

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



Tender Document

Tender No. Misc-065

**Supply and Installation of Portable/Handheld Vibration
Analyzer & Shaft alignment Tool**

at

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

TENDER DOCUMENT

TENDER No. Misc-065

Supply and Installation of Portable/Handheld Vibration Analyzer & Shaft alignment tool

at

Khwaja Fareed University of Engineering and Information Technology

TENDER PRICE Rs. 1000/-

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 and Installation of Portable/Handheld Vibration Analyzer & Shaft alignment tool**” 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 **02:00 PM** on **05-12-2017**. Technical Proposals will be opened on same day at **02:30 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. Zaheer Ahmad, Director procurement,

Tel. # 068-5882420

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

- I. Age of the company
- II. 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 and Installation of Portable/Handheld Vibration Analyzer & Shaft alignment Tool

Sr. No	Item Name	Specifications/Minimum Requirements	Qty.																												
01	Portable/Handheld Vibration Analyzer	<p>Portable/Handheld data collector/analyzer should have user-friendly operation, dual channel suitable for analysis of machine raw signal and can perform balancing, cepstrum analysis, orbit etc. Also have a strong trending/analysis software for wide range of evaluation and documentation functions. Analyzer should comply the following features or equivalent/Better:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Analog, 2x</td> <td>Voltage (AC/DC, ± 30 V max.) Current (AC/DC, ± 30 mA max.) ICP-type accelerometer (2 mA, 24 V max.) Current Linedrive (CLD) accelerometer (10 V, 10 mA max.)</td> </tr> <tr> <td>Frequency range</td> <td>DC ... 51.2 kHz (Acceleration from 0.5 Hz)</td> </tr> <tr> <td>Dynamic range</td> <td>96 dB (measurement) / 136 dB (total)</td> </tr> <tr> <td>Sampling frequency</td> <td>up to 131 kHz per channel</td> </tr> <tr> <td>Analog, 1x</td> <td>Thermocouple (type K)</td> </tr> <tr> <td>Digital (1+1 Pulse/Tacho), 1x</td> <td>RPM, Trigger, Keyphaser with pulse and AC signals: 0 V ... +26 V or -26 V ... 0 V</td> </tr> <tr> <td>Max. input voltage</td> <td>± 26 V</td> </tr> <tr> <td>Switching threshold for 0 V ...+26 V signal</td> <td>max. 2.5 V rising, min. 0.6 V falling</td> </tr> <tr> <td>Switching threshold for -26 V ...0 V signal</td> <td>min. -8 V rising, max. -10 V falling</td> </tr> <tr> <td>Pulse width</td> <td>< 0.1 ms</td> </tr> <tr> <td>Stroboscope control</td> <td>TTL output</td> </tr> <tr> <td>Frequency range</td> <td>0 ... 500 Hz</td> </tr> <tr> <td>Resolution</td> <td>0.05 Hz</td> </tr> <tr> <td>Signal-Out</td> <td>Connection for headphones to listen to the analog input signal; signal processing (oscilloscope)</td> </tr> </table>	Analog, 2x	Voltage (AC/DC, ± 30 V max.) Current (AC/DC, ± 30 mA max.) ICP-type accelerometer (2 mA, 24 V max.) Current Linedrive (CLD) accelerometer (10 V, 10 mA max.)	Frequency range	DC ... 51.2 kHz (Acceleration from 0.5 Hz)	Dynamic range	96 dB (measurement) / 136 dB (total)	Sampling frequency	up to 131 kHz per channel	Analog, 1x	Thermocouple (type K)	Digital (1+1 Pulse/Tacho), 1x	RPM, Trigger, Keyphaser with pulse and AC signals: 0 V ... +26 V or -26 V ... 0 V	Max. input voltage	± 26 V	Switching threshold for 0 V ...+26 V signal	max. 2.5 V rising, min. 0.6 V falling	Switching threshold for -26 V ...0 V signal	min. -8 V rising, max. -10 V falling	Pulse width	< 0.1 ms	Stroboscope control	TTL output	Frequency range	0 ... 500 Hz	Resolution	0.05 Hz	Signal-Out	Connection for headphones to listen to the analog input signal; signal processing (oscilloscope)	01
Analog, 2x	Voltage (AC/DC, ± 30 V max.) Current (AC/DC, ± 30 mA max.) ICP-type accelerometer (2 mA, 24 V max.) Current Linedrive (CLD) accelerometer (10 V, 10 mA max.)																														
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Max. input voltage	± 26 V																														
Switching threshold for 0 V ...+26 V signal	max. 2.5 V rising, min. 0.6 V falling																														
Switching threshold for -26 V ...0 V signal	min. -8 V rising, max. -10 V falling																														
Pulse width	< 0.1 ms																														
Stroboscope control	TTL output																														
Frequency range	0 ... 500 Hz																														
Resolution	0.05 Hz																														
Signal-Out	Connection for headphones to listen to the analog input signal; signal processing (oscilloscope)																														

Frequency range	0.5 Hz ... 40 kHz
Output impedance	100 Ohm
Vibration acceleration	Should have an option for wide range
Shock pulse	-10 ...80 dBsv / \pm 3dBsv
RPM	10 ... 200 000 min-1 / \pm 0.1‰ or \pm 1 min-1 (the lower accuracy is applicable)
Temperature type K	-50 ... +1000°C / 1% or \pm 1°C (the lower accuracy should applicable)
Standards fulfilled	Frequency response according to ISO 2954
Display	TFT-LCD, backlit Can be easily seen in dark and bright light
Battery type	Li Ion rechargeable battery pack (7.2V / 4.8Ah - 34 Wh)
Charging time	< 5 hours in the device with optional charging station
Charger, input	110-240 V / 50-60 Hz
Charging temperature	0°C ... +50°C
Memory	Internal: 128 MB DDR RAM; Compact Flash: 2 GB ... 8 GB
Serial interface	RS 232, <115 kBaud
USB interface	USB host for printing; USB slave for data exchange with the software
Ethernet interface	100 Mbit (100Base T), 10 Mbit (10Base T)
Printing	Direct printing of measurement reports via the USB port Compatible printer
Can easily see on day and night time	ABS plastics
Housing	
Weight	Lighter in weight. approx. 1.2 kg
IP rating	IP65, dust and splash-proofed
Temperature range	-10°C ... +60°C (Operation) -20°C ... +60°C (Storage)
Software Capabilities	Client server based analysis software; unlimited no. of clients can be possible. Lifetime free software upgrades and support
Calibration	Duration for the next calibration must be due after 24 months

		Make	Any European Brand	
02	Shaft alignment tool along with wireless Bluetooth sensor	<p>Shaft alignment system which can work on the basis of laser. Sensor contains two fully- linearized biaxial position detectors and a precision inclinometer. It should precisely measure relative shaft movement in five degrees of freedom. Also have ‘Live Move’ for horizontal and vertical correction. Tool must have following specification or Equivalent/Better:</p> <p><u>COMPUTER</u></p> <p>CPU Intel XScale PXA270 running at 520 MHz</p> <p>Memory 64 MB RAM, 64 MB Flash</p> <p>Display Type: TFT, Transflective (sunlight-readable), 65 535 colors, backlit LED Resolution: 320 x 240 Pixel; Dimensions: 3.5-inch diagonal Keyboard elements: Navigation cursor cross with up, clear and menu keys; Alphanumeric keyboard with dimensions, measure and results hard keys</p> <p>LED indicators 4 LEDs for laser status and alignment condition 2 LEDs for wireless communication and battery status</p> <p>Power supply Operating time: 18 Hours typical use (based upon an operating cycle of 25% measurement, 25% computation and 50% ‘sleep’ mode) Disposable batteries: 6 x 1.5 V IEC LR6 (“AA”) Lithium-Ion rechargeable battery: 7.2 V / 2.4 Ah (optional)</p> <p>External interface USB host USB slave RS232 (serial) for transducer Integrated wireless communication, class 1, transmitting power 100 mW AC adapter/charger socket</p> <p>Environmental protection IP 65 (dustproof and water spray resistant), shockproof Relative humidity 10% to 90%</p> <p>Temperature range Operation: -10°C to 50°C [14°F to 122°F] Storage: -20°C to 60°C [-4°F to 140°F]</p> <p>Dimensions</p>		01

		<p>Approx. 214 x 116 x 64 mm [8 7/16" x 4 7/16" x 2 1/2"]</p> <p>Weight 865 g [1.9 lb]</p> <p>CE conformity EC guidelines for electric devices (2004/108 EWG) are fulfilled</p> <p><u>SENSOR</u></p> <p>5-axis sensor 2 planes (4 displacement axes and angle)</p> <p>Environmental protection IP 67 (submersible, dustproof)</p> <p>Ambient light protection Yes</p> <p>Storage temperature -20°C to 80°C [-4°F to 176°F]</p> <p>Operating temperature -10°C to 60° [14°F to 140°F]</p> <p>Dimensions Approx. 105 x 74 x 53 mm [4 9/64" x 2 29/32" x 2 3/32"]</p> <p>Weight Approx. 220 g [7 3/4 oz.]</p> <p>Measurement area Unlimited, dynamically extendible (U.S. Patent 6,040,903)</p> <p>Resolution 1 µm (0.04 mil) and angular 10 µRad</p> <p>Accuracy > 98%</p> <p>Inclinometer resolution 0.1°</p> <p>Inclinometer error 0.3% full scale</p> <p><u>LASER</u></p> <p>Type Semiconductor laser diode</p> <p>Beam divergence 0.3 mrad</p> <p>Environmental protection IP 67 (submersible, dustproof)</p> <p>Beam power < 1 mW</p> <p>Wavelength 670 nm (typical) (red, visible)</p> <p>Safety class Class 2, FDA 21 CFR 1040.10 and 1040.11</p> <p>Safety precautions Do not look into laser beam</p> <p>Power supply Batteries 2 x 1.5V IEC LR6 ("AA")</p> <p>Storage temperature -20°C to 80°C [-4°F to 176°F]</p> <p>Operating temperature -10°C to 50°C [14°F to 122°F]</p> <p>Dimensions approx. 105 x 74 x 47 mm [4 9/64" x 2 29/32" x 1 27/32"]</p> <p>Weight approx. 227 g (8 oz.) including batteries</p> <p><u>BLUETOOTH® MODULE</u></p> <p>Class 1 connectivity, transmitting power 100 mW</p> <p>Transmission distance Up to 100 m [328 ft.]</p>	
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		<p>direct line of sight</p> <p>Complies with FCC rules part 15</p> <p>LED indicators 1 LED for wireless communication, 3 LEDs for battery status</p> <p>Power supply Batteries 2 x 1.5 V IEC LR6 (“AA“)</p> <p>Operating time 14 Hours typical use (based upon an operating cycle of 50% measurement, 50% standby)</p> <p>Operating temperature -10°C to 50°C [14°F to 122°F]</p> <p>Environmental protection IP 65 (dustproof and water spray resistant), shockproof</p> <p>Dimensions Approx. 81 x 41 x 34 mm [3 1/8” x 1 11/16” x 1 5/16”]</p> <p>Weight Approx. 133 g [4.7 oz.] including batteries and cable</p> <p><u>CARRYING CASE</u></p> <p>Standard ABS, drop tested 2 m [6 1/2 ft])</p> <p>Dimensions Approx. 470 x 400 x 195 mm [18 1/2” x 15 3/4” x 7 3/4”]</p> <p><u>CALIBRATION</u> Duration for the next calibration must be due after 24 months</p> <p><u>MADE</u> Any European brand</p>	
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**Supply and Installation of Portable/Handheld Vibration Analyzer
& Shaft alignment Tool**

(Bid Form)

Sr. No.	Item Name	Qty.	Unit Rate	Total Price (inclusive of all taxes, and Shipment charges)
01	Portable/Handheld Vibration Analyzer	01		
02	Shaft alignment tool along with wireless Bluetooth sensor	01		
				TOTAL: _____
Total in Words: _____				

Company Evaluation Criteria

1. Basic Evaluation

- i. Profile of company
- ii. Detail of Previous/Current customers of related Supplies, Purchase Orders, with contact person and telephone/cell numbers.
- iii. Detailed product information
- iv. Copy of National Tax Registration Certificate
- v. Copy of Sales Tax Registration Certificate
- vi. Bank letter/Certificate of Account Information/financial standing
- vii. 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.
- viii. Detailed item specifications matched corresponding to the BOQ as given at **Annex 'A'**
- ix. Detailed project implementation schedule/Completion Schedule which includes the delivery of items mentioned in the BOQ
- x. Signed and stamped Tender document

2. Detailed Evaluation

(Minimum Passing Score Required is 65 Points)

TECHNICAL EVALUATION CRITERIA FOR TENDER			
Specifications are available at Annex-A			
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	1 – 5 years' experience	3	--
2.2	6 – 10 years' experience	6	--
2.3	11 and above year experience	10	--
3	Financial Position/ Status	--	10
3.1	Last sales tax paid Form	4	--
3.2	Bank Certificate (satisfactory)	2	--
3.3	Statement Worth (Min 2 m)	4	--
4	After Sale Services Available	--	10
5	Technical Evaluation of quoted items	--	60
5.1	Specification matched as provided in Annex-A	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