

**Khwaja Fareed University of Engineering &
Information Technology, Rahim Yar Khan**



Tender Document

Tender No. Lab-082

**Supply & Installation of Laboratory Equipment of
Electrical Engineering Department**

at

**Khwaja Fareed University of Engineering
& Information Technology
Rahim Yar Khan**

TENDER DOCUMENT

TENDER No. Lab-082

Supply & Installation of Laboratory Equipment of Electrical Engineering Department

at

Khwaja Fareed University of Engineering and Information Technology

TENDER PRICE Rs. 3000/-

Last date of submission: _____

FOR OFFICE USE ONLY

Serial No _____

Sold to: M/S _____

Date of Sale _____

Bank Challan No. _____

Date _____

1. Overview

Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan intends to purchase “**Supply & Installation of Laboratory Equipment of Electrical Engineering Department**” as provided at **Annex ‘A’**. The supplier will be responsible for Supply, delivery, installation and commissioning of all specified items, wherever required, at the Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan. This document provides complete instructions for bidders intending to participate in this Tender.

2. Instructions for Bidders

2.1. Response to the Tender (Bid) should be submitted in one part which shall include two separately sealed envelopes of Technical **Proposal and Financial Proposal** before **12:00 PM** on **09-10-2017**. Technical Proposals will be opened on same day at **12:30 PM** in the presence of representatives of responding bidders, if any, and Financial Proposals will be opened after completion of technical evaluation. The exact time and place for opening of financial proposals will be informed to technically qualified bidders.

2.2. Responding bidder shall deliver two sealed copies of the bid. Each copy being physically separate, bound, sealed and labeled. Proposals shall be delivered at the address given below.

Director Procurement

**Khwaja Fareed University of Engineering & Information Technology
Abu Dhabi Road, Rahim Yar Khan.**

Tel. # 068-5882420

2.3. Any queries regarding this proposal should be directed to the designated Technical Contact Person listed below.

Engr. Muhammad Arslan Yousaf, Tel.# 068-5882470

2.4. All bids must be submitted by filling the **Annex ‘B’**. Same should be enclosed in the financial proposal. Bidder must use the same numbers and labels used in this Request for Proposal.

2.5. The original Tender Document duly signed and officially sealed by the bidder must be submitted in whole with the proposals. Any conditional, ambiguous, incomplete, supplementary or revised offer after the opening of tender shall not be entertained.

3. Technical Proposal Format

Bidders are required to include the following documents/information in their technical proposals in the order given below:

- i. The Name and Address
- ii. Profile of company (Including Financial Profile)
- iii. List of Previous/Current customers of related designing, composing and printing of prospectus, with contact person and telephone/fax numbers.
- iv. Detailed product design information
- v. Copy of National Tax Registration Certificate
- vi. Copy of Sales Tax Registration Certificate
- vii. Bank letter of financial standing
- viii. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or debarred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
- ix. Any additional information the bidder may like to furnish e.g. repair/maintenance other concerned facility
- x. Detailed item specifications matched corresponding to the BOQ as given at **Annex 'A'**
- xi. Detailed project implementation schedule/Completion Schedule which includes the delivery of items mentioned in the BOQ
- xii. Signed and stamped Tender document
- xiii. Bank Draft of the Earnest Money

4. Financial Proposal Format

Financial Proposal must include the following in the order given below:

- i. Equipment prices duly entered on the form in the attached BOQ
- ii. Validity period of the quoted price
- iii. Any other Terms and Conditions

5. Terms & Conditions

- 5.1. This invitation for bids is open to all national original Manufacturers/ Distributors/Agents in Pakistan for Supply of Tools, Carpentering, Plumbing and Electric Material.
- 5.2. All prices should be quoted in Pak Rupees and inclusive of all Government Taxes & Levies.
- 5.3. A bank draft equal to 2% of the estimated cost should accompany the Tender as **Earnest Money** drawn in favor of **KFUEIT Rahim Yar Khan**. The Tender shall not be considered without Earnest Money. Bank guarantee will not be accepted. Bank draft for Earnest Money should be placed with the Technical proposal.
- 5.4. Earnest Money for bidders not selected will be returned a minimum of two weeks after announcement of award and returned to successful bidder after signing the contract. If the selected bidder fails to sign the contract within stipulated time, Earnest Money will be forfeited.
- 5.5. A Bank draft of 5% of the total amount as **Performance Guarantee** will be provided by the supplier in favor of KFUEIT, Rahim Yar Khan within 10 days after signing of the contract on judicial stamp paper of the value PKR. 1200/-which shall remain valid for 12 months beyond delivery period. This performance guarantee will be released after the completion of warranty/guarantee period, along with the satisfactory completion report which will be intimated to the Seller and the Director Procurement KFUEIT, Rahim Yar Khan for their onward issuance of No Objection Certificate (NOC) for the release of performance guarantee.
- 5.6. KFUEIT Rahim Yar Khan reserves the right to accept / reject any or all proposals without assigning any reason thereof.
- 5.7. The quantity of an order may vary depending on the quoted prices and the allocated funds.
- 5.8. The decision of the KFUEIT procurement committee will be binding on all concerned and will in no case be challenged in any forum.
- 5.9. KFUEIT Rahim Yar Khan reserves the right to modify the conditions / specifications of the Tender Document with written intimation to all the participants who have purchased the Tender Document.
- 5.10. Delivery period will be 45 days from the date of issuance of purchase order/supply order.

- 5.11. Delivery shall be completed according to the agreed upon schedule.
- 5.12. In case the selected bidder fails to execute the contract strictly in accordance with the terms and conditions laid down in the contract, the Performance Guarantee shall be forfeited.
- 5.13. The University will get the item inspected at KFUEIT Rahim Yar Khan and reject the item, if not found according to the stated specifications.
- 5.14. The University reserves the right to claim compensation for the losses caused by delay in the delivery of equipment.
- 5.15. It is the sole responsibility of the bidder to comply with local, national and international laws.
- 5.16. In case any supplies/material are found not in conformity with the specifications provided in the tender, either on account of inferior quality, defective workmanship, faulty design, faulty packing or is short supplied, or wrongly supplied, the supplier will replace the same free of charges or pay the full cost of replacement.
- 5.17. All the proposals submitted will become the property of the University.
- 5.18. All prices should be valid for at least 60 days. Withdrawal or any modification of the original offer within the validity period shall entitle the KFUEIT Rahim Yar Khan to forfeit the Earnest Money in favor of the KFUEIT Rahim Yar Khan and/or putting a ban on the future inquires or taking any other suitable action against the bidder.
- 5.19. Delivery of the items will be free of charge at Khawaja Fareed University of Engineering & Information Technology, Rahim Yar Khan during the office hours with a copy of Delivery Challan.
- 5.20. Items being ordered should be brand-new and according to order specification from the current production and covered under normal warranty/guarantee etc. as mentioned in the quote. Brochures mentioned and product details must be attached.

6. Tender Evaluation Criteria

All bids shall be evaluated on technical and financial merit. The Company Evaluation Criteria is attached at **Annex 'C'** for reference. Technical evaluation process may include, but not limited to the consideration of the following with respect to the functional requirements given ahead:

- a. Technical specifications of proposed item
- b. Company Profile
 - Age of the company
 - Financial strength of the bidder

Financial Evaluation process will be based on the consideration of the quoted price.

7. Undertaking

On behalf of the company it is certified that we agree to the all the Instructions and Terms & Conditions given in this Tender Document

Name of bidder.....

Authorized person.....

Authorized signature.....

Stamp.....

Office Address.....

Tel No

Fax No

Supply & Installation of Laboratory Equipment of Electrical Engineering Department

Sr. No	Item Name	Specifications/Minimum Requirements	Qty.
01	8- Bit Microcontroller Trainer	<p>Main Motherboard: 8-bit high performance microcontroller 32 KB Static RAM Serial Ports UARTs for Serial Interface Built-in Signal Amplifier Module Built-in Programmable Timer Interrupt Support Fault Switch Simulator ROM Debugger Parallel Digital I/O LCD Display Keyboard Interface Expansion BUS Connectors Battery Backup Function for RAM Analog-to- Digital Converter</p> <p>Experiments: Study of LED Lighting Study of Keypad Study of Buzzer Study of Relay Study of Decoder Study of 7-Segment Display Study of Dot Matrix LED Study of Pulse Width Modulation Study of Stepper Motor Study of EEPROM Study of AD- DA conversion Study of LCD Display Study of Temperature Sensor Study of light Sensor Study of Matrix keyboard Study of Interrupt Study of Microcontroller IO Expansion</p>	05
02	32-Bit Microcontroller Kit	<p>Features: Training platform for embedded applications Software development tools include assembler and 'C' compiler Easy adaptability to different versions of microcontroller in the same family</p> <p>Main Motherboard: 60-80 MHz operations</p>	05

		<p>256 KB Flash Memory 32 KB Static RAM 2 KB EEPROM Eight UARTs Four Synchronous Serial Interface (SSI) Four Inter-Integrated Circuit (I2C) Two Controller Area Network (CAN) Universal Serial Bus (USB) Micro Direct Memory Access (μDMA) General-Purpose Timer (GPTM) Two Watchdog Timer (WDT) Hibernation Module (HIB) Six General-Purpose Input/output (GPIO) blocks Pulse Width Modulator (PWM) Quadrature Encoder Interface (QEI) Two Quadrature Encoder Interface (QEI) Analog-to- Digital Converter Two Analog Comparator Controller Sixteen Digital Comparator JTAG and Serial Wire Debug (SWD)</p> <p>External I/O Interface Board: Servo Motor Connector 3-axis accelerometer User Push Buttons RGB Multicolor LED Buzzer Microphone 2-axis Joystick with Pushbutton Light Sensor Temperature Sensor</p> <p>Components: 7- Segment Display Keypad</p> <p>Experiments: Study of User Push Buttons Study of RGB Multicolor LED Study of Servo Motor Study of Buzzer Study of Microphone Study of Analog Interfacing Study of Light Sensor Study of Temperature Sensor Study of 2-axis Joystick with Pushbutton Study of 3-axis accelerometer</p>	
03	Current Transformers and Potential Transformers (C. T's and P. T's)	CT's and PT's are required to be used in metering to step down current (Ratio 100:1 A) and voltage (600:100 V) to safer and more manageable levels.	10
04	Earth Leakage C. Bs	Having high earth impedance. It should be able to detect small stray voltages of	10

		electrical equipment, And can interrupt the circuit if a dangerous voltage is detected.	
05	Electro Dynamic Meter (KWH and W) Single & 3 phase Analogue Meter	1. 2000 KWH meter with a pulse output for use in Automatic Meter Reading systems. 2. The display reset to zero if desired from the inside of the meter to simplify tracking of power consumption. Can display either the total KWH used, or the instantaneous KW reading.	10
06	Electro Dynamic Meter (VAR)	The meters with electro dynamic movement used for the following supply systems: DC circuits, single phase AC, 3 phase balanced load, 3 or 4 wire, 3 phase unbalanced load, 3 or 4 wire Can measure power on current. Off-set zero power meters The power meters are housed in pressed steel cases suitable to be mounted in switchboards, control panels, machine tool consoles and/or mosaic grid panels.	10
07	Induction Meter	Induction type AC measurement For W, KWH, KVA _r , (0 - 400V)	10
08	Strain Gauge	High Capacity Strain Gauge. Measuring ranges from 0.05 to 100-kilograms, 0.05 to 220-pounds, 0.2 to 980 Newton. Basic accuracy of 0.5-percent. Tension or Compression, Peak hold and Zero functions. Positive/Reverse display for easy readability. Large LCD with back light feature. Complete with tension and compression adaptors.	10
09	Load Cells	Transducers (Different Types) Include hydraulic load cells, pneumatic load cells, piezoelectric load cells and strain gauge load cells, capacitive load cell, etc.	05
10	Induction Heating Trainer	Induction Heating Trainer	02
11	DSP Trainers	<u>Technical Specifications:</u> a. MATLAB Interface b. Sample program for DSP/BIOS c. USB debugging with software which shows RTDX data d. Designed in portable Tec book format to learn anywhere e. Easily accessible peripherals like PPI	10

		<p>Interface, Memory Expansion, host Port Interface (HPI).</p> <p>f. Easily accessible Timers, External Interrupts, EMIF Controls, MCBSP Channels.</p> <p>g. Exhaustive learning material</p> <p>h. IEEE 1284 compliant male-to-female cable</p> <p>k. Installation CD for Code Composer Studio Evaluation version</p> <p><u>Experiments Included:</u></p> <p>a. Complete set of Hardware and Software to perform experimentations based on</p> <p>b. Speech, Audio, Communication</p> <p>c. Filter Designs</p> <p>d. Fourier Transform</p> <p>e. CCS/MATLAB interface using RTDX</p> <p>f. Convolution applications Real-time data exchange with external GUI and DSP Processor</p> <p>g. Noise Cancellation</p>	
12	Audio Signal Generator	<p><u>Technical Specification</u></p> <ul style="list-style-type: none"> • Low distortion • 10Hz ~ 1MHz audio in in five range steps • Sine and square wave output • Continuously variable amplitude • Selectable 10dB, 20dB, 30dB, 40dB and -50dB attenuator • External sync input • Includes owner's manual, test leads and power cord • Generator frequency: 10Hz ~ 1MHz, ± 0.5dB (600ohm load) • Sine wave output: 7V RMS (no load) • Distortion (x100 range): $\leq 0.1\%$ (400Hz ~ 20KHz) • Distortion (x10 range): $\leq 0.3\%$ (100Hz~100KHz) • Square wave output: 10V p-p (no load) • Rise/fall time: ≤ 200nsec • Overshoot: $< 2\%$ • Output impedance: 600ohm • Power requirements: 120V/240VAC, 50/60Hz • Dimensions: 5 1/2" (W) x 7 3/4" (H) x 10" (D) 	10
13	Personal Computers	<p><u>Technical Specifications:</u></p> <ul style="list-style-type: none"> • 5th Generation Intel® Core™ i7 5557U • LED 21 inches • Processor (4M Cache, up to 3.40 	10

		<p>GHz,14Nm) or higher</p> <ul style="list-style-type: none"> • Manufacturer’s Original Motherboard with Min 1 Mini HDMI 1.4a and 1 Mini Display Port 1.2 and Onboard RAID 1/0 Option. • 8GB DDR3L-1333 (1.35V) • 240GB Solid State Drive or higher • Intel® Iris Graphics 6000 Series • Onboard 7 Channel HD Audio Integrated Gigabit Ethernet (10/100/1000Mbps) & Wireless Module (Min. AC Standard with Bluetooth 4.1 and Intel® Wireless Display support) • Standard USB Keyboard and 2-Buttons • Optical Mouse with Scroll and Mouse Pad Mini/Tiny PC Chassis (UCFF 4" x 4" Maximum) <p>All the accessories must be included</p>	
14	Hysteresis Motor	220 VAC, 1KW	05
15	Commercial Transformer	1500VA (11 KV/ 380 V) (For Educational Training)	01
16	Multi Core Evaluation Board	<ul style="list-style-type: none"> • Hardware Features <ol style="list-style-type: none"> a. Double wide AMC form factor providing access to Serial RapidIO, XFI, CPRI, SGMII, and Hyperlink Single Keystone 2 C66x multicore processor b. 2 GB ECC DDR3 on board c. 2 GB ECC DDR3 1333 SO-DIMM d. 512 MB NAND Flash e. 128 Mb NOR Flash f. 1Mb I2C EEPROM for local boot (remote boot possible) g. Dual 10/100/1000 Ethernet ports on board h. GPS Input i. μSIM Connector j. LCD Display k. User programmable LEDs and DIP switches l. 60-pin JTAG emulator header m. Board-specific Code Composer Studio™ n. Integrated Development Environment o. Orcad and Gerber design file 	02

		<ul style="list-style-type: none"> • Software Features: <ol style="list-style-type: none"> a. Board-specific Code Composer Studio™ b. Integrated Development Environment c. Orcad and Gerber design files • Kit Contents: <ol style="list-style-type: none"> a. EVMK2HX Evaluation Module b. Power adapter and power cord c. USB cable for on-board JTAG emulation (XDS200) d. Mini-USB cable e. Ethernet cable f. RS-232 serial cable g. Universal Plug Adapter h. Documentation • Daughter Card <ol style="list-style-type: none"> a. The adaptor card is a PCIe x4 lane form-factor b. One x4 lane PCIe PCB edge finger connector c. One AMC B+ style (170 pin) PCB edge finger connector. d. One AMC B+ style connector housing (AMC Socket) to hold the EVM e. Connector to provide DC power to the FAN 0 	
17	Measurement System for Impedance/capacitance/resistance	<ol style="list-style-type: none"> 1. Agilent 4284A 20 - 1M Hz Precision LCR meter equivalent/better 2. Agilent 34970A Data Acquisition/Switch Unit equivalent/better 3. Micromanipulators 4. The micromanipulator co., model 450/550 device I-V characteristic measurement system equivalent/better 	1+1+1+1
18	High voltage differential oscilloscope probe	<p>General Specifications</p> <ol style="list-style-type: none"> 1. Bandwidth DC to 70 / 100 MHz 2. Attenuation ratio 100:1/1000:1 3. Accuracy ±2% 	1
19	High voltage passive probe	<p>General Specifications</p> <ol style="list-style-type: none"> a. Bandwidth Up to 250 MHz b. Attenuation ratio 100:1 c. Accuracy ±2% 	1
20	Digital Storage Oscilloscope	<ol style="list-style-type: none"> 1. 300 / 350 / 500 MHz bandwidth 	1

		selection, 4 channels 2. 2.5 / 5GSa/s maximum sampling rate 3. 4 Mpts memory	
21	Components / Consumable Items	IC Programmer/Burner	5
		ICs: 8051, 8052, PIC16F877A, PIC18F46K20, 555 Timers, MAX7219	20 each
		Sensors (Heat, Light, Motion, accelerometer. Humidity, temperature sensor)	10 each
		Servo Motors	12
		Stepper Motors	12
		DC Motors (5V & 12V)	12 each
		7-Segment Display	50
		Keypads (4X4)	12 each
		LEDs (8mm) (Red, Green, White, Yellow, Blue)	500 each
		RGB LEDs (8mm)	100
		Bread Board	30
		16x2 LCDs	10
		Connecting Wires	20 meter
		Resistors (0,220,330,1K,10K)	500 each
		Potentiometer (1ohm, 100ohm, 1kohm, 10kohm, 50kohm, 100kohm, 200kohm, 1000kohm)	50 each
		Capacitors (standard ratings)	50 each
		Resistors (standard ratings)	50 each
		Inductors (standard ratings)	50 each
		Fuses (0.5A, 1A, 5A, 10A, 15A)	50 each
		Variable capacitors	50 each
		Variable inductors	50 each

Points of Consideration:

1. All items must be of North American, Western Europe or Japanese manufacturer.
2. One Year Parts and Labor warranty for all components on site.
3. Quoted Measurement and Instrumentation components must be compatible with test transformer and other equipment as per requirement
4. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.

5. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
6. Please mention the country of origin / manufacturing / assembly of the quoted brand / model.
7. All items must be factory fitted & configured. Vendor /Assembler to provide verification of Serial numbers / AA numbers of Intel products.

**Supply & Installation of Laboratory Equipment of Electrical
Engineering Department
(Bid Form)**

Sr. No.	Item Name	Qty.	Unit Rate	Total Price (inclusive of all taxes, and Shipment charges)
01	8- Bit Microcontroller Trainer	05		
02	32-Bit Microcontroller Kit	05		
03	C.T's and P. T's	10		
04	Earth Leakage C. Bs	10		
05	Electro Dynamic Meter (KWH and W) Single & 3 phase Analogue Meter	10		
06	Electro Dynamic Meter (VAR)	10		
07	Induction Meter	10		
08	Strain Gauge	10		
09	Load Cells	05		
10	Induction Heating Trainer	02		
11	DSP Trainers	10		
12	Audio Signal Generator	10		
13	Personal Computers	10		
14	Hysteresis Motor	05		
15	Commercial Transformer	01		
16	Multi Core Evaluation Board	02		
17.1	Precision LCR meter	01		
17.2	Data Acquisition/Switch Unit	01		
17.3	Micromanipulators	01		
17.4	I-V characteristic measurement system	01		
18	High voltage differential oscilloscope probe	011		
19	High voltage passive probe	01		
20	Digital Storage Oscilloscope	01		
21.1	IC Programmer/Burner	5		
21.2	ICs: 8051, 8052, PIC16F877A, PIC18F46K20, 555 Timers,	20 each		

Sr. No.	Item Name	Qty.	Unit Rate	Total Price (inclusive of all taxes, and Shipment charges)
	MAX7219			
21.3	Sensors (Heat, Light, Motion, accelerometer. Humidity, temperature sensor)	10 each		
21.4	Servo Motors	12		
21.5	Stepper Motors	12		
21.6	DC Motors (5V & 12V)	12 each		
21.7	7-Segment Display	50		
21.8	Keypads (4X4)	12 each		
21.9	LEDs (8mm) (Red, Green, White, Yellow, Blue)	500 each		
21.10	RGB LEDs (8mm)	100		
21.11	Bread Board	30		
21.12	16x2 LCDs	10		
21.13	Connecting Wires	20 meter		
21.14	Resistors (0,220,330,1K,10K)	500 each		
21.15	Potentiometer (1ohm, 100ohm, 1kohm, 10kohm, 50kohm, 100kohm, 200kohm, 1000kohm)	50 each		
21.16	Capacitors (standard ratings)	50 each		
21.17	Resistors (standard ratings)	50 each		
21.18	Inductors (standard ratings)	50 each		
21.19	Fuses (0.5A, 1A, 5A, 10A, 15A)	50 each		
21.20	Variable capacitors	50 each		
21.21	Variable inductors	50 each		
TOTAL: _____				
Total in Words: _____				

Company Evaluation Criteria

1. Basic Evaluation

1. List of Previous/Current customers of related equipment, with contact person and telephone/fax numbers.
2. Detailed product information
3. Copy of National Tax Registration Certificate
4. Copy of Sales Tax Registration Certificate
5. Bank letter of financial standing
6. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or de-barred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
7. Valid Manufacturers authorization letter
8. Detailed item specifications matched corresponding to the BOQ
9. Detailed project implementation schedule which includes the delivery of items mentioned in the BOQ
10. Signed and stamped Tender document

Detailed Evaluation for Tender No. Lab-082
Supply & Installation of Laboratory Equipment of Electrical Engineering Department
at KFUEIT, Rahim Yar Khan

(Minimum Passing Score Required is 65 Points)

Sr. No	Item Name and Description	Marks	Max Marks
1	Past Performance/Experience of the Bidder (Reg. with GST/NTN)	--	10
1.1	1 – 3 year experience	2	--
1.2	4 – 8 year experience	4	--
1.3	9 – 15 years experience	6	--
1.4	Above 15	10	--
2	Relevant Experience	--	10
2.1	Project completed of similar nature in last ten years	2/project	6
2.2	Project in hand of similar nature	2/project	4
3	Financial Position/ Status	--	10
3.1	Last sales tax paid Form	4	--
3.2	Bank Certificate (satisfactory)	2	--
3.3	Statement Worth (Min 15 m)	4	--
4	After sale Services Available	--	10
5	Technical Evaluation of quoted items	--	60
5.1	Specification matched	30	
5.2	Literature in printed shape attached	2.5	
5.3	Reliability	2.5	
5.4	Delivery schedule as per need	5	
5.5	List of clients / where this equipment delivered	5	
5.6	Satisfactory letter from clients in favour of such equipment	5	
5.7	Guarantee / Warranty (as the case may be)	5	
5.8	Provision of training to concerned user	2.5	
5.9	Free Installation (if required) as per requirement	2.5	
Total		--	100

**Khwaja Fareed University of Engineering &
Information Technology, Rahim Yar Khan**



Tender Document

Tender No. Lab-083

**Supply & Installation of Laboratory Equipment of
Mechanical Engineering Department**

at

**Khwaja Fareed University of Engineering
& Information Technology
Rahim Yar Khan**

TENDER DOCUMENT

TENDER No. Lab-083

Supply & Installation of Laboratory Equipment of Mechanical Engineering Department

at

Khwaja Fareed University of Engineering and Information Technology

TENDER PRICE Rs. 3000/-

Last date of submission: _____

FOR OFFICE USE ONLY

Serial No. _____

Sold to: M/S _____

Date of Sale _____

Bank Challan No. _____

Date _____

1. Overview

Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan intends to purchase “**Supply & Installation of Laboratory Equipment of Mechanical Engineering Department**” as provided at **Annex ‘A’**. The supplier will be responsible for Supply, delivery, installation and commissioning of all specified items, wherever required, at the Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan. This document provides complete instructions for bidders intending to participate in this Tender.

2. Instructions for Bidders

2.1. Response to the Tender (Bid) should be submitted in one part which shall include two separately sealed envelopes of Technical **Proposal and** Financial **Proposal** before **12:00 PM** on **09-10-2017**. Technical Proposals will be opened on same day at **12:30 PM** in the presence of representatives of responding bidders, if any, and Financial Proposals will be opened after completion of technical evaluation. The exact time and place for opening of financial proposals will be informed to technically qualified bidders.

2.2. Responding bidder shall deliver two sealed copies of the bid. Each copy being physically separate, bound, sealed and labeled. Proposals shall be delivered at the address given below.

Director Procurement
Khwaja Fareed University of Engineering & Information Technology
Abu Dhabi Road, Rahim Yar Khan.

Tel. # 068-5882420

2.3. Any queries regarding this proposal should be directed to the designated Technical Contact Person listed below.

Mr. Sajjad Ahmed - 068-5882417

2.4. All bids must be submitted by filling the **Annex ‘B’**. Same should be enclosed in the financial proposal. Bidder must use the same numbers and labels used in this Request for Proposal.

2.5. The original Tender Document duly signed and officially sealed by the bidder must be submitted in whole with the proposals. Any conditional, ambiguous, incomplete, supplementary or revised offer after the opening of tender shall not be entertained.

3. Technical Proposal Format

Bidders are required to include the following documents/information in their technical proposals in the order given below:

- i. The Name and Address
- ii. Profile of company (Including Financial Profile)
- iii. List of Previous/Current customers of related designing, composing and printing of prospectus, with contact person and telephone/fax numbers.
- iv. Detailed product design information
- v. Copy of National Tax Registration Certificate
- vi. Copy of Sales Tax Registration Certificate
- vii. Bank letter of financial standing
- viii. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or debarred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
- ix. Any additional information the bidder may like to furnish e.g. repair/maintenance other concerned facility
- x. Detailed item specifications matched corresponding to the BOQ as given at **Annex 'A'**
- xi. Detailed project implementation schedule/Completion Schedule which includes the delivery of items mentioned in the BOQ
- xii. Signed and stamped Tender document
- xiii. Bank Draft of the Earnest Money

4. Financial Proposal Format

Financial Proposal must include the following in the order given below:

- i. Equipment prices duly entered on the form in the attached BOQ
- ii. Validity period of the quoted price
- iii. Any other Terms and Conditions

5. Terms & Conditions

5.1. This invitation for bids is open to all national original Manufacturers/ Distributors/Agents in Pakistan for Supply of Tools, Carpentering, Plumbing and Electric Material.

5.2. All prices should be quoted in Pak Rupees and inclusive of all Government Taxes & Levies.

- 5.3. A bank draft equal to 2% of the estimated cost should accompany the Tender as **Earnest Money** drawn in favor of **KFUEIT Rahim Yar Khan**. The Tender shall not be considered without Earnest Money. Bank guarantee will not be accepted. Bank draft for Earnest Money should be placed with the Technical proposal.
- 5.4. Earnest Money for bidders not selected will be returned a minimum of two weeks after announcement of award and returned to successful bidder after signing the contract. If the selected bidder fails to sign the contract within stipulated time, Earnest Money will be forfeited.
- 5.5. A Bank draft of 5% of the total amount as **Performance Guarantee** will be provided by the supplier in favor of KFUEIT, Rahim Yar Khan within 10 days after signing of the contract on judicial stamp paper of the value PKR. 1200/-which shall remain valid for 12 months beyond delivery period. This performance guarantee will be released after the completion of warranty/guarantee period, along with the satisfactory completion report which will be intimated to the Seller and the Director Procurement KFUEIT, Rahim Yar Khan for their onward issuance of No Objection Certificate (NOC) for the release of performance guarantee.
- 5.6. KFUEIT Rahim Yar Khan reserves the right to accept / reject any or all proposals without assigning any reason thereof.
- 5.7. The quantity of an order may vary depending on the quoted prices and the allocated funds.
- 5.8. The decision of the KFUEIT procurement committee will be binding on all concerned and will in no case be challenged in any forum.
- 5.9. KFUEIT Rahim Yar Khan reserves the right to modify the conditions / specifications of the Tender Document with written intimation to all the participants who have purchased the Tender Document.
- 5.10. Delivery period will be 45 days from the date of issuance of purchase order/supply order.
- 5.11. Delivery shall be completed according to the agreed upon schedule.
- 5.12. In case the selected bidder fails to execute the contract strictly in accordance with the terms and conditions laid down in the contract, the Performance Guarantee shall be forfeited.
- 5.13. The University will get the item inspected at KFUEIT Rahim Yar Khan and reject the item, if not found according to the stated specifications.

- 5.14. The University reserves the right to claim compensation for the losses caused by delay in the delivery of equipment.
- 5.15. It is the sole responsibility of the bidder to comply with local, national and international laws.
- 5.16. In case any supplies/material are found not in conformity with the specifications provided in the tender, either on account of inferior quality, defective workmanship, faulty design, faulty packing or is short supplied, or wrongly supplied, the supplier will replace the same free of charges or pay the full cost of replacement.
- 5.17. All the proposals submitted will become the property of the University.
- 5.18. All prices should be valid for at least 60 days. Withdrawal or any modification of the original offer within the validity period shall entitle the KFUEIT Rahim Yar Khan to forfeit the Earnest Money in favor of the KFUEIT Rahim Yar Khan and/or putting a ban on the future inquires or taking any other suitable action against the bidder.
- 5.19. Delivery of the items will be free of charge at Khawaja Fareed University of Engineering & Information Technology, Rahim Yar Khan during the office hours with a copy of Delivery Challan.
- 5.20. Items being ordered should be brand-new and according to order specification from the current production and covered under normal warranty/guarantee etc. as mentioned in the quote. Brochures mentioned and product details must be attached.

6. Tender Evaluation Criteria

All bids shall be evaluated on technical and financial merit. The Company Evaluation Criteria is attached at **Annex 'C'** for reference. Technical evaluation process may include, but not limited to the consideration of the following with respect to the functional requirements given ahead:

- a. Technical specifications of proposed item
- b. Company Profile
 - Age of the company
 - Financial strength of the bidder

Financial Evaluation process will be based on the consideration of the quoted price.

7. Undertaking

On behalf of the company it is certified that we agree to the all the Instructions and Terms & Conditions given in this Tender Document

Name of bidder.....

Authorized person.....

Authorized signature.....

Stamp.....

Office Address.....

Tel No

Fax No

Supply & Installation of Laboratory Equipment of Mechanical Engineering Department

Sr. No	Item Name	Specifications/Minimum Requirements	Qty.
01	Software	EES – Engineering Equation Solver Univ-Pro	01
02	Software	MATLAB	01
03	Photovoltaic Solar Energy Equipment, 3KWP (Complete with all Accessories to Perform Experiments)	<p>Photovoltaic Solar Energy Equipment must be used for study of conversion of solar energy into Electrical Energy. Specification must be in accordance to given Data.</p> <ol style="list-style-type: none"> 1. Total PV Module = 3 KW-5 KW 2. PV module capacity = 250 kwp-270 kwp 3. No. of Panels = 6 nos. or equivalent to it. 4. Solar PCU (Inverter) = 3 KW-5 KW 5. Batteries (150 Ah X 12 V) = 6 Nos. 6. Space required = 150 sq. feet or equivalent to it. 7. <input type="checkbox"/> Supporting Structure = Galvanized Iron Chanel <p>Intensity of light source (if attached), and conversion Efficiency of the cell must be to its maximum value. Solar trackers, Converters, Inverters must be accordingly to above specification personal computer if required along with the software Compatible with the equipment should be provided. Tool kit must be provided with the apparatus. Instructor manual, student manual, and maintenance manuals Must be supplied with the apparatus. Origin of apparatus should be of Japan, USA, Spain, Canada, Germany or UK.</p>	01
04	Solar cell test Unit(Complete with all accessories to perform experiments)	<p>Solar cell test Unit must have following Specifications or related to it. solar cell must have</p> <p>SMU(source measure unit) power = 100 W Output Voltage / Current range = 5-20V /20-5 Temperature Range = -10o -130oC Setting time = <300 -400 s Contact resistant = < 1 m-2mohm Size = 200*200 mm Timing accuracy = 0.01% + 1 ms</p> <p>A personal computer if required along with the software compatible with the equipment should be Provided. Tool kit must be provided. Instructor manual, student manual, and maintenance manuals Must be supplied with the apparatus. Origin of apparatus should be of Japan, USA, Spain, Canada, Germany or UK.</p>	01
05	Educational Alkaline Fuel Cell (Complete	Educational Alkaline Fuel Cell should have Anodized Aluminum structure and panel in painted steel. Main Metallic element in	01

	with all Accessories To Perform Experiments)	<p>Stainless Steel. Alkaline system must consist of tank, pump, and sensors. Air system must consists of following items:</p> <ol style="list-style-type: none"> 1.An air Blower computer control 2.CO2 absorber 3. Oxygen from air <p>Power output of the fuel cell must be measured and study using the internal load.</p> <p>Unit must be provided with Alarm, sensor and emergency shutdown. A personal computer if required along with the software compatible with the equipment should be provided. Tool kit must be provided. Instructor manual, student manual, and maintenance manuals must be supplied with the unit. Origin of apparatus should be of Japan, USA, Spain, Canada, Germany or UK.</p>	
06	EDM Die Sinking(Complete with all Accessories to Perform Experiments)	<p>CNC Electric Discharge Machine with Circular, Vector, Spherical, and Helical orbital, Travel x-axis 275mm to 350mm, Travel y-axis 200mm to 300mm, Travel z-axis 250mm to 350mm, Worktable (600-650mm) x (300-400mm), Work piece size (800 x 500 x 300)mm or equivalent, Electrode Weight 100 kg to 130 kg, Electrode head to work (270mm to 550mm from table), Oil filter tank capacity 325 liters to 375 liters</p> <p>Following accessories should be provided</p> <ul style="list-style-type: none"> • Alcohol Extinguisher • Working lamp • Leveling Pad • Flushing Unit • Paper Filter • ½ Drill Chuck • Tool Box • Clamp Jig • Oil cooling system <p>A personal computer if required along with the software compatible with the equipment should be Provided. Tool kit must be provided. Instructor manual, student manual, and maintenance manuals Must be supplied with the apparatus.</p> <p>Origin of apparatus should be of Japan, USA, Spain, Canada, Germany, UK or equivalent.</p>	01
07	Capstan Lathe (Complete with all 01 Accessories to perform Experiments)	<p>Standard Equipment must have:</p> <p>Suitable electric 3 phase 440 volts frequency 50 cycles with starter and fittings</p> <p>Splash guard</p> <p>One collets</p> <p>Bar Stopper</p> <p>Spanner set</p> <p>Coolant pump with assembly</p> <p>Technical Specifications: (in mm otherwise stated)</p> <p>Spindle hollow: 42-62</p> <p>Maximum collet capacity: 40 -60</p>	01

	<p>Range of spindle speeds: 90-1050 or in between but should have large flexibility of speed selection Similarly. Effective strokes of turret slide: 165-180 Bore size in turret hex head: 25-32 Center of holes above turret slide: 55 Max. distance between spindle nose to turret face:375-430 Cross slide transverse travel: 95-150 Cross slide longitudinal travel: 300</p> <p>Length of bed: 1050-1375</p> <p>Width of bed: 178-230</p> <p>Height of center above bed: 165-190</p> <p>Floor space occupied: 2.5m x 1m to 3m x 1m or in between</p> <p>Net weight of machine: 1850 kg Max Accessories: Vertical slide Bar feeding attachment Threading and cutting attachment Tool holder True chuck with chuck rate Electric Panel: Magnetic Contactor Phase Filer Really (Phase Break, Overvoltage, Under voltage, Phase Sequence) Over Load relay Circuit Breaker 440 volt Ampere Meter Digital</p>	
--	---	--

		<p>Volt Meter Digital Indicator Lights A personal computer if required along with the software compatible with the equipment should be provided. Tool kit must be provided with the apparatus. Instructor manual, student manual, and maintenance manuals must be supplied with the apparatus.</p>	
08	<p>Temperature Sensor Calibration System (Complete with all accessories to perform experiments)</p>	<p>Best temperature measurement accuracy, PRTs, thermocouples, and thermistors with best-in-class accuracy: PRTs ± 0.005 °C (using external Multiplexer), Thermocouples: ± 0.5 °C (using High-Capacity Module), Thermistors: ± 0.002 °C, Flexible configuration for the bench top, Multiple modes of operation, bench top digital millimeter, 2-wire and 4-wire resistance without the need to configure the channel, Real-time graphing, Data portability and security, Automated sensor calibration, With the Automated Test feature, you can automate sensor calibration without a PC and software. Connected to a Calibration drywell or fluid bath via the RS-232 interface. Frequency 40 Hz to 500 Hz, Power Consumption 36 VA peak (24 W average), Operating temperature: 0 °C to 50 °C, Memory Scan data RAM: 75,000 readings with timestamp Data/Setup flash memory: 20M, Temperature Range -200 °C to 1200 °C (depending on the sensor), Thermistor, RTDs Temperature Range -200 °C to 400 °C (depending on the sensor), If the multiple models from the same manufacturer are available, it will be appreciated if the quotation of each machine is provided. Origin of apparatus should be of Japan, Canada, Germany or UK.</p>	01
09	<p>Flow and Level Sensor Calibration System (Complete with all accessories to perform experiments)</p>	<p>comparison and calibration of different flow meters, water circuit with tank, pump and valve to adjust flow rate, 2 measuring locations for vertical or horizontal installation of the flow meters under test, Tank: approx. 50-65L, Pump max. Flow rate: Approx. 200-250L/min max. head: approx. 8-15m, DC voltage source, voltage: 24VDC, current: 2,0A, Accuracy of electromagnetic flow rate sensor, 0.5% of final value, , Measuring ranges flow rate (reference): 0...5000L/h, differential pressure sensor:0...4bar twi tube manometer: 0...680mmWC, 230V, 50Hz, 1 phase, 230V, 60Hz, 1 phase 120V, 60Hz, 1 phase</p>	01

		<p>UL/CSA optional</p> <p>If the multiple models from the same manufacturer are available, it will be appreciated if the quotation of each machine is provided.</p> <p>Origin of apparatus should be of Japan, Canada, Germany or UK</p>	
10	<p>Diesel Smoke Meter (Complete with all Accessories To Perform Experiments)</p>	<p>Diesel smoke meter capable of measuring smoke capacity of diesel vehicle exhaust in % opacity and K-value with measurement of rpm and engine oil Temperature. It should be able to measure the Opacity within a range of 0-99.9% (0.10% resolution approximately), k-value ranging 0-9.99 m-1 (0.01% m-1 resolution approximately), response time physical <0.5 seconds, operates on a power Supply of up to 15V DC, 220V AC. It must be accompanied with smoke sampling hose, smoke sampling probe, oil temperature probe, battery capable of DC operation and engine rpm Measurement. The accessories which must be provided if available are smoke sampling probe, vertical exhaust extension pipe, smoke test software And interface cable. The apparatus should be able to demonstrate smoke opacity of a diesel vehicle. It demonstrates smoke opacity of a diesel vehicle. It should be compatible with a diesel engine performance test facility.</p> <p>A personal computer if required along with the software compatible with the equipment should be Provided. Tool kit must be provided. Instructor manual, student manual, and maintenance manuals Must be supplied with the unit.</p> <p>Origin of apparatus should be of Japan, Italy, USA, Spain, Canada, Germany, UK or Equivalent.</p>	01

**Supply & Installation of Laboratory Equipment of Mechanical
Engineering Department
(Bid Form)**

Sr. No.	Item Name	Qty.	Unit Rate	Total Price (inclusive of all taxes, and Shipment charges)
01	Software (EES)	01		
02	Software (MATLAB)	01		
03	Photovoltaic Solar Energy Equipment, 3KWP (Complete with all Accessories to Perform Experiments)	01		
04	Solar cell test Unit(Complete with all accessories to perform experiments)	01		
05	Educational Alkaline Fuel Cell (Complete with all Accessories To Perform Experiments)	01		
06	EDM Die Sinking(Complete with all Accessories to Perform Experiments)	01		
07	Capstan Lathe (Complete with all 01 Accessories to perform Experiments)	01		
08	Temperature Sensor Calibration System (Complete with all accessories to perform experiments)	01		
09	Flow and Level Sensor Calibration System (Complete with all accessories to perform experiments)	01		
10	Diesel Smoke Meter (Complete with all Accessories To Perform Experiments)	01		
TOTAL: _____				
Total in Words: _____				

Company Evaluation Criteria

1. Basic Evaluation

1. List of Previous/Current customers of related equipment, with contact person and telephone/fax numbers.
2. Detailed product information
3. Copy of National Tax Registration Certificate
4. Copy of Sales Tax Registration Certificate
5. Bank letter of financial standing
6. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or de-barred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
7. Valid Manufacturers authorization letter
8. Detailed item specifications matched corresponding to the BOQ
9. Detailed project implementation schedule which includes the delivery of items mentioned in the BOQ
10. Signed and stamped Tender document

Detailed Evaluation for Tender No. Lab-083
Supply & Installation of Laboratory Equipment of Mechanical Engineering Department
at KFUEIT, Rahim Yar Khan

(Minimum Passing Score Required is 65 Points)

Sr. No	Item Name and Description	Marks	Max Marks
1	Past Performance/Experience of the Bidder (Reg. with GST/NTN)	--	10
1.1	1 – 3 year experience	2	--
1.2	4 – 8 year experience	4	--
1.3	9 – 15 years experience	6	--
1.4	Above 15	10	--
2	Relevant Experience	--	10
2.1	Project completed of similar nature in last ten years	2/project	6
2.2	Project in hand of similar nature	2/project	4
3	Financial Position/ Status	--	10
3.1	Last sales tax paid Form	4	--
3.2	Bank Certificate (satisfactory)	2	--
3.3	Statement Worth (Min 15 m)	4	--
4	After sale Services Available	--	10
5	Technical Evaluation of quoted items	--	60
5.1	Specification matched	30	
5.2	Literature in printed shape attached	2.5	
5.3	Reliability	2.5	
5.4	Delivery schedule as per need	5	
5.5	List of clients / where this equipment delivered	5	
5.6	Satisfactory letter from clients in favour of such equipment	5	
5.7	Guarantee / Warranty (as the case may be)	5	
5.8	Provision of training to concerned user	2.5	
5.9	Free Installation (if required) as per requirement	2.5	
Total		--	100

**Khwaja Fareed University of Engineering &
Information Technology, Rahim Yar Khan**



Tender Document

Tender No. Lab-084

**Supply & Installation of Laboratory Equipment of
Civil Engineering Department**

at

**Khwaja Fareed University of Engineering
& Information Technology
Rahim Yar Khan**

TENDER DOCUMENT

TENDER No. Lab-084

Supply & Installation of Laboratory Equipment of Civil Engineering Department

at

Khwaja Fareed University of Engineering and Information Technology

TENDER PRICE Rs. 3000/-

Last date of submission: _____

FOR OFFICE USE ONLY

Serial No. _____

Sold to: M/S _____

Date of Sale _____

Bank Challan No. _____

Date _____

1. Overview

Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan intends to purchase “**Supply & Installation of Laboratory Equipment of Civil Engineering Department**” as provided at **Annex ‘A’**. The supplier will be responsible for Supply, delivery, installation and commissioning of all specified items, wherever required, at the Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan. This document provides complete instructions for bidders intending to participate in this Tender.

2. Instructions for Bidders

2.1. Response to the Tender (Bid) should be submitted in one part which shall include two separately sealed envelopes of Technical **Proposal and Financial Proposal** before **12:00 PM** on **09-10-2017**. Technical Proposals will be opened on same day at **12:30 PM** in the presence of representatives of responding bidders, if any, and Financial Proposals will be opened after completion of technical evaluation. The exact time and place for opening of financial proposals will be informed to technically qualified bidders.

2.2. Responding bidder shall deliver two sealed copies of the bid. Each copy being physically separate, bound, sealed and labeled. Proposals shall be delivered at the address given below.

Director Procurement
Khwaja Fareed University of Engineering & Information Technology
Abu Dhabi Road, Rahim Yar Khan.

Tel. # 068-5882420

2.3. Any queries regarding this proposal should be directed to the designated Technical Contact Person listed below.

Engr. Waqar Ahmed, Tel. # 0334-7309073

2.4. All bids must be submitted by filling the **Annex ‘B’**. Same should be enclosed in the financial proposal. Bidder must use the same numbers and labels used in this Request for Proposal.

2.5. The original Tender Document duly signed and officially sealed by the bidder must be submitted in whole with the proposals. Any conditional, ambiguous, incomplete, supplementary or revised offer after the opening of tender shall not be entertained.

3. Technical Proposal Format

Bidders are required to include the following documents/information in their technical proposals in the order given below:

- i. The Name and Address
- ii. Profile of company (Including Financial Profile)
- iii. List of Previous/Current customers of related designing, composing and printing of prospectus, with contact person and telephone/fax numbers.
- iv. Detailed product design information
- v. Copy of National Tax Registration Certificate
- vi. Copy of Sales Tax Registration Certificate
- vii. Bank letter of financial standing
- viii. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or debarred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
- ix. Any additional information the bidder may like to furnish e.g. repair/maintenance other concerned facility
- x. Detailed item specifications matched corresponding to the BOQ as given at **Annex 'A'**
- xi. Detailed project implementation schedule/Completion Schedule which includes the delivery of items mentioned in the BOQ
- xii. Signed and stamped Tender document
- xiii. Bank Draft of the Earnest Money

4. Financial Proposal Format

Financial Proposal must include the following in the order given below:

- i. Equipment prices duly entered on the form in the attached BOQ
- ii. Validity period of the quoted price
- iii. Any other Terms and Conditions

5. Terms & Conditions

5.1. This invitation for bids is open to all national original Manufacturers/ Distributors/Agents in Pakistan for Supply of Tools, Carpentering, Plumbing and Electric Material.

5.2. All prices should be quoted in Pak Rupees and inclusive of all Government Taxes & Levies.

- 5.3. A bank draft equal to 2% of the estimated cost should accompany the Tender as **Earnest Money** drawn in favor of **KFUEIT Rahim Yar Khan**. The Tender shall not be considered without Earnest Money. Bank guarantee will not be accepted. Bank draft for Earnest Money should be placed with the Technical proposal.
- 5.4. Earnest Money for bidders not selected will be returned a minimum of two weeks after announcement of award and returned to successful bidder after signing the contract. If the selected bidder fails to sign the contract within stipulated time, Earnest Money will be forfeited.
- 5.5. A Bank draft of 5% of the total amount as **Performance Guarantee** will be provided by the supplier in favor of KFUEIT, Rahim Yar Khan within 10 days after signing of the contract on judicial stamp paper of the value PKR. 1200/-which shall remain valid for 12 months beyond delivery period. This performance guarantee will be released after the completion of warranty/guarantee period, along with the satisfactory completion report which will be intimated to the Seller and the Director Procurement KFUEIT, Rahim Yar Khan for their onward issuance of No Objection Certificate (NOC) for the release of performance guarantee.
- 5.6. KFUEIT Rahim Yar Khan reserves the right to accept / reject any or all proposals without assigning any reason thereof.
- 5.7. The quantity of an order may vary depending on the quoted prices and the allocated funds.
- 5.8. The decision of the KFUEIT procurement committee will be binding on all concerned and will in no case be challenged in any forum.
- 5.9. KFUEIT Rahim Yar Khan reserves the right to modify the conditions / specifications of the Tender Document with written intimation to all the participants who have purchased the Tender Document.
- 5.10. Delivery period will be 45 days from the date of issuance of purchase order/supply order.
- 5.11. Delivery shall be completed according to the agreed upon schedule.
- 5.12. In case the selected bidder fails to execute the contract strictly in accordance with the terms and conditions laid down in the contract, the Performance Guarantee shall be forfeited.
- 5.13. The University will get the item inspected at KFUEIT Rahim Yar Khan and reject the item, if not found according to the stated specifications.

- 5.14.** The University reserves the right to claim compensation for the losses caused by delay in the delivery of equipment.
- 5.15.** It is the sole responsibility of the bidder to comply with local, national and international laws.
- 5.16.** In case any supplies/material are found not in conformity with the specifications provided in the tender, either on account of inferior quality, defective workmanship, faulty design, faulty packing or is short supplied, or wrongly supplied, the supplier will replace the same free of charges or pay the full cost of replacement.
- 5.17.** All the proposals submitted will become the property of the University.
- 5.18.** All prices should be valid for at least 60 days. Withdrawal or any modification of the original offer within the validity period shall entitle the KFUEIT Rahim Yar Khan to forfeit the Earnest Money in favor of the KFUEIT Rahim Yar Khan and/or putting a ban on the future inquires or taking any other suitable action against the bidder.
- 5.19.** Delivery of the items will be free of charge at Khawaja Fareed University of Engineering & Information Technology, Rahim Yar Khan during the office hours with a copy of Delivery Challan.
- 5.20.** Items being ordered should be brand-new and according to order specification from the current production and covered under normal warranty/guarantee etc. as mentioned in the quote. Brochures mentioned and product details must be attached.

6. Tender Evaluation Criteria

All bids shall be evaluated on technical and financial merit. The Company Evaluation Criteria is attached at **Annex 'C'** for reference. Technical evaluation process may include, but not limited to the consideration of the following with respect to the functional requirements given ahead:

- c. Technical specifications of proposed item
- d. Company Profile
 - Age of the company
 - Financial strength of the bidder

Financial Evaluation process will be based on the consideration of the quoted price.

7. Undertaking

On behalf of the company it is certified that we agree to the all the Instructions and Terms & Conditions given in this Tender Document

Name of bidder.....

Authorized person.....

Authorized signature.....

Stamp.....

Office Address.....

Tel No

Fax No

Supply & Installation of Laboratory Equipment of Civil Engineering Department

Sr. No	Item Name	Specifications/Minimum Requirements	Qty.
01	Electric Crane (5 Ton)	<p>ELECTRIC CRANE (5 TON) Crane Type: Single Girder Crane Lifting Capacity: 5000 Kg, Hoist Type: Wire Rope Hoist (Single Girder) Speed Type: Double Speed Span: 30 Feet Lifting Height: 26 Feet Bay Length: 60 Feet Complete Hoist with hoist panel and Gear-motors – (Imported) Complete Motor Control Panel for \overhead Crane- (Imported) Complete Bridge with attachments- (Imported)</p>	01
02	Principle of Super-Position Apparatus	<p>Principle of Super-position apparatus Test beams in steel, Beam length 1200mm; cross section 25mm wide x 3mm and 5mm thick. Dial Gauge 0 to 12.7mm travel, 0.01mm resolution Three hangers provided, Set of slotted and calibrated test weights provided</p>	01
03	GIS/RS Software	<p>GIS/RS SOFTWARE A Geographic Information System (GIS Software) is designed to store, retrieve, manage, display, and analyze all types of geographic and spatial data. GIS software lets you produce maps and other graphic displays of geographic information for analysis and presentation. Other features include:</p> <ul style="list-style-type: none"> • The Create-a-Map Wizard allows users to easily create presentation-ready maps using their own data or the default maps • The Display Manager allows a map to be customized on-the-fly • User-defined preferences for map units, left/right side-of-road routing, file permissions, geo-coding parameters, and many other settings • Toolbox and mouse-based map navigation is supported and includes panning, zooming, and magnifying • Map bookmark management allows the retrieval of custom map views • Multi-layer map feature query tools allow direct interrogation of spatial locations 	01

		<ul style="list-style-type: none"> • A map librarian/manager allows the organization of various saved maps and comes with a library of pre-styled demographic maps • Geographic database layering controls allow customization of layer visibility and drawing order • Multiple maps can be open simultaneously, and can be duplicated, combined, synchronized, tiled, cascaded, and minimized/maximized • There is explicit map scale control including undo • Layer auto scaling allows customization of the scale at which layers are visible • An interactive map overview window provides perspective as you work and the ability to zoom anywhere in the study region 	
04	Irrigation Displays (Sprinkler & Trickle System)	<p>Irrigation Displays (Sprinkler & Trickle System)</p> <p>A single apparatus for the demonstration of physical processes found in hydrology like relationship between rainfall and runoff as a function of time, Storm hydrographs from single or multiple storms, storm hydrograph from a previously saturated catchment, storm runoff from an impermeable catchment, effect of a moving storm on flood hydrograph, effect of land drains on flood hydrograph. Overall Tank dimensions (Length: 1.25m, Width: 0.80m, Height: 0.20m), flow meter range (0.40-6 l/min), and with runoff collector (17 x 0.55 compartments).</p>	01
05	Barometer	<p>Barometer</p> <p>A single digital barometer with overall dimensions 90mm x 180mm x 25mm, pressure range 700 to 1,500 mbar, humidity range 25 to 95%, temperature range -5 to 80°C, accuracy range $\pm 0.1480\text{Hg}$ - ± 5 mbar - ± 5 %RH - $\pm 1^\circ\text{C}$ and powered by 4 x AAA (LR03) battery with voltage range 1.50 to 2.50 V.</p>	01

**Supply & Installation of Laboratory Equipment of
Civil Engineering Department
(Bid Form)**

Sr. No.	Item Name	Qty.	Unit Rate	Total Price (inclusive of all taxes, and Shipment charges)
01	Electric Crane (5 Ton)	01		
02	Principle of Super-Position Apparatus	01		
03	GIS/RS Software	01		
04	Irrigation Displays (Sprinkler & Trickle System)	01		
05	Barometer	01		
				TOTAL: _____
Total in Words: _____				

Company Evaluation Criteria

1. Basic Evaluation

1. List of Previous/Current customers of related equipment, with contact person and telephone/fax numbers.
2. Detailed product information
3. Copy of National Tax Registration Certificate
4. Copy of Sales Tax Registration Certificate
5. Bank letter of financial standing
6. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or de-barred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
7. Valid Manufacturers authorization letter
8. Detailed item specifications matched corresponding to the BOQ
9. Detailed project implementation schedule which includes the delivery of items mentioned in the BOQ
10. Signed and stamped Tender document

Detailed Evaluation for Tender No. Lab-084
Supply & Installation of Laboratory Equipment of Civil Engineering Department
at KFUEIT, Rahim Yar Khan

(Minimum Passing Score Required is 65 Points)

Sr. No	Item Name and Description	Marks	Max Marks
1	Past Performance/Experience of the Bidder (Reg. with GST/NTN)	--	10
1.1	1 – 3 year experience	2	--
1.2	4 – 8 year experience	4	--
1.3	9 – 15 years experience	6	--
1.4	Above 15	10	--
2	Relevant Experience	--	10
2.1	Project completed of similar nature in last ten years	2/project	6
2.2	Project in hand of similar nature	2/project	4
3	Financial Position/ Status	--	10
3.1	Last sales tax paid Form	4	--
3.2	Bank Certificate (satisfactory)	2	--
3.3	Statement Worth (Min 15 m)	4	--
4	After sale Services Available	--	10
5	Technical Evaluation of quoted items	--	60
5.1	Specification matched	30	
5.2	Literature in printed shape attached	2.5	
5.3	Reliability	2.5	
5.4	Delivery schedule as per need	5	
5.5	List of clients / where this equipment delivered	5	
5.6	Satisfactory letter from clients in favour of such equipment	5	
5.7	Guarantee / Warranty (as the case may be)	5	
5.8	Provision of training to concerned user	2.5	
5.9	Free Installation (if required) as per requirement	2.5	
Total		--	100

**Khwaja Fareed University of Engineering &
Information Technology, Rahim Yar Khan**



Tender Document

Tender No. Lab-085

**Supply & Installation of Laboratory Equipment of
Computer Engineering & ICT Department**

at

**Khwaja Fareed University of Engineering
& Information Technology
Rahim Yar Khan**

TENDER DOCUMENT

TENDER No. Lab-085

Supply & Installation of Laboratory Equipment of Computer Engineering
& ICT Department

at

Khwaja Fareed University of Engineering and Information Technology

TENDER PRICE Rs. 3000/-

Last date of submission: _____

FOR OFFICE USE ONLY

Serial No _____

Sold to: M/S _____

Date of Sale _____

Bank Challan No. _____

Date _____

1. Overview

Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan intends to purchase “**Supply & Installation of Laboratory Equipment of Computer Engineering & ICT Department**” as provided at **Annex ‘A’**. The supplier will be responsible for Supply, delivery, installation and commissioning of all specified items, wherever required, at the Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan. This document provides complete instructions for bidders intending to participate in this Tender.

2. Instructions for Bidders

2.1. Response to the Tender (Bid) should be submitted in one part which shall include two separately sealed envelopes of Technical **Proposal and Financial Proposal** before **12:00 PM** on **09-10-2017**. Technical Proposals will be opened on same day at **12:30 PM** in the presence of representatives of responding bidders, if any, and Financial Proposals will be opened after completion of technical evaluation. The exact time and place for opening of financial proposals will be informed to technically qualified bidders.

2.2. Responding bidder shall deliver two sealed copies of the bid. Each copy being physically separate, bound, sealed and labeled. Proposals shall be delivered at the address given below.

Director Procurement
Khwaja Fareed University of Engineering & Information Technology
Abu Dhabi Road, Rahim Yar Khan.

Tel. # 068-5882420

2.3. Any queries regarding this proposal should be directed to the designated Technical Contact Person listed below.

Engr. Ahmed Sohaib, Tel# 068-5882453

2.4. All bids must be submitted by filling the **Annex ‘B’**. Same should be enclosed in the financial proposal. Bidder must use the same numbers and labels used in this Request for Proposal.

2.5. The original Tender Document duly signed and officially sealed by the bidder must be submitted in whole with the proposals. Any conditional, ambiguous, incomplete, supplementary or revised offer after the opening of tender shall not be entertained.

3. Technical Proposal Format

Bidders are required to include the following documents/information in their technical proposals in the order given below:

- i. The Name and Address
- ii. Profile of company (Including Financial Profile)
- iii. List of Previous/Current customers of related designing, composing and printing of prospectus, with contact person and telephone/fax numbers.
- iv. Detailed product design information
- v. Copy of National Tax Registration Certificate
- vi. Copy of Sales Tax Registration Certificate
- vii. Bank letter of financial standing
- viii. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or debarred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
- ix. Any additional information the bidder may like to furnish e.g. repair/maintenance other concerned facility
- x. Detailed item specifications matched corresponding to the BOQ as given at **Annex 'A'**
- xi. Detailed project implementation schedule/Completion Schedule which includes the delivery of items mentioned in the BOQ
- xii. Signed and stamped Tender document
- xiii. Bank Draft of the Earnest Money

4. Financial Proposal Format

Financial Proposal must include the following in the order given below:

- i. Equipment prices duly entered on the form in the attached BOQ
- ii. Validity period of the quoted price
- iii. Any other Terms and Conditions

5. Terms & Conditions

5.1. This invitation for bids is open to all national original Manufacturers/ Distributors/Agents in Pakistan for Supply of Tools, Carpentering, Plumbing and Electric Material.

5.2. All prices should be quoted in Pak Rupees and inclusive of all Government Taxes & Levies.

- 5.3. A bank draft equal to 2% of the estimated cost should accompany the Tender as **Earnest Money** drawn in favor of **KFUEIT Rahim Yar Khan**. The Tender shall not be considered without Earnest Money. Bank guarantee will not be accepted. Bank draft for Earnest Money should be placed with the Technical proposal.
- 5.4. Earnest Money for bidders not selected will be returned a minimum of two weeks after announcement of award and returned to successful bidder after signing the contract. If the selected bidder fails to sign the contract within stipulated time, Earnest Money will be forfeited.
- 5.5. A Bank draft of 5% of the total amount as **Performance Guarantee** will be provided by the supplier in favor of KFUEIT, Rahim Yar Khan within 10 days after signing of the contract on judicial stamp paper of the value PKR. 1200/-which shall remain valid for 12 months beyond delivery period. This performance guarantee will be released after the completion of warranty/guarantee period, along with the satisfactory completion report which will be intimated to the Seller and the Director Procurement KFUEIT, Rahim Yar Khan for their onward issuance of No Objection Certificate (NOC) for the release of performance guarantee.
- 5.6. KFUEIT Rahim Yar Khan reserves the right to accept / reject any or all proposals without assigning any reason thereof.
- 5.7. The quantity of an order may vary depending on the quoted prices and the allocated funds.
- 5.8. The decision of the KFUEIT procurement committee will be binding on all concerned and will in no case be challenged in any forum.
- 5.9. KFUEIT Rahim Yar Khan reserves the right to modify the conditions / specifications of the Tender Document with written intimation to all the participants who have purchased the Tender Document.
- 5.10. Delivery period will be 45 days from the date of issuance of purchase order/supply order.
- 5.11. Delivery shall be completed according to the agreed upon schedule.
- 5.12. In case the selected bidder fails to execute the contract strictly in accordance with the terms and conditions laid down in the contract, the Performance Guarantee shall be forfeited.
- 5.13. The University will get the item inspected at KFUEIT Rahim Yar Khan and reject the item, if not found according to the stated specifications.

- 5.14.** The University reserves the right to claim compensation for the losses caused by delay in the delivery of equipment.
- 5.15.** It is the sole responsibility of the bidder to comply with local, national and international laws.
- 5.16.** In case any supplies/material are found not in conformity with the specifications provided in the tender, either on account of inferior quality, defective workmanship, faulty design, faulty packing or is short supplied, or wrongly supplied, the supplier will replace the same free of charges or pay the full cost of replacement.
- 5.17.** All the proposals submitted will become the property of the University.
- 5.18.** All prices should be valid for at least 60 days. Withdrawal or any modification of the original offer within the validity period shall entitle the KFUEIT Rahim Yar Khan to forfeit the Earnest Money in favor of the KFUEIT Rahim Yar Khan and/or putting a ban on the future inquires or taking any other suitable action against the bidder.
- 5.19.** Delivery of the items will be free of charge at Khawaja Fareed University of Engineering & Information Technology, Rahim Yar Khan during the office hours with a copy of Delivery Challan.
- 5.20.** Items being ordered should be brand-new and according to order specification from the current production and covered under normal warranty/guarantee etc. as mentioned in the quote. Brochures mentioned and product details must be attached.

6. Tender Evaluation Criteria

All bids shall be evaluated on technical and financial merit. The Company Evaluation Criteria is attached at **Annex 'C'** for reference. Technical evaluation process may include, but not limited to the consideration of the following with respect to the functional requirements given ahead:

- e. Technical specifications of proposed item
- f. Company Profile
 - Age of the company
 - Financial strength of the bidder

Financial Evaluation process will be based on the consideration of the quoted price.

7. Undertaking

On behalf of the company it is certified that we agree to the all the Instructions and Terms & Conditions given in this Tender Document

Name of bidder.....

Authorized person.....

Authorized signature.....

Stamp.....

Office Address.....

Tel No

Fax No

Supply & Installation of Laboratory Equipment of Computer Engineering & ICT Department

Sr. No	Item Name	Specifications/Minimum Requirements	Qty.
01	Intel NUC	<ul style="list-style-type: none"> • 7th Generation Intel® Core™ i7 5557U Processor (4M Cache, up to 3.40 GHz,14Nm) or higher Manufacturer's. • Original Motherboard with Min 1 Mini HDMI 1.4a and 1 Mini Display Port 1.2 and Onboard RAID 1/0 Option. • 8GB DDR3L-1333 (1.35V) • 240GB Solid State Drive or higher • Intel® Iris Graphics 6000 Series • Onboard 7 Channel HD Audio • Integrated Gigabit Ethernet (10/100/1000Mbps) & Wireless Module (Min. AC Standard with Bluetooth 4.1 and Intel® Wireless Display support). • Standard USB Keyboard and 2-Buttons Optical Mouse with Scroll and Mouse Pad Mini/Tiny. • PC Chassis (UCFF 4" x 4" Maximum) • LED 21" 	40
02	MPSoC Kit Ultra-Zed-EG	<ul style="list-style-type: none"> - Xilinx ZynqUltraScale+ MPSoC device <ul style="list-style-type: none"> - XCZU3EG-1SFVA625 - XCZU2EG-1SFVA625 - XCZU3CG-1SFVA625 - XCZU2CG-1SFVA625 - DDR4 SDRAM (2GB, in x32 configuration) - Dual QSPI Flash (64MB) - I2C EEPROM (2Kb) - eMMC Flash (8GB,in x8 configuration) - USB 2.0 ULPI PHY - Gigabit Ethernet PHY - I2C 8-bit I/O expander - 2-channel I2C switch/mux - PS reference clock input - On-board voltage regulators - Power-On Reset (POR) circuit - 4-position boot mode DIP switch - Linux BSP and reference designs - 3 JX micro-header connectors(2 x 140-pin, 1 x 100-pin) providingthe following connectionsto the Carrier Cards <ul style="list-style-type: none"> - 180 user PL I/O pins - 26 user PS MIO pins (one full MIO bank) - 4 PS GTR transceivers - 4 PS GTR reference clock inputs - PS JTAG interface - PL SYSMON interface - USB 2.0 connector interface - Gigabit Ethernet RJ45 connector interface - PMBus interface - SOM PS VBATT battery input 	5

		<ul style="list-style-type: none"> - Carrier Card I2C interface - SOM Reset input - Carrier Card interrupt input - Carrier Card Reset output - Power Good output - SOM to Carrier Card ground pins • - SOM input voltages and output sense pins 	
03	Digital Multimeter (Equivalent or Better)	<p>Minimum Performance Characteristics</p> <ul style="list-style-type: none"> • AC Volts: 200mV — 750V • DC Volts: 200mV — 750V • AC Current: 2001A — 10A • DC Current: 2001A — 10A • Resistance: 200ohm — 20M ohm • Frequency: 2KHz — 10MHz • Capacitance: 2nf — 20uf 	40
04	Oscilloscopes (DSO-100M 1-1Z)	<p><u>Minimum Performance Characteristics</u></p> <p>Bandwidth 100 MHz Real Time Sampling Rate 1 GSa/s (single channel) Channels 2 Memory Up to 2.4 Mps Display 5.7" TFT Color LCD Trigger Types Edge, Pulse Width, Video, Slope, Alternate Math Functions FFT plus 3 arithmetic math functions - PC and printer Connectivity RS232, LAN, USB Host Port, USB Device Port.</p>	20
05	Function Generators (3MHz)	<p>Minimum Performance Characteristics</p> <p>Generates Sine, Triangle & Square waveforms from 0.5Hz to 3MHz 20Vpp output into open circuit (10Vpp into 50 Ohms) TTL Output <30nS Voltage Control Generator (VCG) input 100% DC offset Variable amplitude output plus 20dB attenuator</p> <p>Frequency Characteristics</p> <p>Waveforms: Sine, Square, Triangle, Ramp, ±Pulse Tuning Range: Variable Multiplication factor Resolution: 0.01Hz Operating Modes Normal, Sweep, VCF</p> <p>Output Characteristics</p> <p>Impedance: 50 ±2% Attenuation: -40dB ±2% DC Offset: Variable: ±10V open circuit, ±5V into 50 ohms Sine Wave Distortion: Less than 2% (1Hz - 100kHz) Harmonic Ratio: <30dB, 100kHz to 3MHz Frequency Response: <0.1dB, up to 100kHz, <1dB, 100kHz to 3MHz.</p> <p>Triangular Wave</p> <p>Symmetry: 50% Frequency Range: 0.5Hz to 3.5MHz Symmetry: 80% (Rise Wave) to 20% (Fall Wave) <5%, 1Hz to 100kHz Rising Wave linearity: <2%, 1Hz to 100kHz</p> <p>Square Wave</p> <p>Symmetry: 50% <2%, 1Hz to 100kHz Rise Time: <90nS, (20Vp-p, No Load)</p>	20
06	Digital	Minimum Performance Characteristics	30

	Multimeter	AC Volts: 200mV — 750V DC Volts: 200mV — 750V AC Current: 2001A — 10A DC Current: 2001A — 10A Resistance: 200ohm — 20M ohm Frequency: 2KHz — 10MHz Capacitance: 2nf — 20uf	
07	Soldering Stations	Minimum Performance Characteristics Soldering station consists of Soldering Iron, Protective stand, with temperature control. Tip cleaning foam. <ul style="list-style-type: none"> • Temperature range 200-480²C • Temperature stability ±1²C at idle temperature Soldering Iron • Power consumption 40W (26V) • Heating element Ceramic heater 	10
08	Intel Desktop Computer (Equivalent or Better)	<ul style="list-style-type: none"> • Operating System <ul style="list-style-type: none"> ▪ Windows 10 Home • Processor <ul style="list-style-type: none"> ▪ Intel® Core™ i7 6700 • Chipset <ul style="list-style-type: none"> ▪ Intel® H170 • Memory <ul style="list-style-type: none"> ▪ DDR4 at 2133MHz 16 GB • Expansion Slots <ul style="list-style-type: none"> ▪ 1 x PCI-e x 16 ▪ 2 x DDR4 SO-DIMM Slot • SATA <ul style="list-style-type: none"> ▪ 3 x SATA 6Gb/s • Storage <ul style="list-style-type: none"> ▪ 512GB HDD + 128GB SSD • Optical Drive <ul style="list-style-type: none"> ▪ Tray-in Supermulti DVD RW • Wireless Data Network <ul style="list-style-type: none"> ▪ 802.11 a/b/g/n/ac • LAN <ul style="list-style-type: none"> ▪ 10/100/1000 Mbps • Audio <ul style="list-style-type: none"> ▪ High Definition 7.1 Channel Audio • Front I/O Ports <ul style="list-style-type: none"> ▪ 1 x Headphone ▪ 1 x Microphone ▪ 2 x USB 3.0 • Back I/O Ports <ul style="list-style-type: none"> ▪ 2 x USB 3.1 ▪ 2 x USB 3.1 Gen 1 ▪ 2 x USB 2.0 ▪ 1 x HDMI-Out ▪ 1 x RJ45 LAN ▪ 1 x 7.1 Channel Audio • Power Supply <ul style="list-style-type: none"> ▪ 230 W + 180 W Power adapter 	13

		<ul style="list-style-type: none"> • Dimensions <ul style="list-style-type: none"> ▪ 4.09 x 13.38 x 14.09 inch (WxHxD) • Weight <ul style="list-style-type: none"> ▪ 6.38 kg (14.06 lb) • LED <ul style="list-style-type: none"> ▪ 21 inches • <u>Mouse & Keyboard</u> • Standard 	
09	Core i7 laptop (Equivalent or Better)	<ul style="list-style-type: none"> • Processor • 6th Generation Intel® Core™ i7-6500U Processor (4M Cache, up to 3.10 GHz) • Operating System • Windows® 8.1 64 bit or later. • Memory • 8 GB Single Channel DDR3L 600 MHz memory or higher. • Graphics • Intel® HD Graphics 5500 (std 5th Gen Core i3/5/7) or better. • NVIDIA® GeForce® 920M 2 GB DDR3 graphics memory or better • Display • LED Backlit Anti-glare Display with FHD resolution (1920 x 1080) or better. • Audio and Speakers • 2 tuned speakers with Waves MaxxAudio® • 1 combo headphone / microphone jack • Hard Drive • 1 TB2 5400 RPM SATA Hard Drive or higher. • Optical Drive • Built-in Tray Load DVD (Reads and Writes to DVD / CD) • Power • Battery • 40 WHr, 4-Cell Battery (removable) • Connectivity • 10/100 RJ-45 Ethernet network • Dell Wireless-N 1707 + Bluetooth 4.0 • Intel® Centrino® Wireless AC 3160 + Bluetooth 4.0 • Intel® Centrino® Wireless AC 7265 + Bluetooth 4.0 • Ports • 2 USB 3.0 • 1 USB 2.0 • 1 HDMI™ 1.4a • 10/100 RJ-45 Ethernet Network • Slots • Kensington Lock Slot • Media Card (SD, SDHC, SDXC) 	02
10	LASER PRINTER (EQUIVALENT OR BETTER)	<p>Print, Copy, Fax, Scan</p> <p>Print speed black: Normal: Up to 20 ppm</p> <p>First page out (ready)</p>	10

		<p>Black: As fast as 9.5 sec Duty cycle (monthly, A4) Up to 8000 pages 30 10 Recommended monthly page volume 250 to 2000 Print technology Laser Print quality black (best) Up to 600 x 600 dpi Resolution technology FastRes 600; FastRes 1200 Print languages PCLm/PCLmS Display 3.0-in color touch screen Processor speed 600 MHz Wireless capability Yes, built-in WiFi 802.11b/g/n Connectivity, standard Hi-Speed USB 2.0 port built-in Fast Ethernet 10/100Base-TX network port Wireless 802.11b/g/n Memory, standard 128 MB Paper handling input, standard 150-sheet input tray Paper handling output, standard 100-sheet face-down bin Maximum output capacity (sheets) Up to 100 sheets Duplex printing Manual (driver support provided) Media sizes supported A4 A5 B5-Japanese envelopes (ISO DL, C5, B5, Com #10, Monarch #7 3/4) 16K post cards (Standard #10, JIS single and double) Media sizes, custom 76 x 127 to 216 x 356 mm Media types Paper (plain, LaserJet), envelopes, transparencies, labels, postcards Media weight, supported 60 to 163 g/m² Media weights, supported <ul style="list-style-type: none"> • ADF 60 to 90 g/m² </p>	
11	LASER PRINTER Heavy Duty (EQUIVALENT OR BETTER)	Print Type Mono Laser Printer Print Speed Black: normal quality up to 52 ppm Resolution Up to 1200 x 1200 dpi Duty Cycle up to 225000 monthly	05

		<p>Duplex Printing Automatic (in M602DN)</p> <p>Memory 512 MB (1GB max.)</p> <p>Processor Speed 800 MHz</p> <p>Paper Handling Input tray 1 : 100-sheet multipurpose input tray 2 : 500-sheets Output bin 1: 500-sheet Output bin 2: 100-sheet rear bin</p> <p>Connectivity USB & Ethernet</p> <p>ePrint Yes</p> <p>Wireless optional</p> <p>LCD Display 4-line LCD (color text and graphics)</p>	
12	Photocopier (equivalent or better)	<p>Type Desktop or Free-standing, (Reader-Printer Combined)</p> <p>Maximum Original Size A3</p> <p>Copy Sizes Cassette 1,3 and 4: A3, A4, A4R, A5R Custom size: 139.7 to 297mm x 182 to 432mm Cassette 2: A3, A4, A4R, A5R, Stack Bypass: A3, A4, A4R, A5R, Custom size: 99 to 297mm x 148 to 432 mm</p> <p>Resolution Reading: 600dpi × 600dpi Copying: 600dpi × 600dpi Printing: 600dpi × 600dpi, 1200dpi x 1200dpi (UFR II-LT only) Number of Tones: 256 Gradations</p> <p>Copy/Print Speed A4: imageRUNNER 2545i/2545 : 45ppm (BW) imageRUNNER 2535i/2535 : 35ppm (BW) imageRUNNER 2530i/2530 : 30ppm (BW) imageRUNNER 2525i/2525 : 25ppm (BW) imageRUNNER 2520i/2520 : 20ppm (BW) A3: imageRUNNER 2545i/2545 : 22ppm (BW) imageRUNNER 2535i/2535 : 22ppm (BW) imageRUNNER 2530i/2530 : 15ppm (BW) imageRUNNER 2525i/2525 : 15ppm (BW) imageRUNNER 2520i/2520 : 15ppm (BW)</p> <p>Enlargement/ Reduction Zoom: 25-400% Fixed: 25%, 50%, 70%, 100%, 141%, 200%, 400%</p> <p>First copy time Black-and-White: 3.9sec (45/35 ppm model),</p>	01

		<p>5.4sec (30/25 ppm model), 6.4sec (20 ppm model)</p> <p>Warm-Up Time 30 seconds</p> <p>Multiple Copies/Prints 1 to 999 sheets</p> <p>Duplexing Standard</p> <p>Paper Capacity Cassette 1: 550 sheets (80g/m2), (250 sheets for the imageRUNNER 2520i/2520) Cassette 2: 550 sheets for imageRUNNER 2525/i, 2530/i, 2535/i, 2545/i. Stack Bypass: 100 sheets (A4,A4R,A5;80g/m2), 50 sheets(A3;80g/m2)</p> <p>Processor speed Canon Custom Processor, 400MHz</p> <p>Memory 512MB (imageRUNNER 2500 i models), 256MB (imageRUNNER 2500 non i models)</p> <p>Interface Ethernet (100Base-TX/10Base-T), USB Host I/F 2.0 x 1 port, USB Device 1.0 x 1 port 220-240V AC, 50/60Hz, 4.2A (45/35 ppm model), 220-240V AC, 50/60Hz, 3.3A (35/30/20 ppm model)</p>	
13	Mouse	PADLESS 4D MOUSE, 1000DPI, 4D WHEEL	250
14	Keyboard	<ul style="list-style-type: none"> • Full 104 key standard keyboard • USB interface for easy plug & play • Two USB Full-speed downstream ports for any low-power or self-powered USB Device • Eight hotkeys • Seven audio control key 	250
15	Intel Desktop Computer (Equivalent or Better)	<p><u>Intel Desktop Computer (Equivalent or Better)</u></p> <ul style="list-style-type: none"> • Operating System <ul style="list-style-type: none"> ▪ Windows 10 Home • Processor <ul style="list-style-type: none"> ▪ Intel® Core™ i7 6700 • Chipset <ul style="list-style-type: none"> ▪ Intel® H170 • Graphics <ul style="list-style-type: none"> ▪ NVIDIA® GeForce GTX970 4GB ▪ NVIDIA® GeForce GTX1070 4GB ▪ NVIDIA® GeForce GTX1080 4GB • Memory <ul style="list-style-type: none"> ▪ DDR4 at 2133MHz 16 GB ▪ Expansion Slots ▪ 1 x PCI-e x 16 ▪ 2 x DDR4 SO-DIMM Slot • SATA <ul style="list-style-type: none"> ▪ 3 x SATA 6Gb/s • Storage 	12

		<ul style="list-style-type: none"> ▪ 512GB SSD ▪ 1TB HDD + 256GB SSD • Optical Drive <ul style="list-style-type: none"> ▪ Tray-in Super multi DVD RW • Wireless Data Network <ul style="list-style-type: none"> ▪ 802.11 a/b/g/n/ac • LAN <ul style="list-style-type: none"> ▪ 10/100/1000 Mbps • Audio <ul style="list-style-type: none"> ▪ High Definition 7.1 Channel Audio • Front I/O Ports <ul style="list-style-type: none"> ▪ 1 x Headphone ▪ 1 x Microphone ▪ 2 x USB 3.0 • Back I/O Ports <ul style="list-style-type: none"> ▪ 2 x USB 3.1 ▪ 2 x USB 3.1 Gen 1 ▪ 2 x USB 2.0 ▪ 1 x HDMI-Out ▪ 1 x RJ45 LAN ▪ 1 x 7.1 Channel Audio • Power Supply <ul style="list-style-type: none"> ▪ 230 W + 180 W Power adapter • Dimensions <ul style="list-style-type: none"> ▪ 4.09 x 13.38 x 14.09 inch (WxHxD) • Weight <ul style="list-style-type: none"> ▪ 6.38 kg (14.06 lb) 	
16	Server Computer (Equivalent or Better)	<p><u>Server Computer (Equivalent or Better)</u></p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • (2) Intel Xeon E5-2600v4 “Broadwell” CPUs (clock speed: 2.2 GHz to 3.5 GHz) • Quad-Channel DDR4 2400 MHz / 2133 MHz ECC/Registered Memory (24 slots) • (24) 2.5” 12Gbps hot-swap drive bays (with optional upgrade to 48 bays) • Eight PCI-Express 3.0 x16 double-width slots • Four PLX 8747 PCI-Express 3.0 Switches (switched architecture) • Two PCI-Express 3.0 x8 slots (physical x16) • One PCI-Express 2.0 x4 slot (physical x16) • Two integrated Intel i350 Gigabit Ethernet ports (10G optional) • IPMI 2.0 with Dedicated LAN Support • 3200W 2+2 Redundant, High-Efficiency Power Supply <p><u>Accessories:</u></p> <ul style="list-style-type: none"> • ConnectX-4 100Gb InfiniBand, ConnectX-3 56Gb InfiniBand, or 10G / 40G ethernet • Hardware RAID support • TPM 2.0, with optional TXT support • Red Hat Enterprise Linux or CentOS Linux 	01

		<ul style="list-style-type: none"> • Windows 7 Pro, Windows 8.1 Pro, Windows Server 2012 R2 	
17	Laptop	<p>The Laptop with following or equivalent specifications is required:</p> <p>Processor: Core i 7, 2.5 GHz or above Memory: 16 GB Video (extendable) Graphics: 4 GB AMD Radeon Display: 15.6 inch or above Hard Drive: 1TB or above External Ports: HDMI, USB 3.0, VGA, SD card slot</p>	01
18	Function Generator	<p>Function Generator</p> <ul style="list-style-type: none"> • Built-in function generator capability includes simplifies generating <ul style="list-style-type: none"> ▪ Sine ▪ Square ▪ Triangle ▪ Noise ▪ DC ▪ Ramp ▪ pulse waveform • Fast (5ns) rise/fall times • Adjustable noise amplitude and offset • Built-in Modulations <ul style="list-style-type: none"> ▪ AM ▪ FM ▪ PM ▪ FSK, ▪ PWM modulation ▪ external modulation source • 16-bit digital pattern generation • Built-in 10MHz external time base • Sweep and burst modes • waveform creation software • LAN, USB, and GPIB interfaces 	02
19	Handheld Digital Multi-meter	<p>Handheld Digital Multi-meter</p> <ul style="list-style-type: none"> • Resolution (AC & DC): 0.1 mV • Range (AC & DC): 0 – 600 V • Range (Resistance): 0 – 40 M Ω • Resistance Resolution: 1 Ω • Current Range (AC & DC): 0 – 20 A • Current Resolution (AC & DC): 1mA • Capacitance and frequency measurement • Data Hold and Relative Mode • Auto Power Off • Auto/Manual Ranging • 6,000 Counts • True RMS • Diode Test • Low Battery Indicator • All the accessories must be included • Additional Probes Sets and extras fuses for each unit 	05

Points of Consideration:

1. All items must be of North American, Western Europe or Japanese manufacturer.
2. One Year Parts and Labor warranty for all components on site.
3. Quoted Measurement and Instrumentation components must be compatible with test transformer and other equipment as per requirement
4. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
5. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
6. Please mention the country of origin / manufacturing / assembly of the quoted brand / model.
7. All items must be factory fitted & configured. Vendor /Assembler to provide verification of Serial numbers / AA numbers of Intel products.

**Supply & Installation of Laboratory Equipment of
Computer Engineering & ICT Department
(Bid Form)**

Sr. No.	Item Name	Qty.	Unit Rate	Total Price (inclusive of all taxes, and Shipment charges)
01	Intel NUC	40		
02	MPSoC Kit Ultra-Zed-EG	5		
03	Digital Multimeter (Equivalent or Better)	40		
04	Oscilloscopes (DSO-100M 1-1Z)	20		
05	Function Generators (3MHz)	20		
06	Digital Multimeter	30		
07	Soldering Stations	10		
08	Intel Desktop Computer (Equivalent or Better)	13		
09	Core i7 laptop (Equivalent or Better)	02		
10	LASER PRINTER (EQUIVALENT OR BETTER)	10		
11	LASER PRINTER Heavy Duty (EQUIVALENT OR BETTER)	05		
12	Photocopier (equivalent or better)	01		
13	Mouse	250		
14	Keyboard	250		
15	Intel Desktop Computer (Equivalent or Better)	12		

Sr. No.	Item Name	Qty.	Unit Rate	Total Price (inclusive of all taxes, and Shipment charges)
16	Server Computer (Equivalent or Better)	01		
17	Laptop	01		
18	Function Generator	02		
19	Handheld Digital Multi-meter	05		
				TOTAL: _____
Total in Words: _____				

Company Evaluation Criteria

1. Basic Evaluation

1. List of Previous/Current customers of related equipment, with contact person and telephone/fax numbers.
2. Detailed product information
3. Copy of National Tax Registration Certificate
4. Copy of Sales Tax Registration Certificate
5. Bank letter of financial standing
6. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or de-barred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
7. Valid Manufacturers authorization letter
8. Detailed item specifications matched corresponding to the BOQ
9. Detailed project implementation schedule which includes the delivery of items mentioned in the BOQ
10. Signed and stamped Tender document

Detailed Evaluation for Tender No. Lab-085
Supply & Installation of Laboratory Equipment of Computer Engineering & ICT Department
at KFUEIT, Rahim Yar Khan

(Minimum Passing Score Required is 65 Points)

Sr. No	Item Name and Description	Marks	Max Marks
1	Past Performance/Experience of the Bidder (Reg. with GST/NTN)	--	10
1.1	1 – 3 year experience	2	--
1.2	4 – 8 year experience	4	--
1.3	9 – 15 years experience	6	--
1.4	Above 15	10	--
2	Relevant Experience	--	10
2.1	Project completed of similar nature in last ten years	2/project	6
2.2	Project in hand of similar nature	2/project	4
3	Financial Position/ Status	--	10
3.1	Last sales tax paid Form	4	--
3.2	Bank Certificate (satisfactory)	2	--
3.3	Statement Worth (Min 15 m)	4	--
4	After sale Services Available	--	10
5	Technical Evaluation of quoted items	--	60
5.1	Specification matched	30	
5.2	Literature in printed shape attached	2.5	
5.3	Reliability	2.5	
5.4	Delivery schedule as per need	5	
5.5	List of clients / where this equipment delivered	5	
5.6	Satisfactory letter from clients in favour of such equipment	5	
5.7	Guarantee / Warranty (as the case may be)	5	
5.8	Provision of training to concerned user	2.5	
5.9	Free Installation (if required) as per requirement	2.5	
Total		--	100

**Khwaja Fareed University of Engineering &
Information Technology, Rahim Yar Khan**



Tender Document

Tender No. Lab-086

**Supply & Installation of Laboratory Equipment of
Computer Science & IT Department**

at

**Khwaja Fareed University of Engineering
& Information Technology
Rahim Yar Khan**

TENDER DOCUMENT

TENDER No. Lab-086

Supply & Installation of Laboratory Equipment of Computer Science & IT Department

at

Khwaja Fareed University of Engineering and Information Technology

TENDER PRICE Rs. 3000/-

Last date of submission: _____

FOR OFFICE USE ONLY

Serial No. _____

Sold to: M/S _____

Date of Sale _____

Bank Challan No. _____

Date _____

1. Overview

Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan intends to purchase “**Supply & Installation of Laboratory Equipment of Computer Science & IT Department**” as provided at **Annex ‘A’**. The supplier will be responsible for Supply, delivery, installation and commissioning of all specified items, wherever required, at the Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan. This document provides complete instructions for bidders intending to participate in this Tender.

2. Instructions for Bidders

2.1. Response to the Tender (Bid) should be submitted in one part which shall include two separately sealed envelopes of Technical **Proposal and** Financial **Proposal** before **12:00 PM** on **09-10-2017**. Technical Proposals will be opened on same day at **12:30 PM** in the presence of representatives of responding bidders, if any, and Financial Proposals will be opened after completion of technical evaluation. The exact time and place for opening of financial proposals will be informed to technically qualified bidders.

2.2. Responding bidder shall deliver two sealed copies of the bid. Each copy being physically separate, bound, sealed and labeled. Proposals shall be delivered at the address given below.

Director Procurement
Khwaja Fareed University of Engineering & Information Technology
Abu Dhabi Road, Rahim Yar Khan.

Tel. # 068-5882420

2.3. Any queries regarding this proposal should be directed to the designated Technical Contact Person listed below.

Dr. Saleem Ullah, Tel.# 068-5882415

2.4. All bids must be submitted by filling the **Annex ‘B’**. Same should be enclosed in the financial proposal. Bidder must use the same numbers and labels used in this Request for Proposal.

2.5. The original Tender Document duly signed and officially sealed by the bidder must be submitted in whole with the proposals. Any conditional, ambiguous, incomplete, supplementary or revised offer after the opening of tender shall not be entertained.

3. Technical Proposal Format

Bidders are required to include the following documents/information in their technical proposals in the order given below:

- i. The Name and Address
- ii. Profile of company (Including Financial Profile)
- iii. List of Previous/Current customers of related designing, composing and printing of prospectus, with contact person and telephone/fax numbers.
- iv. Detailed product design information
- v. Copy of National Tax Registration Certificate
- vi. Copy of Sales Tax Registration Certificate
- vii. Bank letter of financial standing
- viii. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or debarred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
- ix. Any additional information the bidder may like to furnish e.g. repair/maintenance other concerned facility
- x. Detailed item specifications matched corresponding to the BOQ as given at **Annex 'A'**
- xi. Detailed project implementation schedule/Completion Schedule which includes the delivery of items mentioned in the BOQ
- xii. Signed and stamped Tender document
- xiii. Bank Draft of the Earnest Money

4. Financial Proposal Format

Financial Proposal must include the following in the order given below:

- i. Equipment prices duly entered on the form in the attached BOQ
- ii. Validity period of the quoted price
- iii. Any other Terms and Conditions

5. Terms & Conditions

5.1. This invitation for bids is open to all national original Manufacturers/ Distributors/Agents in Pakistan for Supply of Tools, Carpentering, Plumbing and Electric Material.

5.2. All prices should be quoted in Pak Rupees and inclusive of all Government Taxes & Levies.

- 5.3. A bank draft equal to 2% of the estimated cost should accompany the Tender as **Earnest Money** drawn in favor of **KFUEIT Rahim Yar Khan**. The Tender shall not be considered without Earnest Money. Bank guarantee will not be accepted. Bank draft for Earnest Money should be placed with the Technical proposal.
- 5.4. Earnest Money for bidders not selected will be returned a minimum of two weeks after announcement of award and returned to successful bidder after signing the contract. If the selected bidder fails to sign the contract within stipulated time, Earnest Money will be forfeited.
- 5.5. A Bank draft of 5% of the total amount as **Performance Guarantee** will be provided by the supplier in favor of KFUEIT, Rahim Yar Khan within 10 days after signing of the contract on judicial stamp paper of the value PKR. 1200/-which shall remain valid for 12 months beyond delivery period. This performance guarantee will be released after the completion of warranty/guarantee period, along with the satisfactory completion report which will be intimated to the Seller and the Director Procurement KFUEIT, Rahim Yar Khan for their onward issuance of No Objection Certificate (NOC) for the release of performance guarantee.
- 5.6. KFUEIT Rahim Yar Khan reserves the right to accept / reject any or all proposals without assigning any reason thereof.
- 5.7. The quantity of an order may vary depending on the quoted prices and the allocated funds.
- 5.8. The decision of the KFUEIT procurement committee will be binding on all concerned and will in no case be challenged in any forum.
- 5.9. KFUEIT Rahim Yar Khan reserves the right to modify the conditions / specifications of the Tender Document with written intimation to all the participants who have purchased the Tender Document.
- 5.10. Delivery period will be 45 days from the date of issuance of purchase order/supply order.
- 5.11. Delivery shall be completed according to the agreed upon schedule.
- 5.12. In case the selected bidder fails to execute the contract strictly in accordance with the terms and conditions laid down in the contract, the Performance Guarantee shall be forfeited.
- 5.13. The University will get the item inspected at KFUEIT Rahim Yar Khan and reject the item, if not found according to the stated specifications.

- 5.14.** The University reserves the right to claim compensation for the losses caused by delay in the delivery of equipment.
- 5.15.** It is the sole responsibility of the bidder to comply with local, national and international laws.
- 5.16.** In case any supplies/material are found not in conformity with the specifications provided in the tender, either on account of inferior quality, defective workmanship, faulty design, faulty packing or is short supplied, or wrongly supplied, the supplier will replace the same free of charges or pay the full cost of replacement.
- 5.17.** All the proposals submitted will become the property of the University.
- 5.18.** All prices should be valid for at least 60 days. Withdrawal or any modification of the original offer within the validity period shall entitle the KFUEIT Rahim Yar Khan to forfeit the Earnest Money in favor of the KFUEIT Rahim Yar Khan and/or putting a ban on the future inquires or taking any other suitable action against the bidder.
- 5.19.** Delivery of the items will be free of charge at Khawaja Fareed University of Engineering & Information Technology, Rahim Yar Khan during the office hours with a copy of Delivery Challan.
- 5.20.** Items being ordered should be brand-new and according to order specification from the current production and covered under normal warranty/guarantee etc. as mentioned in the quote. Brochures mentioned and product details must be attached.

6. Tender Evaluation Criteria

All bids shall be evaluated on technical and financial merit. The Company Evaluation Criteria is attached at **Annex 'C'** for reference. Technical evaluation process may include, but not limited to the consideration of the following with respect to the functional requirements given ahead:

- a. Technical specifications of proposed item
- b. Company Profile
 - Age of the company
 - Financial strength of the bidder

Financial Evaluation process will be based on the consideration of the quoted price.

7. Undertaking

On behalf of the company it is certified that we agree to the all the Instructions and Terms & Conditions given in this Tender Document

Name of bidder.....

Authorized person.....

Authorized signature.....

Stamp.....

Office Address.....

Tel No

Fax No

Supply & Installation of Laboratory Equipment of Computer Science & IT Department

Sr. No	Item Name	Specifications/Minimum Requirements	Qty.																																																								
01	NUC	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;"><u>Computing</u></th> </tr> </thead> <tbody> <tr> <td style="width: 50%;">Board Form Factor</td> <td>UCFF (4" x 4")</td> </tr> <tr> <td>Socket</td> <td>Soldered-down BGA</td> </tr> <tr> <td>Internal Drive Form Factor</td> <td>M.2 and 2.5" Drive</td> </tr> <tr> <td># of Internal Drives Supported</td> <td>2</td> </tr> <tr> <td>Lithography</td> <td>14 nm</td> </tr> <tr> <td>TDP</td> <td>28 W</td> </tr> <tr> <td>DC Input Voltage Supported</td> <td>12-19 VDC</td> </tr> <tr> <td>Recommended Customer Price</td> <td>\$475.00</td> </tr> <tr> <td>Processor Included</td> <td>Intel® Core™ i7-5557U Processor (4M Cache, up to 3.40 GHz)</td> </tr> <tr> <td>Warranty Period</td> <td>As mentioned in bidding document</td> </tr> <tr> <th colspan="2" style="text-align: left;"><u>Memory Specifications</u></th> </tr> <tr> <td>Memory Size (dependent on memory type)</td> <td>8GB, Max upgradable</td> </tr> <tr> <td>Memory Types</td> <td>DDR3L-1333/1600 1.35 V SO-DIMM</td> </tr> <tr> <th colspan="2" style="text-align: left;"><u>Graphics Specifications</u></th> </tr> <tr> <td>Integrated Graphics ‡</td> <td>Yes</td> </tr> <tr> <td>Graphics Output</td> <td>Mini-DP 1.2; Mini-HDMI 1.4a</td> </tr> <tr> <td>Intel® Clear Video Technology</td> <td>Yes</td> </tr> <tr> <td># of Displays Supported ‡</td> <td>3</td> </tr> <tr> <th colspan="2" style="text-align: left;"><u>Expansion Options</u></th> </tr> <tr> <td>PCI Express Revision</td> <td>Gen2</td> </tr> <tr> <td>PCI Express Configurations ‡</td> <td>M.2 slot with PCIe x4 lanes</td> </tr> <tr> <td>M.2 Card Slot (storage)</td> <td>22x42/60/80</td> </tr> <tr> <th colspan="2" style="text-align: left;"><u>I/O Specifications</u></th> </tr> <tr> <td>USB Revision</td> <td>2.0, 3.0</td> </tr> <tr> <td># of USB Ports</td> <td>6</td> </tr> <tr> <td>USB 2.0 Configuration (External + Internal)</td> <td>0 + 2</td> </tr> <tr> <td>USB 3.0 Configuration (External + Internal)</td> <td>2B 2F + 0</td> </tr> </tbody> </table>	<u>Computing</u>		Board Form Factor	UCFF (4" x 4")	Socket	Soldered-down BGA	Internal Drive Form Factor	M.2 and 2.5" Drive	# of Internal Drives Supported	2	Lithography	14 nm	TDP	28 W	DC Input Voltage Supported	12-19 VDC	Recommended Customer Price	\$475.00	Processor Included	Intel® Core™ i7-5557U Processor (4M Cache, up to 3.40 GHz)	Warranty Period	As mentioned in bidding document	<u>Memory Specifications</u>		Memory Size (dependent on memory type)	8GB, Max upgradable	Memory Types	DDR3L-1333/1600 1.35 V SO-DIMM	<u>Graphics Specifications</u>		Integrated Graphics ‡	Yes	Graphics Output	Mini-DP 1.2; Mini-HDMI 1.4a	Intel® Clear Video Technology	Yes	# of Displays Supported ‡	3	<u>Expansion Options</u>		PCI Express Revision	Gen2	PCI Express Configurations ‡	M.2 slot with PCIe x4 lanes	M.2 Card Slot (storage)	22x42/60/80	<u>I/O Specifications</u>		USB Revision	2.0, 3.0	# of USB Ports	6	USB 2.0 Configuration (External + Internal)	0 + 2	USB 3.0 Configuration (External + Internal)	2B 2F + 0	265
<u>Computing</u>																																																											
Board Form Factor	UCFF (4" x 4")																																																										
Socket	Soldered-down BGA																																																										
Internal Drive Form Factor	M.2 and 2.5" Drive																																																										
# of Internal Drives Supported	2																																																										
Lithography	14 nm																																																										
TDP	28 W																																																										
DC Input Voltage Supported	12-19 VDC																																																										
Recommended Customer Price	\$475.00																																																										
Processor Included	Intel® Core™ i7-5557U Processor (4M Cache, up to 3.40 GHz)																																																										
Warranty Period	As mentioned in bidding document																																																										
<u>Memory Specifications</u>																																																											
Memory Size (dependent on memory type)	8GB, Max upgradable																																																										
Memory Types	DDR3L-1333/1600 1.35 V SO-DIMM																																																										
<u>Graphics Specifications</u>																																																											
Integrated Graphics ‡	Yes																																																										
Graphics Output	Mini-DP 1.2; Mini-HDMI 1.4a																																																										
Intel® Clear Video Technology	Yes																																																										
# of Displays Supported ‡	3																																																										
<u>Expansion Options</u>																																																											
PCI Express Revision	Gen2																																																										
PCI Express Configurations ‡	M.2 slot with PCIe x4 lanes																																																										
M.2 Card Slot (storage)	22x42/60/80																																																										
<u>I/O Specifications</u>																																																											
USB Revision	2.0, 3.0																																																										
# of USB Ports	6																																																										
USB 2.0 Configuration (External + Internal)	0 + 2																																																										
USB 3.0 Configuration (External + Internal)	2B 2F + 0																																																										

		<table border="1"> <tr> <td>Total # of SATA Ports</td> <td>2</td> </tr> <tr> <td>Max # of SATA 6.0 Gb/s Ports</td> <td>2</td> </tr> <tr> <td>HDD</td> <td>1 x 240 GB SSD, Random 4k Compressible 50k or better</td> </tr> <tr> <td>RAID Configuration</td> <td>2.5" HDD/SSD + M.2 SATA/PCIe SSD (RAID-0 RAID-1)</td> </tr> <tr> <td>Audio (back channel + front channel)</td> <td>7.1 digital (mHDMI mDP); L+R+mic (F)</td> </tr> <tr> <td>Integrated LAN</td> <td>10/100/1000</td> </tr> <tr> <td>Integrated Wifi</td> <td>Intel® Wireless-AC 7265 + BT 4.2</td> </tr> <tr> <td>Integrated Bluetooth</td> <td>Yes</td> </tr> <tr> <td>Consumer Infrared Rx Sensor</td> <td>Yes</td> </tr> <tr> <td>Additional Headers</td> <td>2x USB2.0, AUX_PWR</td> </tr> <tr> <td colspan="2"><u>Advanced Technologies</u></td> </tr> <tr> <td>Intel® Virtualization Technology for Directed I/O (VT-d) ‡</td> <td>Yes</td> </tr> <tr> <td>Intel® HD Audio Technology</td> <td>Yes</td> </tr> <tr> <td>Intel® Rapid Storage Technology</td> <td>Yes</td> </tr> <tr> <td>Intel® Virtualization Technology (VT-x) ‡</td> <td>Yes</td> </tr> <tr> <td>Intel® Platform Trust Technology (Intel® PTT)</td> <td>Yes</td> </tr> <tr> <td colspan="2"><u>Intel® Data Protection Technology</u></td> </tr> <tr> <td>Intel® AES New Instructions</td> <td>Yes</td> </tr> </table>	Total # of SATA Ports	2	Max # of SATA 6.0 Gb/s Ports	2	HDD	1 x 240 GB SSD, Random 4k Compressible 50k or better	RAID Configuration	2.5" HDD/SSD + M.2 SATA/PCIe SSD (RAID-0 RAID-1)	Audio (back channel + front channel)	7.1 digital (mHDMI mDP); L+R+mic (F)	Integrated LAN	10/100/1000	Integrated Wifi	Intel® Wireless-AC 7265 + BT 4.2	Integrated Bluetooth	Yes	Consumer Infrared Rx Sensor	Yes	Additional Headers	2x USB2.0, AUX_PWR	<u>Advanced Technologies</u>		Intel® Virtualization Technology for Directed I/O (VT-d) ‡	Yes	Intel® HD Audio Technology	Yes	Intel® Rapid Storage Technology	Yes	Intel® Virtualization Technology (VT-x) ‡	Yes	Intel® Platform Trust Technology (Intel® PTT)	Yes	<u>Intel® Data Protection Technology</u>		Intel® AES New Instructions	Yes	
Total # of SATA Ports	2																																						
Max # of SATA 6.0 Gb/s Ports	2																																						
HDD	1 x 240 GB SSD, Random 4k Compressible 50k or better																																						
RAID Configuration	2.5" HDD/SSD + M.2 SATA/PCIe SSD (RAID-0 RAID-1)																																						
Audio (back channel + front channel)	7.1 digital (mHDMI mDP); L+R+mic (F)																																						
Integrated LAN	10/100/1000																																						
Integrated Wifi	Intel® Wireless-AC 7265 + BT 4.2																																						
Integrated Bluetooth	Yes																																						
Consumer Infrared Rx Sensor	Yes																																						
Additional Headers	2x USB2.0, AUX_PWR																																						
<u>Advanced Technologies</u>																																							
Intel® Virtualization Technology for Directed I/O (VT-d) ‡	Yes																																						
Intel® HD Audio Technology	Yes																																						
Intel® Rapid Storage Technology	Yes																																						
Intel® Virtualization Technology (VT-x) ‡	Yes																																						
Intel® Platform Trust Technology (Intel® PTT)	Yes																																						
<u>Intel® Data Protection Technology</u>																																							
Intel® AES New Instructions	Yes																																						
02	<p>Computer Display Monitor 22" - with mounting bracket for Intel NUC 5i7RYH</p>	<p>Display Diagonal Size: 22" Viewable Size: 21.5" Resolution: Full HD 1920 x 1080 @60 Hz Backlight Technology: LED Connectivity: 1 x VGA 1 x HDMI 1 x Audio Line-in 1 x Audio Line-out Security Security lock slot (cable lock sold separately) Brightness: 250 cd/m² (typical) Panel Type: In-Plane switching Technology Contrast Ratio: 1000:1 (typical), 8 million: 1 (DCR) Aspect Ratio: 16:9 Display Manager Compatibility: Yes Power: Power consumption (Operating) 22W (type) -30W (maximum) / Energy Star: 16W (typical)</p>	300																																				

		Mounting bracket for Intel NUC <u>5i7RYH</u>	
03	USB Mouse	<p>USB Type A cable Mouse</p> <ul style="list-style-type: none"> • Smooth, precise and affordable USB-connected 3-button optical mouse • High-definition (1000 dpi) optical tracking enables responsive cursor control for precise tracking and easy text selection • The 3-button wired mouse measures 4.3" x 2.4" x 1.35" with a 4.92-foot (1.5 meter) cable • Works with Windows and Mac OS 	300
04	USB Keyboard	<p>USB Type A Cable Keyboard</p> <p>Hotkeys Enable Easy Access for Media, My Computer, Mute, Volume down, Volume up, and Calculator; 4 Function Keys Control Previous Track, Stop, Play/pause, next Track on Your Media Player</p>	300
05	Arduino Starter Kit	<p>1 Projects Book (170 pages), 1 Arduino / Genuino Uno, 1 USB cable, 1 Breadboard 400 points, 70 Solid core jumper wires, 1 Easy-to-assemble wooden base, 1 9v battery snap, 1 Stranded jumper wires (black), 1 Stranded jumper wires (red), 6 Phototransistor, 3 Potentiometer 10kOhms, 10 Pushbuttons, 1 Temperature sensor [TMP36], 1 Tilt sensor, 1 alphanumeric LCD (16x2 characters), 1 LED (bright white), 1 LED (RGB), 8 LEDs (red), 8 LEDs (green), 8 LEDs (yellow), 3 LEDs (blue), 1 Small DC motor 6/9V, 1 Small servo motor, 1 Piezo capsule [PKM17EPP-4001-B0], 1 H-bridge motor driver [L293D], 1 Opto couplers [4N35], 2 Mosfet transistors [IRF520], 5 Capacitors 100uF, 5 Diodes [1N4007], 3 Transparent gels (red, green, blue), 1 Male pins strip (40x1), 20 Resistors 220 Ohms, 5 Resistors 560 Ohms, 5 Resistors 1 k Ohms, 5 Resistors 4.7 k Ohms, 20 Resistors 10 k Ohms, 5 Resistors 1 M Ohms, 5 Resistors 10 M Ohms</p>	01
06	Sound System	<p>Ceiling Speakers</p> <ul style="list-style-type: none"> • Dimensions - Cut-Out Diameter (9 3/8 (23.81cm) ") • Dimensions - Mounting Depth (includes 1/2 drywall)" (3 1/8 (7.94cm) ") • Dimensions - Overall Depth (3 5/8 (9.21cm) ") • Dimensions - Overall Diameter (10 3/4 (27.30cm) ") • Driver Complement Mid / Woofer – Diameter (8 (20.32cm) ") • Driver Complement Mid / Woofer – Type (Dynamic Balance driver with mineral-filled polymer cone with rubber surround) • Driver Complement Tweeter – Diameter (1 (2.54cm) ") • Electrical – Efficiency (90 dB) • Electrical - Lower -3dB Limit (50 Hz) • Electrical - Recommended Amplifier Power (20 - 100 watts per channel) • Electrical - Total Frequency Response (35Hz - 20kHz) <p>Wireless Microphone</p> <ul style="list-style-type: none"> • Battery Life (Up to 8 hours) • Battery Requirements (2 AA alkaline or rechargeable batteries) 	10 set

		<p>Amplifier</p> <ul style="list-style-type: none"> • Voltage Trigger Input Accepts 3-24VAC/DC • 12-volt Control Out • Removable Line Cord • At least 5 years Warranty • Rack Mount Ears Included • Tested And Certified To US, Canada, EU, And Australian Safety And EMC Standards • Overall Dimensions: 17.25" (43.81cm) Wide 5.75" (14.47cm) High (including Feet) 16.25" (41.11cm) Deep • Weight: 35 Lb. (15.8 Kg) 	
07	Multimedia Projector	<ol style="list-style-type: none"> 1) Lens Manual zoom (1.6x) (throw ratio: 1.2-1.9:1), manual focus, F 1.60-2.12, f 15.30-24.64 mm 2) Screen size (diagonal) 0.76-7.62 m (30-300 in), 4:3 aspect ratio 3) Resolution 1,024 x 768 pixels*³ 4) Built-in speaker 5) Terminals <ol style="list-style-type: none"> a) HDMI IN (HDMI 19-pin x 1) b) COMPUTER 1 IN (D-sub HD 15-pin (female) x 1 (RGB/YPBPR/YCBCR x 1)) c) COMPUTER 2 IN / MONITOR OUT (D-sub HD 15-pin (female) x 1 (RGB x 1), (input/output selectable using on-screen menu)) d) VIDEO IN (Pin jack x 1 (Composite VIDEO)) e) S-VIDEO IN (Mini DIN 4-pin x 1 (S-VIDEO)) f) AUDIO IN 1 (M3 x 1 (L-R x 1)) g) AUDIO IN 2 (MIC IN) (M3 x 1 (L-R x 1) for audio input or for microphone connection (variable)) h) AUDIO IN 3 (Pin jack x 2 (L, R x 1)) i) AUDIO OUT (M3 x 1 (L-R x 1) for output (variable)) j) LAN (RJ-45 x 1 (for network connection, 10BASE-T/100BASE-TX, compliant with PLink™)) k) SERIAL IN (D-sub 9-pin (female) x 1 for external control (RS-232C compliant)) l) USB Type A, USB Type B 	10

**Supply & Installation of Laboratory Equipment of
Computer Science & IT Department
(Bid Form)**

Sr. No.	Item Name	Qty.	Unit Rate	Total Price (inclusive of all taxes, and Shipment charges)
01	NUC	265		
02	Computer Display Monitor 22" - with mounting bracket for Intel NUC <u>5i7RYH</u>	300		
03	USB Mouse	300		
04	USB Keyboard	300		
05	Arduino Starter Kit	01		
06	Sound System	10 set		
07	Multimedia Projector	10		
TOTAL: _____				
Total in Words: _____				

Company Evaluation Criteria

1. Basic Evaluation

1. List of Previous/Current customers of related equipment, with contact person and telephone/fax numbers.
2. Detailed product information
3. Copy of National Tax Registration Certificate
4. Copy of Sales Tax Registration Certificate
5. Bank letter of financial standing
6. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or de-barred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
7. Valid Manufacturers authorization letter
8. Detailed item specifications matched corresponding to the BOQ
9. Detailed project implementation schedule which includes the delivery of items mentioned in the BOQ
10. Signed and stamped Tender document

Detailed Evaluation for Tender No. Lab-086
Supply & Installation of Laboratory Equipment of Computer Science & IT Department
at KFUEIT, Rahim Yar Khan

(Minimum Passing Score Required is 65 Points)

Sr. No	Item Name and Description	Marks	Max Marks
1	Past Performance/Experience of the Bidder (Reg. with GST/NTN)	--	10
1.1	1 – 3 year experience	2	--
1.2	4 – 8 year experience	4	--
1.3	9 – 15 years experience	6	--
1.4	Above 15	10	--
2	Relevant Experience	--	10
2.1	Project completed of similar nature in last ten years	2/project	6
2.2	Project in hand of similar nature	2/project	4
3	Financial Position/ Status	--	10
3.1	Last sales tax paid Form	4	--
3.2	Bank Certificate (satisfactory)	2	--
3.3	Statement Worth (Min 15 m)	4	--
4	After sale Services Available	--	10
5	Technical Evaluation of quoted items	--	60
5.1	Specification matched	30	
5.2	Literature in printed shape attached	2.5	
5.3	Reliability	2.5	
5.4	Delivery schedule as per need	5	
5.5	List of clients / where this equipment delivered	5	
5.6	Satisfactory letter from clients in favour of such equipment	5	
5.7	Guarantee / Warranty (as the case may be)	5	
5.8	Provision of training to concerned user	2.5	
5.9	Free Installation (if required) as per requirement	2.5	
Total		--	100

**Khwaja Fareed University of Engineering &
Information Technology, Rahim Yar Khan**



Tender Document

Tender No. Lab-087

**Supply & Installation of Laboratory Equipment of
Basic Science & Humanities Department**

at

**Khwaja Fareed University of Engineering
& Information Technology
Rahim Yar Khan**

TENDER DOCUMENT

TENDER No. Lab-087

Supply & Installation of Laboratory Equipment of Basic Science & Humanities Department

at

Khwaja Fareed University of Engineering and Information Technology

TENDER PRICE Rs. 3000/-

Last date of submission: _____

FOR OFFICE USE ONLY

Serial No. _____

Sold to: M/S _____

Date of Sale _____

Bank Challan No. _____

Date _____

1. Overview

Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan intends to purchase “**Supply & Installation of Laboratory Equipment of Basic Science & Humanities Department**” as provided at **Annex ‘A’**. The supplier will be responsible for Supply, delivery, installation and commissioning of all specified items, wherever required, at the Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan. This document provides complete instructions for bidders intending to participate in this Tender.

2. Instructions for Bidders

2.1. Response to the Tender (Bid) should be submitted in one part which shall include two separately sealed envelopes of Technical **Proposal and** Financial **Proposal** before **12:00 PM** on **09-10-2017**. Technical Proposals will be opened on same day at **12:30 PM** in the presence of representatives of responding bidders, if any, and Financial Proposals will be opened after completion of technical evaluation. The exact time and place for opening of financial proposals will be informed to technically qualified bidders.

2.2. Responding bidder shall deliver two sealed copies of the bid. Each copy being physically separate, bound, sealed and labeled. Proposals shall be delivered at the address given below.

Director Procurement
Khwaja Fareed University of Engineering & Information Technology
Abu Dhabi Road, Rahim Yar Khan.

Tel. # 068-5882420

2.3. Any queries regarding this proposal should be directed to the designated Technical Contact Person listed below.

Dr. Bakhat Ali, Tel. 068-5882489

2.4. All bids must be submitted by filling the **Annex ‘B’**. Same should be enclosed in the financial proposal. Bidder must use the same numbers and labels used in this Request for Proposal.

2.5. The original Tender Document duly signed and officially sealed by the bidder must be submitted in whole with the proposals. Any conditional, ambiguous, incomplete, supplementary or revised offer after the opening of tender shall not be entertained.

3. Technical Proposal Format

Bidders are required to include the following documents/information in their technical proposals in the order given below:

- i. The Name and Address
- ii. Profile of company (Including Financial Profile)
- iii. List of Previous/Current customers of related designing, composing and printing of prospectus, with contact person and telephone/fax numbers.
- iv. Detailed product design information
- v. Copy of National Tax Registration Certificate
- vi. Copy of Sales Tax Registration Certificate
- vii. Bank letter of financial standing
- viii. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or debarred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
- ix. Any additional information the bidder may like to furnish e.g. repair/maintenance other concerned facility
- x. Detailed item specifications matched corresponding to the BOQ as given at **Annex 'A'**
- xi. Detailed project implementation schedule/Completion Schedule which includes the delivery of items mentioned in the BOQ
- xii. Signed and stamped Tender document
- xiii. Bank Draft of the Earnest Money

4. Financial Proposal Format

Financial Proposal must include the following in the order given below:

- i. Equipment prices duly entered on the form in the attached BOQ
- ii. Validity period of the quoted price
- iii. Any other Terms and Conditions

5. Terms & Conditions

5.1. This invitation for bids is open to all national original Manufacturers/ Distributors/Agents in Pakistan for Supply of Tools, Carpentering, Plumbing and Electric Material.

5.2. All prices should be quoted in Pak Rupees and inclusive of all Government Taxes & Levies.

- 5.3. A bank draft equal to 2% of the estimated cost should accompany the Tender as **Earnest Money** drawn in favor of **KFUEIT Rahim Yar Khan**. The Tender shall not be considered without Earnest Money. Bank guarantee will not be accepted. Bank draft for Earnest Money should be placed with the Technical proposal.
- 5.4. Earnest Money for bidders not selected will be returned a minimum of two weeks after announcement of award and returned to successful bidder after signing the contract. If the selected bidder fails to sign the contract within stipulated time, Earnest Money will be forfeited.
- 5.5. A Bank draft of 5% of the total amount as **Performance Guarantee** will be provided by the supplier in favor of KFUEIT, Rahim Yar Khan within 10 days after signing of the contract on judicial stamp paper of the value PKR. 1200/-which shall remain valid for 12 months beyond delivery period. This performance guarantee will be released after the completion of warranty/guarantee period, along with the satisfactory completion report which will be intimated to the Seller and the Director Procurement KFUEIT, Rahim Yar Khan for their onward issuance of No Objection Certificate (NOC) for the release of performance guarantee.
- 5.6. KFUEIT Rahim Yar Khan reserves the right to accept / reject any or all proposals without assigning any reason thereof.
- 5.7. The quantity of an order may vary depending on the quoted prices and the allocated funds.
- 5.8. The decision of the KFUEIT procurement committee will be binding on all concerned and will in no case be challenged in any forum.
- 5.9. KFUEIT Rahim Yar Khan reserves the right to modify the conditions / specifications of the Tender Document with written intimation to all the participants who have purchased the Tender Document.
- 5.10. Delivery period will be 45 days from the date of issuance of purchase order/supply order.
- 5.11. Delivery shall be completed according to the agreed upon schedule.
- 5.12. In case the selected bidder fails to execute the contract strictly in accordance with the terms and conditions laid down in the contract, the Performance Guarantee shall be forfeited.
- 5.13. The University will get the item inspected at KFUEIT Rahim Yar Khan and reject the item, if not found according to the stated specifications.

- 5.14.** The University reserves the right to claim compensation for the losses caused by delay in the delivery of equipment.
- 5.15.** It is the sole responsibility of the bidder to comply with local, national and international laws.
- 5.16.** In case any supplies/material are found not in conformity with the specifications provided in the tender, either on account of inferior quality, defective workmanship, faulty design, faulty packing or is short supplied, or wrongly supplied, the supplier will replace the same free of charges or pay the full cost of replacement.
- 5.17.** All the proposals submitted will become the property of the University.
- 5.18.** All prices should be valid for at least 60 days. Withdrawal or any modification of the original offer within the validity period shall entitle the KFUEIT Rahim Yar Khan to forfeit the Earnest Money in favor of the KFUEIT Rahim Yar Khan and/or putting a ban on the future inquires or taking any other suitable action against the bidder.
- 5.19.** Delivery of the items will be free of charge at Khawaja Fareed University of Engineering & Information Technology, Rahim Yar Khan during the office hours with a copy of Delivery Challan.
- 5.20.** Items being ordered should be brand-new and according to order specification from the current production and covered under normal warranty/guarantee etc. as mentioned in the quote. Brochures mentioned and product details must be attached.

6. Tender Evaluation Criteria

All bids shall be evaluated on technical and financial merit. The Company Evaluation Criteria is attached at **Annex 'C'** for reference. Technical evaluation process may include, but not limited to the consideration of the following with respect to the functional requirements given ahead:

- a. Technical specifications of proposed item
- b. Company Profile
 - Age of the company
 - Financial strength of the bidder

Financial Evaluation process will be based on the consideration of the quoted price.

7. Undertaking

On behalf of the company it is certified that we agree to the all the Instructions and Terms & Conditions given in this Tender Document

Name of bidder.....

Authorized person.....

Authorized signature.....

Stamp.....

Office Address.....

Tel No

Fax No

Supply & Installation of Laboratory Equipment of Basic Science & Humanities Department

Sr. No	Item Name	Specifications/Minimum Requirements	Qty.
01	Digital Balance	Communication to Windows Specifications: Capacity: 200 g Readability: 0.1 mg Linearity: ± 0.2 mg Built in weight for internal calibration Built in RS 232C Power Supply: Switchable 120 - 230VAC 50 - 60Hz Warranty: Minimum of two years of comprehensive warranty including all replacement parts, labour charges and services as required without any additional cost from the date of successful installation and commissioning of the equipment. With its all accessories	02
02	Conductometer	Conductivity meter Bench Top Large screen that displays conductivity Range (conductivity): $0.01\mu\text{S}/\text{cm}$ to $500\text{mS}/\text{cm}$ Resolution (Conductivity): Automatic range Accuracy (Conductivity): $\pm 0.5\%$ of the measured value Temperature Range: 32° to 212°F TDS Range: $0.01\text{mg}/\text{L}$ to $300\text{g}/\text{L}$ TDS Accuracy: $\pm 0.5\%$ of the measured value RS232 or USB ports to export data directly either to a printer or a PC for further processing With its all accessories	01
03	Spectronic 20	UV visible spectrophotometer double beam Key Features: Wavelength Range: 190-1100 nm, Selectable Wavelength Accuracy: $\pm 2.5\text{nm}$ Display: LED, %T, A, C, Factor, Wavelength Wavelength Reproducibility: $\pm 0.3\text{nm}$ Spectral Bandwidth: $\leq 0.2\text{nm}$ Photometric Mode: Transmittance, Absorbance, Energy Photometric Range: 0 to 220 %T, -0.3 to 3.5A Photometric Accuracy: 0.002A (0 - 0.5A), 0.004A (0.5 - 1.0A) Detector: Dual Silicon Photodiode Light Source: Tungsten Halogen and Deuterium arc lamps Power Supply: Switchable 120 - 230VAC 50 - 60Hz Warranty: Minimum of two years of comprehensive warranty including all replacement parts, labour charges and services as required without any additional cost from the date of successful installation and commissioning of the equipment.	02

		With its all accessories	
04	Air-Conditioner Split type	Mitsubishi 2-ton split AC (DC inverter Heat & Cool) or better with	04
05	Rotational Motion Apparatus	(to determine the Path-time diagrams of rotational motions - time measurement with the counter)	01
06	Conservation of Angular Momentum Apparatus	Conservation of Angular Momentum in elastic rotational collision and in inelastic rotational collision	01
07	Centrifugal Force Apparatus	To determine the centrifugal force apparatus	01
08	Motion of a Gyroscope Apparatus	Motion of a Gyroscope measurement	01
09	Moment of Inertia Apparatus	Moment of Inertia measurement	01
10	Conservation of Energy Apparatus	Conservation of Energy measurement	01

**Supply & Installation of Laboratory Equipment of Basic Science
& Humanities Department
(Bid Form)**

Sr. No.	Item Name	Qty.	Unit Rate	Total Price (inclusive of all taxes, and Shipment charges)
01	Digital Balance	02		
02	Conductometer	01		
03	Spectronic 20	02		
04	Air-Conditioner Split type	04		
05	Rotational Motion Apparatus	01		
06	Conservation of Angular Momentum Apparatus	01		
07	Centrifugal Force Apparatus	01		
08	Motion of a Gyroscope Apparatus	01		
09	Moment of Inertia Apparatus	01		
10	Conservation of Energy Apparatus	01		
TOTAL: _____				
Total in Words: _____				

Company Evaluation Criteria

1. Basic Evaluation

11. List of Previous/Current customers of related equipment, with contact person and telephone/fax numbers.
12. Detailed product information
13. Copy of National Tax Registration Certificate
14. Copy of Sales Tax Registration Certificate
15. Bank letter of financial standing
16. An affidavit on Rs 100/- Stamp Paper that currently they are not black listed or de-barred by any Government/Semi-Government Department to participate in bidding and to supply equipment. Failure to submit such affidavit may lead to disqualification.
17. Valid Manufacturers authorization letter
18. Detailed item specifications matched corresponding to the BOQ
19. Detailed project implementation schedule which includes the delivery of items mentioned in the BOQ
20. Signed and stamped Tender document

Detailed Evaluation for Tender No. Lab-087
Supply & Installation of Laboratory Equipment of Basic Science & Humanities Department

(Minimum Passing Score Required is 65 Points)

Sr. No	Item Name and Description	Marks	Max Marks
1	Past Performance/Experience of the Bidder (Reg. with GST/NTN)	--	10
1.1	1 – 3 year experience	2	--
1.2	4 – 8 year experience	4	--
1.3	9 – 15 years experience	6	--
1.4	Above 15	10	--
2	Relevant Experience	--	10
2.1	Project completed of similar nature in last ten years	2/project	6
2.2	Project in hand of similar nature	2/project	4
3	Financial Position/ Status	--	10
3.1	Last sales tax paid Form	4	--
3.2	Bank Certificate (satisfactory)	2	--
3.3	Statement Worth (Min 15 m)	4	--
4	After sale Services Available	--	10
5	Technical Evaluation of quoted items	--	60
5.1	Specification matched	30	
5.2	Literature in printed shape attached	2.5	
5.3	Reliability	2.5	
5.4	Delivery schedule as per need	5	
5.5	List of clients / where this equipment delivered	5	
5.6	Satisfactory letter from clients in favour of such equipment	5	
5.7	Guarantee / Warranty (as the case may be)	5	
5.8	Provision of training to concerned user	2.5	
5.9	Free Installation (if required) as per requirement	2.5	
Total		--	100