



Government Engineering College, Ajmer, N.H.8 , Barliya Circle, Near Nareli Temple, Ajmer

INVITATION LETTER

Package Code: TEQIP-III/2019/RJ/GECA/19

Current Date: 22.08.2019

Package Name: GECA/TEQIP-III/2017-18/ECE-Communication Lab.

Method: Shopping Goods

To,

M/s

.....

.....

Sub: Invitation Letter For GECA/TEQIP-III/2017-18/ECE- Communication Lab.

Dear Sir,

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

| S. N. | Item Name | Quantity | Place of Delivery | Installation Requirement |
|-------|---|----------|--|---|
| 1 | TDM Pulse amp.mod & Demod. Trainer kit | 3 | Govt. Engg. College, Ajmer N.H. 8,Barliya Circle, Near Nareli Temple, Ajmer | Onsite installation and testing & commissioning required. |
| 2 | DSB/SSB AM Receiver Trainer | 3 | | |
| 3 | BPSK/DBPSK mod & Demod. Trainer kit | 3 | | |
| 4 | TDM Pulse code mod. Receiver Trainer kit | 3 | | |
| 5 | FSK mod & Demod. Trainer kit | 3 | | |
| 6 | DSB/SSB AM Transmitter Trainer kit | 3 | | |
| 7 | PSK mod & Demod. Trainer kit | 3 | | |
| 8 | ASK mod & Demod. Trainer kit | 3 | | |
| 9 | PPM/PAM/PWM mod & Demod. Trainer kit | 3 | | |
| 10 | Data formatting | 3 | | |
| 11 | TDM Pulse Code.mod Transmitter Trainer kit | 3 | | |
| 12 | Superhetrodyne AM Radio Receiver Trainer kit | 3 | | |
| 13 | Fiber Optics Trainer kit | 3 | | |
| 14 | 4 Channel-TDM Pulse amp.mod & Demod. Trainer kit | 3 | | |
| 15 | Delta / Adaptive Delta mod & Demod. Trainer kit | 3 | | |
| 16 | Transmission Line Trainer kit | 3 | | |
| 17 | Sampling trainer kit | 3 | | |
| 18 | FM trainer Kit | 3 | | |
| 19 | Fourier synthesis system trainer kit | 3 | | |

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, initialling, 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 **90** 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.

7. The Quotations would be evaluated for all items 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.

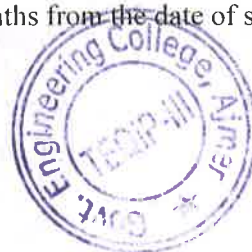
9. Payment shall be made in Indian Rupees as follows:

Satisfactory Delivery & Installation - 90% of total cost

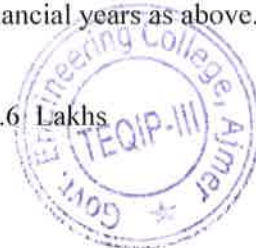
Satisfactory Acceptance - 10% of total cost

10. Liquidated Damages will be charged at the rate of 0.01 % per day on pre tax billing amount if delivery period exceeds 45 days. Purchase Order shall be understood cancelled automatically without any prior notification if delivery period exceeds 60 days.

11. All supplied items are under warranty of **36** months from the date of successful acceptance of items and AMC/Others.



12. You are requested to provide your offer latest by **12:30** hours on **05-Sept.-2019**, the quotation received within stipulated date and time shall be opened on **05-Sept.-2019 at 1:00 PM**.
13. Detailed specifications of the items are at Annexure I. Any Deviation from specification should be highlighted in the bid.
14. Training Clause (if any) : Basic and Advance (full functioning) with maintenance training on-site required.
15. Testing/Installation Clause (if any) **Onsite installation and testing & commissioning required. The vendor should visit the site to understand the installation requirement.**
16. Performance Security shall be applicable: **5% of pre tax billing amount**
17. Purchase Order awarded bidder shall furnish one performance security of 5% of contract value (pre tax billing amount) in the form of bank guarantee valid for 39 months from the scheduled date of completion of assignment.
18. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
19. The bidder must submit their financial bid in the prescribed format (Annexure-2) and no other format is acceptable.
20. The bidder shall quote only one specific make/model from only specific OEM for each of the goods. Bid will be rejected if bidder provide more than one make/model for an item/good.
21. Vendor/bidder must submit two bids concurrently, i.e technical bid and financial bid, with proper marking on envelopes. Financial bids shall be opened of only those bidders who have been declared technically qualified by the Purchase Committee.
22. The qualification criteria for technical bid shall be following (The envelope marked for technical bid must contain all the supporting documents):
 - I. Only authorized dealer/ agency of Original Equipment Manufacturer (OEM) or OEM should apply against this invitation for bid. In the case of the bidder, offering to supply goods under the bid, which the bidder does not manufacture or otherwise produce, the bidder has to provide Manufacturer's Authorization Certificate for each item (excluding services) strictly as per format at Annexure -3. Bids submitted without authorization certificate for each item (excluding services) as per Annexure-3 will be summarily rejected.
 - II. The average turnover of the bidder quoting for the bid should be Rs. 20 Lakhs during the last three financial years (2016-2017, 2017-2018 & 2018-2019). In this regard, the bidder should submit CA certificate and last three years Balance Sheets audited by a CA including profit and loss accounts for the last three financial years as above.
 - III. OEM Firm or bidder must have executed at least :
 - One single order of similar items having value of Rs. 1.6 Lakhs



(OR)

Two orders of similar items having value of Rs. 1.2 Lakhs.

(OR)

Three orders of similar items having value of – Rs. 0.8 Lakhs.

{Here,*similar means ‘supply and installation of **Electronics Communication Lab. Equipments / Instruments** for any Govt. Dept/PSU/reputed organization in the last three years i.e. 2016-2017, 2017-2018 & 2018-2019 till the date of invitation letter. Copies of purchase order and successful work completions certificate must be submitted.}

- IV. Bidder must submit the latest GST Registration Certificate along with clearance status of ‘no dues’ of GST.
 - V. The bidder has not been blacklisted by Central Govt./State Govt./PSUs/Autonomous bodies. Further, the bidder has neither filed any litigation against Central/State Govt. nor declared “no performer” by Govt./State Govt./PSUs/Autonomous bodies. An affidavit must be submitted by the bidder.
 - VI. The OEM firm of each item should have the valid ISO 9001:2015 and/or ISO14001:2015 certification (copies of ISO certificate(s) to be submitted.)
 - VII. Lab test report from NABL accredited lab is required for confirming the requirements of all the governing parameters of technical specification given in Annexure-1.
 - VIII. Compliance sheet of technical specification of each item (in the order as given in Annexure 1) should be provided.
 - IX. A Confirmation letter as per format at Annexure-4 on firm’s letterhead that the bidder will provide normal Commercial warranty/guarantee of 36 months on all supplied items, and agrees with the terms & conditions mentioned in the invitation letter.
 - X. OEM firm must have a service centre in the state of Rajasthan.
23. The purchase committee has full power to take any decision for the tender or quotation.
 24. Sealed quotation to be submitted/ delivered at the address mentioned below, **Principal, Government Engineering College, Ajmer, N.H.8 , Barliya Circle, Near Nareli Temple, Ajmer**
 25. We look forward to receiving your quotation and thank you for your interest in this project.

Dr. Rohit Misra
Principal



Annexure I

| Sr. No | Item Name | Specifications |
|--------|--|---|
| 1 | TDM Pulse amp.mod & Demod. Trainer kit | Crystal Frequency : 8 MHz Analog Input Channels :4 channels Multiplexing : Time Division Multiplexing Modulation : Pulse Amplitude Modulation On Board Analog Signal : 500 Hz, 1 KHz, 2 KHz and 4 KHz Sampling Rate : Four sampling signals 32, 40, 50 & 80 KHz/ channel (switch selectable) Sampling Pulse : With duty cycle variable from 0-90% in decade steps. Mains Supply : 110-220V, 50Hz |
| 2 | DSB/SSB AM Receiver Trainer | Frequency Range : 980 KHz to 2060 KHz Intermediate Frequency : 455 KHz Input Circuits : 1) RF Amplifier2) Mixer 3) Local Oscillator 4) Beat Frequency Oscillator5) IF Amplifier 16) IF Amplifier 2Power Supply : 110-220 V AC \pm 10%, |
| 3 | BPSK/DBPSK mod & Demod. Trainer kit | Data Pattern : 8-Bit , 16-Bit , 32-Bit , 64-Bit Frequency : 2KHz, 4KHz, 8KHz, 16KHz Internal Carrier Generator : Direct Digital Synthesized Carrier Signal : Sine, CosineCrystal Frequency : 8MHz Selection Mode : Push switches Power Supply : 110V - 260V AC |
| 4 | TDM Pulse code mod. Receiver Trainer kit | Input Channel : Time Division Multiplexed serial InputDemodulation : Pulse Code Demodulation Clock Regeneration : By Phase Locked loop Operating Speeds : Fast - 320 KHz/Channel, Slow 1.9 Hz / Channel Error Detection (Single bit): Off-Odd- Even parity & Hamming code Error Correction : Hamming code Interconnections : 2 mm sockets Power Supply : 110-220 V \pm 10% |
| 5 | FSK mod & Demod. Trainer kit | Internal Data Generator : Digital data Data Pattern : 8-Bit , 16-Bit , 32-Bit , 64-Bit Frequency : 2KHz, 4KHz, 8KHz, 16KHz Carrier Signal : Sine Crystal Frequency : 8MHz Power Supply : 110V - 260V AC |
| 6 | DSB/SSB AM Transmitter Trainer kit | Audio Oscillator : With adjustable Amplitude & Frequency (300 Hz - 3.4 KHz) Audio Output : Amplifier with speaker Modulators : Balanced Modulator with Band pass Filter (1 MHz) - 2 nos. Balanced Modulator : 1 No. (455 KHz) Ceramic Bandpass Filter : 1 No. (455 KHz) Carrier Frequency : 1 MHz Power Supply : 110-220 V AC \pm 10% |
| 7 | PSK mod & Demod. Trainer kit | Internal Data Generator : Digital data Data Pattern : 8-Bit , 16-Bit , 32-Bit , 64-Bit Frequency : 2KHz, 4KHz, 8KHz, 16KHz Carrier Signal : Sine Crystal Frequency : 8MHz Power Supply : 110V - 260V AC |
| 8 | ASK mod & Demod. Trainer kit | Internal Data Generator : Digital data Data Pattern : 8-Bit , 16-Bit , 32-Bit , 64-Bit |



| | | |
|----|--|---|
| | | <p>Frequency : 2KHz, 4KHz, 8KHz, 16KHz Carrier Signal : Sine Crystal Frequency : 8MHz Power Supply : 110V - 260V AC,</p> |
| 9 | PPM/PAM/PWM mod & Demod. Trainer kit | <p>Modulators : Balanced Modulator with Band pass Filter (1 MHz) - 2 nos. Balanced Modulator : 1 No. (455 KHz) Ceramic Bandpass Filter : 1 No. (455 KHz) Carrier Frequency : 1 MHz (Oscillator controlled) Transmitter Amplifier Output : (Gain adjustable) DSB (1 MHz), SSB (1.445 MHz) connected to Antenna/cable Power Supply : 110-220 V AC \pm10%,</p> |
| 10 | Data formatting | <p>Crystal Frequency : 4.096 MHz Data formats : NRZ (L), NRZ (M), RZ, AMI, RB, Biphase (Manchester), Biphase (Mark). Carrier modulation : ASK, FSK, PSK, DPSK, QPSK Power Supply : 110-220V,</p> |
| 11 | TDM Pulse Code.mod Transmitter Trainer kit | <p>Crystal Frequency : 16 MHz Operating Mode : Fast : 320 KHz / channel approximately Slow : 1.9 Hz / channel approximately Power Supply : 110-220 V, \pm10%,</p> |
| 12 | Superhetrodyne AM Radio Receiver Trainer kit | <p>AM Frequency Band : 530 KHz – 1650 KHz Local Oscillator Freq. Range : 980 KHz to 2.060 MHz Intermediate Frequency (IF) : 455 KHz Input Circuits : 1. RF amplifier 2. Mixer 3. Local oscillator 4. Beat frequency oscillator 5. IF amplifier 1 6. IF amplifier 2 7. Automatic Gain Control Power Supply : 110-220 V AC \pm10%,</p> |
| 13 | Fiber Optics Trainer kit | <p>Clock : Crystal Controlled Clock 4.096 MHz PLL Detector : 1 no. AC Amplifier : 1 no. Comparator : 1 no. th Filters : 1 No. 3.4 KHz cut-off Frequency Analog Band Width : 350 KHz Digital Band Width : 2.5 MHz Fiber Optic Cable : Connector Type Standard SMA Cable Type : Step indexed multimode PMMA plastic cable Core Refractive Index : 1.492 Clad Refractive Index : 1.406 Numerical Aperture : Better than 0.5 Acceptance Angle : Better than 60 deg. Fiber Diameter : 1000 microns Outer Diameter : 2.2 mm Fiber Length : 0.5 m & 1 m Test Points : 29 nos. Inter connections : 2 mm sockets Power Supply : 110-220 V \pm 10%,</p> |
| 14 | 4 Channel-TDM Pulse amp.mod & Demod. Trainer kit | <p>Crystal Frequency : 8 MHz Analog Input Channels : 4 channels On Board Analog Signal : 500 Hz, 1 KHz, 2 KHz and 4 KHz Sampling Rate : Four sampling signals 32, 40, 50 &</p> |



| | | |
|----|---|---|
| | | 80 KHz/ channel (switch selectable) Sampling Pulse : With duty cycle variable from 0-90% in decade steps. Mains Supply : 110-220V, |
| 15 | Delta / Adaptive Delta mod & Demod. Trainer kit | Internal Signal Generator : Direct Digital Synthesizer Types of Signal : Sine, Square, Triangle, Arbitrary signals Frequency : 500Hz, 1KHz, 2KHz, 3KHz External Signal : Types of Signal : Sine, Square, Triangle, Arbitrary signals Maximum Input Voltage: 3Vpp (Max.) +1.5V DC offset Frequency : 500Hz to 3.5KHz Crystal Frequency : 8MHz Sampling Frequencies : 16KHz , 32KHz , 64KHz , 128KHz , 256KHz Power Supply : 110V - 260V AC, |
| 16 | Transmission Line Trainer kit | Transmission Line : Coaxial cable 100m (25 m x 4) Impedance matching : 0 - 100 Ohms. 2 nos. resistances Test Generators : Sine Wave 40 KHz - 400 KHz (Low Range) Square Wave 400 KHz - 4MHz (High Range) Power Supply : 230 V \pm 10% |
| 17 | Sampling trainer kit | Crystal Frequency : 8 MHz Sampling Frequency : 20, 50, 80, 100, 200 & 400 KHz Duty cycle : 0 - 90% in Decade steps (switch selectable) nd th Low Pass Filters : 2 & 4 order Butterworth filters Cut-off frequency : 3.4 KHz each Mains Supply : 110-220 V, \pm 10%, |
| 18 | FM trainer Kit | FM Frequency Band : 88 MHz to 108 MHz Tuning Range : 96 MHz to 120 MHz IF Frequency : 10.7 MHz Input Circuit : 1. RF amplifier 2. Mixer 3. Local oscillator 4. IF amplifier 1 5. IF amplifier 2 6. FM Detector 7. Automatic Frequency Control Power Supply : 110-220 V AC \pm 10%, |
| 19 | Fourier synthesis system trainer kit | Fundamental Frequency : 1 KHz. Harmonics Generation : 9 Harmonics, ranges from 2 KHz to 10 KHz. Mains Supply : 230V \pm 10%, 50Hz |



Annexure-2

FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: _____

To: _____

| Sl. No. | Description of goods \ (with full Specifications) | Qty. | Unit | Quoted Unit rate in Rs. (Including Ex-Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments) | Total Price (A) | Sales tax and other taxes payable | |
|-------------------|---|------|------|---|-----------------|-----------------------------------|----------------|
| | | | | | | In % | In figures (B) |
| Total Cost | | | | | | | |

Gross Total Cost (A+B): Rs. _____ (Amount in figures)

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. _____ (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. _____



Annexure 3 (Invitation)

MANUFACTURER AUTHORIZATION FORM

No. _____ dated _____

To

Dear Sir:

Package No. _____

We----- (Name of the OEM) who are established and reputed manufacturer of _____ (name and description of goods offered) having factories at _____ (address of factory) with factory registration no. -- ----- do hereby authorize M/s _____ (Name and address of Agent) to submit a bid, and sign the contract with you for the goods manufactured by us against the above bid.

We hereby extend our full warranty as per your invitation letter, for the goods and services offered for supply by the above firm against this Invitation for Bid.

Yours faithfully,

(Name)

(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer or OEM and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.



Annexure 4 (Invitation)

Confirmation Letter

No. _____

dated _____

To

Dear Sir:

Package No. _____

We confirm that the normal commercial warranty/ guarantee of 36 months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.



Yours faithfully,

(Name)

(Name of manufacturers)