

**NATIONAL INSTITUTE OF TECHNOLOGY
GOA -403401**

(Form to be used for purchases above Rs.2.50 lakhs and upto Rs. 25 lakhs)

Tender Enquiry

Enquiry No: NITGOA/LT/EEE/2018/OW/ 50

Date: 22-1-18

Important Dates

To

Event	Date	Time
Pre-bid Conference	-	-
Last Date of submission of quotation	15-02-2018	03:00PM
Technical Bid Opening date	15-02-2018	03:30PM
Financial Bid Opening date	16-02-2018	10:00AM

Dear Sir,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly send your offer with prices and complete terms within the time mentioned above.

Please send your quotation to:

Director NATIONAL INSTITUTE OF TECHNOLOGY GOA-403401
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Yours sincerely,



Registrar-I/C

National Institute of Technology
Goa

Encl:

- (1) Schedule of requirement, specifications, dates etc.
- (2) Bid document containing detail terms and conditions.

1. **Schedule of requirements**

Sl. No.	Name of Equipment	No's Required
1.	DC Electronics Load Module with Single Module Chassis	01 nos.
2.	DC Power Supply	02 nos.
3.	AC/DC Current Probe with Amplifier a. AC/DC Current Probe b. AC/DC Current Probe Amplifier	02 nos. 01 nos.

2. **Specifications and allied Technical Details**

Enclosed at Annexure – I, II, III

3. **Format of Quotation** (tick appropriate box)

It is a Single bid; please give all technical specifications and price bid in one envelope.

OR

It is a two-part bid with separate techno-commercial and price bids. Please see item 1.12 of instructions for method of bidding.

4. The bid envelope should be super-scribed with

Bid for **Electrical Drive Laboratory Equipments** Enquiry No. **NITGOA/LT/EEE/2018/OW/_____**

5. Quotations should be valid for a period of 90 days from the closing date of the bid.

6. **Some important dates:**

i.	Pre-bid Conference:	Date: _____ - _____	Time: _____ - _____
ii.	Last date for receipt of quotation:	Date: 15-02-2018	Time: 03.00 P.M.
iii.	Opening of techno-commercial bid:	Date: 15-02-2018	Time: 03.30 P.M.
iv.	Opening of Financial bid:	Date: 16-02-2018	Time: 10.00 A.M.

7. **Warranty** as applicable must be provided.

8(a) **GST:** GST should be charge as per applicable tax rates.

- 8(b) **Entry Tax:** The State of Goa charges entry tax on all goods entering the State. Please include it in your quotation.
- 8 (c) **Custom and Excise Duty:** The Institute is authorized to give Custom and Excise Duty Exemption Certificate. **Custom and Excise Duty** should be charge accordingly.
9. **Bid Security** (See Item 2.8 of instructions): **Rs. 25,000/-**.
10. **Performance Security** (See Item 2.10 of instructions): **05%** of gross order value.
11. Please go through the enclosed "bid document" carefully for other bidding instructions.
- 12(a) Please send your quotations by Registered/Speed Post to:

Director National Institute of Technology Goa -403401
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OR

(b) drop the quotation in the office of the normal working hours of the Institute.

13. For clarifications if any, please mail to sreeraj@nitgoa.ac.in

(Contd.)

National Institute of Technology Goa
Farmagudi, Ponda-Goa 403 401

**NATIONAL INSTITUTE OF TECHNOLOGY
GOA-403401**

BID DOCUMENT

1. Instructions to the bidders

- 1.1 Sealed bids are invited on behalf of the Director, National Institute of Technology (NIT), Goa – 403401, from the intending bidders for supply of the goods/stores/ equipments/ services for the Institute as detailed in the enquiry letter.
- 1.2 The bidders should quote the technical and financial bid separately in two separate envelopes duly superscripted on the envelope as **Technical bid/ financial bid for Electrical Drive Laboratory Equipments** and their offer/rates in clear terms without ambiguity and EMD should be enclosed in Technical Bid envelope.
- 1.3 The rates should be quoted both in figures and words and legibly written without any over-writings. In case of any correction, the same must be attested by the bidder with full signature. However, no over-writing is permissible. Manufacturer's price-list, where applicable, should be submitted along with the bid.
- 1.4 In case of any discrepancy between the rates in figures and that in words, the rate in words will be accepted as correct.
- 1.5 The last date for receipt of the bid is marked in the enquiry. In case the above date is declared a holiday for NIT Goa, and the bids will be received up to the appointed time on the next working day.
- 1.6 There may be a pre-bid conference in the office of the Department as per schedule given under at the top of the document. NIT Goa for clarifying issues and clearing doubts, if any, about the specification and other allied technical details of the plant, equipment and machinery projected in the bidding document. The prospecting bidders may attend this pre-bid conference at the appointed date, time and place. In case the said date is declared a holiday for the NIT Goa, the pre-bid conference shall be held at the appointed time and place on the next working day.
- 1.7 The bids may be sent by registered or speed post, so as to reach the office NIT Goa before the last date of receipt, or alternatively, be dropped in the office of the normal working hours of the Institute.
- 1.8 If a prospective bidder requires any clarification in regard to the bidding documents, he may mail to sreeraj@nitgoa.ac.in at least 15 days before the deadline for receipt of bids.
- 1.9 Bids received after the deadline of receipt indicated in para 1.5 above, shall not be taken in to consideration.

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Farmagudi, Ponda-Goa 403 401

- 1.10 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered non-responsive.
- 1.11 The cover containing the bid must be sealed and super-scribed "Bid for **1500VA Electrical Drive Laboratory Equipments** vide Enquiry No. . . . NITGOA/LT/EEE/2018/OW/ _____ dated _____ as given under item of the enquiry.
- 1.12 The bids shall be opened in the office at the date and time given on the top of the document. The bidders may send their authorized representatives to attend the bid opening, if they so desire. In the event of the above bid opening date being declared holiday for the NIT Goa, and then the bids will be opened at the appointed time and place on the next working day.
- 1.13 The bidder has to put seal and sign in full at all pages of the bidding document including all annexures and price bid failing which the bidder will be disqualified.
- 1.14 The Director NIT GOA and its successors reserves the right to reject any or all tenders, wholly or partly or close the tender at any stage prior to award of contract without assigning any reason whatsoever.

2. Conditions of the bid

- 2.1 The rates quoted should preferably be net, inclusive of all taxes and duties, packing, forwarding, freight, Insurance and all other incidental charges mentioned separately.
- 2.2 The goods are required to be delivered at the indenting Department of NIT Goa, and must be dispatched within 15 days from the date of placement of the supply of order under the risk and arrangement of the bidder and offers with delivery beyond the above period shall be treated as unresponsive. In case the delivery time is higher, the same must be mentioned clearly in the quotation.
- 2.3 If insisted, samples shall be provided by the supplier at the entire cost and risk of the supplier.
- 2.4 The bid should remain valid for a period of 90 days from the date of opening. In case your offer has a different validity period that should be clearly mentioned in the quotation.
- 2.5 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 2.6 The goods offered should strictly conform to the specification and technical details mentioned in Para below.
- 2.7 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.8 The bid is to be accompanied with "Bid Security" (*Earnest Money*) for an amount stated in the enquiry, in the form of Account Payee Demand Draft, in favour of Director, NIT Goa from any Commercial Bank with validity period of 30 days beyond the final bid validity period. The bid security shall be forfeited, if the bidder withdraws during the bid validity period.
- 2.9 Any Liability regarding GST will be of supplier of products.
- 2.10 Period of guarantee/warranty, where applicable, should be specified in the bid.
- 2.11 The successful bidder must furnish "Performance Security" for an amount specified in the enquiry, in the form of Account Payee Demand Draft, and/or unconditional Bank guarantee en-cashable on demand from the Director, NIT Goa, from a Commercial Bank

with validity period of sixty days beyond the date of completion of all contractual obligations of supplier including guarantee/ warranty obligations. The Performance Security is to be furnished in favour of the Director, National Institute of Technology ,Goa, within ten days of intimation, failing which his bid security will be forfeited. Alternatively, fixed percentage of the cost of the stores as stated in the enquiry may be retained by the Institute in its Maintenance Fund towards performance security, which will be released One month after the completion of warranty period.

- 2.12 If the successful bidder, on receipt of the supply order, fails to execute the order within the stipulated period, in full or part, it will be open to the Director, NIT Goa to recover liquidated damage from the firm at the rate of 1 percent of the value of undelivered goods per month or part thereof, subject to a maximum of 5 percent of the value of undelivered goods. Alternatively, it will also be opened to the Director, to arrange procurement of the required goods from any other source at the risk and expenses of the bidder.
- 2.13 The successful bidder may be required to execute a contract, where applicable.
- 2.14 Payment (100 percent) will be made by Account Payee Cheque/Bank Draft, within 30 days from the installation or receipt of the goods in good condition or receipt of the bill, commissioning of the equipment, where applicable, whichever is later/latest.
- 2.15 In the event of any dispute arising out of the bid or from the resultant contract, the decision of the Director, NIT Goa shall be final.
- 2.16 The Director NIT GOA and its successors reserves the right to reject any or all tenders, wholly or partly or close the tender at any stage prior to award of contract without assigning any reason whatsoever.
- 2.17 The bid document/resultant contract will be interpreted under Indian Laws.
- 2.18 Any disputes arising out of this enquiry shall be dealt in the Goa jurisdiction.
- 2.19 Criteria for Evaluation in Technical Bid
a) Proof of establishment of Firms/shop/business/ manufacturing unit etc.
b) Valid EMD
c) PAN No: (With photo copy) of firms/proprietor.
d) Photocopy of ~~VAT~~/GST/~~CST~~ Registration Certificate duly renewed by corresponding commercial tax office.
- 2.20 Criteria for Evaluation in Financial Bid
The financial bid(s) shall be evaluated on the basis of the total lowest rates quoted for all the equipments mentioned in schedule of requirements.
The words in price bid such as extra will entitle for disqualification of bidders.
Conditional bids will not be accepted and will be liable for disqualification.


Registrar-I/C
NIT-Goa

Annexure-I

Name of Equipment: DC Electronics Load Module with Single Module Chassis

<u>Sr. No.</u>	<u>Specifications</u>	<u>Yes/No</u>
<u>1</u>	Input Ratings: Voltage: 60V, Current: 60A, Power: 300W, Minimum Voltage (Full Current): 0.5V @ 60A	
<u>2</u>	CC Mode: Range 1: Range 2: 0-6A 0-60A, Resolution: 1.6mA 16.0mA, Accuracy: $\pm 0.2\%$ of (Setting + Range).	
<u>3</u>	CR Mode: Range 1(I > 0.02% of RATING): 1-3.75K Ω , Range 2(I > 0.2% of RATING): 0.0534-1 Ω	
<u>4</u>	CV Mode: Range: 0-60V, Resolution: 0.016V, Accuracy: $\pm 0.1\%$ of (Setting + Range)	
<u>5</u>	CP Mode: Range: 0-300W, Resolution: 0.08W, Accuracy: $\pm 0.5\%$ of (Setting + Range)	
<u>6</u>	Short Mode: Resistance: 8m Ω , Current: 60A	
<u>7</u>	Dynamic: T High & T Low: 50 μ s to 9.999s, Rise/Fall of Range 1: 4-250mA/ μ s Rise/Fall of Range 2: 0.04-2.5A/ μ s, Accuracy: $\pm 10\%$ of Setting	
<u>8</u>	4 1/2 DVM: Range: 15.0V 60.0V, Resolution: 0.001V 0.002V, Accuracy: $\pm 0.05\%$ of (Reading + Range)	
<u>9</u>	4 1/2 DAM: Range: 6.0A 60.0A, Resolution: 0.001A 0.01A, Accuracy: $\pm 0.2\%$ of (Reading + Range), Current Monitor: 6.0A/V	
<u>10</u>	Load ON Volt: Range: 0.1-25V, Resolution: 0.1V, Accuracy: 1% of Setting + 0.25V	
<u>11</u>	Load OFF Volt: Range: 0-25V, Resolution: 0.01V, Accuracy: 1% of Setting + 0.25V	

Note: The above format should be on letter head of the firm with the signature of Authorized Signatory.

Annexure-II

Equipment Name: DC Power Supply

<u>Sr. No.</u>	<u>Specifications</u>	<u>Yes/No</u>
<u>1</u>	2 isolated outputs each with a 0 to 35V, 0 to 4A capability and its own on-off switch. The outputs can be wired in either series or parallel to provide voltages up to 70 volts or currents up to 8 amps	
<u>2</u>	Output Performance: Ripple & Noise: Typically <2mV rms, <10mV pk-pk, Load Regulation: <0.01% of maximum output for a 90% load change (using remote sense). Line Regulation: <0.01% of maximum output for 10% line change. Transient Response: <200µs to within 50mV of setting for a 5% to 95% load change. Temp. Coefficient: Voltage: typically <100ppm /°C.	
<u>3</u>	Output Protection: Output Protection: Outputs will withstand forward voltages up to 40V Reverse protection by diode clamp for currents to 3A.	
<u>4</u>	Output Connections: Output Terminals: Universal 4mm safety binding posts on 19mm (0.75") spacing. Terminals can accept fixed shroud 4mm plugs, standard 4mm plugs, fork terminals and bare wires	
<u>5</u>	Remote Sense: Sense Selection: Voltage sensing is selected as Local or Remote by front panel switch. Sense Terminals: Sprung loaded screw-less terminals	
<u>6</u>	Meter Specifications: Display Type: Dual 4-digit meters, 14mm (0.56") LED. Voltage Meter: Resolution: 10mV, Accuracy: 0.3% of reading ± 3 digits, Current Meter: Resolution: 1mA, Accuracy: 0.5% of reading ± 3 digits	

7	<p>Auxiliary Output: Voltage: Variable <1.5V to >5V by front panel control. Meter accuracy: 0.3% ± 4 digits. Current limit: 5A minimum. Load regulation: <0.5% for 90% load change Line regulation: <0.1% for 10% line voltage change. Ripple & Noise Typically <2mVrms, <10mVpk-pk (20MHz bandwidth); Output Protection: Output will withstand up to 7V forward voltage. Diode clamp reverse protection for currents up to 3A. Output Terminals: Universal 4mm safety binding posts on 19mm (0.75") spacing. Status Indication: UNREG lamp.</p>	
8	<p>Input: AC Input: 110V to 240V 50/60Hz (universal input); Other Models - 230V AC ± 10% 50/60Hz; 115V to order. Installation Category II, VA Ratings:500VA</p>	
9	<p>Temperature & Environmental: Operating Range: +5oC to +40oC, 20% to 80% RH, Storage Range: -40oC to + 70oC, Environmental: Indoor use at altitudes up to 2000m, Pollution Degree 2</p>	
10	<p>Safety & EMC: Safety: Complies with EN61010-1, EMC: Complies with EN61326</p>	

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Annexure-III

Name of Equipment: AC/DC Current Probe with Amplifier

<u>Sr. No.</u>	<u>Specifications</u>	<u>Yes/No</u>
<u>A.</u>	<u>AC/DC current Probe</u>	
<u>1.</u>	Bandwidth: DC – 100 MHz	
<u>2.</u>	Rise time: ≤3.5 ns	
<u>3.</u>	DC accuracy: ±3% of reading	
<u>4.</u>	Accuracy, typical: DC: ±1% of reading DC to 60 Hz, ≤5 A: ±1% 60 Hz – 5 kHz, ≤5 A: ±1.5% DC – 5 kHz, >5 A: ±1.5%	
<u>5.</u>	Lowest measurable current (at ±3% accuracy at DC) Scope set to 1 mV/div and 20 MHz BW limited: 1 mA	
<u>6.</u>	Maximum Amp-Second product, typical (based on amplifier range setting): 50 A*μS – 1 A/V 500 A*μS – 10 A/V	
<u>7.</u>	Maximum wire voltage: Bare: 150 V CAT II	
<u>8.</u>	Insulated: 300 V CAT II	
<u>9.</u>	AC-coupling low-frequency Bandwidth, typical (Low pass – 3 dB point): <7 Hz	
<u>10.</u>	Displayed RMS noise, typical (at 20 MHz bandwidth limit): ≤250 μARMS	
<u>11.</u>	Signal delay (to output BNC): 17 ns	
<u>12.</u>	Insertion impedance: 0.11 Ω at 1 MHz 0.12 Ω at 10 MHz , 0.35 Ω at 50 MHz , 0.7 Ω at 100 MHz Current ratings	
<u>13.</u>	High-current sensitivity: Range: 10 A/V, DC (continuous): 30 A, RMS (sinusoidal): 21.2 A, Peak: 50 A	
<u>14.</u>	Low-current sensitivity: Range: 1 A/V, DC (continuous): 5 A, RMS (sinusoidal): 3.5 A, Peak: 50 A	
<u>15.</u>	Safety compliance UL61010-2-032, UL61010-1, CAN/CSA C22.2 No. 61010-1, CAN/CSA C22.2 No. 61010-2-032, EN61010-1, EN61010-2-032,	
<u>16.</u>	Temperature: Operating: 0 °C to +50 °C (32 °F to 122 °F), Nonoperation, -40 °C to +75 °C (-40 °F to 167 °F)	
<u>17.</u>	Humidity: Operating: 5% to 95% R.H. to +30 °C (86 °F), 5% to 85%	

	R.H. +30 °C to +50 °C (86 °F to 122 °F), Nonoperation 5% to 95% R.H. to +30 °C (86 °F), 5% to 85% R.H. +30 °C to +75 °C (86 °F to 167 °F)	
B.	AC/DC Current Probe Amplifier	
<u>1</u>	Electromagnetic compatibility: EC Council Directive 89/336/EEC, FCC Part 15, Subpart B Class A, AS/NZS 2064.1/2.	
<u>2</u>	Power supply : 90 V to 264 V, 47 to 440 Hz, 50 W; Maximum CAT II (auto switch)	
<u>3</u>	Size: L:17.3cm(6.8in), W:9.14cm(3.6in), H:16.7cm(6.6in)	
<u>4</u>	<p>Features:</p> <ul style="list-style-type: none"> * Automatic scaling and units 1 - Oscilloscope on-screen readout of magnitude and amps reduces measurement errors with no more hand calculations * AC/DC input coupling * Low insertion impedance reduces device under test loading * Split-core construction allows easy circuit connection * Status indicators provide visual operating status and notification of potential error conditions - degauss, probe open, overload, not terminated into 50 Ω, no compatible probe type * Low DC drift and noise allows improved low-level current measurements 	

Note: The above format should be on letter head of the firm with the signature of Authorized Signatory.

Price Bid

S.No	Name of item with Description	Rate/Unit	Quantity	Total in Rs.
<u>1</u>	DC Electronics Load Module with Single Module Chassis		01 nos.	
<u>2</u>	DC Power Supply		02 nos.	
<u>3</u>	<u>AC/DC Current Probe with Amplifier</u> A. AC/DC Current Probe		02 nos.	
	<u>AC/DC Current Probe with Amplifier</u> B. AC/DC Current Probe Amplifier		01 nos.	
Total				
Taxes				
Others charges if any, please specify (including delivery, installation and demo)				
Grand Total Amount in Rs.				

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