Tel: 26294542
Fax: 26294540

email: principal@andc.du.ac.in
url: http://andcollege.du.ac.in

ACHARYA NARENDRA DEV COLLEGE
(UNIVERSITY OF DELHI)
Govind Puri, Kalkaji, New Delhi – 110 019

Dr. Savithri Singh
Principal

Ref. No. ANDC/NR/Electronics/2018/
Dated : 06.03.2018

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Subject: Tender for the purchase of Laboratory Equipments

Dear Sir,

Tenders are invited for the purchase of various Laboratory Equipments for the college. The list of items/equipments along with the specifications is attached as Enclosure-I.

It is requested that the following protocol should be carefully observed in every detail while submitting the tender; otherwise the tender may not be considered.

1. A technical bid and financial bid should be quoted and packed separately and sealed in separate envelopes. These separate envelopes are to be put in an outer envelope which too be sealed.
2. The tender should be sent under sealed cover addressed to the Principal, Acharya Narendra Dev College, Govindpuri, Kalkaji, New Delhi – 110 019 not later than Wednesday, 21.03.2018 by 05:00 p.m.
3. The word **"Tender Electronics Department"** should be written prominently on the envelope.
4. The quoted price should be inclusive of all taxes and other charges.
5. Earnest Money Deposit of Rs. 20000/- shall be remitted online through RTGS/NEFT to the following account: Acharya Narendra Dev College, A/c no 0156000100488704, IFSC Code PUNB0015600, MICR Code 110024052, Punjab National Bank, Krishna Market, Kalkaji, New Delhi-110019 . A copy of RTGS/NEFT transfer report should be submitted along with the bid enclosed in the outermost envelope. Bank transfer details of the bidder should also be provided.
6. The other terms and conditions of the tender are attached as Enclosure-II.
7. Tenders will be opened on Thursday, 22.03.2018 at 12:30 p.m.

Yours Sincerely,

(Savithri Singh)

ACHARYA NARENDRA DEV COLLEGE
2017- 2018
Enclosure I

S.No.	Name of Item	Specifications	Qty. Req.
1.	Power Supply	Dual 0-30 V/2A, CV & CC mode, Digital 3digit display, Overload protection, Noise & Ripple: Maximum 1mVrms, Load Regulation: ± (0.05 % + 10 mV), Line Regulation: ± (0.05% +10mV)	8
2.	Universal Microcontroller Kit With daughter Board of PIC and AVR	On Board Microchip's PIC16F877, AVR, RS-232-C Interface for Serial Communication, On Board ADC & DAC, 16*2 LCD Display, Seven Segment Displays, 4 Pulled UP & 4 Pulled Down Keys, 8 LED Output, Two DIP Relays, Two Opto Isolated Inputs, Stepper Motor Driver, Serial EEPROM, Accessory cables and manual	07
3.	USB-6008 (NI)	Up to 10 kS/s, 8 Ch, 12-Bit,Basic analog and digital I/O, Up to 8 analog inputs, 12bit resolution, Up to 2 analog outputs, up to 12 digital I/O lines	08
4.	Michelson Interferometer	Hilger and Watts type, heavy base, mirror holders for holding for 1"mirrors, linear scale 0-150mm graduated, graduated dBC, slow motion drum, beam splitter, compensation plate, mirror, telescope of required focal length and magnification. (all of required optical finish, parallelism, flatness, reflectivity)	01
5.	Electro-optic Effect	Consisting of He-Ne laser, optical bench, set of polarizers, electrooptic crystal mounted with power supply, multimeter, photodetector, complete in all respect	01
6.	Faraday Effect	Consisting of He-Ne laser, optical bench, set of polarizers, faraday rotator mounted in a coil with power supply, multimeter, photodetector, complete in all respect	01
7.	Robotics kit	Microcontroller: ATMEGA2560, Sensors: Three white line sensors (extendible to seven white line sensors) Five GP2D12, 80cm IR range sensors covering front half part of the robot, Eight analog IR proximity sensors covering robot from all sides. Eight analog directional light intensity sensors. Two position encoders, Battery voltage sensing, 2 x 16 LCD, Indicator LEDs, Buzzer, Battery low indication. Operational Modes: Standalone (Autonomous Control), PC interface as master control, Distributed (multi robot communication), USB, Wired & RS232 (serial) communication, Simplex infrared communication (From infrared remote to robot), 2 DC geared motors and caster wheel at front as support, Position encoder, NiMH rechargeable battery (at least 2100mAH) pack, Auxiliary power supply for extended operation, Provision for following optional: (a) 4 additional IR range sensors (b) Battery current sensing (c) Servo mounted sensor pod (d) Wireless colour camera (e) Ultrasound scanner (f) Gyroscope and Accelerometer (g) Magnetometer (h) GPS receiver (i) Zig Bee (IEEE 802.15.4) (j) Blue tooth (k) WiFi	04
8.	Fiber Optic Sensor Kit	Consisting of Diode laser, set of mounts and positioners, weights, optical fiber(single and multimode), Microscopic objective, multimeter, photodetector, complete in all respect	01
9.	Study Boards Kelvin's double bridge	Trainer Board should have : On board DC Power supply : +5V Known Resistance : R1=100KΩ, 20KΩ, 10KΩ ; R3=1KΩ, 200Ω, 100Ω Unknown Resistance : below 1Ω preferably 0.3Ω, 0.4Ω, 0.8Ω ; DPM : 2V LED Display for Null Detection Interconnections : 2mm socket Patch cords : 2 mm banana stackable Trainer should be encased in a plastic molded box with a cover ,with no circuitry components on the top only block diagram should be provided on top of trainer Comprehensive Instruction Manual, Complete in all respect	01

S.No.	Name of Item	Specifications	Qty. Req.
10	LVDT.	Measurement Range:20 mm (1=10 mm) Excitation Frequency:4 KHz (approx.); Excitation Voltage:4 Vp-p (approx.) Sensitivity:10 m V DC/mm ; Linear Range:Full Scale Signal conditioner Output: 0.1 V DC for maximum displacement Display :3 ½ Digit LED with polarity Indicator Micrometer Scale:25 mm ; Micrometer Least Count:0.01 mm Interconnections: 2mm Patch cords : 2 mm banana stackable Trainer should be encased in a plastic molded box,with no circuitry components on the top only block diagram & LVDT should be provided on top of trainer. Comprehensive Instruction Manual Complete in all respect	01
11	Strain Gauge (Measurement of Strain using half and full bridge.)	Strain Gauge: 350Ω resistance. Gauge factor : 2.1 Maximum bearable weight : 500 gm Cantilever material : Stainless Steel Excitation Voltage: 8 to 12V DC Bridge configuration: Half and Full Bridge Display: 3½ Digit LED Standard Weights-1set. Comprehensive Instruction Manual Complete in all respect	01
	Communication kits		
12	Pulse Code Modulation	Inbuilt Power Supply Built in TTL Clock Generator 20 KHz Modulating signal Generator 100Hz to 5KHz with variable amplitude of 5V p-p DC Source : DC Voltage having Amplitude of +/- 5V. PCM Encoder & PCM Decoder Data Display : 8 bit ADC & DAC Data Display on 8 LEDs. Filter : Low pass filter having cut off Frequency 3.4KHz. Circuit printed on PCB with test points to see the waveforms Comprehensive Instruction Manual Complete in all respect	02
13	Amplitude Shift Keying	Data Generator: Digital data Data Pattern: Selectable Data generator preferably 8-Bit , 16-Bit , 32-Bit , 64-Bit Frequency: 30KHz variable sine Carrier Amplitude: Variable upto 5Vp-p Internal Carrier Generator: Direct Digital Synthesized Carrier Signal: Sine LED Indicators: for Digital data selection, data frequency selection and technique selection. Crystal Frequency: 8MHz Inbuilt Power Supply Comprehensive Instruction Manual Complete in all respect	02
14	Phase Shift Keying,	Data Generator: Digital data Data Pattern: Selectable Data generator preferably 8-Bit , 16-Bit , 32-Bit , 64-Bit Frequency: 30KHz variable sine Carrier Amplitude: Variable upto 5Vp-p Internal Carrier Generator: Direct Digital Synthesized Carrier Signal: Sine LED Indicators: for Digital data selection, data frequency selection and technique selection. Crystal Frequency: 8MHz Inbuilt Power Supply Comprehensive Instruction Manual Complete in all respect	2
15	Frequency Shift Keying.	Data Generator: Digital data Data Pattern: Selectable Data generator preferably 8-Bit , 16-Bit , 32-Bit , 64-Bit Frequency: 30KHz variable sine	2

S.No.	Name of Item	Specifications	Qty. Req.
		Carrier Amplitude: Variable upto 5Vp-p Internal Carrier Generator: Direct Digital Synthesized Carrier Signal: Sine LED Indicators: for Digital data selection, data frequency selection and technique selection. Crystal Frequency: 8MHz Inbuilt Power Supply Comprehensive Instruction Manual Complete in all respect	
16	FDM Kit	Frequency Division Multiplexer /Demultiplexer Trainer Training Platform should have : Two variable modulating (sinel) input channels with provision of voice inputs Two DSBSC modulators for frequency band translation of two test signals Two Carrier Generators ; Two sets of audio input amplifier One adder/transmission amplifier ; Two Demodulators ; Two L.P filters Two Sets of audio O/P amplifier Crystal Frequency : 4.096 MHz ; Carrier Generator : Sine wave 100 KHz & 200 KHz Modulating Input Frequency : Sine wave 200 Hz - 10 KHz (variable) Audio Input Amplifier : Gain of 100 (approx.) Modulator / Demodulator : DSBSC Modulator/Demodulator Low Pass Filters : Second Order Butterworth filters , cut off freq.of 10 KHz Audio Output Amplifier : Output Amplifier with a gain of 20 ; Interconnection: 2 mm sockets & Sufficient Nos of stackable patch cords Cabinet Housing : Enclosed on a plastic box with a cover No components should be mounted on the top of the Trainer only block diagram to be provided on the top. Trainer should be on Legend PCB with Block Diagrams Printed on the top. Accessories: Set of patch cord, Power cord.& Power supply. Comprehensive Instruction Manual Complete in all respect	1

Comprehensive Warranty Three Years on all items

ACHARYA NARENDRA DEV COLLEGE
(UNIVERSITY OF DELHI)
TERMS AND CONDITIONS
FOR
PURCHASE OF EQUIPMENTS
Enclosure II

1. Technical and financial bids should be quoted separately and sealed in separate envelopes. These envelopes shall be marked as Technical Bid and Financial Bid. These separate envelopes are to be put in an outer envelope which too should be sealed.
2. Our Tender No. & Date and name of the item/equipment should invariably be marked on the top of each envelope containing the technical/financial bids, as well as on the outer envelope.
3. The technical and financial bids should be of the same equipment. The financial bid should include the cost of main equipment/item, its accessories. If there is any separate cost for training and installation that should be quoted separately. Warranty certificate should be attached with the technical bids.
4. The printed technical literature and catalogue giving full technical details should be included with the technical bid along with a compliance statement verifying the specifications quoted in the tender.
5. The rates be quoted in figures (all typed or printed) and cuttings should be avoided. The final figure should be in figures as well as in words. If there are cuttings, they should be duly initialled, failing which the bids are liable to be rejected.
6. The technical and financial bids should be addressed to Principal, Acharya Narendra Dev College, University of Delhi, Govindpuri, Kalkaji, New Delhi 110 019.
7. Any bids received after due date shall not be considered.
8. The college reserves the right to procure any item and their quantity.
9. The relevant college technical committee may ask the vendors for sample reviewing and demonstration and reserves the right to reject before opening of the financial bids.

For Imported Equipment/Item

10. The prices quoted should be C.I.F., New Delhi. That should include insurance, packing, forwarding, freight etc.
11. The agency commission, if any, payable in Indian rupees should be mentioned separately.
12. The bids should be valid for a period of 180 days from the date of its opening.
13. For imported equipment/s, payment can be made against the letter of Credit/Sight draft. The firm opting for Letter of Credit (LC) opening should clearly mention the address of foreign bank in the financial bid.
14. Custom duty will be paid by the College at the time of clearing the consignment from customs, as per Govt. rules.

Indigenous Equipment/Item/s

15. The prices quoted should be F.O.R. Delhi that includes insurance, packing, forwarding, freight etc.
16. The bids should be valid for a period of 180 days from the date of its opening.
17. For indigenous equipment/s, the payment terms are 100% advance against a bank guarantee of 110% amount, valid for 6 months or 100% payment after receipt of supply in good conditions.

Other terms and Conditions

18. The firm must be reputed and must be registered with Sales Tax Authority/GST. (Attach Sales Tax Registration number copy and income tax return papers of the last three years).
19. Indian Agents representing Foreign suppliers/manufacturers should be registered with DGS and D.
20. The selected vendors will have to pay a performance bank guarantee for an amount equal to 10% of the total amount of the equipments for the duration of warranty period.
21. The selected vendors will have to provide the complete bank details in case the college desires to make the payment through ECS/RTGS.
22. Earnest Money Deposit of Rs. 20000/- shall be remitted online through RTGS/NEFT to the following account: Acharya Narendra Dev College, A/c no 0156000100488704, IFSC Code PUNB0015600, MICR Code 110024052, Punjab National Bank, Krishna Market, Kalkaji, New Delhi-110019 .A copy of RTGS/NEFT transfer report should be submitted along with the bid enclosed in the outermost envelope. Bank transfer details of the bidder should also be provided.
23. The EMD receipt is to be enclosed with the technical bid. Earnest Money Deposit of the selected vendors will be retained by the college till furnishing of the 10% bank guarantee. Earnest Money Deposit of the rejected vendors will be returned back by the college.
24. In case of any deviation from the tender specification or any misconduct, the firm will be held responsible and may lose the Earnest Money Deposit with additional penalty imposed.
25. No tenders will be considered after the due date and time under any circumstances. The tender should be sent not later than Wednesday, 21.03.2018 by 05:00 p.m. The tenders will be opened on Thursday, 22.03.2018 at 12:30 p.m.
26. No advance payment will be made. TDS applicable for professional services will be deducted.
27. While sending bids, the firm/company/s shall ensure that the terms/conditions mentioned in the tender document against which the tender is being given are acceptable to the vendor/firm.
28. In the event of non-execution of the order within the specified period, a penalty of 5% of the total cost shall be imposed on the suppliers.
29. Principal, ANDC reserves its right/s to reject or accept wholly or partly the tender without assigning any reason/s.

Principal
Acharya Narendra Dev College
(University of Delhi)
Govindpuri, Kalkaji, New Delhi-110 019

Undertaking Form

(To be submitted along with the Tender)

The Principal

Acharya Narendra Dev College

University of Delhi

Govindpuri, Kalkaji

Delhi-110 019

We the undersigned (herein after called as Contractor/Vendors/Suppliers) hereby offer to execute supply of items as per specification against which we have quoted our rates and for which this tender may be accepted at the rates stated there in and subject to the terms & conditions set forth for such items as may be ordered by the Principal, Acharya Narendra Dev College or officer acting on his/her behalf.

Date this _____ Day of_____

Signature of Contractor _____

Address_____

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