

# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

## DEPARTMENT OF MECHANICAL ENGINEERING

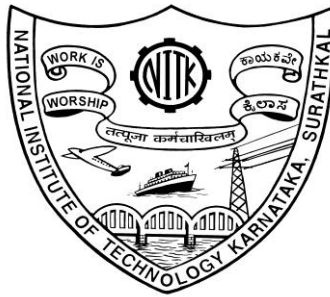
POST SRINIVASNAGAR, MANGALORE – 575 025 (D K)  
A DEEMED UNIVERSITY

Phone: (0824) 2474000.

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Fax: (0824) 2474033

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



## TENDER DOCUMENT

Tender Notification No. NITK/ME/4033/2019

Dated: 17/09/2019

**Name of Goods : High Speed Camera**

Estimated amount put to Tender : Nine Lakh ten thousand only (Rs. 9,10,000/-)

E M D Amount : Rs. 18,200 /-

Time for Supply of item : 2 Weeks.  
after release of Purchase order

Last Date for submission of tender : 10/10/2019 **before 11.00 AM**

Address for Submission of Tender:

Dr. D. Arumuga Perumal, Assistant professor, Room No. 205, Department of Mechanical Engineering, National Institute of Technology Karnataka Srinivasanagar, Surathkal, Mangalore-575025, Karnataka State, INDIA . Mobile: - 9159860535

Email: [perumal@nitk.edu.in](mailto:perumal@nitk.edu.in).

Date of opening of technical bid : 10/10/2019 at 3.00 PM (if possible)

Venue : Board Room, Main Building



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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 : High Speed Camera
2. Estimated Cost : Nine Lakh ten thousand only (Rs. 9, 10,000/-)
3. E M D : 2% of estimated cost (Rs. 18,200 /-)
4. Time for completion of Supply after Placing Purchase Order: 2 weeks
5. Last date and time for submission of Tender :10/10/2019 before 11:00 AM

**6. Tender to be submitted at the following address:**

Dr. D. Arumuga Perumal, Assistant professor, Chamber No. 205, Department of Mechanical Engineering, National Institute of Technology Karnataka Srinivasanagar, Surathkal, Mangalore-575025, Karnataka State, INDIA . Mobile: - 9159860535 , Email: [perumal@nitk.edu.in](mailto:perumal@nitk.edu.in).


**7. Place, Date and Time of opening of technical bid (If possible):**

Date: 10/10/2019

Time: 3:00 PM

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.

  
[Signature of HOD with Seal]

Dr. SHRIKANTHA S. RAO  
Professor & Head  
Dept. of Mechanical Engineering  
National Institute of Technology Karnataka, S. Surathkal  
Srinivasanagar- 575 025, Mangalore (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 GST registration.
- 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.**
- l) **Relaxation for Startup, MSEs, Make in India will be as per GOI norms.**

**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 :**

**Seal of the Bidder's Firm**

**Date :**

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

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Item(s) Name to be procured : **High Speed Camera**

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

Brief Specifications of the Item(s) : **Description**

#### **Specifications:**

#### **Application & Objective**

- To visualize the fluid flow in a Micromixer for a flow length of maximum 60 mm having a width of 100 to 150 micrometer.
- To take high resolution video of the fluid interaction with the flow constrictions at higher magnification.
- To take high resolution pictures with 10000 to 15000 frames per second or above.
- The fluid flow rate will in the range of 50 ml/min to 300 ml/min.

#### **Specifications:**

Digital Color Camera with CMOS sensor with 3 Mega Pixels or better

Fast live image XGA 1024x768 with 1000 fps or more

Pixel size 3.0µm x 3.0µm or more

Fast USB-3 connection, single cable with screw lock

Software should have provision to add Micron bar, date and time, Image name and Image description etc.

Following options should be included:

- Auto and Manual Exposure adjustments to allow optimized imaging.
- Image calibration based on data read directly from microscopes and cameras.
- Scale Bar (micron Bar) displayed on the live image to indicate image size.
- Digital Image Acquisition into the familiar Image Explorer tree and folder structure.
- Scale Bar and Distance Tools for straightforward image annotation.
- Interactive Linear Measurement Tools both for Live & Acquired Image
- Image Comparison Tools for comparison of Live & acquired images
- Savings of Images and Print Command direct in the window
- Pan & Zooming of the acquired images
- Must come with tripod provision which can hold 15lbs

- LED based Adjustable spotlight required
- Storage box with humidity proof
- Provision to save the data in SD (Additional)
- Lens service and tool kits must be provided
- Desktop computer arrangement to perform experiments
- Warranty for 3 years

Microscope, camera and software must be from the same manufacturer.

At least 5 end user's details should be provided for the same model along with the quotation

Quantity : 01

Warranty Period required : 03 years

Delivery Schedule expected  
after release of Purchase order  
(in Weeks) : 2 weeks

EMD (in Rupees) : Rs. 18,200 /-

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



## 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 :**

**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 :**

**Seal of the Bidder's Firm**

**Date :**