

IC Engines Lab Equipment



SRI PADMAVATI MAHILA VISVAIDYALAYAM
(WOMEN'S UNIVERSITY)
Tirupati -517 502 (A.P.) India

E-Tender Notice No: R.O.C.No.SPMVV/SE&T/IC Engines Lab/A4/2017

Dated: 11.09.2017

NOTICE INVITING E-TENDER

Sealed E-Tenders are invited from reputed manufacturers/suppliers/firms for the supply and Installation of **“Internal Combustion Engine Laboratory”** at School of Engineering and Technology, Sri Padmavati Mahila Visvavidyalayam. The information regarding detailed specifications, terms and conditions may be obtained from our website www.spmvv.ac.in.

- | | |
|--|-------------------------|
| a .Bidders downloading start date | : 04-10-2017 at 3:00 PM |
| b. Bidders downloading end date | : 17-10-2017 at 3:30 PM |
| b. Last date& time for receipt of bids | :17-10-2017 4.30 .P.M |
| c. Date of opening of E-Tenders: | |
| Technical Bid | :20-10-2017, 11.00 A.M |
| Financial Bid | :20-10-2017 , 3.30P.M |

REGISTRAR

SRI PADMAVATI MAHILA VISVAIDYALAYAM
(WOMEN'S UNIVERSITY)
Tirupati -517 502 (A.P.) India

Issued to _____

Name of Work: supply and Installation of IC Engines Lab of Mechanical Engineering at School of Engineering and Technology, Sri Padmavati Mahila Visvavidyalayam, Tirupati.

EARNEST MONEY DEPOSIT DETAILS:

D.D.NO: _____

Date: _____

Amount (Rs.): _____

E-Tenderer

FOR OFFICE USE ONLY:

Date of opening of E-Tender:

Whether received in proper form:

Whether EMD paid: Yes/No

D.D.details :

Amount paid:

Opened by _____

Notice inviting E-Tender

1. Sealed E-Tenders are invited from manufacturers/authorized dealers of laboratory equipments of International/National standards in the prescribed E-Tender form for supply and Installation of **Internal Combustion Engine Laboratory** of Mechanical Engineering lab at School of Engineering and Technology, Sri Padmavati Mahila Visvavidyalayam, Tirupati.
2. The dates relating to E-Tender for supply and Installation of **Internal Combustion Engine Laboratory** of Mechanical Engineering lab at School of Engineering and Technology, Sri Padmavati Mahila Visvavidyalayam, Tirupati are as follows.

a .Start Date of E- Tenders	: 04-10-2017
b. Last date for receipt of E-Tenders	:17-10-2017 4.30 .P.M
c. Date of opening of E-Tenders:	
Technical Bid	:20-10-2017, 11.00 A.M
Financial Bid	:20-10-2017 , 3.30P.M

3.The actual time of receipt of the E-Tender by the office only will count for the acceptance of the bid and either the date of bid, date stamp of post office or date stamp of any other office will not be considered. The Sri Padmavati Mahila Visvavidyalayam, Tirupati will not be responsible for any postal or any other transit delays.

4. Earnest Money Deposit(E.M.D.)

- a. The bidder will furnish, as part of its bid, an E.M.D. amount **of 1% of the total** supply value of the materials offered against the bid. This amount should be paid by way of a crossed demand draft drawn on any schedule bank in favour of the Registrar, Sri Padmavati Mahila Visvavidyalayam, Tirupati and payable at Headquarters of the purchaser i.e., Tirupati. **The crossed D.D. should invariably be furnished along with the financial bid only in a separate sealed cover.** The E-Tenders with partial E.M.D. are summarily rejected.
- b. The fact of having enclosed E.M.D. by D.D. along with the financial bid should be clearly superscribed on the bid envelope without mentioning the D.D amount. Bids which do not have the above superscription, will be rejected and returned to the respective bidders unopened.
- c. To Upload Scan Copy of E.M.D by way of D.D
- d. Requests for exemption from payment of E.M.D. will not be entertained in any case.

5. The bidder will furnish photocopies of the following documents duly attested by Gazetted Officer along with the Technical Bid, failing which their bids shall be summarily/out rightly rejected and will not be considered any further :

- a. Copy of Valid Manufacturing License from the competent authority/ valid Import License.
- b. Sole Manufacturer of equipment certificate if applicable.
- c. Valid authorization letter from the manufacturer in case of stockiest/distributor.
- d. Copy of the IT return filed for the last three financial years.
- e. Copy of GST Registration Certificate.
- f. Copy of Latest Sales Tax Clearance Certificate
- g. PAN No. (Attach attested copy).
- h. Copy of the Certificate of BIS/ISO/WHO(whenever applicable)
- i. Details of previous supplies as per E-Tender document.
- j. Copies of previous supply orders in support of above.

6. The declaration in the prescribed proforma given in this E-Tender document should be duly filled in, signed and submitted along with the technical bid. The above declaration, along with a copy of the terms and conditions, duly signed and sealed in each page, by the authorized signatory of the agency in token of acceptance of the terms and conditions should be enclosed with E-Tender document.

7. The conditional bids shall not be considered and will be out rightly rejected in the very first instance.

8. All entries in the E-Tender form should be legible and filled clearly. If the space for furnishing information is insufficient, a separate sheet duly signed by the authorized signatory may be attached. No overwriting is permitted. However the corrections, if any, in the Technical Bid Application must be signed by the person authorized to sign the E-Tender bids.

9. Opening of Bids by the Purchaser

- a. The E-Tender Document (Technical bid) shall be opened on: 20-10-2017at 11.00 A.M by the Registrar, Sri Padmavati Mahila Visvavidyalayam, Tirupati, in the presence of the representatives of the participant Bidder, if any, who wish to be present on the spot at that time. The financial bid would be opened after scrutiny of Technical Bid on: 20-10-2017at 3.30 P.M

- b. The Bidder's names, bid modifications or with-drawls, bid prices, discounts, and the presence or absence of requisite E.M.D. and such other details, as the purchaser, may consider appropriate at its discretion, and will be announced at the time of opening of the bid.
- c. Bids that are not opened and read out at bid opening will not be considered further for evaluation, irrespective of the circumstances

10. Clarification of Bids

- a. During evaluation of the bids, the purchaser may, at its discretion, ask the bidder for a clarification of its bid. The request for clarification and the response will be in writing, and change in the prices or substance of the bid will not be sought, offered, or permitted.

11. Preliminary Examination

- a. The purchaser will examine the bids to determine whether the technical bid is complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the financial bid is enclosed in a separate sealed cover.
- b. The purchaser may waive any minor informality, nonconformity, or irregularity in bid which does not constitute a material deviation, provided such waiver doesn't prejudice or affect the relative ranking of any bidder.
- c. Prior to the detailed evaluation, the purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the bidding documents without material deviations. The purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- d. If a bid is not substantially responsive, it will be rejected by the purchaser and may not subsequently be made responsive by the bidder by correction of the nonconformity.

12. Evaluation and Comparison of Bids

a) Technical Bid

All the bids, which are opened, read out and considered for evaluation, will be checked for qualification requirements in respect of the technical and commercial aspects. Such of the bids, which do not meet the qualification requirements, will not be evaluated further. The bid is to be checked for its conformity to the technical specification. If it does not meet the technical specification, the Bid will not be evaluated further. However, if in the opinion of the purchaser the bidder has offered equipment/material better than the technical specification the same may be considered.

- i) The bidder is a vendor who is banned from further business transactions and the period of a ban is still in force.
- ii) Bid received after the due date and time.
- iii) The bid is through telegram or fax.

iv) Bids not properly signed

b) **Financial Bid**

The purchaser will evaluate and compare the bids, which have been determined to be substantially responsive.

The bid may be rejected for the following reasons.

i) Not in the prescribed form

ii) Insufficient E.M.D. or bid not accompanied by the required E.M.D.

- Further, the purchaser may enquire from the bidder in writing for any clarification of the bid. The response of the bidder will also be in writing. However no change in the prices or substance of the bid will be sought, offered or permitted.
- Bids will be examined for completeness and for any computational errors.
- Arithmetical errors will be rectified on the following basis.
 - ❖ Where there is a discrepancy between the unit price and total price, the unit price will prevail and the total price will be corrected accordingly.
 - ❖ Where there is a discrepancy between words and figures, the amount in words will prevail.
 - ❖ If the bidder does not attest any overwriting in the price column such Bids will be rejected.
 - ❖ Failure on the part of the bidder to agree to the above corrections will result in Rejection of his offer and forfeiture of his E.M.D.
- It will be ensured that the required sureties have been furnished and that the documents have been properly signed.

The purchaser's evaluation of a bid will take into account the net landed cost of the material at the final destination. For the purpose of evaluation net landed cost is arrived at by adding all elements of the basic price, allowable discount, GST & any other levies, packing and forwarding, freight charges, insurance (transit & storage) as quoted by the bidder, interest on advance if any, unloading at final destination, erection, servicing and other charges as called for.

In addition, any variation up or down in taxes and duties/new levies introduced subsequent to bid opening and before award will be considered for comparison purposes.

The following criteria may be adopted for taxes and duties for evaluation.

- a. It is the responsibility of the bidder to quote all taxes and duties correctly. Where taxes and duties are not applicable, the bidder should provide the documentary evidence to that effect.
- b. Where there is an exemption of GST & any other levies the documentary evidence to that effect will be enclosed by the supplier.

- c. The bidder for supply and works shall invariably possess the TIN Number and PAN Number, which will be verified before entering into contract.

* Prior to detailed evaluation, the responsiveness of each bid will be determined. A substantially responsive bid is one that conforms to all the terms and conditions of the bidding documents without material deviations. For this purpose superscription, qualification requirement, E.M.D., validity, delivery, payment term, price schedule, taxes and duties will be deemed to be the critical provisions and deviations in any one of these items will be deemed to be a material deviation.

The purchaser may waive any minor informality, non-conformity or irregularity in the bid which does not constitute a material deviation, provided such waiver does not affect the relative ranking of any bidder. The purchaser will clearly indicate in the bid specification the methodology for evaluation of bids.

- a. Bid price, which will include all, costs of manufacture and services at manufacturing places as well as, Transportation to destination stores, packing and forwarding, insurance and all taxes and other legally permissible duties & levies payable.
 - b. Delivery schedule offered in the bid.
 - c. Deviations in payment schedule from that specified in the general terms and conditions of the contract.
 - d. The cost of components, mandatory spare parts and service.
 - e. The availability of spare parts and after-sales services for the equipment offered in the Bid
 - f. The projected operating and maintenance costs during the life of the equipment.
 - g. The performance and productivity of the equipment offered; and/or
 - h. Other specific criteria indicated in the Bid specification.
- i. The purchaser's evaluation of a bid will take into account the Net Landed Cost of the material at destination stores inclusive of all taxes and duties quoted by the Bidder. It is the responsibility of the bidder to quote the rate with all taxes and duties correctly.
 - ii. If any overwriting is not attested by the bidder in the price schedule such Bids will be rejected. Any statutory variations of taxes and duties and new levies imposed after opening of the bid and before award of the contact will be taken into consideration for the purpose of evaluation.
 - iii. A substantially responsive bid is one, which conforms to all the terms and conditions of the bidding documents without material deviations. For this purpose superscription, qualification requirement, E.M.D., validity delivery, payment term, price schedule, submission of type test certificates, taxes and duties will be deemed to the critical provisions and deviations in any one of these things will be deemed to be a material deviation.

13. Contacting the Purchaser

- a. From the time of the opening to the time of contract award, if any Bidder wishes to contact the purchaser on any matter related to the bid, it should do so in writing.
- b. Any effort by a bidder to influence the purchaser in its decisions on bid evaluation, bid comparison, or contract award will result in the rejection of the Bidder's bid.

AWARD OF CONTRACT

14. Award Criteria :

The purchaser will award the contract to the successful Bidder/Bidders whose bid has/have determined to be substantially responsive.

15. Purchaser's Right to Vary Quantities at the time of Award

- a. The purchaser reserves the right at the time of contract award to increase or decrease the quantity of materials/equipment and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.
- b. The purchaser reserves the right to vary the ordered quantity during the execution of the contract.

Notification of Award

1. Prior to the expiration of the period of bid validity, the purchaser will notify the successful bidder in writing by registered letter or by cable, to be confirmed in writing by registered letter, that its bid has been accepted.
2. The notification of award will constitute the formation of the contract.
3. Upon the successful Bidder's furnishing of the performance security, the purchaser enters into contract with successful Bidder/Bidders. The purchaser will notify each unsuccessful Bidder and will discharge its E.M.D.

16 .Signing of contract

The purchaser notifies the successful Bidder that his bid has been accepted. Within 15 days (fifteen days) of receipt of notification of award of contract, the successful Bidder will sign and date the contract. Failure to comply with this stipulation will entail cancellation of the contract besides forfeiture of the E.M.D.

17 .Performance Security

- a. Within fifteen (15) days of receipt of the notification of contract award, the successful bidder will furnish to the purchaser the performance security for an amount of 4% of the contract value for proper fulfillment of the contract, which will include the warranty period, and completion of performance obligations including warranty obligations. The performance security will cover 6 months beyond the date of completion of performance obligations including warranty obligations.

- b. The proceeds of the performance security will be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete its obligations under the contract.
- c. The performance security will be.....
 - i. A bank guarantee issued by a scheduled bank acceptable to the purchaser, in the form provided in the bidding documents.
 - ii. A banker's cheque or crossed DD or Pay order payable at the head quarter of the purchaser i.e., Tirupati in favour of the Purchaser i.e., the Registrar, Sri Padmavati Mahila Visvavidyalayam, Tirupati drawn on any scheduled bank.
 - iii. The performance security will be discharged by the purchaser and returned to the supplier not later than sixty (60) days after the expiry date.

Failure of the successful Bidder to comply with the above requirement will entail cancellation of the award and forfeiture of the E.M.D.

Schedule-A

Name of Work: Supply and Installation of **Internal Combustion Engine Laboratory** of Mechanical Engineering

1. TECHNICAL BID format for Internal Combustion Engine Laboratory

The bidder is required to provide detailed specifications of the item in the following format of the Technical bid.

S.NO.	Quantity	Specifications Offered	Description of work in 200 characters	Description of work in 100 Characters	APSS NO.	UNIT	Rate
1	1	Apparatus for drawing Valve Timing Diagram. Cut Section of an actual Four Stroke, Single Cylinder Diesel Engine mounted on a sturdy table with marking of Angle scale on fly wheel.	Cut Section apparatus for Valve Timing Diagram of a CI 4 Stroke Model	Cut Section apparatus for Valve Timing Diagram of a CI 4 Stroke Model	SS	1 NO	
2	1	Apparatus for drawing Valve Timing Diagram. Cut Section of an actual Four Stroke, Single Cylinder Petrol Engine mounted on a sturdy table with marking of Angle scale on fly wheel.	Cut Section apparatus for Valve Timing Diagram of a SI 4 Stroke Model	Cut Section apparatus for Valve Timing Diagram of a SI 4 Stroke Model			
3	1	Apparatus for drawing Port Timing Diagram.	Cut Section apparatus for Port Timing	Cut Section apparatus for Port			

		Cut Section of an actual Two Stroke, Single Cylinder Petrol Engine mounted on a sturdy table with marking of Angle scale on fly wheel.	Diagram of a SI 2 Stroke Model	Timing Diagram of a SI 2 Stroke Model			
4	1	<p>Single Cylinder Four Stroke Water Cooled Vertical Diesel Engine (Brand new) test rig of ~5 HP power output at ~1500 RPM coupled with mechanical belt loading system for conducting performance test, heat balance test, retardation test, Cooling Curve test</p> <p><i>With following accessories / Instrumentation / tools:</i> 'U' tube manometer for air flow rate, Burette for fuel flow rate, Digital Temperature Indicator-Multi point indicator with thermocouples, fuel tank with piping from fuel tank to Engine, Air tank, Air intake measurement facility, Self ignition starting system with necessary 12V battery arrangement, Fuel Consumption Measurement facility, Digital Stop watch, measuring water jar, Exhaust Gas Calorimeter,</p>	<p>Single Cylinder Four Stroke Water Cooled Vertical Diesel Engine Experimental Test Rig with Mechanical Belt Loading</p> <p>Make: Kirloskar / Fieldmarshal / Topland</p>	<p>Single Cylinder Four Stroke Water Cooled Vertical Diesel Engine Experimental Test Rig with Mechanical Belt Loading</p> <p>Make: Kirloskar / Fieldmarshal / Topland</p>			

		Tachometer. <i>Note:</i> Test rig should be supplied with all necessary foundation accessories.					
5	1	<p>Single Cylinder Four Stroke Air Cooled Petrol Engine (Brand New) test rig of ~2.5 KW Power output at ~3000 RPM coupled With DC Generator and Resistance load bank to apply load for conducting performance test, heat balance test, motoring test, Effect on compression ratios.</p> <p><i>With following accessories / Instrumentation / tools:</i> Orifice with manometer for air flow rate, Burette for fuel flow rate, fuel tank with piping from fuel tank to Engine, Self ignition starting system with necessary 12V battery arrangement, Air tank, Air Intake Measurement facility, Fuel Consumption Measurement facility, Digital Stop watch, measuring water jar, Exhaust Gas Calorimeter, Tachometer, Digital Temperature Indicator, Digital Ammeter & Voltmeter.</p>	<p>Single Cylinder Four Stroke Air Cooled Petrol Engine Experimental Test Rig with DC Generator loading</p> <p>Make: Greaves / Honda / Bajaj</p>	<p>Single Cylinder Four Stroke Air Cooled Petrol Engine Experimental Test Rig with DC Generator loading</p> <p>Make: Greaves / Honda / Bajaj</p>			

		<i>Note:</i> Test rig should be supplied with all necessary foundation accessories.					
6	1	<p>4 Cylinder 4 Stroke Petrol Engine (Brand New) MPFI version water cooled Test Rig of ~ 8 to 10 HP at ~1500 RPM coupled with Hydraulic dynamometer for performance test, heat balance test, Morse test, Economical Speed Test.</p> <p><i>With following accessories / Instrumentation / tools:</i></p> <p>'U' tube manometer for air flow rate, Burette for fuel flow rate, Digital Temperature Indicator-Multi point indicator with thermocouples, fuel tank with piping from fuel tank to Engine, Air tank, Air intake measurement facility, Self ignition starting system with necessary battery arrangement, Fuel Consumption Measurement facility, Digital Stop watch, measuring water jar, Exhaust Gas Calorimeter, Tachometer.</p> <p><i>Note:</i> Test rig should be supplied with all necessary foundation</p>	<p>Experimental Test Rig for Morse Test on Multi Cylinder Petrol Engine</p> <p>Make: ISUZU / Maruti / HM</p>	<p>Experimental Test Rig for Morse Test on Multi Cylinder Petrol Engine</p> <p>Make: ISUZU / Maruti / HM</p>			

		accessories.					
7	1	<p>Single Cylinder Four Stroke Water Cooled Vertical Diesel Engine (Brand new) (Compression Ratio: Variable from ~ 12:1 to 20:1) test rig of ~5 HP power output at ~1500 RPM coupled with Eddy Current Dynamometer loading system for conducting performance test, heat balance test, effect of variable compression ratio.</p> <p><i>With following accessories / Instrumentation / tools:</i></p> <p>'U' tube manometer for air flow rate, Burette for fuel flow rate, Digital Temperature Indicator-Multi point indicator with thermocouples, Digital Ammeter & Voltmeter, fuel tank with piping from fuel tank to Engine, Air tank, Air intake measurement facility, Self ignition starting system with necessary 12V battery arrangement, Fuel Consumption Measurement facility, Digital Stop watch, measuring water jar, Exhaust Gas Calorimeter, Tachometer.</p>	<p>Single Cylinder Four Stroke Variable Compression Ratio Diesel Engine test rig with Eddy Current Dynamometer loading</p> <p>Make: Kirloskar / Fieldmarshal / Topland</p>	<p>Single Cylinder Four Stroke Variable Compression Ratio Diesel Engine test rig with Eddy Current Dynamometer loading</p> <p>Make: Kirloskar / Fieldmarshal / Topland</p>			

		<i>Note:</i> Test rig should be supplied with all necessary foundation accessories.					
8	1	ARAI approved Microprocessor based five gas analyzer for Carbon Monoxide (CO), Carbon Dioxide (CO ₂), Fuel Dependent Hydro Carbons (HC), Oxygen (O ₂) and Nitric Oxide (NO _x) with Factory calibration certificate, digital display, built-in printer, software, flexible stainless steel corrosion resistant sampling probe.	Five Gas Analyzer Make: MARS / Indus Scientific /	Five Gas Analyzer Make: MARS / Indus Scientific /			
9	1	Two stage Reciprocating Air Compressor Test Rig for conducting Volumetric & Mechanical Efficiency tests. Capacity: 3 HP with a displacement capacity of about 300 LPM and to work against maximum pressure 12KgF/Cm ² , tank capacity: ~ 160 liters <i>With following accessories / Instrumentation / tools:</i> Pressure switch, suction filter safety valve, pressure gauge, water drain valve, air delivery valve, an orifice tank with orifice plate, manometer with	Two Stage Reciprocating Air Compressor Make: ELGI	Two Stage Reciprocating Air Compressor Make: ELGI			

		<p>pressure tapings to measure the volume of air sucked by the compressor.</p> <p><u>Note:</u> Test rig should be supplied with all necessary foundation accessories.</p>					
10	1 each	<p>Educational models of Boilers for explanation of their working principles.</p> <p>Size: At least ~ 70 cm in length with proportional width and height.</p> <p><i>With following accessories / Instrumentation / tools:</i></p> <p>Models mounted on sturdy table.</p>	<p>Boiler Models</p> <p>a. Bobcok & Wilcok Boiler</p> <p>b. Cochran Boiler</p> <p>c. Loeffler</p> <p>d. Cornish Boiler</p> <p>Make: Mohan Bothers / Sterling Engineers / Fine Instruments</p>	<p>Boiler Models</p> <p>a. Bobcok & Wilcok Boiler</p> <p>b. Cochran Boiler</p> <p>c. Loeffler</p> <p>d. Cornish Boiler</p> <p>Make: Mohan Bothers / Sterling Engineers / Fine Instruments</p>			

2. FINANCIAL BID format for Internal Combustion Engines Lab

Important: The details of the cost of the item should be provided in the following format only and should be enclosed in a separate sealed cover.

Sl. No.	Item Name/ Specification	Model	Quantity	Cost of the Each Item	Total Cost
1.	Apparatus for drawing Valve Timing Diagram. Cut Section of an actual Four Stroke, Single Cylinder Diesel Engine mounted on a sturdy table with marking of Angle scale on fly wheel.		1		
2	Apparatus for drawing Valve Timing Diagram. Cut Section of an actual Four Stroke, Single Cylinder Petrol Engine mounted on a sturdy table with marking of Angle scale on fly wheel.		1		
3	Apparatus for drawing Port Timing Diagram. Cut Section of an actual Two Stroke, Single Cylinder Petrol Engine mounted on a sturdy table with marking of Angle scale on fly wheel.		1		
4	Single Cylinder Four Stroke Water Cooled Vertical Diesel Engine (Brand new) test rig of ~5 HP power output at ~1500 RPM coupled with mechanical belt loading system for conducting performance test, heat balance test, retardation test, Cooling Curve test <i>With following accessories / Instrumentation / tools:</i> 'U' tube manometer for air flow rate, Burette for fuel flow rate, Digital Temperature Indicator-Multi point indicator with thermocouples, fuel tank with piping from fuel tank to Engine, Air tank, Air intake measurement facility, Self ignition starting system with necessary 12V battery arrangement, Fuel Consumption Measurement facility, Digital Stop watch, measuring water jar, Exhaust Gas Calorimeter, Tachometer. <u>Note:</u> Test rig should be supplied with all necessary foundation accessories.	Kirloskar / Fieldmarshal / Topland	1		

5	<p>Single Cylinder Four Stroke Air Cooled Petrol Engine (Brand New) test rig of ~2.5 KW Power output at ~3000 RPM coupled With DC Generator and Resistance load bank to apply load for conducting performance test, heat balance test, motoring test, Effect on compression ratios.</p> <p><i>With following accessories / Instrumentation / tools:</i> Orifice with manometer for air flow rate, Burette for fuel flow rate, fuel tank with piping from fuel tank to Engine, Self ignition starting system with necessary 12V battery arrangement, Air tank, Air Intake Measurement facility, Fuel Consumption Measurement facility, Digital Stop watch, measuring water jar, Exhaust Gas Calorimeter, Tachometer, Digital Temperature Indicator, Digital Ammeter & Voltmeter.</p> <p><u>Note:</u> Test rig should be supplied with all necessary foundation accessories.</p>	Greaves / Honda / Bajaj	1		
6	<p>4 Cylinder 4 Stroke Petrol Engine (Brand New) MPFI version water cooled Test Rig of ~ 8 to 10 HP at ~1500 RPM coupled with Hydraulic dynamometer for performance test, heat balance test, Morse test, Economical Speed Test.</p> <p><i>With following accessories / Instrumentation / tools:</i> 'U' tube manometer for air flow rate, Burette for fuel flow rate, Digital Temperature Indicator-Multi point indicator with thermocouples, fuel tank with piping from fuel tank to Engine, Air tank, Air intake measurement facility, Self ignition starting system with necessary battery arrangement, Fuel Consumption Measurement facility, Digital Stop watch, measuring water jar, Exhaust Gas Calorimeter, Tachometer.</p> <p><u>Note:</u> Test rig should be supplied with all necessary foundation accessories.</p>	ISUZU / Maruti / HM	1		
7	<p>Single Cylinder Four Stroke Water Cooled Vertical Diesel Engine (Brand new) (Compression Ratio: Variable from ~ 12:1 to 20:1) test rig of ~5 HP power output at ~1500 RPM coupled with Eddy Current Dynamometer loading system for conducting performance test, heat balance test, effect of variable compression ratio.</p> <p><i>With following accessories / Instrumentation / tools:</i> 'U' tube manometer for air flow rate, Burette for</p>	Kirloskar / Fieldmarshal / Topland	1		

	<p>fuel flow rate, Digital Temperature Indicator-Multi point indicator with thermocouples, Digital Ammeter & Voltmeter, fuel tank with piping from fuel tank to Engine, Air tank, Air intake measurement facility, Self ignition starting system with necessary 12V battery arrangement, Fuel Consumption Measurement facility, Digital Stop watch, measuring water jar, Exhaust Gas Calorimeter, Tachometer.</p> <p><u>Note:</u> Test rig should be supplied with all necessary foundation accessories.</p>				
8	<p>ARAI approved Microprocessor based five gas analyzer for Carbon Monoxide (CO), Carbon Dioxide (CO₂), Fuel Dependent Hydro Carbons (HC), Oxygen (O₂) and Nitric Oxide (NO_x) with Factory calibration certificate, digital display, built-in printer, software, flexible stainless steel corrosion resistant sampling probe.</p>	MARS / Indus Scientific /	1		
9	<p>Two stage Reciprocating Air Compressor Test Rig for conducting Volumetric & Mechanical Efficiency tests. Capacity: 3 HP with a displacement capacity of about 300 LPM and to work against maximum pressure 12KgF/Cm², tank capacity: ~ 160 liters</p> <p><i>With following accessories / Instrumentation / tools:</i> Pressure switch, suction filter safety valve, pressure gauge, water drain valve, air delivery valve, an orifice tank with orifice plate, manometer with pressure tapings to measure the volume of air sucked by the compressor.</p> <p><u>Note:</u> Test rig should be supplied with all necessary foundation accessories.</p>	ELGI	1		
10	<p>Educational models of Boilers for explanation of their working principles. Size: At least ~ 70 cm in length with proportional width and height.</p> <p><i>With following accessories / Instrumentation / tools:</i> Models mounted on sturdy table.</p>	Mohan Bothers / Sterling Engineers / Fine Instruments	1		
Grand Total					

Grand Total Cost in Words _____

Signature Of Bidder

TERMS AND CONDITIONS

18. The successful bidder will have to supply, install, test and commission the equipments within 30 days from the date of placing the order at place specified by the Director, University Computer Centre, Sri Padmavati Mahila Visvavidyalayam, Tirupati.

19. Bids are invited in the form of DUAL BID SYSTEM, Technical as well as financial.

20. Separate sealed covers have to be submitted for Technical bid and Financial bid. The Technical bid must contain the details of technical specifications only and all the details of prices quoted must be given in financial bid separately. Both the bids have to be submitted on the Letter Heads of the firm. The covers should clearly be marked as **Technical Bid** or **Financial Bid**.

The technical bid should contain the details of technical specifications and all other necessary documents. **The financial bid should contain only the details of cost of the item and Demand draft towards EMD.**

21. The bid prepared by the Bidder including all correspondence and documents relating to the bid exchanged by the Bidder and the purchaser, will be in English only.

22. The prices quoted will be inclusive of inland transportation, packing and forwarding, GST and other legally permissible duties and levies wherever applicable, handling charges to cover the transport by road from destination railway station to site/stores, unloading at destination and insurance (transit and striate at site for 45 days) and incidental other local costs like unloading at destination in Sri Padmavati Mahila Visvavidyalayam, Tirupati.

23. It is the responsibility of the Bidder to inform himself of the correct rates of duties and taxes livable on the materials at the time of bidding.

24. The Bidder will indicate on the appropriate price Schedule the unit prices (where applicable) and total bid price of the materials/equipment it proposes to supply under the contract.

25. Taxes and Duties

- a) Bidder will be entirely responsible for quoting the correct taxes and duties, other local taxes or levies if any, license fees etc., he has to incur until completion of the contract. For the purpose of evaluation the bidder should include the GST and any other taxes and levies payable to the quoted rate. The University has customs and Excise duty exemption certificate obtained from DSIR, Govt. of India.
- b) If any exemptions on taxes and duties, shall furnish proof of exemption certificate.
- c) If the rates of statutory levies assumed by the bidder are less than the actual rates prevailing at the time of bidding, the purchaser will not be responsible for such errors. If the rates of statutory levies assumed by the bidder are later proved to be higher than the actual/correct rates prevailing at the time of bidding, the difference will be passed on to the credit of the purchaser.

26. Bid Currencies

Prices will be quoted in Indian Rupees or in foreign currencies as the case may be.

27. The E.M.D. may be forfeited

- a) If the Bidder
 - i. Withdraw its bid or alters its prices during the period of bid validity.
 - ii. Does not accept the correction of errors.
 - iii. Offers post Bid rebates, revision or deviations in quoted prices and/or conditions or any such offers which will give a benefit to the Bidder over others will not only be rejected outright but the original Bid itself will get disqualified on this account and the Bidder's E.M.D. will be forfeited.
- b) In case of a successful Bidder, if the Bidder fails :
 - i. To sign the contract in accordance with clause No.22.
 - ii. To furnish performance security in accordance with clause No.23.

In cases where the bid cover contains superscription of having furnished E.M.D. by way of DD but if the same is not found within, such Bids will be rejected and bidder will run the risk of being banned.

28. Bids will remain valid for the period of **Ninety (90) days** from the date of bid opening prescribed by the purchaser. A bid valid for a shorter period will be rejected.

29. In exceptional circumstances, the purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses there to will be made in writing (or by cable). The E.M.D. provided under clause No. 4 will also be suitably extended. A Bidder may refuse the request without forfeiting its Bids Security.

30. Bidder should supply the material within one week. The payment will be released only after successful supply & Installation of Equipment.
31. No Advance Payment.
32. After completion of the contractual obligations, including supply/installation/integration and commissioning of the items, the successful bidder shall submit the bills, in triplicate.
33. Details/specifications of items required are given in the E-Tender document. The E-Tenderers are required to submit E-Tender document in sealed envelope superscribed **“Supply and Installation of Internal Combustion Engines Laboratory of Mechanical Engineering lab” Documents Establishing materials/equipment conformity to Bidding documents.**

The Bidder will furnish as part of its bid, documents establishing conformity to the bidding documents of all materials/equipment and services, which the Bidder proposes to supply under the contract.

- a) The documentary evidence of conformity of the materials/equipment and the services to bidding documents may be in the form of literature, drawings, and data and will consist of:
- b) A detailed description of the essential technical and performance characteristics of the materials/equipment.
- c) The bidder should specifically mention about furnishing the test certificates and a specimen form of test certificate should be furnished along with the bid.
- d) A list giving full particulars, including available sources and current prices of spare parts, special tools etc., necessary for the proper and continuing functioning of the materials/equipment following commencement of the use of the materials/equipment by the purchase; and
- e) An item-by-item commentary on the purchaser’s Technical Specifications demonstrating substantial responsiveness of the materials equipment and services to those specifications, or a statement of deviations and exceptions to the provisions of the technical specifications.

For purpose of the commentary to be furnished pursuant to above, the Bidder will note that standards for workmanship, material and equipment as well as references to brand names or catalogue numbers designated by the purchaser in its technical specifications, are intended to be restrictive.

34. Tax clearance certificates :

Copies of Income Tax, Sales Tax and Turnover Tax certificates for the latest period from the appropriate authority will invariably be enclosed to the bid in the case of proprietary or partnership for it will be necessary to produce the copy of the partnership deed and

35. The declaration in the prescribed proforma as given in this E-Tender document should be submitted along with the E-Tender document.

36. The E-Tender document should be accompanied by an Earnest Money Deposit (EMD) of an amount equal to 1% of supply value including all taxes, freight charges, installation charges etc., in the form of Demand Draft/Pay order drawn in any schedule bank in favour of the Registrar, Sri PadmavatiMahilaVisvavidyalaym, Tirupati payable at Tirupati. The EMD should be valid for a period of 6 months from the date of issue of the bid invitation. In the absence of EMD, the E-Tender shall be rejected summarily. The earnest money shall be refunded to the unsuccessful bidders on or before the 30th day after the award of contract.
37. The above EMD of 1% of total value of supply of the successful E-Tenderer shall be retained as performance Security Deposit valid for 60 days beyond the completion of all contractual obligation of the supplier including warranty period.
38. All entries in the E-Tender forms should be legible and filled clearly. Any correction in the Bid Application must be signed by the authorized signatory.
39. The Bidder is expected to examine all instructions, forms, terms and Technical specifications in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not responsive to the bidding documents in every respect will be at Bidder's risk and may result in the rejection of its bid.
40. E-Tender incomplete in any form is liable to be rejected outright.
41. Clarification of bidding documents: A prospective Bidder requiring any clarification of the bidding documents may notify the purchaser in writing or by cable (hereinafter, the term cable is deemed to include telex and fax) Prof. V Uma, Director In charge **at School of Engineering and Technology, Sri Padmavati Mahila Visvavidyalayam, Tirupati** address. The purchaser Saves prior to the deadline for the submission of bids.
42. **Amendment to Bidding Documents**
- (a) Any time prior to the deadline for submission of bids, the purchaser, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, may modify the bidding documents by amendment.
- (b) In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the purchaser, at its discretion, may extend the deadline for the submission of bids.
43. Conditional or incomplete bids will be rejected outright.
44. The closing date and time for receipt of E-Tenders will be 17-10-2017 till 4.30P.M Bids received after the specified date and time for receipt of would not be entertained and will be rejected outright.
45. No bidder will be allowed to withdraw after submission of the bids; otherwise the EMD submitted by the bidding firm would stand forfeited.

46. The Technical Bid shall be opened at 20-10-2017 at 11.00 A.M and Financial Bid opened 20-10-2017 at 03.30 P.M in the presence of the authorized representatives of the Firms, who wish to be present at that time.
47. In case the successful bidder declines the offer of contract, for whatsoever reason(s), the EMD submitted by the successful bidder would stand forfeited. In case the successful bidder fails to render the required services, this office will have full authority to cancel the order and forfeit the performance security. In case of breach of any terms and conditions attached to this contract, the Performances **Security Deposit**
48. Of the agency will be liable to be forfeited by Sri Padmavati Mahila Visvavidyalayam, Tirupati besides annulment of the contract.
49. In case of any manufacturing defect or damage during transit/Installation, the item component should be replaced with a new set, without any extra charges for the same.
50. Sri Padmavati Mahila Visvavidyalayam, Tirupati Reserves right to withdraw/relax any of the terms and conditions mentioned above so as to overcome any problem that may arise at a later stage.
51. The items should be under warranty for a minimum period of **12months** from the date of supply of the items.
52. The bidder should indicate the time required for delivery/installation/integration of the items.
53. In case the successful bidder fails to supply/Install the items(s), within the time as specified in the bid form, this office will have full authority to cancel the order the forfeit the performance surety amount.
54. In case of breach of any terms and conditions attached to this contract, the performance Surety Amount of the agency will be liable to be forfeited by this office besides annulment of the contract.
55. PAN Number and or other tax registration numbers should be printed on the bills raised by the successful bidder.
56. The competent authority of Sri Padmavati Mahila Visvavidyalayam, Tirupati reserves right to withdraw/relax any of the terms and conditions mentioned above so as to overcome any problem that may arise at a later stage.
57. Sri Padmavati Mahila Visvavidyalayam, Tirupati / The Member Secretary, reserves full authority to cancel, rejects, any/all offers, without giving any reason. The decision of Member Secretary shall be final in this regard.

58. Delivery

Delivery period will be reckoned from the date of signing of the contract. The delivery quoted will be firm, definite, unconditional and on the basis of receipt of materials at destination in good condition without any bearing on the procurement of raw materials or any similar prerequisites. The commencement date and date of delivery will be indicated. The preferred delivery time, which is the essence of this specification, is indicated in the schedule. Final deliveries are however, subject to confirmation at the time contract. Delay in delivery of materials FADS (Free at destination store) due to

non-availability of railway booking non-allotment of wagons and any such reasons will not be considered.

It is the responsibility of the supplier to make alternative arrangements for transporting the materials by road or rail so as to see that the materials reach the destination within the stipulated period. The purchaser reserves its right to defer the delivery date at any time after orders are placed without any change in the conclusion of contract other condition supply. The delivery period, which will be reckoned from the date of the contract, will be guaranteed under penalty as in clause 68 and 69.

59. Name Plate :

Equipment should be provided with name plate giving full details of manufacture, capacities and other details as specified in the relevant ISS or other specification stipulated. The P.O. No. and date, year of supply, period of warranty must be etched on the name plate.

60. Packing

The supplier will provide such packing of the materials/equipment as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing will be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing case size and weights will take into consideration, where appropriate, the remoteness of the materials/equipment final destination and the absence of heavy handling facilities at all points in transit.

61. Delivery Documents

a. Delivery of the materials/equipment will be made by the supplier in accordance with the terms specified in the contract.

b. The latest test certificates containing the result of the tests as per the relevant ISS or other specification stipulated must be submitted to the Chief General Manager and got approved by him.

c. Documents to be submitted by the supplier are specified as under:

- (i) Insurance certificate.
- (ii) Supplier's certificate certifying that the defects if any pointed out during inspection has been rectified.
- (iii) Manuals of equipment.

The purchaser will receive the above documents soon after the dispatch of materials and if not received, the supplier will be responsible for any consequent expenses.

62. Insurance

The materials/equipment will be fully insured against loss or damage incidental to manufacturer or acquisition, transport, storage and delivery in the manner specified in the contract and also storage for 45 days at the destination site or stores before taking into stock.

a. The supplier is required under the contract to transport the materials/equipment to a

specified place of destination, transport to such place of destination, including insurance and storage, will be arranged by the supplier, and the related costs will be included in the contract price only.

63. Incidental Services

The supplier may be required to provide any or all of the following services, including additional services, if any

- a. Performance or supervision of on-site assembly and/or start-up of the supplied materials/equipment.
- b. Furnishing of tools required for assembly and/or maintenance of the supplied materials/equipment;
- c. Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied materials/equipment.
- d. Performance or supervision or maintenance and/or repair of the supplied materials/equipment, during warranty period, provided that this service will not relieve the supplier of any warranty obligations under this contract ; and
- e. Training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, startup, operation, maintenance, and/or repair of the supplied materials/equipment.

64. Spare Parts

The supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier.

- a. Such spare parts as the purchaser may choose to purchase from the supplier, provided that this selection will not relieve the supplier of any warranty obligations under the contract; and
- b. In the event of termination of production of the spare parts;
- c. Advance notification to the purchaser of the impending termination.
- d. Time to permit the purchase to procure needed requirement; and following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts; if requested.

65. Warranty

- a. The supplier will warrant for the satisfactory functioning of the material/equipment as per specification for a minimum period of 12 months from the date of receipt of the material/equipment in good condition and installation.
- b. The supplier warrants that the materials/equipment supplied under the contract are new, unused, of the most recent or, current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all materials/equipment supplied under this contract will have no defect, arising from a design and/or

materials as required by the purchaser's specifications or from any act of omission of the supplier that may develop under normal use of the supplier materials/equipment.

- c. All the material will be of the best class and will be capable of satisfactory operation in the tropics under service conditions without distortion or deterioration. No welding filling or plugging of defective parts will be permitted, unless otherwise specified, they will conform to the requirements of appropriate Indian, British or American Standards.(Where a standard specification covering the material in question has not been published, the standards of the American Society for testing of materials should be followed).
- d. The entire designs and constructions will be capable of withstanding the severest stresses likely to occur in actual service and of resisting rough handling during transport.
- e. Unless otherwise specified the warranty period will be 12 months from the date of acceptance of the materials/equipment. The supplier will, in addition, comply with the performance guarantees specified under the contract. If, for reasons attributable to the supplier, these guarantees are not attained in whole or in part, the supplier will at its discretion, either, make such changes, modifications, and/or additions to the materials/equipment or any part thereof as may be necessary in order to attain the contractual guarantees specified in the contract at its own cost and expense and to carry out further performance tests as per the relevant standards.
- f. The purchaser will promptly notify the supplier in writing of any claims arising under this warranty.
- g. "upon receipt of such notice, that supplier will within 30 days repair or replace the defective materials/equipment or parts thereof, free of cost at the ultimate destination. The supplier will take over the replaced parts/materials/equipment at the time of their replacement. No claim whatsoever will lie on the purchaser for the replaced parts/materials/equipment thereafter. In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/replaced material will be extended to a further period of 12 months.
- h. If the supplier, having been notified, fails to remedy the defect(s) within the above period, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense duly deducting the expenditure from subsequent bills/bank guarantee and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

66. Payment

- a. 100% payment will be arranged on or after 30 days from the date of receipt of material/equipment in good condition at the destination after submission of bills in complete shape with other necessary enclosures whichever is later.
- b. The 100% payment mentioned above is subject to submission of performance security as per clause 17 by the supplier.
- c. The supplier should invariably submit test certificates and other documents, the purchaser specifies as soon as dispatch is made so that they can be checked and approved well in advance.

- d. The performance guarantee to be executed in accordance with this specification will be furnished on a stamp paper of value Rs.100/-. The Bank Guarantee will be extended if required suitably. In accordance with the provisions of clause No.12.
- e. When the supplier does not at any time, fulfill his obligations in replacing/rectifying etc., of the damaged/defective materials in part or whole promptly to the satisfaction of the purchaser, the purchaser reserves the right not to accept the bills against subsequent dispatches made by the supplier and only the supplier will be responsible for any demurrages, wharf ages or damage occurring to the consignments so dispatched.

67. Delay in Supplier's performance

- a. Delivery of the materials/equipment will be made by the supplier in accordance with the time schedule prescribed by the purchaser in the schedule of requirements.
- b. If at any time during performance of the contract, the supplier should encounter conditions impeding timely delivery of the materials/equipment, the supplier will promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser will evaluate the situation and may at its discretion extend the suppliers time for performance, with or without liquidated damages, in which case the extension will be ratified by the parties by amendment of the contract.
- c. Except as provided under "force majeure" clause a delay by the supplier in the performance of its delivery obligations will render the supplier liable to the imposition of liquidated damages unless an extension of time is agreed upon without the application of liquidated damages.

68. Penalty for delay in supplies

The time for and the dates for delivery mentioned in the contract will be deemed to be the essence of the contract subject to "force majeure" ("**Force Majeure**" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable), if the supplier failed to deliver any or all of the materials/equipment or to perform the services within the periods(s) specified in the contract, the purchaser will, without prejudice to its other remedies under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week on the undelivered portion subject to a maximum of 5% of the cost of materials undelivered in time. Once the maximum is reached the purchaser may consider termination of the contract.

The actual date of receipt of materials at destination stores in good condition will be taken as the date of delivery for considering penalty clause. Materials/equipment which are not of acceptable quality or are not conforming to the specification would be deemed to be not delivered. For penalty, the number of days would be rounded off to the nearest week and penalty calculated accordingly.

The penalty specified above will be levied and would be adjusted against subsequent pending bills.

69. Termination for Default

- a. The purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this contract in whole or in part.

- i. If the supplier fails to deliver any or all of the Materials/equipment within the period(s) specified in the contract, or within any extension thereof granted by the purchaser.
- ii. If the supplier, fails to perform any other obligation(s) under the contract.
- iii. If the supplier, in the judgment of the purchaser has engaged incorrupt or fraudulent practices in competing for or in executing the contract.

Declaration

1. I, _____ Son/Daughter/Wife of Sri _____
Proprietor/Director/Authorized Signatory of the Service Provider, mentioned above, am competent to sign this declaration and execute this E-Tender document.
2. I have carefully read and understood all the terms and conditions of the E-Tender and undertake to abide by them:
3. I hereby declare that the firm has not been black listed by any department/institution in the State Government/Central Government due to any reason.
4. I hereby declare that the firm was not disqualified for any wrong declaration.
5. The information/documents furnished along with the above application are true and authentic to the best of my knowledge and brief. I/We am/are well aware of the fact that furnishing of any false information/fabricated document would lead to rejection of my E-Tender at any stage besides liabilities towards prosecution under appropriate law.

Signature of Authorized Person

Date:

Full Name:

Place:

Seal:

