# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

### **DEPARTMENT OF Mechanical Engineering**

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

Phone: (0824) 2474000. Fax: (0824) 2474033 **E-mail: info@nitk.ac.in Website: http://www.nitk.ac.in** 



## **NOTICE INVITING QUOTATION**

Notification. No: NITK/ME/077/2021 dated:20-04-2021

Name of Goods	Lens Setup for LASER
Estimated Amount:	Rs. 1,00,000.00
Time for Supply of item after release of Purchase order	30 Days
Last Date for submission of bids	5 <sup>th</sup> May 2021, <b>before 3.00 PM</b>
Date of opening Technical bid	6 <sup>th</sup> May 2021, <b>before 3.00 PM</b>
Address for Submission of bids [ Type Address of the Department and Contact Person Details with Phone Number]	Dr. H Shivananda Nayaka, Associate Professsor, Dept. of Mech. Engg., NITK Surathkal. Mangalore, Karnataka. Cell: +91-9449591543 Email: hsn@nitk.edu.in



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The National Institute of Technology Karnataka, Surathkal (in short – NITK, Surathkal) is an Institute Of National Importance Under Ministry of Education Govt of India, imparting Technical Education and engaged in Research Activities. It is proposed to procure the items for the departmental academic/research activities.

NOTICE INVITING QUOTATION (NIQ)

Sealed Quotations as per the Price Schedule given in this NIQ are invited for the following items subject to the terms and conditions, from the reputed manufacturers or its authorised dealers so as to reach on or before scheduled date and time. The quotations in the firm's Business letter head should be address to the "Director, NITK, Surathkal". The envelope shall be superscribed with the Quotation Notification Number and the Name of the Goods for which quotation is submitted.

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Address for Submission of bids [	Dr. H Shivananda Nayaka,
Type Address of the Department and Contact	Associate Professsor, Dept. of Mech. Engg.,
Person Details with Phone Number]	NITK Surathkal. Mangalore, Karnataka.
	Cell: +91-9449591543
	Email: hsn@nitk.edu.in

Sd/-HOD

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

#### **SECTION-1**

#### **Terms and Conditions**

- 1. The rates should be quoted for preferably FOR destination from supply within India.
- 2. The bidder shall indicate the excise duty exemption for the goods if applicable.
- 3. The rate quoted should be on unit basis. Taxes and other charges should be quoted separately, considering exemptions if any. The rate should be quoted in INR only
- 4. Rate quoted should be inclusive of Testing, commissioning and Installation of equipment and Training.
- 5. 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.
- 6. Guarantee/Warrantee period should be specified for the complete period should be specified in section 3 of this tender document.
- 7. Period requirement for the supply and installation of item should be specified in section 3 of this tender document.
- 8. In case of dispute, the matter will be subject to Mangalore Jurisdiction only.

# SCHEDULE OF REQUIREMENTS, SPECIFICATIONS AND ALLIED DETAILS

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

Item(s) Name to be Procured : LENS SETUP for LASER

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

: Attached in a separate sheet.

Quantity : ONE set (Details attached in specification)

Any other details / requirement :

Warranty Period required : TWO Years

Delivery Schedule expected after placement of Purchase order

(in Weeks) : 4 weeks

### SECTION 3 PRICE SCHEDULE

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

Place: Date:		Seal of the Bidder's Firm
Busine	ess Address :	
Name	and Designation:	
Signat	cure of the Bidder:	
10.	Name and address of Indian authorized agent ( in case of imports only)	:
9.	Name and address of the Firm for placing purchase order	:
8.	Delivery Schedule (Conforming to the Schedule of requirements)	:
7.	Warranty Period (Conforming to the Schedule of requirements)	:
6.	<ul><li>Taxes and Other Charges</li><li>(i) Specify the type of taxes and duties in percentages and also in figures.</li><li>(ii) Specify Other Charges in figures.</li></ul>	:
5.	Item Cost (Sl No. 3 * Sl. No. 4)	:
4.	Quantity	:
3.	Currency and Unit Price	:
2.	Specifications (Conforming to Schedule of requirements Enclose additional sheets if necessary)	:
1.	Item Name	:

### SECTION 4 CONTRACT FORM

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

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

Signature of the Bid	der:	
Name	:	
Business Address	:	
Place : Date :		Seal of the Bidder's Firm

#### **LENS SETUP for LASER Shock Peening Setup**

Items/Parts required to build optical (Infra-red 1064 nm) arrangement for LASER shock peening setup.

1. Nd:Yag Mirror (Dia: 1") Quantity: 2 No.s

The main component (Laser beam setup). Produces infrared beam with a wavelength of 1064 nm, this unit is placed on horizontal table, we need a mirror (IR 1064 nm) to deflect the beam into vertical and other inclined position for operation.

2. Lens: Focal Length = 50.2 mm; Diameter = 1", UV Fused silica plano-convex lens (Uncoated) Quantity: 2 Nos

Beam generated from the source will be having diameter of 9.0 mm, with energy density 650 mJ. For experimental purpose, we need a beam of small diameter (in order of 0.5 to 0.05 mm) with higher density. This can be achieved by IR lens of 1064 nm.

3. Main objective these instruments (above mentioned) is to build complete optical setup for achieving required energy density for the processes. Hence additional support system is required to optimize the geometry of the beams.

#### List of additional support system for optical arrangement

- 1. Mirror Mount M4 Tap (for fixing the mirror) (1 No.)
- 2. Lens Mount with Retaining Ring for Ø1" Optics M4 Tap (1 No.) (To fix the lens)
- 3. **Mini-Series Optical Post Ø6 mm L = 50 mm** (2 No.) Optical posts are used to adjust the height of the instruments, which give access to change the focal length of the system
- 4. **Mini-Post Right-Angle Post Clamp Fixed 90° Adapter** (2 No.) These adaptors are used to fix the optical posts in position with reference frame.
- 5. **Mini-Series Optical Post Ø6 mm L = 75 mm** (1 No.) Optical posts are used to adjust the height of the instruments, which give access to change the focal length of the system
- 6. **Swivel-Base Mini-Series Post Holder 3'' (76 mm) Tall #4 (M3) Slot** (1 No.) This base provides an access to 360° rotation of the optical lens
- 7. 300 mm x 300 mm x 9.5 mm Mini-Series Aluminium Breadboard M4 and M6 High-Density Taps (1 No.)

Accuracy of position is an important parameter with respect to geometric positions of beam, lens and mirror for achieving right energy densities, hence this breadboard supports/holds complete setup in accurate position.