



NATIONAL INSTITUTE OF TECHNOLOGY

TIRUCHIRAPPALLI - 620 015

STORES & PURCHASE SECTION

NOTICE INVITING QUOTATION

File No.	NITT/F.NO.022/CAPEX(OH-35)/2024-25/EEE	Date:	08-10-2024
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To

(Supplier Address)

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

Name of the Item	:	IGBT Based Three Phase Voltage Source Inverters
Quantity Required	:	02 Nos
Specification	:	(As per enclosed Schedule Annexure – I)
1. Quotation Reference No.	:	NITT/F.NO.022/CAPEX(OH-35)/2024-25/EEE
2. Last date and Time for receipt of quotation	:	29-10-2024 before 11 00 AM
3. Date &Time of opening of Quotation	:	29-10-2024 at 02.00 PM
4. EMD Amount	:	Rs. 5,600/-
5. Validity (Days)	:	90 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. S. Kayalvizhi
Phone	:	0431 250 3250
E-mail	:	kayalvizhi@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:

<p>“QUOTATION AGAINST ENQUIRY” (IGBT Based Three Phase Voltage Source Inverters)</p> <p>NITT/F.NO.022/CAPEX(OH-35)/2024-25/EEE</p> <p>Kind attention to: Purchase Initiator: Dr. S. Kayalvizhi, Assistant Professor</p> <p>Department: Electrical and Electronics Engineering</p> <p>Last date and Time for receipt of quotation : 29-10-2024 before 11 00 AM</p>



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Earnest Money Deposit(EMD)	
<p>1. Earnest Money Deposit (EMD) is to be submitted through SBI collect link as below. The bids submitted without EMD will be treated as non-responsive and will be rejected. EMD shall bear no interest.</p> <p>2. Bidder must fill the EMD returning Form (Annexure-III) and submit along with the quotation.</p> <p>3. EMD will be returned to the unsuccessful Bidder(s) as per the purchase norms.</p> <p>4. The EMD shall be forfeited if any Bidder withdraws the offer before finalization of the tender.</p> <p>5. UDYAM & NSIC registered Micro & small enterprises are exempted from paying EMD amount as per Govt. norms (proof to be attached). For availing exemption, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. In respect of bid for Services, the bidder must be the Service provider of the offered services. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises.</p>	
EMD amount	Rs. 5,600/-
SBI Collect Link mode (Payment Category- NITT Tender- Earnest Money Deposit).	https://www.onlinesbi.sbi/sbicollect/icollecthome.htm?corpID=1768557
The bidder must enclose SBI collect receipt along with the quotations, failing which the bid shall be rejected without any further communication.	

Terms and Conditions:

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.	You are invited to submit your most competitive quotation for the supply of goods according to the specifications and delivery terms as given.
3.	Bidders may send the quotations in sealed covers with the quotation reference number and last date for receipt of quotations duly superscribed on the cover. Mention the company Contact Number / E-mail id on the cover.
4.	Quotation will be opened on due date at 29-10-2024 at 02.00 PM at the Store and Purchase 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)
5.	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.



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6.	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
7.	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
8.	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
9.	National Institute of Technology, Tiruchirappalli reserves the right to modify the quantity specified in this enquiry.
10.	Startup company exempted from prior turnover & prior experience (startup certificate registered with DIPP should be enclosed)
11.	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.
12.	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.
13.	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.
14.	Award of contract



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	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
15.	Warranty: 12 months
16.	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 (<u>As mentioned in Annexure –I</u>) 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.
17.	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.
18.	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
19.	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
20.	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
21.	Startup company exempted from Prior Turnover & Prior Experience (Startup certificate registered with DIPP should be enclosed)



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22.	GST as applicable
23.	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.
24.	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.



ACCEPTANCE BY THE BIDDER

I/We hereby certify that I/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 **Dr. S. KAYALVIZHI** (Purchase initiator) **Electrical and Electronics Engineering kayalvizhi@nitt.edu, 0431 250 3250.**

(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	Annexure – I
2) Price Format	Annexure - II
3) EMD Return Format	Annexure – III
4) Bank Mandate Form	Annexure – IV



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STORES & PURCHASE SECTION

Annexure- I

Specifications of the Equipment

Ref: NITT/F.NO.022/CAPEX(OH-35)/2024-25/EEE

Date: 08-10-2024

S. No	Specification of NIT-T	Specification of the Supplier	
	<p><u>IGBT BASED THREE PHASE VOLTAGE SOURCE INVERTERS</u></p> <p>DUAL CORE dsPIC33CH BASED PWM CONTROLLER (Nano - 33CH)</p> <p>The Nano - 33CH Board, based on Dual Core dsPIC33CH DSP Controller, is intended and developed for advanced closed-loop control applications for Power electronics, smartgrid, Power Systems, etc. MATLAB – SIMULINK based Model Based Design of Drives, Power Electronics, Power System, Electric Vehicle etc, makes it easy for the students to build any Applications in this field.</p> <p>dsPIC33CH512MP508 dual core, PROGRAM MEMORY: 512KB - Master, 72KB- Slave</p> <p>ON Board Features:</p> <ul style="list-style-type: none">4 user LEDs, 4 Push-Button Micro Switches4 GPIO Terminated at 5pin FRC Connector20 × 4 Alphanumeric LCDExternal Pickit3 programmer/debugger.Opto -isolated USB PORT, Quadrature Encoder InterfaceOpto-isolated USB to UART Serial Interface (COM PORT)8 PWM Outputs and 1 Capture Units with Differential Signal <p>Inputs are terminated at good quality connector.</p> <ul style="list-style-type: none">8 Channel ADC inputs & 2 DAC/Analog Compare outputs <p>THREE PHASE IGBT BASED POWER MODULE</p> <p>This module consists of Six Numbers of IGBT with gate driver in A Single Chip Called Mini Power Module Mini IPM. & PWM isolator IC'S. The gating signals are given as an input from an external control module (optional). It can be used for high voltage single phase / Three phase inverter, chopper, motor control application. Chopper / inverter PWM control module should be purchased separately.</p>	Model	
		(No hand written)	



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Features:

Six Numbers of High speed Opto - isolator provided for PWM isolation
One Number of IGBT -Mini IPM - IGCM15F60GA -with suitable snubber circuit & Heat sink provided for power circuit
Rating of device is 600V@ 15AMP
Isolated +15V DC@1amp provided for control IC's
One number of Single-phase diode rectifier (600v 25a) with filter capacitor provided for input ac rectification. For power circuit input with fuse protection
One number of Analog voltmeter provided for dc rail voltage measurement.
Four Number of Hall Effect current sensor provided for output current & dc current measurement & protection
Four number of op-amp signal conditioner circuit provided for all current sensors & output terminated in front panel for current wave measurement.
Over current Trip circuit provided for Over Load protection.
One number of Led provided to indicate TRIP Status
One number of Reset Switch provided to reset the Trip Function
Six Numbers of banana connector termination provided in power circuit Input & external load interface
One numbers of 15 pin connectors provided for PWM Interface from external controller
10 Numbers of test points provided in control section for wave form measurement in CRO
All are mounted in attractive powder coated cabinet with sticker front panel mimic diagram indication.
230V AC input, one number of power on / off switch with indication.

Specification:

*Power circuit input : 230V AC / 300V DC @ 4amp
(externally)
*Power Circuit Output : Suitable for Ac/Dc motor
(Approx: 135V AC switched O/P)
*PWM input : 6 Numbers of PWM – 5VDC level
*Protection : Current setting based on the load.

THREE PHASE LOADING RHEOSTAT

*1KW rating
*Three phase input



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	<ul style="list-style-type: none">*Provide the Different selector switch for current selection*Provide Fuse for input protection*All are mounted on a moveable cabinet*Provide Banana connector provide for load input <p>THREE PHASE INDUCTIVE LOAD</p> <ul style="list-style-type: none">*5Amp capacity*Variable type* Three phase input*Provide Fuse for input protection*Provide Banana connector for input.	
Reasons (if there is difference in specification)		
1.		
2.		



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S.No	Other requirements related to the equipment	NITT Requirement	Supplier commitment
1.	Installation required	Yes	
2.	Warranty (in Month)	12 months	
3.	Comprehensive AMC required	No	
4.	Delivery Period (Weeks)	12 Weeks	
5.	Shipment terms		At NIT-T
6.	Performance Security in %		3%
7.	Payment Terms		100% Payment after satisfactory delivery/Installation
8.	EMD Amount (2 to 5)%		Rs. 5,600/-

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)



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Annexure- II

PRICE BID FORMAT FOR BIDDERS

Quotation reference No. & Date : NITT/F.NO.022/CAPEX(OH-35)/2024-25/EEE

Bidder's Offer No. & Date :

S. No.	Description of item	Unit (Set / No)	QTY	Rate / Qty in Rs. (excluding GST)	GST in Rs.			Total Value + GST in Rs.
					SGST	CGST	IGST	
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>02</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 charges (extra, if any)							
5.	Freight & Transit insurance charges, extra, if any							
6.	Total price							
7.	Value of Annual Maintenance Contract							
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.



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(TO BE PRINTED IN LETTER PAD OF THE FIRM)

EMD Returning Form

To
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 SBI collect, details are given below.

Tender / Quotation Reference No	
EMD amount	
Transaction Number	
Transaction Date	

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



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(TO BE PRINTED IN LETTER PAD OF THE FIRM)

Annexure – IV

MANDATE FORM FOR ELECTRONIC FUND TRANSFER/RTGS TRANSFER

Date: / /

To

The Director,
National Institute of Technology,
Tiruchirappalli – 620 015, Tamil Nadu

Sub	:	Authorization for release of payment / dues from National Institute of Technology, Tiruchirappalli through Electronic Fund Transfer/RTGS Transfer.
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1. Name of the Party / Firm / Company / Institute :
2. Address of the Party :
3. City _____ Pin Code _____
4. E-Mail _____ Mobile No: _____
5. Permanent Account Number _____
6. Particulars of Bank:

Bank Name:		Branch Name:	
PIN Code:		Branch Code:	
IFS Code:(11 digit alpha numeric code)			
Account Type	Savings	Current	Cash Credit
Account Number:			

DECLARATION

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.

Place: _____ Date: _____

Signature & Seal of the Authorized Signatory of the Party