

NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI - 620 015 DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

NOTICE INVITING QUOTATIONS

File No.	NITT/R&C/SEED GRANT/2023-24/PROJ.NO.8/1(C)	Date:	22-11-2023

To

Supplier Address

Sealed quotations are invited from reputed Authorized Dealers / manufacturers for the supply of the Items.

Name of the Item : FPGA Controller

Specification : (As per enclosed: Annexure – I)

1. Quotation Reference No. : NITT/R&C/SEED GRANT/2023-24/PROJ.NO.8/1(C)

2. Last date and Time for receipt of quotation : 13-12-2023 at 5.00 PM

3. Date &Time of opening of Quotation: 14-12-2023 .at 2.30 PM

4. EMD Amount : Nil

5. Validity (Days) :120 days

6. Address to which quotations are to be sent

The Director,

National Institute of Technology,

Tiruchirappalli – 620 015, Tamil Nadu, India

Kind attention to : Dr.K. Sateesh Kumar/Assistant Professor/ EEE

Phone : **9441274524**.

E-mail : sateesh@nitt.edu

7. Quotations should be submitted for the equipment mentioned in Annexure – I as per the format given in Annexure-II.

8. The envelope should contain the following details:

"QUOTATION AGAINST ENQUIRY: FPGA Controller,

NITT/R&C/SEED GRANT/2023-24/PROJ.NO.8/1(C)

Kind attention to: Dr.K. Sateesh Kumar/ Assistant Professor/ Principal

Investigator/EEE/NIT-Trichy.

Last date and Time for receipt of quotation : 13-12-2023 at 5.00 PM

Terms and Condition

- 1. The quotation must be in the format furnished by NIT Tiruchirappalli and should be free from corrections/erasures. In case there is any unavoidable correction, it should be properly attested. If not the quotation will not be considered. Quotation written in pencil and incomplete will be rejected.
- 2. Earnest Money Deposit (EMD) is to be submitted by way of Demand Draft drawn on any Nationalized bank in India in favor of "The Director, NIT, Tiruchirappalli" payable at Trichy. The bids submitted without EMD will be treated as non-responsive and will be rejected. EMD shall bear no interest. Bidder must fill the EMD returning Form (Annexure-III) and submit along with the quotation. EMD amount of 2% of estimate value is applicable, however UDYAM & NSIC registered Micro & small enterprises are exempted as per Govt.norms proof to be attached.
- 3. You are invited to submit your most competitive quotation for the supply of goods according to the specifications and delivery terms as given. Bank guarantee submitted for EMD shall be valid for 45 days beyond bid validity period.
- 4. Bidders may send the quotations in sealed covers with the quotation reference number and last date for receipt of quotations duly super scribed on the cover. Kind Attention to: Dr.K. Sateesh Kumar/ Assistant Professor/ Principal Investigator/EEE/NIT-Trichy.

NB: Mention the company Contact Number / E-mail id on the cover.

- Quotation will be opened on due date 14/12/2023 at 2.30 PM at the Research and Consultancy Section/EEE, NIT, Tiruchirappalli in presence of the tenderers or their representatives who may wish to be present.
 (Any change in the date, time and venue of the quotation opening will be informed to the bidders through telephone / E-mail)
- 6. The National Institute of Technology, Tiruchirappalli reserves the right to accept or reject any quotations, and to cancel the bidding process, and reject all quotations at any time prior to the award of order without assigning any specific reason thereof.
- 7. Manufacturer's name and country of origin of materials offered must be clearly specified. Printed brochures, Purchase preference is only for Micro & Small enterprises (MSE's) register in UDYAM Portal or NSIC as per Ministries policy for MSE's. Proof to be attached.
- 8. Samples must be submitted where specified along with the quotations. Samples must be carefully packed, sealed and labelled clearly with enquiry number, subject and sender's name for easy identification. Rejected samples will be returned at your cost if insisted
- 9. All supplies are subject to inspection and approval before acceptance.

- Manufacturer / supplier warranty certificates and manufacturer / Government approved lab test certificate shall be furnished along with the supply, wherever applicable
- 10. National Institute of Technology, Tiruchirappalli reserves the right to modify the quantity specified in this enquiry.
- 11. Startup company exempted from prior turnover & prior experience (startup certificate registered with DIPP should be enclosed)
- 12. The bidder has to submit the bids in sealed envelope, (separate for each tender). Further Bidder should not send clubbing many tenders in one envelope, in such case all the bids will be rejected.

13. Bid Price

- a. The contract shall be for the full quantity Bidders must quote for entire quantity. Each bidder shall submit only one quotation in Indian Rupee only.
- b. Post work orders & completion certificate should be submitted, wherever applicable.
- c. The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- d. GST, packing, forwarding and delivering other allied items at the destination shall be included in the price. All such price components may be shown in the quotation. If there is no indication regarding above charges. It will be considered as inclusive of all charges.
- e. If any arithmetic mistake in total / GST calculation is observed, the same shall be corrected by the purchaser with an intimation to bidder
- f. In case the items in the enquiry are covered by any rate contract or any other state or central Government, it should be specified in your quotation and accepted contract rates should also be mentioned. It should be confirmed whether you could supply at the RC rates outside rate contract
- g. Quotations containing conditions like "subject to prior sale" may not be considered.
- h. Delivery period required for supplying the material should be invariably specified in the quotation
- i. Bids without quoting GST (unless exempted) will be treated as invalid & disqualified.
- j. If there is a discrepancy between unit price and total price, the unit price will be considered. If there is any mismatch between figure and word, the amount in word shall prevail.
- 14. **Evaluation of quotations:** Quotations will be evaluated item-wise or lump sum basis. The purchase committee will evaluate and compare the quotations determined to be substantially responsive i.e. (i) are properly signed; (ii) conform to the terms & conditions and specifications; and (iii) price offered are competitive.

15. Award of contract

- a. The National Institute of Technology, Tiruchirappalli will award the Order for supply of Goods / Services to the bidder whose quotation has been determined to be substantially responsive, and who has offered the lowest evaluated quotation price.
- b. The Bidder should furnish the contract agreement and performance security within **15 days** from the date of receipt of the order for supply of goods / services, failing which the order will be cancelled without further notice and awarded to next eligible bidder.
- c. Notwithstanding the above, National Institute of Technology, Tiruchirappalli

- reserves the right to accept or reject any quotations, and to cancel the bidding process, and reject all quotations at any time prior to the award of order without assigning any specific reason thereof.
- d. National Institute of Technology, Tiruchirappalli, prior to the expiration of the quotation validity period, will notify the bidder whose bid is accepted for the award of contract. The terms of accepted offer shall be incorporated in the purchase order.
- 16. **Warranty:** (As mentioned in Annexure-I) shall be applicable to the supplied goods and installation work. Bidder should clearly indicate the arrangements for support and maintenance during the period for which the warranty shall be in force.
- 17. **Performance Security:** Security deposit should be **3%** of purchase order value in case of Performance Bank Guarantee should be valid for 60 days beyond the guarantee & warranty. The successful bidder need to submit performance security (As mentioned in Annexure –I) of purchase order value either in the form of bank guarantee or crossed demand draft drawn on any Nationalized bank in India in favor of "The Director, NIT, Tiruchirappalli" payable at Trichy. The bank guarantee / Demand Draft will be returned to the supplier after 60 days from date of successful completion of supply, installation, and the warranty period.
- 18. **Payment:** 100% will be paid after Installation and satisfactory working/date of completion of service if the documents are in order. The bill should be raised in favor of "The Director, National Institute of Technology, Tiruchirappalli, Tamil Nadu, India." with institute GST No. 33AAATN5491Q1ZZ. No advance will be provided to the supplier and installer.

19. | Liquidity damages

If the bidder / supplier, after accepting the Purchase Order or supply of Goods / Services, fails to deliver any or all of the Goods or to perform Services within the period(s) specified in the Order, The National Institute of Technology, Tiruchirappalli shall impose penalty without assigning any reasons to the bidder / supplier a sum equivalent to 0.50 % of the total cost as indicated in the Purchase Order (which will be deemed as agreed price) for each week or part thereof of delay until actual delivery or performance is completed and such penal charges shall be limited to a maximum of 5% of the agreed price. Once the maximum is reached The National Institute of Technology, Tiruchirappalli, may proceed on its own to consider the termination / cancellation of the Order and may inform the bidder about the cancellation of the said purchase order. unless extension is obtained in writing from the office / Department on valid ground before expiry of delivery period

- 20. If the deliveries are not maintained and due to that account Procuring Entity is forced to buy the material at your risk and cost from elsewhere, the loss or damage that may be sustained there by will be recovered from the defaulting supplier
- 21. Dispute clause: Any dispute relating to the Enquiring /Tender of the indented item shall be under the Hon'ble Court having its jurisdiction over Tiruchirappalli only
- 22. Startup company exempted from Prior Turnover & Prior Experience (Startup certificate registered with DIPP should be enclosed)
- 23. NIT Trichy has DSIR, so it's eligible for 5% in concession of GST and also exempted from Custom's Duty tax.
- 24. Performance Bank guarantee should be valid for 60 days beyond the guarantee

	& warranty and the BG submitted for EMD shall be valid for 45 days beyond bid validity period.
25.	Bids submitted without EMD (unless exempted) will be treated as disqualified.
26.	The successful bidder should submit Security Deposit/PBG within 15 days from the date of placement of order. The EMD shall be returned only after receipt of SD. If the bidder fails to deliver the material, then the EMD/SD shall be forfeited.
27.	In LTE, bidder has to submit in sealed envelope (separate for each tender). Further Bidder should not send clubbing many tenders in one envelope, in such case all the bids will be rejected.

For any details / clarifications regarding could be obtained, Research and Consultancy Section/EEE from the National Institute of Technology, Tiruchirappalli on all working days during 10 AM to 5 PM.

For further detail kindly contact: Dr.K. Sateesh Kumar/Assistant Professor/

Principal Investigator/EEE/NIT-Trichy.

Phone : **9441274524**.

E-mail : sateesh@nitt.edu

(NB: Mention the Contact Number / E-mail on the cover. Any change in the date, time and venue of the tender opening will be informed to the bidders through telephone / E-mail)

Enclosures:

Specifications of the equipment Annexure - I

Price Format Annexure - II

EMD Return Format Annexure - III

Bank Mandate Form Annexure - IV



NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI - 620 015 DEPARTMENT OF ELECTRICAL AND ELECTRONICS

Annexure- I

Specifications of the Equipment

Ref: NITT/R&C/SEED GRANT/2023-24/PROJ.NO.8/1(C) Date:

SI. No. Specification of NIT-T Detail specification- Embedded - FPGAs (Field Programmable Gate Array) Board Features (Re-programmable and re- configurable mode) Spartan6LX25-FTG256 FPGA 24051 logic cells, 936kb BRAM bits 38 DSP48 slices for computing DSP algorithms.	Re	f: NITT/R&C/SEED GRANT/2023-24/PROJ.NO.8/1((C) Date:	
Embedded - FPGAs (Field Programmable Gate Array) Board Features (Re-programmable and re- configurable mode) Spartan6LX25-FTG256 FPGA • 24051 logic cells, 936kb BRAM bits • 38 DSP48 slices for computing DSP algorithms.		Specification of NIT-T	of the	Reasons (if there is difference in specification)
Array) Board Features (Re-programmable and re- configurable mode) Spartan6LX25-FTG256 FPGA • 24051 logic cells, 936kb BRAM bits • 38 DSP48 slices for computing DSP algorithms.	1.	Detail specification-		
 ■ Two clock management blocks for PLL and Dedicated Clock Multiplier. ● Onboard USB JTAG port for programming ■ Isolated Power Input +12/-12/5v ■ Isolated USB UART for communication 40 pin headers for GPIO line ● termination - 36 I/O's (3v3 ● range) ● Bipolar SPI AD7366 ADC ○ No of ADC input: 16 Channels ○ Resolution: 12 bit ○ Sampling rate: 1MSPS ○ Analog input range: ±10V(*BIPOLAR). ● 20 pin headers for ADC input. ● SPI DAC ○ No of DAC output: 4 Channels ○ Resolution: 12 bit ○ 5 pin PTB connector for DAC output ● 229kb distributed RAM ● 8 Slide Switch for user input selection ● 8 LED for user output selection ● 2 Push Button ● 20MHz Clock ● 20x4 LCD interface 		Embedded - FPGAs (Field Programmable Gate Array) Board Features (Re-programmable and re- configurable mode) Spartan6LX25-FTG256 FPGA • 24051 logic cells, 936kb BRAM bits • 38 DSP48 slices for computing DSP algorithms. • Two clock management blocks for PLL and Dedicated Clock Multiplier. • Onboard USB JTAG port for programming • Isolated Power Input +12/-12/5v • Isolated USB UART for communication 40 pin headers for GPIO line • termination - 36 I/O's (3v3 • range) • Bipolar SPI AD7366 ADC ○ No of ADC input: 16 Channels ○ Resolution: 12 bit ○ Sampling rate: 1MSPS ○ Analog input range: ±10V(*BIPOLAR). • 20 pin headers for ADC input. • SPI DAC ○ No of DAC output: 4 Channels ○ Resolution: 12 bit ○ 5 pin PTB connector for DAC output • 229kb distributed RAM • 8 Slide Switch for user input selection • 8 LED for user output selection • 2 Push Button • 20MHz Clock		

	 2 no's of 40 pin headers for PWM Outputs and Capture Inputs - 64 I/O's (5vrange) 40 pin headers for GPIO line termination - 36 I/O's (3v3 range) OS support: FPGA controller should support Ubuntu /Linux/Windows based OS. 		
2.	Installation	Yes	
3.	Warranty (in Month)	12	
4.	Comprehensive AMC Charge per year	No	
5.	Delivery Period (Weeks)	4 to 6	
6.	Shipment terms	Up to NIT-T	
7.	Performance Security in %	03	

Signature & Seal of Vendor with Date



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Annexure- II

PRICE BID FORMAT FOR BIDDERS

Tender No. & Date :

Bidder's Offer No. & Date:

S. No.	Description of item	Unit (Set / No)	QTY	Rate / Qty in Rs. (excluding	Total Value + GST in					
4	Complete particus			GST)	SGST	CGST	IGST	Rs.		
1.	Supply portion									
	(The price indicated shall be exclusive of all									
	accessories, spares									
	etc. as given in the									
	scope of supply)									
2.	Other accessories /									
	spares etc. as given in									
	scope of supply									
	(Individual item-wise									
	break-up price shall be									
	attached as an									
	Annexure to this price bid format.)									
3.	Installation and									
] 3.	Commissioning									
	(extra, if any)									
4.	Packing & Forwarding charges (extra, if any)									
5.	Freight & Transit insurar									
6.					at NIT-T\	<u> </u>				
7.	Total price (delivery, installation and commissioning at NIT-T) Value of Annual Maintenance Contract									
8.										
0.	Net cost to be paid by NIT-T									

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.

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(TO BE PRINTED IN LETTER PAD OF THE FIRM)

Annexure - III

EMD Returning Form

		ctarining i orini
То		
The Director		
National Institute of Techi	nology,	
Tiruchirappalli – 620 015		
Sub: Returning EMD amo	ount	
Sir / Madam,		
		r / quotation enquiry No mentioned below and), details of the DD are given below.
Tender / Quotation Refe	rence No	
EMD amount		
DD Number		
DD issued Bank		
Date of DD		
It is requested to return the to the below mentioned B		int to our firm after completion of the purchase
Account Name		
Bank Account Number		
IFSC code		
Bank		
I .		

Signature with Seal and Date

MANDATE FORM FOR ELECTRONIC FUND TRANSFER/RTGS TRANSFER

То												Dat	e:	1	1				
Nat	The Director, National Institute of Technology, Tiruchirappalli – 620 015, Tamil Nadu																		
Sub	:	Authorization Technology Transfer.																	
1.	Nan	ne of the Par	ty / Firr	n / (Cor	npa	ny / l	Ins	titut	е	:								
2.	Add	ress of the P	arty								:								
3.	City				_Pir	n Co	ode_												
4.	E-M	ail	_Mobile	No):														
5.	Peri	manent Acco	unt Nu	mbe	er_														
6.	Part	iculars of Ba	ınk:																
	Bank Name: Branch Name:																		
	PIN	l Code:						В	ran	ch C	Code	e:							
	IFS	Code:(11 d	igit alpl	ha r	num	eric	cod	e)											
	Ac	count Type	Sa	ving	gs				Current					Cash Credit					
	Ac	count Numbe	er:																
ı						DE	CLA	R/	ATIC) N									
I hereby declare that the particulars given above are correct and complete. If any transaction delayed and not effected for reasons of incomplete or incorrect information I shall not hold Director, National Institute of Technology Tiruchirappalli responsible. I also undertake to advise any change in the particulars of my account to facilitate updating of records for purpose of credit of amount through NEFT/RTGS Transfer.																			
Ρ	lace	:		Da	te: ˌ														

Signature & Seal of the Authorized Signatory of the Party