



Dr. S.S. Rathore
Professor & Dean

Tel: 0294-2470837 (O), 2471056 (Fax);, email: ctaedean@gmail.com
COLLEGE OF TECHNOLOGY AND ENGINEERING
Maharana Pratap University of Agriculture and Technology UDAIPUR – 313001 (India)

No.CTAE/GEN/2017/8944
Dated: 13.11.2017

INVITATION FOR BIDS

Shopping (Goods)

Package No.-CTAE/ECE/P2 and CTAE/RES/P1

1. The Government of India has received a Credit from the International Development Association and a loan from the international Bank for Reconstruction and Development in various currencies towards the cost of Technical Education Quality Improvement Programme [TEQIP]-Phase III project and it is intended that part of the proceeds of this credit will be applied to eligible payments under the contracts for which this Invitation for Bids is issued.
2. The **College of Technology and Engineering, Udaipur** now invites sealed bids from eligible bidders for the supply of following goods.

S. No.	Name of Work	Supply (Days)	Period
1.	Advanced IOT Training System and DSP Development Board	60	
2.	Thermogravimetric Analyzer (TGA)	60	

Last Date Submission of dully filled Bid Document: 28-11-2017 (05:00 PM)

3. Interested Bidders may obtain further information's from the office of **Dean, College of Technology and Engineering, Udaipur**, India, or visit the website www.ctae.ac.in
4. Bid document can be downloaded from the above website Downloaded bid document may be submitted to **Dean, CTAE, Udaipur**.


DEAN

INVITATION FOR QUOTATION

TEQIP-III/2017/ctem/Shopping/14

13-Nov-2017

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	Thermogravimetric Analyzer (TGA)	1	60	CTAE, Udaipur	As per satisfaction of Department of REE

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 **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, Installation Delivery and Installation 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 **17:00** hours on **28-Nov-2017**.
12. Detailed specifications of the items are at Annexure I.
13. Training Clause (if any) **As per satisfaction of Department of REE**
14. Testing/Installation Clause (if any) **As per satisfaction of Department of REE**
15. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
16. The successful bidder shall furnish the Performance Security (5% of the contract value) to the Purchaser in the form of bank guarantee after the receipt of acceptance letter. The Performance Security shall be valid up to 28 days from the date of expiry of warranty period.
17. If the supplier fails to deliver the desired goods within period specified in Purchase order, liquidated damages will be applicable (applicable rate is 0.07% per week and maximum deduction is 10% of the contract price).
18. **“Teqip Package CTAE/RES/P1 Date of opening 29.11.2017”** should be written on the top of sealed envelope.
19. Sealed quotation to be submitted/ delivered at the address mentioned below,
Dean, College of Technology, University Campus, Udaipur 313001
20. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Dr. S.S. Rathore

DEAN, CTAE, UDAIPUR

Annexure I

Specifications for Simultaneous High Resolution Thermo Gravimetric Analyzer/Differential Thermal Analyser (TGADTA)

TGA/DTA should have Controlled Rate Thermal Analysis Mode that consists of operations such as Constant heating rate, Dynamic heating rate, Constant reaction rate and step wise isothermal. The system should be able to operate under dynamic heating rates during isothermal decomposition studies to extrapolate kinetic parameters.

The TGA/DTA should be equipped with the following :

Balance design: Ultra Micro Balance. Weight change measurements should not be dependent on sample positioning. Thermally sealed balance with Calibration facility. The calibration for zero setting should be done through TGA Optimization for Balance Mechanism.

Furnace design: should be Horizontal. Both furnace and balance should be in horizontal Position. The balance should be with motorized opening and closing for easy handling. Any form of vertical design should be completely avoided. The system should have low thermal mass furnace with built-in platinum resistance heating elements.

Balance beam: Dual, differential and horizontal. Should be made up of ceramic material with user friendly plug-in/plug-out connection. Balance assembly should have thermostating capability to minimize isothermal drift

Operating Temperature range: Room Temperature to 1500°C

Weighing range: Upto 200 - 400 mg without range switching

Maximum sample weight upto : upto 400 mg

Resolution: 0.2µg above the noise level for the entire range from RT to 1500°C

DTA measurement range: + 1000 µV

DTA RMS Noise: 0.03 µV

DTA RMS Sensitivity: 0.06 µV

Temp accuracy: +/-0.1°C

Temp reproducibility: +/-0.15°C

Scan rate: 0.01°C to 100 °C/min with secure and controlled purge arrangement

Cooling unit: Forced Air. Cooling from 1000°C to 50°C within 10 - 12 minutes

Purge gas facility: All inert gases with automatic gas purging and sweeping System through Software.

Should have built-in safety interlocks for gases/switching of gases should be possible with necessary flow rate of 0 -1000 ml/min.

Minimum two kinds of the purge gases should be switched from the measurement software,

The TGA/DTA system should have capability of purging under reduced and corrosive gas atmosphere like hydrogen with separate port that doesn't affect balance mechanism

TG RMS Noise: 0.1µg. RMS noise should be related to both signal and noise power (or amplitude) which is measured at the same or equivalent points in a system, and within the same system bandwidth.

Local module: Control unit should have LCD display of weight, temperature and experiment status

Software and data acquisition system: Windows-based Thermal Analysis software for data collection and treatments. Multitasking and multimodules software exploitation license under Windows for data acquisition and storage, Drawing and printing of the TG -DTG and DTA curves according to time or temperature, calculation and printing of derivatives curves, mass variation calculation, regression calculation, data storage, baseline correction, DTA peak integration, multi task software under Windows. Should have capability of converting collected data into ASCII after finishing the test for exportation. Should include special Softwares like curve treatment (smoothing, deconvolution, erasing, slope adjustment...), Kinetics for TG, DTA, or Purity, heat capacity software.

Data acquisition system should be Core i-7,6700T processor, 16 GB RAM, 2 TB HDD, DVD writer, 23 inch (58.42 cm) Full HD touch Screen with wireless Key board and mouse with Wi-Fi technology and Blue tooth, Windows 10 operating system with inbuilt speaker with three years full warranty and Ink jet colour printer.

The system should have Controlled Rate Thermal Analysis Mode that consists of operations such as constant heating rate, dynamic heating rate, constant reaction rate and step wise isothermal. The system should be able to operate under dynamic heating rates during isothermal decomposition studies to extrapolate kinetic parameters

Crucibles: Alumina (5 Nos.) and Platinum (5 Nos.)

EGA Upgrade: System should be easily upgradeable to MS (any make) and FTIR (any make) coupling for evolved gas analysis. Corresponding interface should be quoted along with system as an optional.

Spares and consumables: List of Spares/Consumables should be provided for 2-3 years trouble free operation.

Calibration Standards: TGA system should have facility for flexible calibration that is saving calibration with multiple combination of gas type, flow rate, crucible type etc. Also calibration of temperature should be possible with NIST certified metal standards. Also, NIST Certified standards for curie point temperature studies and weight loss measurement should be quoted along with system

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: _____