

**GOVERNMENT POLYTECHNIC COLLEGE, KASARAGOD**

P.O. Periyé - 6713320, Kasaragod Dist., Kerala State Tele: 0467-2234020 E-mail: principalksgd@gmail.com

No: D/3603/2022

Date: 03.09.2022

**SHORT TENDER NOTICE**

E-Tenders are invited for the supply of **Equipments for Modernization of Heat Engine Laboratory of Mechanical Engineering Department under MODROBS 2021-22** for Govt. Polytechnic College, Kasaragod

1. Tender No. : 04/2022-23
2. Superscription : Purchase of Equipments for Heat Engine Lab of Mechanical Engineering Department under MODROBS 2021-22
3. Last Date to Receipt of Tender : 06.10.2022, 2 P.M.
4. Date of Opening of Tender : 10.10.2022, 2 P.M (If it happens to be a holiday, Next working day)
5. Date up to which the rates are to remain unchanged for acceptance } : 30.09.2023
6. Estimate Cost of Tender items : Rs. 12,00,000/-
7. Bidding Fee : Rs. 1800/- (1800/- + GST 18%) - Not Refundable [0.15% of Tender Cost + GST]
8. E.M.D Required : Rs. 12000/- (1% of the Estimated amount, Subject to a minimum of Rs.1500/-)
9. Address of the Officer to whom the hard copies are to be sent and for queries } : The Principal,  
Govt. Polytechnic College, Kasaragod  
P.O.Periyé-671 320, Kasaragod District,Kerala State  
Tele:0467- 2234020, 9605497927, 7560895843, 9400006458
10. Website for E-Tender Participation: [www.etenders.kerala.gov.in](http://www.etenders.kerala.gov.in)

**Other Conditions:-**

1. The prices should be quoted inclusive of GST, Service Tax, Installation & Freight charges, etc. and it should be separately and specifically shown.
2. Guarantee/Warranty period should be specifically shown
3. Specifications of items should be clearly specified.
4. **The Hard copy of all documents, with Preliminary Agreement in Kerala Stamp Paper worth Rs 220/- should be submitted before the date of opening of Tender.**
5. The items should be supplied within 45 days from the date of supply order
6. The Tender cost (Bidding Fee) and EMD Should be submitted only through online
7. If any exemption enjoying in remitting the **Tender Fee & EMD, The Government order specifying the matter, Exemption Certificate (Renewal Certificate, if any)** should be produced through online and as well as hard copy. Otherwise the exemption will not be allowed. And it should be mentioned clearly in a letter indicating concerned matter.



8. No exemption shall be granted if the firm only a reseller who quotes the Branded items/Model of Original Equipment Manufacturer (OEM)
9. Payment will be effected only after the supply of items completely as per the Supply Order and its installation, demonstration and training to concerned staff members..
10. Expected Price validity or firmness of Price and Expected delivery period should be mentioned.
11. Original Brochure should be attached (If the bidder quotes a branded item / Make of another Manufacture)
12. A declaration should be attached mentioning that the bidder are a bonafide Manufacturers / Wholesalers / Sole or Sub distributors / Sole Selling / Marketing Agents / Authorized dealers of the items which tendered.
13. The items should be delivered at the door of Heat Engine Lab of Mechanical Engineering Department of Government Polytechnic College, Kasaragod at Periya (Kasaragod - Kanhangad NH) on free of cost.
14. Phalmpet should be attached along with Tender documents.
15. The right to cancel the Tender without further notice will rest to the undersigned.
16. Any Other matter not specified above will be rest with the undersigned
17. A Training Class / Workshop is to be conducted after the successful installation and demonstration of machineries at Govt. Polytechnic College, Kasaragod
18. Items should be accompanied with
  - 1). Invoice in triplicate copies along with Advanced Stamped Receipt.
  - 2) Agreement in Kerala Stamp Paper worth Rs. 220/-
  - 3) Performance Security Deposit 5% as Demand Draft/Bank Guarantee etc, drawn in favors of "Principal, Govt. Polytechnic College, Kasaragod
  - 4) Guarantee/Warranty Card if any as mentioned in the tender proposal
  - 5) All connected items to the above if it is not specified specially



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KASARAGOD  
PERIYA - 671 320

## GOVERNMENT POLYTECHNIC COLLEGE KASARAGOD

No: D/3603/2022

Date: 03.09.2022

List of Items Required for the Purchase of Equipments for Heat Engine Lab of Mechanical Engineering Department under MODROBS – POL 2021-22

| Item No. | Name of Equipment/s with Accurate Specifications   | Units Required |
|----------|--|----------------|
| 1        | <p><b><u>Computerized 4 Cylinder 4 Stroke Diesel Engine Test Rig (With Data Logging Facility):</u></b></p> <p>Type of Engine: Four cylinder, Four stroke Water Cooled Diesel Engine, Type of Loading: Eddy current Dynamometer for variable loading. Set up fitted with air flow measuring system, Fuel measuring system, digital speed indicator and digital temperature indicator. Rotameters for cooling water and calorimeter flow measurement. Provide suitable exhaust arrangement with exhaust gas calorimeter with suitable temperature measuring arrangements. The set up should enable study of engine for indicated power, brake power, frictional power, Brake Mean Effective Pressure (BMEP), Indicated Mean Effective Pressure (IMEP), Brake thermal efficiency, indicated thermal efficiency, mechanical efficiency, volumetric efficiency, specific fuel consumption, air fuel ratio and heat balance. Control panel and data acquisition system with suitable support software should be provided. An ENGLISH instruction manual consisting of experimental procedures, block diagram etc. to be provided along with the Apparatus.</p> | 1              |
| 2<br>(a) | <p><b><u>Centrifugal Air Blower Test Rig</u></b></p> <p><u>Constant speed type</u> centrifugal blower coupled to a motor. Three interchangeable impellers forward curved, backward curved and radial curved vanes, pitot tube arrangement for static and dynamic pressure measurement. Air Duct 2000 mm length. MS fabricated air box with orifice meter and manometer. Stopwatches – digital type. A control panel with electronic energy meter, ON/OFF switches should be provided. Power Rating: 1-5 HP. An ENGLISH instruction manual consisting of experimental procedures, block diagram etc. to be provided along with the Apparatus.</p>   | 1              |
| 2(b)     | <p><b><u>Centrifugal Air Blower Test Rig</u></b></p> <p><u>Variable speed type</u> centrifugal blower coupled to a motor. DC motor with thyristor-controlled DC drive for variable speed. Three interchangeable impellers forward curved, backward curved and radial curved vanes, pitot tube arrangement for static and dynamic pressure measurement. Air Duct 2000 mm length. MS fabricated air box with orificemeter and manometer. Stopwatches – digital type. A control panel with electronic energymeter, RPM indicator, ON/OFF switches should be provided. Power Rating: 1-5 HP. An ENGLISH instruction manual consisting of experimental procedures, block diagram etc. to be provided along with the Apparatus.</p>  | 1              |
| 3        | <p><b><u>ONLINE POLLUTION CHECK MACHINES</u></b></p> <p><b><u>Automation Grade: Automatic, 140-260volts Ac(50hz),50 Watts</u></b></p> <p>Gases to be measured: Carbon monoxide, Hydro carbons, Carbon dioxide, Oxygen and NOx. NDIR sensors for measuring Carbon monoxide, Hydro carbons and Carbon dioxide. Lambda sensor for Oxygen measurement. Display: Graphical liquid crystal display, Input method: 6 keys membrane keyboard, Printer facility and with standard accessories. Set up to operate on 140-260volts AC(50Hz), 50 Watts</p>   | 1              |

Draft #2 of File D/3603/22/GPC-KSRD Approved by Principal on 03-Sep-2022 11:52 AM - Page 7



  
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