## NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

DEPARTMENT OF Electrical and Electronics Engineering POST SRINIVASNAGAR, MANGALORE – 575 025 (D K)

Phone: (0824) 2474000. Fax: (0824) 2474033

E- mail: info@nitk.ac.in Website: http://www.nitk.ac.in



### **NOTICE INVITING QUOTATION**

Notification. No: NITK/EED/2970 dated: 12-12-2023

Name of Goods	Gate drive boards
Estimated Amount:	Rs. 50,000/-
Time for Supply of item after release of Purchase order	14 Days
Document Download / Sale Start Date	13-12-2023, 5:30 p.m.
Clarification Start Date	13-12-2023, 5:30 p.m.
Clarification End Date	15-12-2023, 5:30 p.m.
Bid Submission Start Date	13-12-2023, 5:30 p.m.
Last Date for submission of bids	22-12-2023, 5:30 p.m.
Bid Opening Date	26-12-2023, 11:30 a.m.
Address for Submission of bids	Dr. A. Karthikeyan, Assistant Prof., Dept. of EEE E mail: jakarthik@nitk.edu.in Contact: +91-824-2473467



#### NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

### **DEPARTMENT OF Electrical and Electronics Engineering**

Date: 12-12-2023

POST SRINIVASNAGAR, MANGALORE - 575 025

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### **NOTICE INVITING QUOTATION (NIQ)**

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.

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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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.
- 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.
- 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.
- 9. <u>Liquidated Damages</u>: Timely delivery is the essence of the contract and hence if the Supplier fails to deliver Goods within the original/extended delivery period(s) specified in the contract, the Institute will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 1% per week or part of the week of the delayed period as pre-estimated damages not exceeding 5% of the contract value without any controversy/dispute of any sort whatsoever.

## SCHEDULE OF REQUIREMENTS, SPECIFICATIONS AND ALLIED DETAILS

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

Item(s) Name to be Procured : Gate drive boards

Brief Specifications of the Item(s)

(Attach Additional Sheet if necessary)

:Sheet attached

Quantity : 10

Any other details / requirement : -

Warranty Period required : 1 Year

Delivery Schedule expected

after placement of Purchase order

(in Weeks) : 2 Weeks

# SECTION 3 PRICE SCHEDULE

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

1.	Item Name	:		
2.	Specifications (Conforming to Schedule of requirements Enclose additional sheets if necessary)	:		
3.	Currency and Unit Price	:		
4.	Quantity	:		
5.	Item Cost (SI No. 3 * SI. 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 Schedule of requirements)	:		
8.	Delivery Schedule (Conforming to the Schedule of requirements)	:		
9.	Name and address of the Firm for placing purchase order	:		
10.	Name and address of Indian authorized agent ( in case of imports only)	:		
Signat	ure of the Bidder:			
Name	and Designation:			
Business Address :				
Place: Date:			Seal of the Bidder's Firm	

## 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 Bidd	er:	
Name	:	
Business Address		
Place : Date :		Seal of the Bidder's Firm

### **Specifications:**

### Si Gate drive board: 5 No's

- 1. Supply voltage primary 15 20 V
- 2. Output peak current 14 16 A
- 3. 15V input to the driver.
- 4. Dead band of  $(2-3) \mu s$
- 5. Output voltage -8V to 15 V
- 6. Output average current 40 60 mA
- 7. Maximum switching frequency ≥ 50 kHz
- 8. Dynamic short circuit protection
- 9. Halt status with failure management
- 10. Soft turn-off
- 11. Adapter board for the driver core which influences the switching characteristics of the switch, adjust the monitoring level and blanking time for the dynamic short circuit protection should be provided.

#### SiC Gate Driver board: 5 No's

- 1. Isolation voltage  $\geq 3000 V_{rms}$  (min.)
- 2. 15V input to the driver.
- 3. Dead band of (200-500) ns
- 4. Output voltage -5V to 20 V
- 5. Maximum switching frequency ≥ 200 kHz
- 6. Maximum peak output current  $\pm$  (2.5 to 4) A
- 7. 3.3 V and 5 V TTL compatible inputs
- 8. Dedicated shutdown input with pull-up
- 9. Active mirror clamp function and Fault signal feedback function
- 10. Shoot through protection
- 11. Soft turn-off mechanism
- 12. Adapter board for the driver core which influences the switching characteristics of the switch, adjust the monitoring level and blanking time for the dynamic short circuit protection should be provided.

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