

Government College of Engineering, Bargur, Government College of
Engineering, Bargur - 635104. Tamilnadu, INDIA.

INVITATION LETTER

Package Code: TEQIP-III/2019/TN/gebt/42

Current Date: 27-Nov-2019

Package Name: Gas Turbine Test Rig

Method: Shopping Goods

Sub: INVITATION LETTER FOR Gas Turbine Test Rig

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	Item Name	Quantity	Place of Delivery	Installation Requirement (if any)
1	Gas turbine test rig	1	Department of Mechanical Engineering, GCE Bargur	

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, initialling, 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 **90**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:

Payment Description	Expected Delivery Period (in Days)	Payment Percentage
Satisfactory Delivery & Installation	30	100

10. Liquidated Damages will be applied as per the below:
Liquidated Damages Per Day Min %:N/A
Liquidated Damages Max %:N/A
11. All supplied items are under warranty of **12** months from the date of successful acceptance of items and AMC/Others is .
12. You are requested to provide your offer latest by **16:00** hours on **16-Dec-2019**.
13. Detailed specifications of the items are at Annexure I.
14. Training Clause (if any) **Required**
15. Testing/Installation Clause (if any) **Required**
16. Performance Security shall be applicable: **0%**
17. Information brochures/ Product catalogue, if any must be accompanied with the quotation

clearly indicating the model quoted for.

18. Sealed quotation to be submitted/ delivered at the address mentioned below, **Government College of Engineering, Bargur, Government College of Engineering, Bargur - 635104. Tamilnadu, INDIA.**

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



(Authorized Signatory)

Name & Designation

PRINCIPAL
Government College of Engg
BARGUR-635 104.

Annexure I

Sr. No	Item Name	Specifications																
1	Gas turbine test rig	<table><tr><td>Product</td><td>Gas Turbine Test Rig</td></tr><tr><td>Engine</td><td>Length : 276 mm Diameter : 99 mm Turbine Disk : Super Alloy vacuum casting Nozzle guide vanes : Super Alloy Vacuum casting Compressor Wheel : Aluminum alloy (machined on Five axis CNC) Diffuser : Aluminum alloy (machined on Five Axis CNC) Xray : Tested for Cracks Nominal Trust : 16 Kg @ 124,000 RPM Idle RPM : 35000 Idle thrust : 35000 : 0,7kg EGT : 400 – 5500 C Weight :1480 grms Exhaust Temperature : 580°C – 700°C Fuel : Jet A1, Kerosene Fuel Consumption : 550 grms /min at full Power Lubrication : 5% Turbo oil Mix Sensor : EGT Sensor Valves : Solid Fitting to the Engine : Festo fitting</td></tr><tr><td>Panel</td><td>Mild steel powder coated with provision for mounting computer, ups, printer and instrumentation</td></tr><tr><td>Air measurement</td><td>DP sensor with inline transmitter</td></tr><tr><td>ECU</td><td>Standard open ECU with software for controlling the turbine</td></tr><tr><td>GSU</td><td>Suitable for ECU</td></tr><tr><td>Fuel measurement</td><td>Optical liquid level sensor constant volume, fully automatic</td></tr><tr><td>Thrust measurement</td><td>Strain gauge load cell with inline</td></tr></table>	Product	Gas Turbine Test Rig	Engine	Length : 276 mm Diameter : 99 mm Turbine Disk : Super Alloy vacuum casting Nozzle guide vanes : Super Alloy Vacuum casting Compressor Wheel : Aluminum alloy (machined on Five axis CNC) Diffuser : Aluminum alloy (machined on Five Axis CNC) Xray : Tested for Cracks Nominal Trust : 16 Kg @ 124,000 RPM Idle RPM : 35000 Idle thrust : 35000 : 0,7kg EGT : 400 – 5500 C Weight :1480 grms Exhaust Temperature : 580°C – 700°C Fuel : Jet A1, Kerosene Fuel Consumption : 550 grms /min at full Power Lubrication : 5% Turbo oil Mix Sensor : EGT Sensor Valves : Solid Fitting to the Engine : Festo fitting	Panel	Mild steel powder coated with provision for mounting computer, ups, printer and instrumentation	Air measurement	DP sensor with inline transmitter	ECU	Standard open ECU with software for controlling the turbine	GSU	Suitable for ECU	Fuel measurement	Optical liquid level sensor constant volume, fully automatic	Thrust measurement	Strain gauge load cell with inline
		Product	Gas Turbine Test Rig															
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		ECU	Standard open ECU with software for controlling the turbine															
		GSU	Suitable for ECU															
		Fuel measurement	Optical liquid level sensor constant volume, fully automatic															
		Thrust measurement	Strain gauge load cell with inline															

			transmitter
		Speed measurement	Non-contact PNP sensor with inline transmitter
		Temperature	"k" type with inline signal transmitter
		Daq	200 Ks/s
		Software	Engine test express for engine combustion analysis and performance software
		Measurement of Pressure at different points	
		Type	Piezo Resistive
		Range	0-200 Bar
		Signal conditioning/transmitter	Standalone
		Location	Compressor Inlet Pressure
		Type	Piezo Resistive
		Range	0-200 Bar
		Signal conditioning/transmitter	Standalone
		Location	Compressor Outlet Pressure
		Type	Piezo Resistive
		Range	0-200 Bar
		Signal conditioning/transmitter	Standalone
		Location	Turbine Inlet Pressure
		Type	Piezo Resistive
		Range	0-200 Bar
		Signal conditioning/transmitter	Standalone
		Location	Turbine Outlet Pressure
		Measurement of Temperature at different points	
		Type	"K"
		Range	0-1500°C
		Signal conditioning/transmitter	Standalone
		Location	Compressor Inlet Temperature
		Type	"K"
		Range	0-1500°C
		Signal conditioning/transmitter	Standalone
		Location	Compressor Outlet Temperature
		Type	"K"
		Range	0-1500°C
		Signal conditioning/transmitter	Standalone
		Location	Turbine Inlet Temperature
		Type	"K"
		Range	0-1500°C
		Signal conditioning/transmitter	Standalone
		Location	Turbine Outlet Temperature

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							

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