



SHIVAJI UNIVERSITY, KOLHAPUR

Department of Technology

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A
Accredited By NAAC

INVITATION FOR QUOTATION

TEQIP-III/2019/dtsk/Shopping/15

03-Jan-2019

To,

Sub: Invitation for Quotations for supply of Goods

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	Brief Description	Quantity	Delivery Period(In days)	Place of Delivery	Installation Requirement (if any)
1	Cam Analysis Appartus	1	45	DEPARTMENT OF TECHNOLOGY SHIVAJI UNIVERSITY KOLHAPUR	YES
2	Vibration Lab Apparatus	1	45	DEPARTMENT OF TECHNOLOGY SHIVAJI UNIVERSITY KOLHAPUR	YES
3	Whirling of Shaft Appartus	1	45	DEPARTMENT OF TECHNOLOGY SHIVAJI UNIVERSITY KOLHAPUR	YES

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme[TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
3. Quotation,
 - 3.1 The contract shall be for the full quantity as described above.
 - 3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
 - 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.
 - 3.4 Applicable taxes shall be quoted separately for all items.
 - 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
 - 3.6 The Prices should be quoted in Indian Rupees only.
4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than **45** days after the last date of quotation submission.
6. Evaluation of Quotations,

The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which

 - 6.1 are properly signed ; and
 - 6.2 confirm to the terms and conditions, and specifications.
7. The Quotations would be evaluated for all items together.
8. Award of contract:

The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

 - 8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.

8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.

9. Payment shall be made in Indian Rupees as follows:

Delivery and Installation - 90% of total cost
Satisfactory Acceptance - 10% of total cost

10. All supplied items are under warranty of **12** months from the date of successful acceptance of items.

11. You are requested to provide your offer latest by **18:00** hours on **16-Jan-2019** .

12. Detailed specifications of the items are at Annexure I.

13. Training Clause (if any) **yes**

14. Testing/Installation Clause (if any) **yes**

15. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.

16. Sealed quotation to be submitted/ delivered at the address mentioned below,

17. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation

Annexure I

Sr. No	Item Name	Specifications
1	Cam Analysis Appartus	APPARATUS: CAM ANALYSIS APRATUS The setup is to have a camshaft driven by a variable speed motor. The free end of the camshaft should have a facility to mount the cam easily. The follower is to be properly guided in bushes and the type of follower can be changed according to the cam under test. There should be a dial gauge that permits the plotting the

		<p>follower displacement with respect to cam position. A spring is to be used to provide controlling force to the follower system. An arrangement is to be provided to regulate the speed. The apparatus is to test the cam performance for jump phenomenon during operation and the effect of change of inertia forces on jump action of cam-follower during operation. Three or more sets of cams and followers to be supplied with the apparatus. Specifications: Cams : Tangent, Eccentric, Circular Arc, hardened one each Followers : Roller, Knife edge/ flat faced, Mushroom, hardened Compression Spring : Helical spring Motor : Variable speed PMDC Motor (FHP), Speed is controlled by D.C. drive, electronically Digital stroboscope : To view the jump phenomena Dimmerstat : To be provided for speed control A dial gauge to note the follower displacement of Baker and Mercer standard makes. Specifications of Stroboscope Display : 4" LED, 4 Digits Stroboscopic flash rate : 100 to 10000 flashes per minute (fpm) Accuracy : 0.05% + 1digit Resolution : 0.1 fpm/rpm, 1fpm/rpm, 10fpm/rpm Sampling time : 1second Range : high/ low Low range : 100 to 1200 rpm approx. High range : 1000 to 10000rpm approx. Circuit : one chip of microcomputer LSI Circuit and crystal control time base Service required : 230 V, A.C. stabilized supply along with earthing connection. Experiment to be performed: CAM Analysis - angle Vs displacement and jump phenomenon</p>
2	Vibration Lab Apparatus	<p>A universal frame is to be provided upon which quick and easy assembly of various experiments can be done. The unit should be self-contained to safely store spares. Features: Pendulum Experiments: Simple Pendulum. Compound Pendulum. Bi-filler Suspension. Longitudinal Vibration experiment Spring Mass System. Equivalent Spring Mass study of un-damped system Free vibration Torsional Vibration Experiment. Single Rotor System. Two Rotor Systems. Single Rotor with viscous damping. Damped Vibration Experiment. Verification of Dukerley Rule. Forced rotor with viscous damping along with frictional HP Motor Strip chart recorder and control unit. A technical manual accompanies the equipment. Experiment to be performed: To determine the natural frequency of un-damped torsional vibration of two rotor shaft system To determine the frequency of un-damped free vibration of an equivalent spring mass system To determine the frequency of damped force vibration</p>

		<p>of a spring mass system Specifications: Power Supply : 230V AC, with earth Motor : Variable speed FHP PMDC Motor Stop Watch : Electronic Stop Watch. Ordinary Chart recorder : For recording Frequency and Amplitude of Vibration, Motor of chart Recorder : Synchronies Reversible Motor having Torque 3-5 kg. MOC of simple pendulum : Hard plastic/ equivalent MOC of Compound pendulum: M.S., Length: 800 mm and 600 mm/ equivalent MOC of Bi-Filar suspension : M.S., Length: 400-600 mm approx. Motor Speed is controlled by D.C. drive/ electronically</p>
3	Whirling of Shaft Appartus	<p>The set up should be designed to study the whirling of shafts. The set-up should consist of a sturdy frame, bearing holders, variable speed motor etc. to drive the shaft along with speed control unit. Different bearing can be fitted in bearing block to have different end conditions i.e. 1. both end fixed 2. one end free and one end fixed Specifications: Technical specifications: Floor area of 2m x 0.5 m approx. or equivalent Electricity Supply 230 V AC, Single Phase. Digital Tachometer Test Shafts Length : 1000 mm each approx. or equivalent Diameter : 3.2, 4.8 and 6.4 mm (approx.) Quantity : Two or more each. Instruction Manual : An instruction manual should be provided along with the Apparatus Kinematic coupling bearing for fixed or free ends without restraint. Drive motor, 5000 rpm, FHP/1hp. Supplied with a speed control unit, Speed to be controlled by D.C. drive / equivalent. Experiment to be performed: To determine whirling speed of shaft theoretically and experimentally</p>

FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: _____

To:

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

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

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. _____ (Amount in figures) (Rupees _____ amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of _____ months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: _____

Address: _____

Contact No: _____