )	2 Nos. - 30 meter length cables 2 Nos. – 20 meter length cables 2 Nos. – 10 meter length cables

#### 4. DISPLAY UNIT

<b>Sn.</b>	<b>Parameter</b>	<b>Description</b>
<b>1</b>	Laptop	5th Gen Core i5, 4 GB Ram, 1 TB HDD with Windows 10 SL system.

**Note:** Laptop should have following features:

- i. It should have the capability to generate reports using Word / Excel application packages.

**Important points to note:**

- a) Items like cables, power supply, adaptors, connectors, switches, trigger connection, silicon tube etc. need to be included in quotation with cost as individual component. All this items are in this category which helps in interfacing item.
- b) Wherever applicable, adequate cable length should be provided between different individual units. In the quotation the supplier needs to provide details related to price of actual cable length supplied and price of unit length of additional cable if required.
- c) The purchaser has the right to purchase one or more equipment and use it with their existing hardware system. Therefore all information regarding Vibration Test System required for interfacing with a general and capable data acquisition and signal processing hardware system must be made available.
- d) **SCOPE OF SUPPLY:** SHOULD INCLUDE FREE INSTALLATION AND COMMISSIONING.

SECTION : 4 - PRICE BID

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**To be used by the bidder for submission of the price bid**  
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Tender No. & Date:

Bidder's Offer No. & Date:

S. No.	Description of item	Unit Price In Rs.	QTY	Sub Total in Rs. (excluding of all taxes) (Col.2*Col.3)	GST % For Col. 4	Total Value in Rs. (inclusive of all taxes) Col. (4+5)
	Column No.1	2	3	4	5	6
1	<b>6 Channel Data Acquisition System</b>		1			
2	<b>Uniaxial Accelerometer Sensors</b>		6			
3	<b>Modal Analysis Software</b>		1			
4	<b>Display Unit (LAPTOP)</b>		1			
5	Packing & Forwarding charges in Rs. (extra, if any)					
6	FOR Dispatching station value in Rs.					
7	Freight & Transit insurance charges, extra, if any					
8	Total all inclusive price delivered, installed and commissioned at NIT Puducherry					
9	<b>Net cost to be paid by NIT Puducherry in Rs. Only</b>					

**Signature & Seal of Vendor**

**Note: The price bid should be submitted only as per the above format. No row shall be left blank. Please indicate NA, in case the item is "Not Applicable". If this format is not used or any column is left blank, then the bid will be rejected.**

**SECTION : 5 - CONTRACT FORM**

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**To be provided by the bidder in their business letter head**

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[Name of the Supplier's Firm] hereby abide to deliver the .....by the delivery schedule mentioned in the Tender document for supply of the items if the purchase order is awarded.

The item will be supplied conforming to the specifications stated in the tender document without any defect and deviations.

Warranty will be given for the period mentioned in the tender document and service will be rendered to the satisfaction of NIT Puducherry during this period.

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

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

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

**Place:**

**Date:**

**Seal of the Bidder's Firm**