



P.E.S. COLLEGE OF ENGINEERING MANDYA, KARNATAKA

OFFICE OF THE TEQIP CELL

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INVITATION FOR QUOTATION

TEQIP-II/2015/KA1G02/Shopping/70

15-Jun-2015

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	Diesel engine test rig	1	90	Department of Mechanical Engineering, P.E.S. College of Engineering, Mandya - 571401	Installation and testing to the satisfaction of the Departmental technical committee

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme [TEQIP]-Phase II** Project and intends to apply part of the proceeds of this

credit to eligible payments under the contract for which this invitation for quotations is issued.

3. Quotation,

3.1 The contract shall be for the full quantity as described above.

3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.

3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.

3.4 Applicable taxes shall be quoted separately for all items.

3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.

3.6 The Prices should be quoted in Indian Rupees only.

4. Each bidder shall submit only one quotation.

5. Quotation shall remain valid for a period not less than **55** days after the last date of quotation submission.

6. Evaluation of Quotations,

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

6.1 are properly signed ; and

6.2 confirm to the terms and conditions, and specifications.

7. The Quotations would be evaluated for all items together.

8. Award of contract:

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

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

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

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

Delivery and Installation - 0% of total cost
Satisfactory Acceptance - 100% of total cost

10. All supplied items are under warranty of **12** months from the date of successful acceptance of items.
11. You are requested to provide your offer latest by **15:00** hours on **06-Jul-2015** .
12. Detailed specifications of the items are at Annexure I.
13. Training Clause (if any) **Needed**
14. Testing/Installation Clause (if any) **Needed**
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,
Office of the TEQIP Cell, PES College of Engineering, Mandya - 571 401 KARNATAKA,
Phone: 08232 220043 Ext: 289
17. We look forward to receiving your quotation and thank you for your interest in this project.

**Head of the Procuring
Department**

**Nodal officer
Procurement**

Principal

Annexure I

Sr. No	Item Name	Specifications
1	Diesel engine test rig	<p>A. ENGINE: 4 Stroke, Single Cylinder Diesel Engine Kirloskar make 10 hp @ 1500 RPM Cubic Capacity (Ltr.): - 0.948</p> <p>B. EDDY CURRENT DYNAMOMETER Water cooled, with Load Cell weighing mechanism suitable for loading the above engine.</p> <p>C. EDDY CURRENT DYNAMOMETER CONTROLLER To control loading of Dynamometer and should digitally display the torque in N-m and RPM of the engine. Accuracy of torque indication is < 0.5 % of Full Scale Torque of Dynamometer.</p> <p>D. COMMON BASE FRAME: - The engine and dynamometer are mounted on a Common Rigid Channel Frame, which can be directly mounted on the foundation block.</p> <p>E. CARDAN SHAFT: A Suitable Cardan Shaft for connecting Engine to Dynamometer should be provided along with the cardan shaft guard for protection from the rotating shaft.</p> <p>F. FUEL FLOW MEASUREMENT SYSTEM: It should consist of Volumetric Fuel Consumption measuring unit consisting of Fine Beam Infra-Red Sensors, conditioning card, and a calibrated pipette of 50 CC. The Digital signals are directly interfaced to the computer interface card. A fuel tank also should supplied with 20 litres capacity.</p> <p>G. EXHAUST GAS Calorimeter System consisting of computerized cooling water flow rate measurement and computerized temperature measurement units to determine the heat carried by the exhaust gas.</p> <p>H. COMPUTERIZED AIR FLOW MEASUREMENT Set-up consisting of calibrated system based on Pressure Drop across Orifice of Orifice meter attached to an air tank.</p> <p>I. BRAND NEW COMPUTER HP make,(Core i3, 4GB RAM, 500GB hard disk, Windows 8.1 OS, Keyboard, Mouse) suitable to carry out the analysis and Printer for printing various reports.</p> <p>J. TO DRAW THE P-V OR P-θ DIAGRAM: Should have following specification, Sensor Type : KISTLER MAKE 6613CQ09 Quartz pressure sensor M10x1, 100bar With integrated charge amplifier and cable of 2m, non-removable tubular socket wrench SW11, incl. 1x1100A3, 1x6525AQ28, 1x6442Q1,</p>

	<p>1x1700A69 Crank Angle Sensor – 1 Degree Resolution</p> <p>NI Card (USB Series PCI 6210) for Triggered Data Acquisition Cards with suitable NI Driver for the same.</p> <p>Windows based software for P-Θ, P-V, IHP, and IMEP analysis.</p> <p>K. ENGINE PERFORMANCE ANALYSIS (E.P.A.)</p> <p>Software with License for Carrying out the analysis of the engine test carried out. This software communicates with the various systems as per the settings, Displays various parameters on the Monitor, Stores the Test Data to a File and then Creates reports of Test Analysis, which can be printed by means of Printer Provided.</p> <p>The above system should enable to work out the following parameters of the engine At Full and part load performance ;</p> <p>Volumetric Efficiency;</p> <p>Air / Fuel Ratio at various loads</p> <p>Heat Balance Sheet and Energy studies;</p> <p>Heat release</p> <p>BHP, IHP, Mechanical efficiency, brake thermal efficiency, Indicated thermal efficiency, Specific fuel consumption</p>
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**Head of the Procuring
Department**

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: _____