शासकीय अभियांत्रिकी महाविद्यालय यवतमाळ
(GOVERNMENT COLLEGE OF ENGINEERING YAVATMAL)
धामणगाव रोड यवतमाळ– ४४५००१

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स्वातंत्र्याचा अमृत महोत्सव

Quotation Enquiry   No. GCOEY/EnTC/ 2023-24/1448

Date:19/06/2023

To,
    As Per List Attached.

Subject: Invitation of quotation for the supply of Equipments For EnTC Engg. Deptt.

Sir/ Madam,

The sealed quotations are invited for the supply of following items (Given in Table-1 below) subject to the conditions mentioned below.

Sr. No.	Name of equipment/ item	Detailed Specifications	Quantity
1.	Digital IC Tester 74, 54, CMOS, TTL series	Self Diagnosis, Identifies Unknown model number of Devices, Measures more than 2000 kinds of devices, Tests 54 / 74 series TTL, Tests 4000 and 4500 series CMOS, 40 Pin capability, Control: 16 key tact switch keypad with dual tone sound indication, Display: 6 Digit LED Display, Test Socket: 40 pin ZIF Socket, Library of ICs: TTL54 Series, TTL55 Series, TTL74 Series, TTL75 Series, CMOS14 Series, CMOS40 Series, Optical Coupler Series, LED Display Series, RAM Series, SCM Series, CPU Peripheral Series, Auxiliary Power Supply: 220V AC 50Hz	1
2.	CPLD PLD Cyclone IV	CPLD PLD device: The XILINX CPLD PLD device : Debugging/Programming: supports JTAG with USB JTAG,16x2 LCD,4 Digit LED Display,4x4 Keypad,16 Digital Input,16 Digital Output, Stepper Motor, DC Motor Driver, 8 bit ADC & DAC, Relay Buzzer,15pin VGA connector,2 serial ports, Power Supply, USB Interface, USB Platform Cable	1
3.	PCM Mod/Dmod Trainer Kit	• Sine Wave Generator - Provides Sine waveform output using IC 8038. Frequency of Sine wave is 30 Hz with variable Amplitude of max.+/- 5V p-p. DC Source • - Separate DC source Available from .+/-5 V • - Provision for Amplitude adjustments provided. • Sampling Frequency Generator - Sampling Frequency generation using IC 555, Provides Sampling Frequency TTL output of 25 KHz. • On-board Block features • - PCM modulation using 74163 & ADC0800 • - 8 bit Analog to digital data displayed in 8 Led's • - PCM demodulation using 74165 & DAC0800 • - 8 bit Digital to Analog data displayed in 8 Led's • - On-board Low pass filter • - Block Description Screen printed on glassy epoxy PCB. • 1User's Manual with sample experimental programs.	1
4.	Multistage Transistorised Oscillator training board	• Experimental Training Board has been designed specifically for the study of multistage Transistorised Oscillator experiment. • Set of resistances, capacitors & inductor. • Must be compatible with Main Unit with all internal sources • CRO can be use stand alone with external resources.	1

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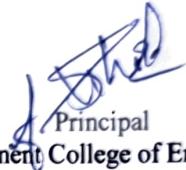|		• On board test points to observe signals • On board schematic diagram • Flexibility of making circuit connections • The trainer should be able to describe the complete designing of the Multistage Transistorised Oscillators.	
5.	DSP Trainer	Features TMS320C5515 fixed point low power DSPl Embedded XDS100 emulatorl Flash memoryl TLV320AIC3204 32-bit programmable lowl power stereo codec USB and SD connectorsl Line In, Headphone Out Connectorsl Removable USB stick enclosurel Includes Code Composer Studio 4.0l . 32 Mbytes of NOR Flashl I2C OLED displayl TLV320AIC3204 stereo codec with line in andl line out MicroSD Media Card Connectorl User USB 2.0 interface to C5515 processorl Embedded USB XDS100 JTAG Emulatorl 5 User controlled LEDsl 2 User readable push button switchesl Expansion connectors for Blue Tooth interfacel Expansion edge connectorl Power provided by USB interfacel Compatible with Code Composer Studio™l Platinum Version v4.1 and later from Texas Instruments. Compatible with Windows XP, Vista, and Win7l EVM Specific Code Composer Studio™ IDEl v4.1 USB cable provided as a accessaries .l Bare board Tested Glass Epoxy SMOBC PCB isl used. Attractive ABS Plastic/Wooden enclosures.l User's Manual with sample programs.l	1
6.	Mentor DSP - For Basic DSP Theory	• Realization of sampling theorem and Aliasing effects. • ADC resolution effect (up to 32-bit supported) • Calculation of Energy, Power, Average, Period and Frequency of signals. • Can adjust Energy Scale. • Plotting of Probability density function.	1
7.	Mentor DSP COM pro – For Communication	• Support for Amplitude Modulation (AM) and Demodulation• Support for Frequency Modulation (FM)• Support for Quadrature Phase Shift Keying (QPSK) Modulation and Demodulation• Support for Code Division Multiple Access (CDMA) Modulation and Demodulation• Support for Orthogonal Frequency Division Multiplexing (OFDM) Modulation and demodulation.	1
8.	Mentor DSP IMAGE see – For Imaging	• Display of image properties like Hue, Saturation, Value, RGB values.• Image statistics with help of colour histogram, visualize sampled spectra of colours in image.• Perform binary (NOT, AND, OR and XOR) and arithmetic (ADD, SUB, MULTIPLY and DIVIDE) operations on images.• Facility of Discrete Cosine Transform (DCT) on images with various resolutions.• Understand the link between image pixels and frequency. • Visualization of the quantization resolution and image compression factor on the resulting image quality.• Should provide image transformation with user defined equation. Commonly transforms like stretch, skew, rotate & translate should also be supported on images. Also facility to add anchors on image.• Should be able to finds object position in a picture by image correlation technique.• Facility to add RGB plane noises to image.• Filtering facility for noisy images with user defined parameters.	1
9.	Mentor DSP SIG gen – For Signal Generation	• Basic signal generators including sine, cosine, square, sawtooth and triangle waves, but also less commonly available functions such as unit step, unit impulse, and noise functions. • Signal generation facility for Amplitude modulation (AM), Frequency Modulation (FM), Frequency Shift keying (FSK), QPSK, GMSK, OFDM, DTMF, etc signals. • Noise, with specified distributions (white, Gaussian) can be added to signals. • Facility for Equation window to create own signals by writing equations (for e.g. sin, EXP, white (1), Gauss (0.5) etc.• Support for	1

10.	ARM7 TDMI-S 32 Bit LPC2148 microcontroller	audio signal input through windows wave file format. • 8 input Switches with 8 LED for experiment of Logical IO's • RTC DS1307 with Battery & I2C 24C08 EEPROM • On Board Stepper Driver, DC motor Driver & Servo Motor Driver with all 3 motors, Speed, Direction Control Experimentation. • 4x4 Keypad, 4digit 7 segment display, 16x2 Y/G LCD, I2C based ADC-DAC interface • Temperature Measurement using LM35, Buzzer Relay Interface Onboard • IR Receiver Module & Remote, On board IR transmitter Receiver, Ultrasonic Sensor & RGB LED. • 170 tie points protype board must be available on same board with 10 nos. of connecting wires.	1
11.	ARM9 Based Development board board (SAM9-L9260) with LCD display and cable connectors	Should base on Freescale/NXP-IMX287 Core should be ARM926EJ-S which is a power-efficient for NXP i.MX28 family of multimedia applications. 1 x RS232, 1 x Debug, 2 x USB ports, up to 2 x Ethernet, 2 x CAN, 1 x RS485, IE, Audio, LCD, JTAG, etc.	1
12.	TDM Pulse Amplitude Mod Demod Kit	• Sine Wave Generator - Provides Sine waveform output of 250Hz, 500Hz, 1 KHz, and 2 KHz.• Amplitude adjustments possible• DC Source• Separate DC source Available.• Amplitude adjustments possible• Pulse Generator Sampling rate of 32 KHz/channel.• 8KHz, Channel Identification Signal• 6.144 MHz, Crystal Controlled Pulse Generator.• On-board features Four Analog Input Channels for Multiplexing/De-multiplexing• Clock regeneration at receiver using PLL.• 4th order Butterworth Low pass filter with cut off frequency of 3.4 KHz.• Block Description Screen printed on glassy epoxy PCB• Interconnections - All interconnections are made using 2mm banana Patch cords.• Test points are provided to analyze signals at various points.	1
13.	PCM Transmitter and Receiver Kit	Techniques : Two channel TDM-PCM : Four channel TDM-PCM Internal Signal Generator : Four dedicated Direct Digital Synthesizer Generators for each channel Types of Signal : Sine, Triangle, Arbitrary signal Frequency : 500Hz, 1KHz, 1.5KHz, 2KHz, 3KHz SMD LED Indicators : 54 nos for DDS signal selection DDS signal frequency selection Sampling selection Technique selection Interconnect path Crystal Frequency : 8MHz Sampling Frequencies : 8KHz, 16KHz, 32KHz TDM techniques based on : Bell lab system Selection Mode : Push switches Number of Test Points : 40 nos. Low Pass Filter : 4nos. Cut-off frequency-5KH	1

Terms and conditions

1. Quotations should be submitted in sealed envelope superscribed as **"Quotations for "EnTC Engg. Deptt."** so as to reach this office on or before Dt.29/06/2023 by 5 pm. The supplier should enclose PAN Card Xerox, GST registration certificate / Number, GST Clearance Certificate/ GST Challan for last quarter of the financial year.

2. Quotations will be opened at 15.00 p.m. on Dt.30/06/2023 If you desire, the supplier may remain present at his/ her own cost.

3. The instruments /equipment's /goods / materials, quoted for, should be of the best quality and should be in conformity with specifications mentioned against the item/equipment. Clearly indicate the Make / Manufacturer / Country and other specifications in details. **The quotation must accompany with the complete technical description (leaflet) / literature of the goods quoted without which the quotation may not be considered.**

4. The rates should be **F.O.R. Institute and inclusive of all the taxes (GST), packing, forwarding, freight, insurance, transportation etc.**

5. Supply will have to be completed within **15 days** from the date of issue of the supply order. The penalty for **late delivery** shall be @ 0.5% (max.10%) of the value of undelivered stores per week.

6. The payment will be subject to delivery of items in good condition and will be made only after installation, commissioning and satisfactory test / trial of the same by the technical committee. Two copies of the bill should be supplied along with goods.

7. If the supplied item is rejected in full or part, the supplier will have to bear the expenses incurred for return and replacement of the items if any.

8. The supplied items should be highest quality as per specifications and should confirm to the specifications for the period of 3 months from the date of delivery failing which the supplied item will berejected.

9. The supplier has to give warranty for satisfactory working of supplied equipment at least for a period of 2 years from the date of delivery. The supplier is also entitled for providing its services for operational purposes of supplied item on the chargeable basis for 2 years beyond the warranty.

10. This office reserves the right to accept or reject any or all quotations and to order any of the items in any quantity without assigning any reason thereof.

Principal
Government College of Engineering
Yavatmal.