INVITATION FOR QUOTATION

TEQIP-III/2018/iiit/Shopping/51/*5028* **20th -Nov-2018**

To,

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Sub: Invitation for Quotations for supply of Laboratory Equipment.

Dear Sir,

1. You are invited to submit your most competitive quotation for the following Laboratory Equipment with equipment wise detailed specifications given at Annexure I,

Sr. No	Brief Description	Quantity	Delivery Period (In days)	Place of Delivery	Installation Requirement (if any)
1	Advance MW IC Kit	1	45 Days	Indian Institute of Information Technology Guwahati, Bongora, Guwahati 781015	Yes
2	Cooling Fan	4			
3	Frequency Meter	4			
4	Klystron Based X-Band Microwave Full Test Bench	2			
5	VSWR Meter	4			
6	Wave Propagation Trainer	2			
7	X Band Gunn Oscillator	4			
8	X Band Klystron tube (2K25)	4			

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme[TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
3. Quotation,
   3.1 The contract shall be for the full quantity as described above.
   3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
   3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.
   3.4 Applicable taxes shall be quoted separately for all items.
   3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
   3.6 The Prices should be quoted in Indian Rupees only.
4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than **55** days after the last date of quotation submission.
6. Evaluation of Quotations,
   The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which
   6.1 are properly signed ; and
   6.2 confirm to the terms and conditions, and specifications.

6.3 You are also requested to submit the following documents:-

- Proof of Registration under relevant law, such as Companies Act, and / or Shops & Establishment Act or Trade License from appropriate authority etc.
- **Dealership/authorisation certificate from the OEM (Original Equipment Manufacturer).**
- Copy of PAN, GSTIN
- Details of the after sales service facilities available at Guwahati, Assam.

6.4 In addition to above, bidders intending to offer bids in response to advertisement published in the official website of the Institute (i.e. www.iiitg.ac.in) should submit the following :-

- Details of the similar equipment ordered by Government/ Autonomous Institute(s) during last three years as per **Annexure-II**.
- Copies of the Purchase order(s) of similar equipment from Government/ Autonomous Institute(s) during last three years.

7. The Quotations would be evaluated for all equipment together.
8. Award of contract:
   The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.
   8.1 Notwithstanding the above, the Purchaser 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 contract.
   8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
9. Payment shall be made in Indian Rupees(₹) as follows:
   Delivery and Installation - 90% of total cost
   Satisfactory Acceptance - 10% of total cost
10. All supplied equipment are under warranty of **36** months from the date of successful acceptance of equipment.
11. You are requested to provide your offer latest by **16:00** hours on **04-Dec-2018 .**
12. Detailed specifications of the items are at Annexure I.
13. Training Clause (if any) **Yes**
14. Testing/Installation Clause (if any) **Yes**
15. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
16. Sealed quotation to be submitted/ delivered at the address mentioned below,

    The Director
    Indian Institute of Information Technology Guwahati
    Bongora, Guwahati, Pin-781015
17. We look forward to receiving your quotation and thank you for your interest in this project.

Sd/-
(Authorized Signatory)
Name & Designation
Gautam Barua, Director, IIITG

Annexure I

Sr. No	Item Name	Specifications
1	Advance MW IC Kit	Setup Includes :- **1.SWR Meter** **2.Microwave Generator that contain :-** a. Frequency Range : 2.2 - 3 GHz Variable, b. LCD Display c. Impedance :- 50ohm d. Operating Modes :- Sweep, CW, Int. AM FM, Ext. AM,PC Communication. e. Modulating frequency :-100 Hz to 5 KHz Square wave f. Adjustable RF Level **3. Kit contains :-** a.50Ω Micro stripe line b. Band stop filter c. Parallel line Directional Coupler (15 dB) d. Wilkinson power Divider(3dB) e. Branchline Directional Coupler(3dB) f. Low Pass filter,Band pass filter,Ring resonator g. Rat-race Hybrid ring Coupler (3 dB) h. Matched Load's :- 5 Nos i. Short,Coxial detector j. Microstrip Directional Coupler (10 Db) k. SMA to SMA Adapters(female),SMA (male) l. Attenuator (3 dB), MIC Amplifier m. MIC Patch Antenna-02 No's n. Local Oscillator o. RF Mixer p. RF Switch q. Measuring Line r. Isolator s. transmitting and receiving mast **Kit Should perform:** Measurement of transmission loss and reflection loss Measurement of substrate dielectric constant using ring resonator Measurement of power division, isolation and return loss characteristics. Measurement of coupling, isolation and return loss Measurement of Coupling and directivity Measurement of Low Pass Filter characteristics Measurement of Band Pass Filter characteristics Measurement of Band stop Filter characteristics To study RF switch To study RF Mixer Measurement of Guide wavelength, Free Space Wavelength & SWR using Measuring Line To study the characteristics of Isolator To study the characteristics of Circulator
2	Cooling Fan	Cooling Fan
3	Frequency Meter	Frequency Meter (Direct Readout) for X band
4	Klystron Based X-Band Microwave Full Test Bench	The item should consist of:- 1. Klystron mount 2. Klystron tube 3. Solid State Klystron Power supply 4. Isolator 5. Frequency meter (Direct Readout) 6. Variable Attenuator 7. Slotted Section 8. Tunable Probe 9. Detector Mount 10. Movable Short

		11. Matched Termination (3 Qty.) 12. VSWR Meter 13. Wave Guide Stand (4 Qty) 14. S.S. Tuner 15. Fixed Short 16. Cooling Fan 17. BNC cable (2 Qty) 18. TNC cable **KLYSTRON POWER SUPPLY** A. Beam Supply Voltage Range 240-400 V continuously variable Current Regulation Ripple 45mA Max. Better than 0.5% for +/- 10% Input variation Less than 5 mV rms B. Repeller Supply Voltage Range Regulation -10 V to -270 DC continuously variable with respect to Klystron cathode 0.25% for +/- 10% Input variation C. Heater Supply 6.3V DC (regulated) D. Modulation (AM)Square Wave (FM)Saw tooth Freq. 500 Hz-1.5 KHz Max Amp. +110 Volt peak to peak Amplitude and frequency continuously variable Freq. <300 Hz & Amplitude -60 V max peak to peak Amplitude and frequency continuously variable E. Operating Voltage 230V +/- 10%, 50 Hz, A.C **VOLTAGE STANDING WAVE RATIO (VSWR) METER** Sensitivity 0.2µV at a 200 ohms input for full scale deflection Noise Level At least 5 dB below full scale at rated sensitivity and maximum band width input terminated in 100 ohms and 500 ohms for crystal low and high respectively. Calibration Square law, meter indicates SWR, dB Range 70 dB, input attenuator provides 60 dB in 10 dB steps, accuracy +/- 0.2 dB per 10 dB steps Maximum commutative error +/- 0.5 dB Scale selector Normal Expand and -5dB Meter Scale SWR1-4,SWR 3-10 , expand SWR 1.1.3, dB 0-10, expand dB0-2 Gain Control Adjust the reference level, variable range 0-10 dB approx. Input 'Bolo' bias provided for 4.3 mA low current bolo meters Recorder output Socket provided for recording having 1 V for full scale deflection, internal resistance of 1000 ohms or less A/C Output BNC connector for amplified output Input connector BNC (F) Frequency 1000Hz +/- 10%
5	VSWR Meter	Sensitivity 0.2µV at a 200 ohms input for full scale deflection Noise Level At least 5 dB below full scale at rated sensitivity and maximum band width input terminated in 100 ohms and 500 ohms for crystal low and high respectively. Calibration Square law, meter indicates SWR, dB Range 70 dB, input attenuator provides 60 dB in 10 dB steps, accuracy +/- 0.2 dB per 10 dB steps Maximum commutative error +/- 0.5 dB Scale selector Normal Expand and -5dB Meter Scale SWR1-4,SWR 3-10 , expand SWR 1.1.3, dB 0-10, expand dB0-2 Gain Control Adjust the reference level, variable range 0-10 dB approx. Input 'Bolo' bias provided for 4.3 mA low current bolo meters Recorder output Socket provided for recording having 1 V for full scale deflection, internal resistance of 1000 ohms or less A/C Output BNC connector for amplified output Input connector BNC (F) Frequency 1000Hz +/- 10%

6	Wave Propagation Trainer	**Technical Specifications:** Frequency of Operation 10 GHz Power Transmission : 10-15 mW Operating Voltage : 8 V (approximate) Antenna for Transmission & Reception : Horn type or better Goniometer scale : 0-360 Degree Tone Generator : 1 KHz Frequency Transmitter and Receiver arm Length : 50 cm each Power Display : Digital, Relative Measurements **Accessories:** Microwave Transmitter, Receiver Transmitter Arm, Receiver Arm Goniometer main unit, Detector probe Prism, Metal plates, Partial Reflectors, Din connectors cables Metal plate holder, Polarization Grille **Kit Should perform:** To understand the basic setup and Introduction to the given system To understand the working of Transmitter and Receiver To study the standing waves and Measure the wavelength of Microwave To study the Reflection in Microwaves To study the Refraction in Microwaves To study the Fabry-Perot interferometer To study the Voice Communication with the help of Microwave Receiver
7	X Band Gunn Oscillator	Gunn Oscillator 10mw (X band)
8	X Band Klystron tube (2K25)	Klystron Tube 2K25 (X band)

Annexure-II

Details of the similar equipment ordered by Government/ Autonomous Institute(s) during last three years

Sl No	Date of Order	Institute's Name	Name of Equipment ordered	Quantity	Order value in ₹	Whether successfully completed the Order (Yes/No)

Signature of Supplier
Name: _____
Address: _____
Contact No: _____

FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: _____

To:

_____

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Sl. No.	Description of Equipment (with full Specifications)	Qty.	Unit	Quoted Unit rate in ₹ (Including Ex Factory price, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	GST and other taxes payable	
						In %	In figures (B)
Total Cost							

Gross Total Cost (A+B): ₹ _____

We agree to supply the above equipment in accordance with the technical specifications for a total contract price of ₹ ———————— (Amount in figures) (Rupees ————————amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of ——————— months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier
Name: _____
Address: _____
Contact No: _____