



THE NATIONAL INSTITUTE OF ENGINEERING

(An Autonomous Institution)

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME PHASE-III

Manandavadi Road, Mysuru – 570 008.

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Date: 14-01-2019

Invitation for Quotations

Quotations are invited for the procurement of the following equipments under TEQIP– III

1. **Equipment:** Communication Kit -2, Qty- 2 each

Sr. No	Item Name	Specifications
1	Baseband Digital Transmission	Noise Generator: White noise source output Amplitude: 0-2VppPRBS generator: 16-Bits switch able Clock rate: 16KHz, 32KHz, 64KHz, 128KHz, 256KHz, 512KHz, 1.024 MHz Bit error rate meter: 4 digits counters with 7 segment display drives count up to 9999 Modulation technique: Pulse amplitude modulation Internal sampling clock: 16KHz ? 1.024MHz Transmitter filter: 1st order butter worth filter. able switch with five different bands Receiver filter: 1st order butter worth filter. able switch with five different bands Coding operation: Scrambler/Unscrambler : 16-bits data pattern
2	Convolution Encoder & Viterbi Decoder Kit	Convolution encoder for error correction able rate: K=7, rates $\frac{1}{2}$, $\frac{3}{4}$ Continuous mode operation Support for the Intelsat IESS-308/309 standard On-board clock ion Viterbi decoder for error correction able rate: K=7, rates $\frac{1}{2}$, $\frac{3}{4}$ Support for the Intelsat IESS-308/309 standard Support both hard decision and soft decision decoding 3-bit soft-quantized demodulated bits 5V supply
3	CRC Encoder / Decoder & MSK Modulation & Demodulation	Clock and signal generation: On board synchronized carriers of frequency 256KHz & 384KHz On board 8-bit variable data pattern Data Clock of 256KHz Transmitter Section: Data encoding- Di-bit encoder- CRC encoding Modulation technique: MSK modulation Provision to add errors in CRC data Receiver section: Data Decoding- Di-bit decoder- CRC decoding Demodulation technique: MSK demodulation Constellation diagrams for MSK
4	GMSK/GFSK	Data Simulator: On -board 8-bit variable NRZ-L pattern Crystal Oscillator: 32.768 MHz Data Clock: 250 KHz Data Encoding: NRZ (L) On-board carrier sine waves: High and Low carrier frequency Modulation index: 0.5 for GMSK Gaussian filter bit product: 0.3 Carrier Modulation: GFSK, GMSK Carrier Demodulation: GFSK, GMSK Data decoding: NRZ (L) Intermediate signal: Provision for observing intermediate signals Inter Connection: 2mm banana socket Power supply: +12V, -12V, +5V, GND

5	QAM	Data Simulator: On -board 8-bit variable NRZ-L pattern Crystal Oscillator: 32.768 MHz Data Clock: 250 KHz Data Encoding: NRZ (L), tribit data (Even, Odd and C) differentially encoded even and odd Data decoding: NRZ (L), tribit data (Even, Odd and C) differentially encoded even and odd On-board carrier sine waves: 1MHz (0°), 1MHz (90°), 1MHz (180°), 1MHz (270°)Carrier Modulation: QAM, DQAM Carrier Demodulation: QAM, DQAM Intermediate signal: Provision for observing intermediate signals Power supply: +12V, -12V, +5V, GND
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Delivery Period: 60 Days from the date of issue of purchase order. Warranty Period: 36 Months

Terms and Conditions

- i. Quotation should be invariably in the prescribed **format enclosed**; otherwise it is **liable to be rejected**.
- ii. Quotation should be sent in a **sealed cover superscribed as "Quotation for the supply of Communication Kit - 2 under TEQIP III"** to the office of the Principal (TEQIP- III), The National Institute of Engineering, Manandavadi Road, Mysore 570 008.
- iii. Last date and time for submission of quotation **28-Jan-2019, 17:30 hours**.
- iv. Installation and demonstration shall be at **Department of Electronics & Communication Engineering, NIE, Mysuru**.
- v. Quotation should be valid for **45 days** from the last date of submission of quotation.
- vi. Equipment should be delivered at **Department of Electronics & Communication Engineering, The National Institute of Engineering, Manandavadi Road, Mysore - 570008**.
- vii. **100% payment on installation, demonstration, successful completion in all respects and final acceptance by the Purchaser.**
- viii. **Authorized Dealer/ Channel Partner Certificate from the company** should be enclosed along with the quotation.
- ix. 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.

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. _____

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