

भारतीय सूचना प्रौद्योगिकी संस्थान, पुणे

Indian Institute of Information Technology, Pune

Sadumbare, Chakan-Talegaon Road, Taluka Maval, District Pune, Pin 412109



Procurement of Electronic/Electrical Workbench

Bid Price: Nil/-

Indian Institute of Information Technology, Pune

INVITATION FOR QUOTATIONS FOR SUPPLY OF

Electrical/Electronics Work Bench

1. You are invited to submit your most competitive quotation for the following goods: -

Sr. No	Title /Name of the equipment /System	Brief description [Attach separate annexure if necessary for detailed specifications	Quantity
1	Basic Electrical/ Electronic Work Bench	Please refer to annexure A	8
2	Advanced Electrical/Electronic Work Bench	Please refer to annexure B	8

The schedule is as follows

Date of inviting the quotations	5/7 /2017
Last date of submitting the sealed quotation to mentor director, IIITPune at COEP Electrical Engineering Department Office.	12/7/2017 [up to 4:00 pm]
Opening of the quotations at Electrical Engineering Department, COEP, Pune	13/7/2017 [11:00 am]
Validity of quotation	3 months
Delivery Period	4 Weeks from the acceptance of PO

2. **Bid Price**

- a) The contract shall be for the full quantity as described above and in the annexure. Corrections, if any, shall be made by crossing out, initialing, dating and re-writing.
- b) All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price. However, break- up of the basic price and taxes/duties shall be indicated clearly.
- c) The bidders will be evaluated on the basic price.
- d) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- e) The Prices should be quoted **in Indian Rupees** only.

3. Each bidder shall submit only one quotation.

4. **Validity of Quotation**

Quotation shall remain valid for a period not less than 90 days after the deadline date specified for submission.

5. **Evaluation of Quotations**

The purchaser shall evaluate and compare the quotations determined to be substantially responsive i.e. which

- (a) are properly signed; and
- (b) conform to the terms and conditions, and specifications.

The Quotations would be evaluated considering all items together in this packet.

6. **Award of contract**

The Purchaser shall award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

6.1 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.

6.2 The bidder whose bid is accepted shall 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.

- 7. 90 % Payment shall be made immediately after delivery of the goods. Remaining 10 % payment will be made after successful commissioning and testing of the equipment/system.
- 8. 3 years' commercial and comprehensive warranty/ guarantee shall be applicable to the supplied goods.
- 9. You are requested to provide your offer in sealed envelope latest by **12 July 2017, at College of Engineering Pune, Electrical Engineering Department by 4 pm.**
 - a) The supplier should submit sealed envelopes
 - b) Outer Envelop C will consists of following 2 sealed envelops
 - c) Envelop A – Original Copy of quotation/ Price Bid
 - d) Envelop B – Technical Specification
 - e) Outer Envelop should have following information over it: “Invitation of Quotation for Electrical/ Electronic Workbench Date: 12/7//2017”
- 10. The bidder has to supply the material within the prescribed date. A penalty of 2% deduction in cost will be imposed for delayed supply for every week for first 2 weeks, 4% deduction in cost for every week for next 2 weeks. Any further delay will automatically terminate the purchase order/ contract.
- 11. The supplier requires supplying the store exactly as per the specifications and will be responsible to replace the defective supplies at his risk and cost.

12. The Supplier should submit deviation statement if any. The quotations simply mentioning “as per your specification and cost” shall be rejected.
13. The supplier should arrange for test of equipment at Manufacturers place at suppliers cost in the presence of 3 representatives from COEP. The Purchase Order would be placed subject to satisfactory demonstration of the equipment.
14. Commissioning / Installation is at suppliers cost.
15. Conditional quotation will not be accepted.
16. Certificate of authorization from principal firm should be provided.
17. Bidders should have supplied at least similar goods at minimum 1 institute in last year. Recent Purchase Order / List of similar items from nationally reputed institutes should be attached. Photographs of the supplied goods should be attached along with the bid.
18. Quantity mentioned is indicative and it can vary as per needs.
19. We look forward to receiving your quotations and thank you for your interest in this project.

Dr. B. N. Chaudhari
Dy. Director COE Pune

Dr. Sachin Argade
Assistant Professor, IIIT Pune

Dr. R T Ugale
Professor, COE Pune

Annexure A

Name of Item	Qt	Specifications
Basic Workbench	1	<p>Overall Design</p> <p>Bench should have wheels with locking mechanism at legs, AC Supply: MCB with AC supply switches for safety purpose, horizontally aligned and should have sufficient legroom. Approximate design specifications as indicated in the figures on the right. The overall dimensions of Workbench should be not less than W = 1200 mm; D = 750 mm; H = 1150 mm the basic structure should be made of 30 x 30 x 1.5 mm tubular mild steel pipes with min. 1.5 mm in thickness for sturdiness, on board 19" LED Monitor</p>
	1	<p>DSO</p> <p>100 MHz 4 channel Digital storage oscilloscope , Real-time Sampling Rate : 1GSa/sec (Single Channel) , 500MSa/sec (Dual Channel) , 250MSa/sec(Third/Fourth Channel) , Memory Depth : 12 Mpts , Waveform Capture Rate : 30,000 Wfms/Sec , Vertical Sensitivity : 1mV/div to 10V/div, 7 Inch WVGA (800x480), multiple intensity levels waveform display, Math Function : A+B, A-B, AxB, A/B, FFT, A&&B, A B, A^B, !A, Intg, Diff, Sqrt, Lg, Ln, Exp, Abs, PC Interface : USB Host & Device ,LAN(Lxi) Counter : Hardware 6 bits counter (channels are selectable) Std. Probes: 150MHz BW Passive Probe:4 sets,</p>
	1	<p>Arbitrary Waveform Generator</p> <p>Two Channel Arbitrary Waveform Generator, Frequency Range: Sine: 1μHz to 25MHz, square: 1μHz to 25MHz, Pulse: 1μHz to 15MHz Ramp: 1μHz to 500KHz, Arbitrary: 1μHz to 10MHz, Harmonic: 1μHz to 10MHz Noise (-3dB): 25 MHz bandwidth, Resolution: 1μHz, Amplitude: into 50 Ohms ≤10 MHz: 1.0 mVpp to 10 Vpp, ≤30 MHz: 1.0 mVpp to 5.0 Vpp Arbitrary Waveform: Waveform Length: 2Mpts, Vertical Resolution: 14 bits, Sample Rate: 200MSa/sec Modulation: AM, FM, PM, ASK, FSK, PSK, Built-in 8 orders harmonics generator Built-in 7 digits counter up to 200MHz Built –in Arbitrary: 160 pre edited waveforms, Square Wave Rise/Fall Time: 10ns typical 1Vpp Sweep, Burst Mode Display: 3.5-inch TFT LCD PC Interface: USB Host &Device , LAN(Lxi)</p>
	02	<p>Multiple power supply</p> <p>DC Outputs 0-32 V/2 A, 5V/ 5A & 0 ± 15V Dual Tracking /1 Amp. Each, Three floating independent DC supply voltages with short circuit protection and constant voltage and constant current operation. 3 digit for voltage & 3 digit for current LED indication for voltage & current, line regulation ± (0.05 % +100 mV) and load regulation ± (0.05 % +100 mV), Ripple & Noise ≤ 1 mVrms</p>
	01	<p>Rework station</p> <p>It should have set /read temperature facility, facility to store last temp set temperature value in memory Soldering: Power consumption 60 Ω, Input voltage 170 to 270 V, Temperature range 180 to 270 V, Temperature stability ±10°C, Temperature accuracy ± 1°C of tolerance at idling time Tip to ground potential under 2 mV Tip to ground resistance under 2 Ohms DE soldering: DE sold 70 watts, Input 170 to 270 V (190 to 290 V AC) Temperature range 180 to 480°C Pump diaphragm type Vacuum 600 mm/Hg, SMD Rework Power consumption 270 Ω, diaphragm pump Capacity 24L/min. Hot air temperature 200 to 550°C, Temperature accuracy ± 1°C Burn proof silicon cable with thermal resistance up to 600 ° C</p>
	01	<p>4 ½ Digit True RMS Multimeter</p> <p>Manual and automatic ranging, Display Hold and Auto Hold, Frequency and capacitance measurements, Resistance, continuity and diode measurements, Temperature measurements, Min-max-average recording, Closed case calibration through front panel, Ergonomic case with integrated protective holster</p>
	01	<p>Power Scope Module</p> <p>2 no Isolated Inputs Channels, Attenuation: X 100 & X 10 Accuracy: ± 10%, Coupling AC, DC & Gnd. Input Voltage :Max.1500 V (DC + Peak AC) For X100 (Min 300 V recommended) Max. 150 V (DC + Peak AC) For X10 (Min. 30 V recommended), Frequency Response: Normally for mains operation exceptionally up to 300KHz</p>
	02	Analog voltmeter and Analog Ammeter

Annexure B

Name of Item	Qt	Specifications
Advance work Bench	1	<p>Overall Design</p> <p>Bench should have wheels with locking mechanism at legs, AC Supply: MCB with AC supply switches for safety purpose, horizontally aligned and should have sufficient legroom. Approximate design specifications as indicated in the figures on the right. The overall dimensions of Workbench should be not less than W = 1200 mm; D = 750 mm; H = 1150 mm The basic structure should be made of 30 x 30 x 1.5 mm tubular mild steel pipes with min. 1.5 mm in thickness for sturdiness , on board 19" Monitor and 2 Analog voltmeter and 2 Analog Ammeter</p>
	1	<p>DSO</p> <p>100 MHz 4 channel Digital storage oscilloscope , Real-time Sampling Rate : 1GSa/sec (Single Channel) , 500MSa/sec (Dual Channel) , 250MSa/sec(Third/Fourth Channel) , Memory Depth : 12 Mpts , Waveform Capture Rate : 30,000 Wfms/Sec , Vertical Sensitivity : 1mV/div to 10V/div, 7 Inch WVGA (800x480), multiple intensity levels waveform display, Math Function : A+B, A-B, A×B, A/B, FFT, A&&B, A B, A^B, !A, Intg, Diff, Sqrt, Lg, Ln, Exp, Abs, PC Interface : USB Host & Device ,LAN(Lxi) Counter : Hardware 6 bits counter (channels are selectable) Std. Probes: 150MHz BW Passive Probe:4 sets,</p>
	1	<p>Arbitrary Waveform Generator</p> <p>Two Channel Arbitrary Waveform Generator, Frequency Range: Sine: 1μHz to 25MHz, square: 1μHz to 25MHz, pulse: 1μHz to 15MHz Ramp: 1μHz to 500KHz, Arbitrary: 1μHz to 10MHz, Harmonic: 1μHz to 10MHz, Noise (-3dB): 25 MHz bandwidth, Resolution: 1μHz, Amplitude: into 50 Ohms ≤10 MHz: 1.0 mVpp to 10 Vpp , ≤30 MHz: 1.0 mVpp to 5.0 Vpp Arbitrary Waveform: Waveform Length: 2Mpts, Vertical Resolution: 14 bits, Sample Rate: 200MSa/sec Modulation: AM, FM, PM, ASK, FSK, PSK, Built-in 8 orders harmonics generator Built-in 7 digits counter up to 200MHz Built –in Arbitrary: 160 pre edited waveforms, Square Wave Rise/Fall Time: 10ns typical 1Vpp Sweep, Burst Mode Display: 3.5-inch TFT LCD PC Interface: USB Host &Device , LAN(Lxi)</p>
	1	<p>Spectrum Analyzer with Built-in Tracking Generator</p> <p>Frequency Range: 9KHz to 1.5GHz, Built-in Tracking Generator, -80 dBc/Hz @10 kHz offset Phase Noise, Minimum Resolution Bandwidth (RBW) 100 Hz, Displayed Average Noise Level (Typical) -135dBm, Amplitude Uncertainty < 1.5dB, Display: 8 Inch TFT LCD, PC Connectivity: USB Host & Device, LAN(Lxi)</p>
	1	<p>Programmable DC Power Supply</p> <p>Triple output 0-30V-3A,0-30V-3A,5V-3A, Built-in V, A, W measurements, Display 3.5 Inch TFT , PC Interface : USB Host & Device Ripple: Voltage < 350μV/3mVpp Current: <2mArms Load Regulation: Voltage: < 0.01%+3mv Current: < 0.01% +275μA Linear Regulation: Voltage: < 0.01%+3mv Current: < 0.01% +275μA Display Resolution 10mV, 10mA Accuracy Annual: CH1:0-30V Voltage: 0.05%+10mv Current: 0.15%+6mA CH2: 0-30V Voltage: 0.05%+10mv Current: 0.15%+6mA CH3:5V Voltage: 0.1%+5mV, Current :0.15%+6mA</p>
	1	<p>Rework station</p> <p>It should have set /read temperature facility, facility to store last temp set temperature value in memory Soldering: Power consumption 60 Ω, Input voltage 170 to 270 V, Temperature range 180 to 270 V, Temperature stability ±10°C , Temperature accuracy ± 1°C of tolerance at idling time Tip to ground potential under 2 mV Tip to ground resistance under 2 Ohms DE soldering: DE sold 70 watts, Input 170 to 270 V (190 to 290 V AC)</p>

		<p>Temperature range 180 to 480°C Pump diaphragm type Vacuum 600 mm/Hg, SMD Rework Power consumption 270 W, diaphragm pump Capacity 24L/min Hot air temperature 200 to 550°C, Temperature accuracy $\pm 1^\circ\text{C}$ Burn proof silicon cable with thermal resistance up to 600 °C</p>
1	4 ½ Digit True RMS Multimeter	<p>Manual and automatic ranging, Display Hold and Auto Hold, Frequency and capacitance measurements, Resistance, continuity and diode measurements, Temperature measurements, Min-max-average recording, Closed case calibration through front panel , Ergonomic case with integrated protective holster</p>
02		Analog voltmeter and Analog Ammeter