INVITATION FOR QUOTATION

TEQIP-II/2014/WB1G04/Shopping/50 **27-Feb-2014**

[TEQIP-II/WB/WB1G04/16]

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	Spartan 3 Development Platform ST-106	4	60	University Institute of Technology The University of Burdwan Golapbag (North), Burdwan-713104	Installation required
2	SPARTAN 3 UNIVERSAL PROTOBOARD	1	60	University Institute of Technology The University of Burdwan Golapbag (North), Burdwan-713104	Installation required
3	SPARTAN 3E FPGA BOARD	1	60	University Institute of Technology The University of Burdwan Golapbag (North), Burdwan-713104	Installation required
4	SPARTAN 6 FPGA	1	60	University Institute of Technology The	Installation

	BOARD			University of Burdwan Golapbag (North), Burdwan-713104	required
5	Universal VLSI Development Platform	2	60	University Institute of Technology The University of Burdwan Golapbag (North), Burdwan-713104	Installation required
6	VLSI Development Board with Wireless Communication	3	60	University Institute of Technology The University of Burdwan Golapbag (North), Burdwan-713104	Installation required
7	Xilinx Spartan FPGA Video Processing Platform ST 111	3	60	University Institute of Technology The University of Burdwan Golapbag (North), Burdwan-713104	Installation required

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 **50** 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 - 0% of total cost

   Satisfactory Acceptance - 100% of total cost

10. All supplied items are under warranty of **24** months from the date of successful acceptance of items.
11. You are requested to provide your offer latest by **15:00** hours on **13-Mar-2014 .**

12. Detailed specifications of the items are at Annexure I.
13. Training Clause (if any) **Hands on training required**
14. Testing/Installation Clause (if any) **Installation required**
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,
    Golapbag (North), Burdwan- 713104
17. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation

Annexure I

Sr. No	**Item Name**	**Specifications**
1	Spartan 3 Development	Technical Specifications Xilinx Family : FPGA XC3S400 Package: PQ208 Device Density : 400K System Gates 8,064 Logic Cells 141 users I/O pins Configuration Methods: IEEE 1149 JTAG Interface

	Platform ST-106	(Boundary Scan) ESD Protected General Purpose I/O's : 23 Peripheral interface: RS232 interface VGA Interface PS2 Interface USB Interface SPARTAN 3 FPGA ESD Protected General Purpose I/Os (23 Nos.) Crystal Oscillator 25MHz & 8MHz DIP Switches for Logic Inputs Tact Switches for pulse Inputs LEDsfor Logic Outputs On Board Flash Memory On Board Static RAM On Board Configuration PROM VGA Connector (D type 15 PIN) USB Connector (Serial to USB) PS2 Connector RS232 Connector (D type 9 PIN) 3.3V, 2.5V, 1.8V, 1.2V supply to FPGA & other hardware circuit. Crystal 8MHz, 25MHz 8 Logic Inputs (DIP Switches) 8 Logic Outputs (LEDs) 2 Pulsed input. (Tact Switches) Flash Memory of 32 Mbit (4M X 8) Static RAM of 16-Mbit (1M x 16) Configuration PROM (2Mbit) MEMORY Modelling Set-Top Box Plasma / LCD TV DSP Applications Cellular Application and many more ..... Parallel port cable 1 No. Serial cable 1 No. JTAG Parallel port cable 1 No. JTAG USB Cable (Optional) 1 No. Power supply (5V, 1 A) 1 No. Xilinx webpack 8.1 CD 2 No. ST106 Test Codes & e-Manual 1 No. Seven segment display
2	SPARTAN 3 UNIVERSAL PROTOBOARD	It comes with a 400K gate device, XC3S400 from Xilinx as standard and also supports Non Volatile FPGAs e.g. Spartan3AN. It supports FPGAs up to 4 million Gates and has no limitation of packages. It supports 2-clocks upto 100 MHz and all hardware required on Board. There is no need to attach any external boards Features:- • FPGA - a 400K gate device, XC3S400 from Xilinx is supplied as standard. • Analog Interface: – 12 bit AD7891 ADC and 12 bit AD7541 DAC. ? Analog Input – Four channels using ADC AD7891, (500Ksps, 12 bit). • Additional Stereo Jacks are provided for Audio Input and Audio Output. • Thermistor interface is given to ADC channel 5. ? Analog Output- One channel, using DAC-AD7541. (12 bit, 100 ns conversion time).expandable to 2-channels • Function Generator (using IC 8038) ? Provides Sine, Square and Triangular waveforms outputs. ? Frequency variable from 60-200 KHz. • Stepper Motor Interface: Stepper Motor interface using 12VDC, 200 Steps/Rev. • DC Motor Interface:- DC Motor Interface using 12VDC. • Relay Interface: NO & NC contacts are provided using 12VDC - Relay. • Serial Interface – one RS-232 channel using MAX3223. • User

		interface ? 32 output LEDs. ? 32 input switches. ? 16 Key switches. ? Six, 7-Segment displays. ? 16 X 2 LCD • Configuration modes ? Using Xilinx- JTAG cable. ? Using onboard Configuration PROM - XCF02S. (prom optional) • Clock oscillator ? 4 MHz Standard ? Socket for oscillator upto 100 MHz provided on board. (optional) • Power Supplies: 5 volts regulated power supply provided along with the board. All required voltages generated on board All features mentioned above are on-board. No need to connect any external boards or devices excepting DC and Stepper motors. Additional Free Deliverables ? Lab manual with experiments both in VHDL and Verilog ? Power Supply. ? JTAG programming Cable. ? Sample Designs Target Applications: ? Undergraduate Projects. ? PC Interface(UART) ? Data acquisition ? It supports DSP projects and experiments ? using system Generator for DSP
3	SPARTAN 3E FPGA BOARD	Xilinx Spartan-3E FPGA, 500K or 1200K gates RS-232 Line Driver/Receiver USB2 Port Hirose FX2 Four 12-pin Pmod connectors VGA, PS/2, and serial ports USB2 port providing board power, programming, and data transfers Xilinx Spartan-3E FPGA, 500K or 1200K gate • USB2 port providing board power, device configuration, and high-speed data transfers • Works with ISE/Webpack and EDK • 16MB fast Micron PSDRAM • 16MB Intel StrataFlash Flash R • Xilinx Platform Flash ROM • High-efficiency switching power supplies (good for battery-powered applications • 50MHz oscillator, plus a socket for a second oscillator • 75 FPGA I/O's routed to expansion connectors (one high-speed Hirose FX2 connector with 43 signals and four 2x6 Pmod connectors) • All I/O signals are ESD and short-circuit protected, ensuring a long operating life in any environment. • On-board I/O includes eight LEDs, four-digit seven-segment display, four pushbuttons, eight slide switches • Ships in a DVD case with a high-speed USB2 cable.
4	SPARTAN 6 FPGA BOARD	Xilinx Spartan®-6 FPGA (XC6LX16-CS324) • USB2 port • High-speed 40-pin VHDC expansion connector • Four 12-pin Pmod™ connectors • VGA, 10/100 Ethernet USB2 port providing board power, programming, & data transfers Xilinx Spartan6 XC6LX16-CS324 • 16Mbyte Micron Cellular RAM • 16Mbyte Micron

		Parallel PCM • 16Mbyte Micron Quad-mode SPI PCM • 10/100 SMSC LAN8710 PHY • USB port for power, programming & data transfers • USB-UART • Type-A USB host for mouse, keyboard or memory stick • 8-bit VGA • 100MHz fixed-frequency oscillator • 8 slide switches, 5 push buttons, 4-digit 7seg display, 8 LEDs • Four double-wide Pmod™ connectors, one VHDC connector • Rugged plastic case, USB cable included Free Compatible ISE Web Pack to be provided.
5	Universal VLSI Development Platform	Technical Mother Board Specifications : FPGA Daughter Card : CPLD Daughter Card : Cool Runner CPLD Daughter Card: (Optional) ARM7 Daughter Card (Optional): Specifications On board : +5V, 3.3V, 2.5V,1.8V supply LCD display : 16 X 2 Character LCD 7 Segment : 4 digits 8 Channel ADC : 8-bit Resolution Push button : 4 Output LEDs : 16 DIP switches : 16 HEX keypad : 1 DAC : 8-bit Resolution Memory : SRAM 32KB Peripheral Interface : Serial, PS2, VGA, USB etc. Free I/O's for Arm 7 daughter card Xilinx Family : Spartan 2, XC2S200PQ208 Device density : 200k gates,136 IOs On board : 8 MHz crystal Master reset Key : For hardware reset On board : EPROM socket for FPGA boot. Configuration Method : JTAG interface : Slave serial interface : PROM interface Xilinx Family : CPLD, XC95108TQ100 Device density : 2400 gates, 108 macro cells,74 IOs On board : 8 MHz crystal Configuration Method : JTAG interface (boundary scan) Xilinx Family : Cool Runner : XCR3128 Package : VQ100 Device Density : 28 macrocells 74 users I/O pins Configuration Methods : IEEE 1149 JTAG Interface (Boundary Scan) Device Family : Philips Semiconductor : LPC2292/94 Package : LQFP144 Device Density : 16/32-bit ARM microcontroller 256 KB flash memory 94 users I/O pins Configuration Methods : JTAG Interface RS232 Interface
6	VLSI Development Board with Wireless Communication	Specification: 1) Xilinx Family: ??SPARTAN 2 ??XC2S200PQ208 2) Device Density: ??200K gates ??5,292 Logic Cells 3) On board +5V, +3.3V, +2.5V supply to FPGA & other hardware circuit. 4) On board, 2 Crystal 8MHz & 25MHz. 5) Master Reset ??key for hardware reset ??Program Key for FPGA reconfiguration 6) Onboard PROM (2Mb size) Socket in a PLCC package for FPGA backup 7) Configuration Methods: ??IEEE 1149.1 JTAG Interface ??Slave Serial Interface ??PROM Interface 8) Memory 1MB (128K

		X 8) memory interface 9) Digital I/O's ??8 Logic Input ??8 Logic Output ??6 Digit Seven Segment Display. 10) Peripherals Channel 1 IEEE RS232 Serial Interface Channel 2 IEEE RS232 Serial Interface IEEE PS2 Interface for Keyboard IEEE VGA Interface for Monitor IEEE Parallel Port Interface for Data transfer. 11) 8 Channel ADC for external analog signal interface. 12) 2.4GHz Trans-receiver 13) 2.4GHz Antenna with SMA male connector. 14) 40 pin & 26 pin Connector for external I/O interface. 15) Number of I/O's 176
7	Xilinx Spartan FPGA Video Processing Platform ST 111	Technical Specifications Two FPGA Make Xilinx Family Spartan3 Device XC3S400PQ208 Video Decoder Multiformat video decoder supports NTSC-(J, M, 4.43),PAL (B/D/G/H/I/M/N), SECAM Integrates three 54 MHz, 10-bit ADCs Clocked from a single 27 MHz crystal Line-locked clock-compatible (LLC) Multiple programmable analog input formats: CVBS (composite video) S-Video (Y/C) YPrPb component (VESA, MII, SMPTE, and BetaCam) 6 Analog video input channels Automatic NTSC/PAL/SECAM identification Digital output formats (8-bit or16-bit): ITU-R BT.656 YCrCb 4:2:2 output + HS, VS, and FIELD Video Encoder ITU-R1 BT601/656 YCrCb to PAL/NTSC video encoder High quality 10-bit video DACs Simultaneous Y, U, V, C output format NTSC M, PAL M/N2, PAL B/D/G/H/I, PAL60 Single 27 MHz clock required (×2 oversampling) 80 dB video SNR Multi-standard video output support Composite (CVBS) Components S-Video (Y/C), YUV, and RGB Euro SCART output (RGB + CVBS/LUMA) Component YUV + CHROMA Video input data port supports CCIR-656 4:2:2 8-bit parallel input format 4:2:2 16-bit parallel input format Programmable simultaneous composite and S-Video or RGB (SCART)/YUV video outputs Programmable luma filters (low-pass [PAL/NTSC]) notch, extended (SSAF, CIF, and QCIF) Programmable chroma filters (low-pass [0.65 MHz, 1.0 MHz, 1.2 MHz and 2.0 MHz], CIF and QCIF) Programmable VBI (vertical blanking interval) Audio CODEC 16/20-BIT SINGLE-ENDED ANALOG INPUT/OUTPUT STEREO AUDIO CODECS Sampling Rate: 4 kHz to 48 kHz. Video DAC CMOS, 330 MHz Triple 10-Bit High Speed Video DAC. Flash Memory 32 Megabit 3.0 Volt-only Page Mode Flash Memory. FIFO Three 384K (393,216) x 8 bits FIFO organization. Support

		VGA, CCIR, NTSC, PAL and HDTV resolutions. SD Card 3M™ Card Connector SD™ Normal Polarization, Flip, surface mount type. (Supports upto 2GB Micro SD Card) Graphical LCD 5.7” a-Si color TFT-LCD, White LED Back light, Touch Panel with controller. Resolution (pixel): 320(R.G.B) X 240 Logic Inputs/Outputs Push Button 4 DIP Switch 4 LED Peripherals USB Port RS232 Port PS2 Port VGA Port

FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: _____

To:

_____

_____

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

Gross Total Cost (A+B): Rs. _____

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. ———————— (Amount in figures) (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: _____