भारतीय सूचना प्रौद्योगिकी संस्थान, इलाहाबाद
Indian Institute of Information Technology, Allahabad

(A University Established under sec. 3 of ugc Act. 1956 vide Notification No. F. 9-4/99-U. 3 Dated 4/08/2000 of Govt. of India)

(A Centre of Excellence in IT, Established by Govt. of India)

Deoghat. Jhalwa. Allahabad-211012 (U.P.) INDIA

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Enquiry Letter

Ref: IIITA/ECE/DPC/ENQ/003/2016
Date: 23/5/2016

M/s. .....
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.....
Ph. No.: .....

Sub: Quotation for Supply of Communication Kits at IIIT-Allahabad.

Dear Sir,

Institute intends to purchase the "Communication Kits" for which quotations are invited as per specification and details given in below:-

S.No.	Kits/Specification	Qty.	Rate in Rs.	Total Rs.
1.	PAM,PWM, PPM, and line coding techniques **Technical Specifications:** **1. Modulation & Demodulation Techniques:** PAM, PWM, PPM, Line Coding Techniques **2. Internal Signal Generator :** Direct Digital Synthesizer ✓ Types of Signal : Sine, Square, Triangle, Arbitrary ✓ Frequency : 500Hz, 1KHz, 2KHz, 3KHz **3. External Signal :** ✓ Types of Signal : Sine, Square, Triangle, Arbitrary ✓ Maximum Input Voltage: 3Vpp (Max.) +1.5V DC offset ✓ Frequency : 500Hz to 3.5KHz **4. Sampling/Ramp Frequencies :** 1.25KHz, 2.50KHz, 5KHz, 9.80KHz, 19.53KHz, 39.06KHz, 78.13KHz **5. SMD LED Indicators :** 46 nos. for ✓ DDS signal selection ✓ DDS signal frequency selection ✓ Sampling selection ✓ Technique Selection ✓ Interconnect path **6. Crystal Frequency :** 20MHz **7. Selection Mode :** Push switches **8. Random Data :** 8 Bit/ 16 Bit/ 32 Bit **(For line Coding)** **9. Test Points:** 29 nos. (Gold Plated) **10. Low Pass Filter :** Cut-off frequency-5KHz **11. Learning Material :** CD (Theory, procedure, reference results, etc), **12. Power Supply :** 110V - 260V AC, 50/60Hz **13. Operating Condition :** 0-40°C, 85% RH **14. Accessories:** 2mm Patch cords	01		
2.	Understanding noise generation and its applications **Technical Specifications:** **1. Noise generator :** White Noise, Additive White Gaussian Noise, Periodic Random Noise **2. Internal Signal Generator :** Direct Digital Synthesizer ✓ Types of Signal: Sine, Square, Triangle, Arbitrary signals. **3. SMD LED Indicators :** 13nos for ✓ DDS Signal selection	01		

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	✓ DDS Signal frequency selection ✓ Noise selection **4. Selection Mode :** Push switches **5. Crystal Frequency :** 8MHz **6. Test Points:** 5 nos. **7. Gain selection for Modulating :** 10K potentiometer **8. Gain selection for Noise :** 10K potentiometer **9. Learning Material :** CD (Theory, procedure, reference results, etc) **10. Power Supply :** 110V - 260V AC, 50/60Hz **11. Operating Condition :** 0-40°C, 85% RH **12. Accessories:** 2mm Patch cords			
3.	PCM, DPCM, CVSD Modulator and Demodulator **Technical Specifications:** **1. Modulation & Demodulation Techniques :** PCM, DPCM, CVSD **2. Internal Signal Generator :** Direct Digital Synthesizer ✓ Types of Signal : Sine, Square, Triangle, Arbitrary signals ✓ Frequency : 500Hz, 1KHz, 2KHz, 3KHz **3. External Signal :** ✓ Types of Signal : Sine, Square, Triangle, Arbitrary signals ✓ Maximum Input Voltage: 3Vpp (Max.) +1.5V DC offset ✓ Frequency : 500Hz to 3.5KHz **4. SMD LED Indicators :** 44 nos. for ✓ DDS signal selection ✓ DDS signal frequency selection ✓ Sampling selection ✓ Technique selection ✓ Interconnect path **5. Transmission Effect :** Attenuation (7dB & 10dB), Noise, Filter **6. Crystal Frequency :** 8MHz **7. Sampling Frequencies :** 4KHz, 8KHz, 16KHz, 32KHz **8. Line Speed :** 32KHz, 64KHz, 128KHz, 256KHz **9. Selection Mode :** Push switches **10. Number of Test Points :** 38 nos.(Gold plated) **11. Low Pass Filter :** Cut-off frequency-5KHz **12. Learning Material :** CD (Theory, procedure, reference results, etc) **13. Power Supply :** 110V - 260V AC, 50/60Hz **14. Operating Condition :** 0-40◦C, 85% RH **15. Accessories:** 2mm Patch cords	01		
4.	Delta, Adaptive Delta, Sigma Delta Modulator & Demodulator **Technical Specifications:** **1. Modulation & Demodulation Techniques :** Delta, Adaptive Delta, Sigma Delta First order, Sigma Delta Second order **2. Internal Signal Generator :** Direct Digital Synthesizer ✓ Types of Signal : Sine, Square, Triangle, Arbitrary ✓ Frequency : 500Hz, 1KHz, 2KHz, 3KHz **3. External Signal :** ✓ Types of Signal : Sine, Square, Triangle, Arbitrary signals ✓ Maximum Input Voltage: 3Vpp (Max.) +1.5V DC offset ✓ Frequency : 500Hz to 3.5KHz **4. SMD LED Indicators :** 48 nos. for ✓ DDS signal selection ✓ DDS signal frequency selection ✓ Sampling selection ✓ Technique selection ✓ Interconnect path **5. Transmission Effect :** Attenuation (7dB & 10dB), Noise, Filter **6. Crystal Frequency :** 8MHz **7. Sampling Frequencies** : 16KHz, 32KHz, 64KHz, 128KHz, 256KHz **8. Integrator step :** Normal & 3 times **9. Selection Mode :** Push switches **10. Number of Test Points** : 46 nos.(Gold plated) **11. Low Pass Filter :** Cut-off frequency-5KHz	01		

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	12. Digital Filter : Decimation filter (16:1) **13. Learning Material :** CD (Theory, procedure, reference results, etc) **14. Power Supply :** 110V - 260V AC, 50/60Hz **15. Operating Condition :** 0-40°C, 85% RH **16. Accessories:** 2mm Patch cords			
5.	ASK, FSK, BPSK, DBPSK Modulator and Demodulator **Technical Specifications:** **1. Modulation & Demodulation Techniques :** ASK, FSK, BPSK , DBPSK **2. Internal Data Generator :** Digital data **3. Data Pattern :** 8-Bit, 16-Bit, 32-Bit, 64-Bit **4. Frequency :** 2KHz, 4KHz, 8KHz, 16KHz **5. Internal Carrier Generator :** Direct Digital Synthesized **6. Carrier Signal :** Sine **7. SMD LED Indicators :** 24 nos. for ✓ Digital data selection, ✓ Data frequency selection and ✓ Technique selection **8. Number of Test Points :** 39 nos.(Gold plated) **9. Crystal Frequency :** 8MHz **10. Selection Mode :** Push switches **11. Learning Material :** CD (Theory, procedure, reference results, etc) **12. Power Supply :** 110V - 260V AC, 50/60Hz **13. Operating Condition :** 0-40°C, 85% RH **14. Accessories:** 2mm Patch cords	01		
6.	Digital Companding : A Law & μ Law **Technical Specifications:** **1. Compression and Decompression Techniques:** A-Law, μ-Law **2. Signal Generator : Generated Sine** ✓ Direct Digital Synthesizer wave ✓ 14 Bit data input through Dip switch. **3. SMD LED Indicators :** ✓ 73nos, for Dip based input data Compressed output ✓ Decompressed output ✓ Technique selection **4. Crystal Frequency :** 8MHz **5. Test Points :** 37nos **6. Learning Material :** CD (Theory, procedure, reference results, etc) **7. Power Supply :** 110V - 260V AC, 50/60Hz **8. Operating Condition :** 0-40°C, 85% RH **9. Accessories:** 2mm Patch cords, FRC Cable 16 pins	01		
Total -				
Taxes (if any)-				
Grand Total -				

The quotations are invited by courier/speed post with complete details of Specifications, Terms & Conditions and warranty/guarantee etc. upto **13.06.2016 at 3:00 p.m.** Basic rate, taxes and freight charges etc. must be quoted separately, F.O.R. destination at IIIT-A, Jhalwa, Allahabad. Kindly send your quotation in a sealed envelope at the following address: **Chairperson, DPC (ECE Department), CC-1 Building, IIIT-A, Devghat Jhalwa, Allahabad-211015.**

Note:

1. Preference will be given to the firm, if Manufacture/Sole distributor.
2. Quoted rate should be valid at least for 90 days.
3. Quality, if not, found according to our specification, the supply will not be accepted.
4. F.O.R. Destination at IIIT-A, Devghat-Jhalwa, Allahabad.
5. Payment will be made within fifteen days after satisfactory report from users end.
6. Fax/E-mail address/contact no. /Name of person to be contacted.

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7. May feel free to contact on E-mail-dpc.ec@iiita.ac.in, Ph. No. : 0532-2922101.
8. Enquiry must be quoted in prescribe format with seal and signature of firm.
9. Replacement guarantee and warranty as applicable should be clearly mentioned in quotation and documents may be furnished along with the bill.
10. Supply within 30 days from the receipt of the Purchase order. If, the supply delayed beyond the stipulated time of completion of supply a penalty of 10% the total cost may be imposed at the discretion of the competent authority.
11. Kindly quote your Income Tax PAN No. /TIN No., Service Tax Registration No. etc. mandatorily on the quotation raised by you. If PAN No. not quoted, 20% Tax will be deducted at source.
12. The lowest rate will not be the basis of claim to get the order.
13. Director, Indian Institute of Information Technology, Allahabad reserves the right to reject or accept any tender.
14. It is mandatory to mention enquiry reference number, subject, due date, contact address etc on your quotation. Incomplete quotation will not be accepted.
15. Kindly quote your email ID and Bank details etc.
16. All disputes are subject to Jurisdiction of Allahabad Courts.

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(Dr. Rajat Kumar Singh)
Chairman-DPC (ECE)

Copy to:

- HOD-ECE for kind information please.

CHAIRMAN
Departmental Purchase Committee
ECE Department IIIT-Allahabad