

# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

## Centre for System Design, NITK Surathkal

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

Phone: (0824) 2474000.

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



## TENDER DOCUMENT

Tender Notification. No. NITK/CSD/TPEM//2019/FQD/YS-04

Date: 20-08-2019

Name of Goods	: Four Quadrant Dynamometer
Estimated amount put to Tender	: Rs. 55,00,000/-
E M D Amount	: Rs. 1,10,000/-
Time for Supply of item after release of Purchase order	: 8 Weeks.
Last Date for submission of tender	: 19-09-2019 before 3.00 PM
Address for Submission of Tender	: Dr. Y Suresh Asst. Professor, Dept. of Electrical & Electronics Engineering, NITK Surathkal – 575025 (M): 7411069506, <a href="mailto:ysuresh.ee@gmail.com">ysuresh.ee@gmail.com</a>
Date of opening of technical bid	: 20-09-2019 at 11:00 AM



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**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 authorized 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: Four Quadrant Dynamometer**

**2. Estimated Cost: Rs. 55,00,000/- (Rupees Fifty Five Lakhs Only)**

**3. E M D : Rs. 1,10,000/- (Rupees One Lakh Ten Thousand Only)**

**4. Time for completion of Supply after Placing Purchase Order: 8 Weeks**

**5. Last date at time for submission of Tender : 19-09-2019 before 03:00 PM**

**6. Tender to be submitted at the following address:** Dr. Y Suresh  
Asst. Professor,  
Dept. of Electrical & Electronics Engineering,  
NITK Surathkal – 575025  
(M): 7411069506, ysuresh.ee@gmail.com

**7. Communication address:**

1. Mr. Hemanth,  
Senior executive-Purchase,  
13E, KIADB Industrial area  
Doddaballapura  
Bengaluru – 561203  
(M):997283302,  
[hemanth@adityaauto.com](mailto:hemanth@adityaauto.com)

2. Mr. Muthukumar  
Assistant manager - Developoment  
180, Bommasandra Industrial area,  
Bengaluru - 560099  
(M): 8600035302  
[muthulumar@adityaauto.com](mailto:muthulumar@adityaauto.com)

**8. Place, Date and Time of opening of technical bid:**

Date: 20-09-2019

Time: 11:00 AM

VENUE: Board Room

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

**Sd/  
[Signature of Co-Ordinator with Seal]**

## **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 super scribed 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 super scribed 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.
- 4. 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.**
5. Details of item to be carried out, approximate 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.
- 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.**
- 8. 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.
4. The institute is eligible for customs duty exemption, excise duty exemption, issuance of form D.
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 / Sight Draft / After Installation, and performance security need to be submitted at the time of LC commitment / issue of sight draft.**
8. Guarantee and Warrantee period should be specified for the complete period conforming to the section 3 of this tender document.
9. Period requirement 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 Mangalore Jurisdiction only.

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

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

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Item(s) Name to be Procured : Four Quadrant Dynamometer

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

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

Quantity : 1 No.

Any other details / requirement : Nil

Warranty Period required : 1 year

Delivery Schedule expected  
after release of Purchase order  
(in Weeks) : 8 Weeks

EMD (in Rupees) : 2% of Estimated cost

Performance Security to be given  
by Successful Bidder after release of  
Purchase Order (in Rupees) : 5% of Cost

**SECTION 4 : PRICE SCHEDULE**  
[To be used by the bidder for submission of the bid]

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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:**  
**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 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:**

**Date:**

**Seal of the Bidder's Firm**

## Specifications:

**Four Quadrant Dynamometer:** The equipment is required for the testing and validation purpose. The following table gives the specifications details for the required equipment.

Topic	Requirements
General	<b>Four Quadrant Dynamometer</b>
Scope	Supplier has to submit a quotation for a four quadrant dynamometer for testing of traction motors of the Standard motor (Inner Rotor) and Inverted Motor (Outer Rotor).
Requirements	<ol style="list-style-type: none"><li>1. The testing is for 4 quadrant operation, forward motoring, forward regeneration, reverse motoring and reverse regeneration.</li><li>2. The load should be a generator and supply the energy generated back to the grid.</li><li>3. Peak Torque - 100 Nm</li><li>4. Base Speed - 3000 Rpm for 100 Nm torque</li><li>5. Maximum Speed to be tested 8000 Rpm.</li><li>6. Maximum diameter for device to be tested - 380mm.</li><li>7. Provision to set the alignment and verify the alignment.</li></ol>
	The equipment shall be supplied with the necessary accessories for testing and also with the software required for programming the test profiles in constant speed, constant torque and constant power modes. Software provision to test as per set patterns and report generation for the same.
	The supplier shall quote for either a single unit or multi-unit integrate to provide the required specifications.
Others	System to be delivered with calibration certificate.
	Project Timeline - The entire system should be delivered to Aditya within 8 weeks of Purchase Order release.
Timeline Requirement	The entire system should be delivered to Aditya within 8 weeks of Purchase Order release.

Delivery Address: **M/s Aditya Auto Products and Engg (I) Pvt Ltd**  
180, Bommasandra Industrial Area  
Bengaluru - 560099