

DOCUMENT

Open Competitive Bid (OCB)

For

**Supply and Installation of
Heat Treatment Laboratory Equipments
to the
Metallurgical & Materials Engineering Dept.
at the three campuses of**

**Rajiv Gandhi University of Knowledge
Technologies**

Proprietary & Confidential



**RAJIV GANDHI UNIVERSITY OF KNOWLEDGE
TECHNOLOGIES**

**Ground Floor, Vindhya C4 Building,
IIIT-H Campus, Gachibowli
HYDERABAD- 500 032**

Phone: 040-23001830

Proprietary & Confidential

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News paper advertisement

Short Tender Notice



RAJIV GANDHI UNIVERSITY OF KNOWLEDGE
TECHNOLOGIES

Ground Floor, Vindhya C4 Building, IIIT-H campus,
Gachibowli, HYDERABAD- 500 032

Phone: 040-23001830

Separate Sealed Tenders are hereby invited from reputed Manufacturers or Authorised dealers for supply and installation of equipments for the following labs of Metallurgical & Materials Engineering Departments at the three campuses of RGUKT located at Basar (Adilabad District), Nuzvid(Krishna District and RK Vally (YSR Kadapa District) of Andhra Pradesh:

- i) Materials Testing Laboratory
- ii) Heat Treatment Laboratory
- iii) Corrosion and Environmental degradation Laboratory

Last date of submission of tender along with EMD as specified in the bid document is on 07.07.2012 before 03.00 pm.

Interested parties can collect the Tender document for each Laboratory separately from the office of the RGUKT from 28.06.2012 to 06.07.2012 against payment of Rs. 5,000/- towards the cost of Tender document fee (non-refundable) through D.D. payable to REGISTRAR, RGUKT at Hyderabad. Further details visit our website www.rgukt.in

Date: 28.06.2012

**Sd/-
Registrar**

Time schedule of various Short tender related events

Bid calling date	28.06.2012
Last date for sale of document	06.07.2012 at 05:00 P.M
Pre bid meeting	02.07.2012 at 04.00PM
Bid closing date/time	07.07.2012 at 03:00 P.M.
Technical Bid Opening date/time	07.07.2012 at 04:30 P.M.
Price Bid opening date/time	09.07.2012 at 04:30 P.M.
Bid Document fee	Rs.5,000/-
Contact person	Registrar, RGUKT
Reference No	RGUKT/Proc/MME/HTL/T 12/2012

Registrar,
RGUKT

TENDER FORM

Not transferable

Reference: No. RGUKT/Proc/MME/HTL/T 12/2012

Dated:28.06.2012

Subject: Invitation of Tenders for Supply, installation and commissioning of Heat Treatment Lab Equipments to the Metallurgical and Materials Engineering Departments at three campuses of RGUKT located at Basara (Adilabad Dist), Nuzvid (Krishna Dist) and RK Valley (YSR Kadapa Dist) of Andhra Pradesh.

Last date and time for submission of the TENDER AT RGUKT, Vindhya-C4, IIIT Campus, Gachibowli, HYDERABAD is **07.07.2012 up to 3:00PM**

Dear Sir/Madam,

- A. RGUKT invites sealed tenders comprising technical bid and price bid separately from reputed manufacturers (or) authorized dealers for three RGUKT IIITs located at Basara (Adilabad Dist), Nuzvid (Krishna Dist) and R K Valley (Kadapa Dist) of Andhra Pradesh.
- B. The Tender form consists of 31 pages of which pages from 6 to 23 are instructions and page No.24 contains the format for financial bid. The duly completed Technical Bid together with a copy of the bid document (this tender) signed on all pages by the Bidders authorized signatory and the Price Bid should be kept in separate sealed covers. These sealed covers must be submitted in a sealed master envelope superscribed "Tender for Supply , Installation & Commissioning of Heat Treatment Laboratory Equipments to the Metallurgical and Materials Engineering Department at the three campuses of RGUKT. The last date for submission of bid is **07.07.2012 and closing time is 03:00 PM.**
- C. The Sealed Tenders should be deposited in the Tender box kept in the office of Registrar, RGUKT, Hyderabad up to **03:00 P.M. on 07.07.2012.**

For any clarification and further details on the above tender please contact by Telephone No: 040-23001830 or Contact in Person during office hours.

Thanking you

Yours faithfully,

Registrar,
RGUKT

STATEMENT OF IMPORTANT LIMITS/VALUES RELATED TO BID

Item	Description
EMD	Rs.1,50,000/-
Bid Validity Period	60 days from the date of opening of commercial bid
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Warranty Period	3 years
Variation in quantities/ number of residents	<u>± 40 %</u>
Period for furnishing Performance Security Deposit	Within 10 days from date of receipt of award
Delivery Schedule	Bidder must be prepared to deliver and install the enclosed list of Equipment within 60 days from the date of award of the contract.
Performance security value	5% of contract value
Performance security validity period	38 months from award of contract (including 60 days of installation period)
Period for signing the order Acceptance	Within 7 days from date of receipt of notification of award

Payment terms	
On delivery at user site	<p>Payment for goods and services shall be made in Indian rupees as follows.</p> <ol style="list-style-type: none">1. 80% of payment will be paid after installation, commissioning2. Balance 20% will be paid after 3 months after obtaining the satisfactory certificate from the Director, RGUKT IITs.
Maximum Liquidated Damages for late deliveries	<p>For delays:- If the supplier fails to deliver any (or) all of the goods or perform the services within the time period specified in the contract the purchaser shall without prejudice to its other remedies under the contract deduct from the contract price as liquidated damages a sum equivalent to 0.25% of the contract value per day until actual delivery or performance up to a maximum deduction of 10% of the delayed goods or services contract price. Once the maximum deduction is reached, the purchaser may consider the termination of the contract duly forfeiting the performance security etc.,</p>

ELIGIBILITY CRITERIA

1. This bid is open to all business establishments registered within India, and those Foreign firms which have distributor/ authorized dealer agencies in India are eligible to do business under relevant Indian Laws as in force at the time of bidding. However all firms must meet the pre-qualifications criteria. They should provide a List of customers of previous supply of similar/ same items to IITs, NIT's or Central Universities or any Academic Institute of National Repute with contact details. Copies of orders received from the reputed firms on bidding firm need to be submitted.
2. The bidder should have Servicing facility or work shop with in India so the provision of service is possible at a short notice and without incurrance of delay.
3. The Bidding firm should have minimum turnover as follows:

Bid Value offered against the tender call	Last financial year's business turnover
50 lakhs	1 crore
50-100 lakhs	2 corers
Greater than 100 lakhs	3 Crores

5. The bidder should furnish satisfactory performance certificate from the parties concerned to whom bulk supplies were effected of same or similar items, in case such supplies were already made. RGUKT may contact any such parties to elicit details.
6. Bidder should have been registered under Sales/ VAT Act/CST Act with the relevant State Sales Tax Authorities. He should furnish along with the bid document, the relevant VAT/CST Registration Document and PAN / TAN Card copies. Copies of the latest VAT/CST returns of bidding firm should be submitted.
7. Each and Every equipment's supplied should be conform to standard specification of ISI or equivalent international standards agencies. All bidders shall also include the following information and documents with their tenders (in the Technical bid cover)
 - 6.1. Copies of original documents defining the constitution or legal status, place of registration, and principal place of business of the bidding firm/entity; written power of attorney of the signatory of the firm to commit the Bidding.

- 6.2. Machinery/equipment owned by the bidder and number of employees.
 - 6.3. Latest Income Tax Saral form / Return that was filed.
 - 6.4. List of Present Clientele with contact addresses & telephone numbers
7. All the certificates furnished along with technical bids should be attested by a Gazetted Officer, counter signed by bidder along with their seal.

The bidders must submit all relevant documentary evidence to support their claim for eligibility in placing bid. **The tenders received without the above documents will be rejected.**

Requirement

Heat Treatment Laboratory Equipments Specifications:-

S.No	Name of the equipment	No of items required
1	Electrically heated salt bath furnaces	6
2	Electric Muffle furnace	15
3	Direct heating electrical Furnace	6
4	Tube furnace with quartz/high alumina muffle	3
5	High temperature Microwave furnace	3
6	High temperature ceramic sintering furnace	3
7	Electric oven for tempering	6
8	Jominy End quench hardenability tester	3
9	Digital PID Controller	6

Technical Specifications for each equipment

1	Electrically heated salt bath furnaces
	<ul style="list-style-type: none"> • Electrically heated pot type salt bath furnaces with suitable electrical gear • Maximum heat treated metal charge per batch 15kg • Maximum bath temperature : 1000 Celcius • With PID temperature controller and indicator • Suitable exhaust hood
2	Electric Muffle furnace
	<ul style="list-style-type: none"> • Furnace shall contain a double walled chamber. • Double walled furnace door, mounted on heavy-duty hinges, shall have an effective locking arrangement. • Heating shall be by Super Kanthal/Nichrome resistance heating elements. • Furnace door shall be provided with door limit switch to cut off the powder supply whenever the door opened and restart when the door is closed. • Temperature must be maintained and controlled by Digital PID Temperature controller with Thyristor Control Device working in Conjunction with Cr/Al Thermocouple. • Furnace shall have maximum continuous operating temperature of 950 Celsius and a Maximum Temperature of 1000 Celsius • Chamber internal dimensions shall be 300x300x450 mm.
3	Direct heating electrical Furnace
	<ul style="list-style-type: none"> • Casing shall have long service life with extremely resistant hardened fibre module as inner chamber. • Furnace shall have high mechanical resilience, short firing cycles, low power consumption

	<ul style="list-style-type: none"> • Maximum temperature 1200 Celsius • Heating wire embedded in ceramic plates • Exhaust pipe in rear wall so any gases released can escape • Door safety switch shall interrupt power supply when door is opened and will resume when door is closed and locked. • PID Controller/ indicator for temperature monitoring and Chromel-Alumel thermocouple for temperature sensing. • Chamber size : 200mmx200mmX300mm
4	Tube furnace with quartz/high alumina muffle
	<ul style="list-style-type: none"> • Recrystallised Alumina/Quart tube for sample heating • Length of quartz/alumina muffle tube : 30", Internal diameter of Muffle tube 30mm/40mm • Controlled inert / reducing atmosphere in the heating chamber must be possible. • Water cooled Stainless Steel end fittings for Vacuum / controlled Atmosphere must be provided • Operating temperature upto 1150°C • Super kanthal/ Silicon carbide heating elements • Chromel-Aumel-based thermocouple • Programmable heating, soaking and cooling cycles. • Provision for PC connectivity and data logging • Horizontal tube furnace
5	High temperature Microwave furnace
	<ul style="list-style-type: none"> • Microwave sintering furnace shall operate at a 2.45GHz frequency with power output in the range of 3-5 KW. • Hot Zone dimensions : preferably 150mm x 150mm x200mm • Sintering chamber to have ceramic insulation housing (batch system).

	<p>The primary function of the insulation is to preserve the heat generated in the work piece.</p> <ul style="list-style-type: none"> • The temperature is to be monitored by optical sheathed thermocouples placed close to the surface of the sample. • Max. Temp developed In situ : 1,400 deg. C, • The system shall be equipped with stainless steel Housing including air circulation, glass door . • Programmable controller with max. 8 or 10 Program steps, control output indicator and Exhaust device as well
6	High temperature ceramic sintering furnace
	<ul style="list-style-type: none"> • Operating temperature 1700° C or higher. • Controlled Reducing atmosphere heating of charge: Capability is required • Programmable heating and cooling, soaking cycles: Must be possible • Molybdenum based heating elements • Remote door operation for Glove Box application • Skin temperature at maximum operating temperature below 40°C • Chamber size 10"x10"x9" made of recrystallied alumina
7	Electric oven for tempering
	<p>Technical Specification:</p> <ul style="list-style-type: none"> • Inside Body : Stainless Steel (SS 304) Chamber size : 12"X12"X18" • Body Structure : Double Walled structure filled with glass wool insulation • Air Circulation : By Air Circulating Fan to ensure even temperature distribution. • Ventilation : Ventilation port with adjustable Opening. • Temp. Control : By Digital Temperature indicator and

	<p style="text-align: center;">Controller</p> <ul style="list-style-type: none"> • Temp. Display : Digital Temp. display • Range of Temp : Ambient to 500°C • Accuracy : 1 °C • Least Count : 1 °C
8	Jominy End quench hardenability tester
	<ul style="list-style-type: none"> • High Temperature furnace with PID controller to avoid temperature overshoot • Quick transfer of specimen to quenching fixture within specific time with the special tong. • Quenching fixture designed strictly as per BS / SAE with specifications like 45° angle of top plate, quenching distance, jet stopper release just before quenching etc. • Motorised Water Circulation with storage & test tank. • Hardness testing fixture for progressive hardness indentations. • The test setup should enable conducting the Jominy end quench Hardness test per ASTM A 255 or equivalent IS standard.
9	Digital PID Controller
	<p>Specifications</p> <p>1. Programming part</p> <ul style="list-style-type: none"> • 8 segments of Ramp / Soak • Measuring T/C, Pt100W, Process Signal mA, Vdc • Accuracy : ± 0.25% of Full Scale • 4 Digital Display : -1999~9999 • Automatic / Manual Output in Standard • Heating / Cooling Control Output Available in Option • Analog Re-transmission Function Option • High Stability <p>2. Controller part</p> <ul style="list-style-type: none"> • PID, PD, PI, P, On-Off control forms

	<ul style="list-style-type: none"> • Universal Process input (TC, RTD) • Selectable Alarm Functions for Alarm Output • 4 Digits process and 4 digits set display • <p>3. General requirements</p> <ul style="list-style-type: none"> • Accuracy : $\pm 0.25\%$ of scale for thermocouple and thermo resistance • Cold Junction Compensation : Automatically $\pm 0.1\text{ }^{\circ}\text{C}/1^{\circ}\text{C}$ • Line Compensation : Maximum 10 Ohm • Process Output : Relay (5A@250VV) or SSR • Driver Output : (Maximum 20mA @18VZ) • Alarm Output : Relay (5A@250VV at resistive load)

NOTE

A complete set of bidding documents may be purchased by interested bidders from the RGUKT contact person upon payment of the bid document price which is non-refundable. Payment of bid document price should be by demand draft / cashier's cheque or certified cheque drawn in favor of "Registrar , Rajiv Gandhi University of Knowledge Technologies " and payable at Hyderabad (India).