



NATIONAL INSTITUTE OF TECHNOLOGY

TIRUCHIRAPPALLI - 620 015

DEPARTMENT OF EEE

NOTICE INVITING QUOTATION

File No.	NITT/F.NO:117/CAP.EXP.35/2020-21/EEE	Date:	28.04.2021
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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	:	PMSM Motor With Loading Arrangement
Quantity Required	:	1
Specification	:	(As per enclosed Schedule Annexure – I)
1. Quotation Reference No.	:	NITT/F.NO:117/CAP.EXP,35/2020-21/EEE
2. Last date and Time for receipt of quotation	:	10.5.2021 before 4.30 PM
3. Date &Time of opening of Quotation	:	11.5.2021 At 11.00 A.M
4. EMD Amount	:	Bid Security Declaration form to be Submitted
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. M . Venkata Krithiga
Phone	:	0431 250 3263
E-mail	:	mvkirthiga@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 (PMSM Motor With Loading Arrangement) - NITT/F.NO:117/CAP.EXP,35/2020-21/EEE</p> <p><u>Kind attention to:</u> Dr. M . Venkata Krithiga</p>



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Last date and Time for receipt of quotation : 10.5.2021 Before 4.30 PM

Terms 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. Bid Security b) declaration form to be submitted/- c) 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 and last date for receipt of quotations duly super scribed on the cover. Kind Attention 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 11.5.2021 At 11.00 A.M at the Stores 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)
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.	Please quote whether your organization is large scale industry or small scale industry. If you have NSIC Certificate, please attach it to the quotation. Mention your registration details
8.	Manufacturer's name and country of origin of materials offered must be clearly specified. 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.
9.	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.
10.	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
11.	National Institute of Technology, Tiruchirappalli reserves the right to modify the quantity specified in this enquiry by +/- 25%.



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12.	<p>Bid Price</p> <ol style="list-style-type: none">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.List of reputed customers should be submitted, wherever applicable.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.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.In case of any discrepancy between unit price and total, the unit price shall prevail.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 contractQuotations containing conditions like “subject to prior sale” may not be considered.Delivery period required for supplying the material should be invariably specified in the quotationOffer from Manufacturer / Authorized dealer / reputed contractor alone will be accepted.
13.	<p>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.</p>
14.	<p>Award of contract</p> <ol style="list-style-type: none">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.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.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.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.
15.	<p>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.</p>
16.	<p>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.</p>
17.	<p>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/service provider.</p>



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18.	GST: 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 – (rate), dated: 14-11-2017
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 mentioning the levy of LD clause 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 enquiry shall be subject to the jurisdiction of the court at Tiruchirappalli only

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. M . Venkata Krithiga (Purchase initiator), **EEE**, mvkirthiga@nitt.edu, 0431 250 3263.

(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 |



Specifications of the Equipment

Ref: NITT/F.NO:117/CAP.EXP,35/2020-21/EEE

Date:

S. No	Specification of NIT-T	Specification of the Supplier	
		Make	Model
1.	<p>Detail specification</p> <p>1. <u>PMSM DRIVES:</u></p> <p>a) FPGA spartan6 controller:</p> <ul style="list-style-type: none">• Processor speed 20 MHZ• 20 output lines / inputs lines in 3.3/5V level• Isolated serial communication interface through USB connector• 4MB PROM for code execution memory.• External JTAG header for programming• 20x4 (or 16x2) LCD interface header.• 8 users LEDs/4 position user DIP switch• 2 up & down input push switch• Up to 20 Individually Programmable GPIO Pins ADC• No of ADC input: 8 Channels• Resolution :12 bit• Sampling rate: 1MSPS• Analog input range: 0-3V unipolar• Buffer section for voltage protection <p>Connectors:</p> <ul style="list-style-type: none">• 16 pin header for ADC input• 16 pin header for PWM OUTPUT• External Programming header• Total 20pwm signals can be generate <p>b) 2KW IGBT BASED 3PH VOLTAGE SOURCE INVERTER</p> <ul style="list-style-type: none">• 600V/ 75A, IGBT module Used, Proper heat sink and Snubber Capacitors Used for the Power circuit.3 IGBT module used each module consist of two IGBTs.• Cooling Fan provided to reduce the Switching Device Heat.• 6NOS TLP250 IC used to amplify the PWM voltage level with +15V		
		(No hand written)	



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	<ul style="list-style-type: none"> • 3N0S SKYPER32 R Based Negative Turn OFF with short circuit protection driver circuit for all IGBTs. • Temperature sensor for over temperature Protection • Over current protection will be provided. • Reset circuit provided to clear the fault signal. • Snubber capacitor provided for dv/dt protection for IGBT module • 35A / 1 phase bridge rectifier and filter circuit for power circuit input. • 4 no 55A HALL effect current sensor for DC link current and 3ph Output load currents • Two no's of 680mfd/450v capacitor to filter the de link voltage. • Input de link volt-350v de MAXIMUM • Output Voltage-0-300V AC or DC peak /2KW • O/P frequency-10-100HZ • Each device switching frequency-20KHZ Max. <p>2. <u>PMSM motor with spring balance load:</u></p> <ul style="list-style-type: none"> • Power-750WATTS • Voltage-230vAc • Current-5A • Speed-3000rpm • Load-Spring balance load • Position sensor-2000PPR encoder 	
Reasons (if there is difference in specification)		
1.		
2.		

S.No	Other requirements related to the equipment	NITT Requirement	Supplier commitment
1.	Installation required	Yes	
2.	Warranty (in Month)	12 Months	



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3.	Comprehensive AMC required	No	
4.	Delivery Period (Weeks)	8 Weeks	
5.		Shipment terms	At NIT-T
6.		Performance Security in %	3%

Signature & Seal of Vendor with Date

Note:

Specification of the Supplier should be given in detail, single word confirmation like Complied / Yes / 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:117/CAP.EXP,35/2020-21/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>1</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>Yes</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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PROCESS COMPLIANCE/ACCEPTANCE OF TENDER CONDITIONS FORM

**The Director,
National Institute of Technology,
Trichy – 15**

Sub : Acceptance to the Process related & Terms and Conditions for the-Limited-tendering
Ref. : The Terms & Conditions for Limited-Tendering mentioned in tender
No. : _____

Sir,

We hereby confirm the following.

The undersigned is authorized representative of the company. We have carefully gone through the NIT Tiruchirappalli, Tender Documents and the Rules governing the Limited Tender along with this document. We have examined and have no reservations to the Bidding Documents, including addendum (if any). We offer to supply in conformity with the Bidding Documents and in accordance with the condition of contact, specified in this tender document. We will honour the Bid submitted by us during the Limited Tender. We give undertaking that if any mistake occurs while submitting the bid from our side, we will honour the same.

Bid Securing Declaration: - We accept that if we withdraw or modify Bids during the period of validity, or if we are awarded the contract and fail to sign the contract, or to submit a performance security before the deadline defined in this bids document, we will be suspended for the period of 01 years from being eligible to submit Bids for contracts with National Institute of Technology, Tiruchirappalli.

We are aware that if NIT Tiruchirappalli has to carry out e-tender again due to our mistake, NIT Tiruchirappalli has the right to disqualify us for this tender. We confirm that NIT Tiruchirappalli shall not be liable & responsible in any manner when refloated unforeseen circumstances etc. Our bid shall be valid for the period from the date fixed for the bid submission deadline, and it shall remain binding upon us and accepted at any time before the expiration of bid validity period as per this tender.

If our bid is accepted, we commit to provide a performance security at 3% in Bank Guarantee /Fixed Deposits for due performance of the contract as per NIT Tiruchirappalli policy and warranty-guarantee as per tender specification or agrees as per contract. We understand that this bid, together with your written acceptance thereof included in your notification of award/placement of order, shall constitute a binding contract between us. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive. We accept that the competent authority in NIT Tiruchirappalli will have full right to reject any/all offer(s) without assigning any reason thereof and does not bind itself to accept the lowest or any other tender and full authority to postpone the tender issue date, submission /opening date or to alter any other condition of tender /cancellation of this tender, as per policy/committee recommendations of NIT Tiruchirappalli at any stage without assigning any reason thereof for which no claim from whomsoever will be entertained. I/We the undersigned have read the entire terms and conditions of this Tender document and we are fully agreeable to the terms and conditions mentioned herein. The decision of competent authority of NIT Tiruchirappalli with respect to this Tender-Result will be fully agreeable and binding on us.

This letter can be treated as signed and acceptance copy of tender documents and the forms submitted as signed by competent authority of firm submitting this tender and there is no need to submit separate signed copy of tender document.

Competent Authority of the Firm/Company/Enterprises to sign:

Name
Designation
Contact Details

Date with stamp & seal of organization:



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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