

INDIAN INSTITUTE OF TECHNOLOGY GOA

At Goa Engineering College Campus
Farmagudi, Ponda, Goa 403401
E-mail: purchase@iitgoa.ac.in

GSTIN: 30AABAI1653D1ZF
PAN: AABAI1653D
TAN: BLRI08261B

Enquiry No: IITGOA/2021-22/012

Date: 06/07/2021

IIT Goa invites sealed quotations in single bid form for the supply of below mentioned item.

Sl. No.	Description of Item	Qty
1	Impedance/LCR Analyzer (Detailed specifications attached)	01

Terms & Conditions

1. Quotation must be valid for at least 90 days.
2. The GSTIN should invariably be mentioned in your offer.
3. Kindly attach a compliance certificate along with the technical quote.
4. Prices: Prices should be quoted in INR – F.O.R., IIT Goa basis only.
5. Payment terms: Within 30 days after the delivery and successful installation of items at IIT Goa.
6. Delivery and installation should be made within 4 weeks of getting a confirmed order.
7. Supplier should provide minimum one-year warranty for the above stated items.
8. The suppliers shall provide the banking details along with their quote on their letterhead duly signed and stamped.
9. It is mandatory for bidders to quote items having Local Content more than 20%. Refer revised Public Procurement (Preference to Make in India), Order 2017 P- 45021/2/2017 – B. E. II dated 04.06.20 issued by DPIIT, Ministry of Commerce and Industry, Govt. of India.
10. The successful bidder has to submit a Performance Guarantee Bond for 3% of the Purchase Order value and valid till one year plus 60 days OR up-to warranty period whichever is later from the date of issue of Purchase Order. Performance Guarantee Bond may be submitted within 15 (Fifteen) days from the date of order acknowledgment as a successful bidder.
11. IIT Goa reserves the right to accept and/or reject any/all bids without assigning any reason in public interest.
12. For any clarification, you may kindly contact Prof. Bidhan Pramanick (E-mail: bidhan@iitgoa.ac.in) and Stores & Purchase Department (email: purchase@iitgoa.ac.in) till 19/07/2021.

13. All sealed quotations must be super scribed with the tender enquiry number and should reach to the Assistant Registrar (Stores & Purchase), IIT Goa, at Goa College of Engineering Campus, Farmagudi, Ponda, Goa, 403 401 by 17.00 Hrs on or before 27/07/2021.

Sd/-

Asst. Registrar (S&P)

Technical Specifications of Impedance/LCR Analyzer

SR.NO	Parameter	Value
1	Frequency range	1 mHz to 5 MHz
2	Frequency resolution	1 μ Hz
3	Basic accuracy	0.05%
4	Basic temp. stability	200 ppm/K
5	Test signal level	0 V to 2.1 Vrms; incl. monitoring
6	Demodulator bandwidth	276 μ Hz to 206 kHz
7	DC bias signal level	2T: ± 10 V, 4T: ± 3 V
8	Lock in amplifier	Capabilities to work as an lock in amplifier
9	Compensation	SO, SOL, LLL, SL, L, OL
Measurement parameters, range and typ. accuracy		
1	Impedance Z	1 m Ω to 1 T Ω , 0.05%
2	Admittance Y	1 pS to 1 kS, 0.05%
3	Voltage V	0 V to 3 V, 1%
4	Current I	0 mA to 10 mA, 2%
5	Phases $\Theta_z, \Theta_v, \Theta_i$	± 180 deg, 10 μ deg res.
6	Resistance R_s, R_p	1 m Ω to 1 T Ω , max(10 μ Ohm, 0.05%)
7	Capacitance C_s, C_p	10 fF to 1 F, max(10 fF, 0.05%)
8	Inductance L_s, L_p	100 nH to 1 H, max(10 nH, 0.05%)
9	DC Resistance R_{DC}	1 m Ω to 10 G Ω , 2%
10	Reactance X	1 m Ω to 1 T Ω , 0.05%
11	Conductance G, Susceptance B	1 nS to 1 kS, max(100 nS, 0.05%)
12	Loss coefficient D	10^{-4} to 10^0
13	Q factor	10^{-4} to 10^0
Sweeping measurements		
1	Sweep parameters	Frequency, test signal amplitude, bias voltage, etc.
2	Sweep points	2 to 100^0
3	Sweep resolution	Arbitrary, defined by start value, stop value, number of sweep points
4	Display parameters	$Z_x, Z_y, Z, Z_\theta, V_x, V_y, V_R, V_\theta, I_x, I_y, I_R, I_\theta$, model parameter 1/2, frequency, auxiliary input
5	Display options	Single plot, dual plot (e.g., Bode plot), multi-trace
6	Application modes	Impedance, frequency response analyzer, 3-omega, etc.
7	Sweep modes	Sequential, binary, bidirectional, reverse
8	Sweep step modes	Linear, logarithmic
9	Sweep speed	20 ms/pt for $f > 10$ kHz

Additional Tools and Features		
1	toolset	Numerical, FFT Spectrum Analyzer, Plotter, SW Trigger, Scope
2	APIs	C, .NET, MATLAB, LabVIEW, Python
3	Modes	2-terminal, 4-terminal
4	Confidence Indicator	Suppression, compensation, overflow, underflow
5	Input range control	Auto, impedance, manual
6	Test signal amplitude	Auto, manual
7	Bandwidth control	Auto, manual
8	Replacement circuit models	$R_p C_p, R_s + C_s, R_s + L_s, G-B, D-C_s, Q-C_s, D-L_s, Q-L_s$
9	DCR measurements	Yes
10	Test fixture compatibility	Yes
11	Warranty	1 Year
12	Optional: Extended Warranty	2 Years
13	Additional Information	<p>A. Order copy/customer satisfaction report of similar item supplied to atleast 5 organisations should be produced</p> <p>B. Contact Details (emails and phone number) of customer should be provided</p> <p>C. Onsite customer support is required</p>

FORMAT FOR PERFORMANCE GUARANTEE BOND

(To be typed on Non-judicial stamp paper of the value of Indian Rupees of One Hundred) (TO BE ESTABLISHED THROUGH ANY OF THE NATIONAL BANKS (WHETHER SITUATED AT GOA OR OUTSTATION) WITH A CLAUSE TO ENFORCE THE SAME ON THEIR LOCAL BRANCH AT GOA OR ANY SCHEDULED BANK SITUATED AT GOA. BONDS ISSUED BY CO-OPERATIVE BANKS ARE NOT ACCEPTED.)

To,
The Registrar,
Indian Institute of Technology, Goa
Farmagudi, Ponda,
Goa – 403401

LETTER OF GUARANTEE

WHEREAS Indian Institute of Technology, Goa (Buyer) have invited Tenders vide Tender No..... Dt. for purchase of

AND

WHEREAS the said tender document requires that any eligible successful tenderer (seller) wishing to supply the equipment / machinery, etc. in response thereto shall establish an irrevocable Performance Guarantee Bond in favour of “**Registrar, Indian Institute of Technology, Goa**” in the form of Bank Guarantee for Rs (**3% (three percent) of the purchase value**) and valid till **one year or upto warranty period whichever is later** from the date of issue of Performance Guarantee Bond may be submitted within 15 (Fifteen) days from the date of Order Acknowledgment as a successful bidder.

NOW THIS BANK HEREBY GUARANTEES that in the event of the said tenderer (seller) failing to abide by any of the conditions referred in tender document / purchase order / performance of the equipment / machinery, etc. this Bank shall pay to Indian Institute of Technology, Goa on demand and without protest or demur Rs..... (Rupees.....).

This Bank further agrees that the decision of Indian Institute of Technology, Goa (Buyer) as to whether the said Tenderer (Seller) has committed a breach of any of the conditions referred in tender document / purchase order shall be final and binding.

We, (name of the Bank & branch) hereby further agree that the Guarantee herein contained shall not be affected by any change in the constitution of the Tenderer (Seller) and/ or Indian Institute of Technology, Goa (Buyer).

Notwithstanding anything contained herein:

1. Our liability under this Bank Guarantee shall not exceed Rs. (Indian Rupees only).
2. This Bank Guarantee shall be valid up to(date) and
3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if IIT Goa serve upon us a written claim or demand on or before (date).
4. This Bank further agrees that the claims if any, against this Bank Guarantee shall be enforceable at our branch office at situated at (Address of local branch).

Date:

Yours truly,

Signature and seal of the Guarantor:

Name of Bank:

Instruction to Bank: Bank should note that on expiry of Bond Period, the Original Bond will not be returned to the Bank. Bank is requested to take appropriate necessary action on or after expiry of bond period.

DECLARATION OF LOCAL CONTENT

(To be given on company letter head - For tender value below Rs.10 crores)
(To be given by Statutory Auditor/Cost Auditor/Cost Accountant/CA for tender value above
Rs.10 crores)

Date:

To,
The Registrar,
Indian Institute of Technology Goa,
At GEC Campus, Farmagudi, Ponda - Goa

Sub: Declaration of Local content

Tender Reference No: _____

Name of Tender: - _____

Country of Origin of Goods being offered: _____

We hereby declare that an item offered has _____ % local content. _____

“Local Content” means the amount of value added in India which shall, be the total value of the item being offered minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.

“*False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.”

Yours faithfully,

(Signature of the Bidder, with Official Seal)

UNDERTAKING FOR BID SECURITY

(To be issued by the bidder on company's letterhead in lieu of EMD)

To,
The Registrar,
Indian Institute of Technology Goa,
At GEC Campus, Farmagudi, Ponda – Goa

We, M/s (name of the firm), with ref. to enquiry no.
..... dtd hereby undertake that:

- 1) We accept all the terms and conditions of the tender document.
- 2) We accept that, we will not modify our bid during the bid validity period, submit performance guarantee within the stipulated period and honor the contract after award of contract.
- 3) In the event of any modification to our bid by us or failure on our part to honor the contract after final award or failure to submit performance guarantee, our firm may be debarred from participation in any tender/contract notified by Indian Institute of Technology, Goa for a period of one year.

Yours faithfully,

(Signature of the bidder with date and seal)