#### **INVITATION FOR QUOTATION**

### TEQIP-II/2012/UK1G01/Shopping/17

14-Jan-2013

To,

## **Sub: Invitation for Quotations for supply of Goods**

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,

Sr. No	Brief Description	Quantity	Delivery Period(In days)	Place of Delivery	Installation Requirement (if any)
1	PHYSIM : A Digital Communication Simulation Software (10 Users)	1	30	BTKIT, Dwarahat, Ditt: Almora Uttarakhand	yes at site

- 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 II** 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.
- 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:

Delivery and Installation - 90% of total cost

**Satisfactory Acceptance - 10% of total cost** 

10. All supplied items are under warranty of **36** months from the date of successful acceptance of items.

- 11. You are requested to provide your offer latest by 16:00 hours on 10-Feb-2013.
- 12. Detailed specifications of the items are at Annexure I.
- 13. Training Clause (if any) Three day Training
- 14. Testing/Installation Clause (if any) Installation at site
- 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,

  Dwarahat 263653 District Almora
- 17. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation

#### Annexure I

Sr.	Item Name	Specifications
No		
1	PHYSIM : A Digital Communication Simulation Software (10 Users)	Digital communication simulation software Specifications for 10 user's licence Software should cover / contain: 1.  Communication system Simulation: Create a digital communication system (Transmitter-Channel-Receiver), simulate and study the performance and effects on the signal waveform at every block with Signal source, Base Band, RF, Antenna and Channel communication blocks using measurement tools. Signal Source Blocks: Generates analog and digital test signals. 1. Analog Source 2. Digital Source Base Band Blocks: Will process the input source signals for transmission. 1. Source Encoder / Waveform Coders 2. Source Decoder / Waveform Decoders 3. Channel Encoder 4. Channel Decoder 5. Line Encoder 6. Line Decoder Radio Frequency (RF) Blocks: RF processing for Modulation and transmission 1. Digital Modulator 2. Digital Demodulator 3. Up-converter & Down Converter (MIXER) 4. Filters 5. Power Amplifier 6. Low Noise Amplifier 7.

Transmission Line Antenna Block: 1. Antenna Channel Blocks: 1. AWGN Channel 2. Free Space Channel 2. Communication subsystem Simulation: The user is given with all the elemental block models in the Model Library with the freedom of connectivity to create his own experiment model of his interest. The user can create and simulate for sub-system of communication system using the elemental blocks provided. Model Library consists of Data Generator, Signal Source, Carrier Generator, Pulse Generator, Saw Tooth Generator, DC Generator, NRZ encoder, NRZ Decoder, AMI Encoder, AMI Decoder, Manchester Encoder, Manchester Decoder, Inverter, Integrator, Decision device, Product Modulator, Summer, Subtractor, Bit combiner, Bit splitter, Hold Circuit, Comparator, Filter, Monostable Multivibrator, Quantizer, Encoder, Decoder, Differential encoder, Commutator, De-commutator, Delay, Phase Shifter, AWGN Channel, Bit Error Unit, Envelope Detector, Hamming Encoder, Hamming Decoder, Delta Modulator, Delta Demodulator 3. Sample Labs: Software restricts user to only the required blocks for the experiment and allows connection of blocks as required for the experiment ed. a) Sample Lab Experiments List: • Sampling Theorem Verification, • Pulse Modulation-PAM, PWM, PPM and TDM-PAM • Waveform Coding-PCM, DM and PCM-TDM. • Digital Modulation-ASK, FSK, PSK, DPSK and QPSK • Analog Modulation: AM-DSB, AM-DSB-SC, SSB Filter Method • Channel Coding: Hamming codes • Line codes: NRZ (unipolar/bipolar), RZ, Manchester and AMI. b) Modes of Operation: • Lab mode: Sample labs and help is enabled by admin. • Exam Mode: Sample labs and help is disabled by admin. 4. Analytics: Compare and analyze maximum of 10 different saved simulations for output waveforms and performance 5. Measuring Devices: Built in Oscilloscope (mono and dual channel), Spectrum analyzer (Frequency and magnitude display), and Polar plots (Normalized H-plane and E-Plane radiation patterns) 6. Basics: Digital Communication concepts explanation through animation using Adobe Flash • Introduction to signal sources • Digital and Analog communication block diagrams. • Advantages & Disadvantages of Digital communication. • Detailed concept of each elemental

block in Digital communication block diagram link with examples. • Base Band modules: Source coder, Channel Coder and Line codes. • RF modules: Mixer, Filter, Power Amplifiers, Low Noise Amplifiers etc. • Antenna concepts. 7. License Manager • Software should features parallel port security via hardware lock and corresponding operating software.

# FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

		Date:
To:		
	<del></del>	

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

Gross Total Cost (A+B): Rs	
e agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. $$	— (Amount in
gures) (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: