

# DEPARTMENT OF INSTRUMENTATION AND CONTROL ENGINEERING NOTICE INVITING QUOTATION

File No.	NITT/F.NO.013/CAPEX/2021-22/ICE	Date:	17.02.2022
----------	---------------------------------	-------	------------

To

(Supplier Address)

Sealed quotations are invited from reputed Authorized Dealers / manufacturers for the

supply of the Items.

	ne of the Item	:	Arbitary Wave Form Generator
Qua	antity Required	:	2
Spe	ecification	:	(As per enclosed Schedule Annexure - I)
1.	Quotation Reference No.	:	NITT/F.NO.013/CAPEX/2021-22/ICE
2.	Last date and Time for receipt of quotation	:	09.03.2022 before 4.30 PM
3.	Date &Time of opening of Quotation	:	10.03.2022 at 03.00 PM
4.	EMD Amount	:	Rs. 4,400/- ( 2%)
5.	Validity (Days)	:	90 Days
6.	Address to which quotations are	:	The Director,
	to be sent		National Institute of Technology,
			Tiruchirappalli – 620 015, Tamil Nadu,
			India
	Kind attention to	:	Ms. V. Sridevi
	Phone	:	0431-250 3361
	E-mail	:	sridevi@nitt.edu

- 1. Quotations should be submitted in the format given in Annexure I and Annexure-II
- 2. The envelope should contain the following details:

"QUOTATION AGAINST ENQUIRY" (Arbitary Wave Form Generator)

NITT/F.NO.013/CAPEX/2021-22/ICE

Kind attention to: Ms. V. Sridevi

Last date and Time for receipt of quotation :09.03.2022 before 4.30 PM



### **Terms and Conditions:**

101111	s and conditions.
1.	The quotation must be in the format furnished by NIT Tiruchirappalli and should be of
	typed format with proper signature of the authority, hand written rates and specification
	will not be accepted for evaluation. In case there is any unavoidable correction it should
	be clearly readable and properly attested. If not the quotation will not be considered.
	Hand written Quotation and incomplete will be rejected.
2.	a) 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 for
	this particular quotation is RS. Rs. 4,400/- (2%)
	b) EMD exemption will be given as per the GOVT of India norms.
	c) Canvassing by the Bidder in any form, unsolicited letter and post-tender correction
	will leads to rejection of the bid and result in forfeiture of EMD.
3.	You are invited to submit your most competitive quotation for the supply of goods
	according to the specifications, warranty, delivery and other terms as given by the NITT in the Specification annexure.
4.	Bidders may send the quotations in sealed covers with the quotation reference number
4.	and last date for receipt of quotations duly superscribed on the cover. <b>Kind Attention</b>
	to: as mentioned in the point No. 6
	NB: Mention the company Contact Number / E-mail id on the cover.
5.	Quotation will be opened on <b>10.03.2022</b> At 03.00 PM at the Stores and Purchase
0.	Section, 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.	Eligibility:
	Participation in this Limited tender is by invitation only.
	For any details / clarifications regarding could be obtained, free of cost, from the
	National Institute of Technology, Tiruchirappalli on all working days during 10 AM to 5 PM.
8.	Please quote whether your organization is large scale industry or small scale industry.
O.	If you have NSIC Certificate, please attach it to the quotation. Mention your registration
	details
9.	Manufacturer's name and country of origin of materials offered must be clearly specified.
0.	Printed brochures, Complete details and ISI specification if any must accompany the
	quotation. Make / brand of the item shall be stated wherever applicable. If you have got
	any counter offer as suitable to the material required by us, the same may be shown
	separately.
10.	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 bidders cost only.
11.	All supplies are subject to inspection and approval before acceptance. Manufacturer /
	supplier warranty certificates and manufacturer / Government approved lab test
1	cortificate chall be furnished along with the cumply whorever applicable

certificate shall be furnished along with the supply, wherever applicable



12. National Institute of Technology, Tiruchirappalli reserves the right to modify the quantity specified in this enquiry by +/- 25%.

#### 13. Bid Price

- a. The contract shall be for the entire quantity. Bidders must quote for entire quantity. Each bidder shall submit only one quotation in Indian Rupee only.
- b. List of reputed customers 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. All taxes, 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. In case of any discrepancy between unit price and total, the unit price shall prevail.
- 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. Offer from Manufacturer / Authorized dealer / reputed contractor alone will be accepted.
- 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: 12 Months** 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:** The successful bidder need to submit performance security for an amount of Percentage **3%** 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.
L		No advance will be provided to the supplier/service provider.
	19.	<b>GST:</b> This institution has been included in the list of institutions approved for availing
		exemption from the payment of GST for research purchases under notification no.
		45/2017 central tax – (rate), date: 14-11-2017 / notification no. 47 / 2017 integrated tax
L		- (rate), dated: 14-11-2017
	20.	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

- 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 mentioning the levy of LD clause on valid ground before expiry of delivery period
- 21. 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
- 22. Dispute clause: Any dispute relating to the enquiry shall be subject to the jurisdiction of the court at Tiruchirappalli only

#### ACCEPTANCE BY THE BIDDER

We hereby certify that We shall abide hereby the terms and conditions and the Annexures of this limited quotation.

#### Signature & Seal of Vendor with Date

For any details / clarifications regarding could be obtained from Stores and Purchase Section on all working days during 10 AM to 5 PM.

For further detail related to Technical specifications kindly contact Ms. V. Sridevi

(Purchase initiator), **DEPARTMENT OF INSTRUMENTATION AND CONTROL ENGINEERING**, sridevi@nitt.edu, 0431-250 *3361*.

(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: 1) Specifications of the equipment
2) Price Format
3) EMD Return Format
4) Bank Mandate Form
Annexure - II
Annexure - III
Annexure - IV



## DEPARTMENT OF INSTRUMENTATION AND CONTROL ENGINEERING <u>Annexure- I</u>

### **Specifications of the Equipment**

**Ref:** NITT/F.NO.013/CAPEX/2021-22/ICE **Date:** 17.02.2022

Specification of NIT-T									
No.of channels	2 Channels								
Frequency range (Sine, Square & Pulse)	1 μHz to 20 MHz, 1 μHz resolution								
Frequency range (Ramp & Triangle)	1 μHz to 200 kHz, 1 μHz resolution								
Frequency range (Gaussian noise)	1 mHz to 20 MHz,								
Frequency range (Pseudorandom binary sequence)	1 mbps to 50 Mbps, 1 mbps resolution								
Waveform sequencing segment length & sequence length	8 Sa to 8MSa, 1 to 512 steps								
Modulation carrier wavwforms	AM, FM, PM, FSK, BPSK, PWM, Sum (carrier+ modulation)								
Standard waveforms	Sine, square, ramp, pulse, triangle, Gaussian noise, PRBS (Pseudorandom Binary Sequence), DC								
Built-in arbitrary	Cardiac, exponential fall, exponential rise, Gaussian pulse, Haversine, Lorentz, D-Lorentz, negative ramp, sinc								
Modulation capability	Continuous, modulate, frequency sweep, burst, output gate								
Burst type	Counted or gated								
Sweep type	Linear, Logarithmic, List (up to 128 user-deined frequencies)								
Sweep Time	1 millisecond to 3,600 seconds								
Arb resolution and	16-bit, 250 MSa/s								
Arb sample rate									



Jitter and THD	< 100 PS, jitter, 0.07% THD
Amplitude range	1 mVpp to 10 Vpp into 50 $\Omega$ , 1 mVpp to 20 Vpp at open circuit
Amplitude accuracy	± 1% of offset setting ± 0.25% of amplitude setting ± 2mV
Frequency accuracy	± 1 ppm of setting ± 15 pHz
Impedance	10K $\Omega(\text{input})$ , 50 $\Omega$ (output) & DC coupled (input)
2-channel coupling	Independent, coupled parameter(s), combined Equal, or differential
Sum modulation	Add any 2 signals, independent frequency and amplitude
Connector	Rear-panel BNC, chassis-referenced
Interface	LAN, USB, optional GPIB
Web user interface	Remote operation and monitoring
Display	7-inch WVGA display
Storage	USB 2.0 high speed mass storage
Safety rating	CAT III 600 V
Amplifer	2 channel Isolated
Full-power bandwidth	100 kHz @ 50 Vpp
Slewrate	20 V/μs min.
THD+N	: < 0.01% @ 10 kHz, 40 Vpp
Output drive	200 mA max.

Reasons (if there is difference in specification)

1.

2.



S.No	Other requirements related to	NITT	Supplier
	the equipment	Requirement	commitment
1.	Installation required	Yes	
2.	Warranty (in Month)	12 Months	
3.	Comprehensive AMC required	No	
4.	Delivery Period (Weeks)	4 Weeks	
5.		Shipment terms	At NIT-T
6.	Performa	ance Security in %	3%
7.		Payment Terms	100% Payment after
			satisfactory
			delivery/Installation
8.	EMD	Amount (2 to 5)%	Rs. 4,400/- ( 2%)

#### **Signature & Seal of Vendor with Date**

#### Note:

Specification of the Supplier should be given in detail, single word confirmation like Complied / No / same will be treated as non - responsive Bid and summarily rejected.

Proof for the supplier's specification must be enclosed along with the quotations. (catalogue, brochure, and product website link if any)



#### DEPARTMENT OF INSTRUMENTATION AND CONTROL ENGINEERING

Annexure- II

#### PRICE BID FORMAT FOR BIDDERS

Quotation reference No. & Date: NITT/F.NO.013/CAPEX/2021-22/ICE

Bidder's Offer No. & Date:

S. No.	Description of item	Unit QTY (Set / No)		Rate / Qty in Rs. (excluding	G	Total Value + GST in		
				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)	<u>Nos</u>	<u>2</u>					
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 Commissioning (extra, if any)	<u>NO</u>						
4.	Packing & Forwarding c if any)	harges (	(extra,					
5.	Freight & Transit insura extra, if any	rges,						
6.	Total price							
7.	Value of Annual Mainten	ance C	ontract					
8.	Net cost to be paid by	NIT-T						

Signature & Seal of Vendor

Note: The price quoted should be in Typed format only as per the above form. Hand written quotes will be rejected. No row shall be left blank, Kindly mention 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. AMC Value will not consider for arriving L1 bidder.



## (TO BE PRINTED IN LETTER PAD OF THE FIRM)

### **EMD Returning Form**

То
The Director
National Institute of Technology
Tiruchirappalli - 620 015

Sub: Returning EMD amount

Sir / Madam,

Our firm has participated in the tender / quotation enquiry No mentioned below and produced the EMD amount through DD, details of the DD are given below.

Tender / Quotation Reference No	
EMD amount	
DD Number	
DD issued Bank	
Date of DD	

It is requested to return the EMD amount to our firm after completion of the purchase to the below mentioned Bank account.

Account Name	
Bank Account Number	
IFSC code	
Bank	

Signature with Seal and Date



### (TO BE PRINTED IN LETTER PAD OF THE FIRM)

Annexure - IV

#### MANDATE FORM FOR ELECTRONIC FUND TRANSFER/RTGS TRANSFER

То												Da	te:	/	/			
Na	ne Director, ational Institute of Technology, ruchirappalli – 620 015, Tamil Nadu																	
S	ub : Authoriza Technolo Transfer.	ogy,																
1.	Name of the Pa	arty /	Firm /	Cor	npa	iny /	Inst	titute	)	:								
2.	Address of the	Part	у							:								
3.	City			Pi	n C	ode_												
4.	E-Mail	Мс	bile N	o:														
5.	Permanent Acc	count	Numb	er_														
6.	Particulars of E	Bank:																
	Bank Name:						В	Brand	ch N	lam	e:							
	PIN Code:						В	Brand	ch C	ode	э:							
	IFS Code:(11	digit	alpha	num	eric	coc	le)						1					
	Account Type		Savir	ngs				Cı	ırrer	nt			C	ash	Cre	edit		1
	Account Numl	ber:																
			l	1	DE		\ D	^ TIC	) NI	ı							I	
					טכ	CLA	<b>₹K</b> /	AIIC	JΝ									
1 i 1	hereby declare transaction dela transaction I sha responsible. I al to facilitate upda Transfer.	ayed all no so ur	and t hold ndertak	not Dire ce to	effe ctor ad	ected r, Na vise	d fo tion any	or r nal li / ch	eas nstit ang	ons ute e in	of of the	inco Tech part	om nole icu	plete ogy lars	Tiru	r in uchii ny a	ncor rapp acco	rect palli punt
F	Place:		Da	ate:														

Signature & Seal of the Authorized Signatory of the Party