

DOCUMENT

Open Competitive Bid (OCB)

For

**Supply and Installation of
Heat Treatment Lab equipments of
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 Lab 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):

- 1) Chemical Metallurgy Laboratory
- 2) Physical Metallurgy Laboratory
- 3) Corrosion and Environmental Degradation Laboratory
- 4) Material Testing and Processing Laboratory
- 5) Heat Treatment Laboratory

Last date of submission of tender along with EMD as specified in the bid document is on 09.08.2012 before 04 .00 pm.

Interested parties can collect the Tender document for each laboratory from **25.07.2012 to 08.08.2012** against payment of Rs. 5,000/- towards the cost of Tender document fee (non-refundable) through D.D. from any Nationalized Bank payable to REGISTRAR, RGUKT at Hyderabad from the office of the RGUKT. For further details visit our website www.rgukt.in

Date: 25.07.2012

Sd/
Registrar

Time schedule of various Short tender related events

| | |
|---------------------------------|------------------------------|
| Bid calling date | 25.07.2012 |
| Last date for sale of document | 09.08.2012 at 05:00 P.M |
| Pre bid meeting | 31.07.2012 at 12.00 noon |
| Bid closing date/time | 09.08.2012 at 04:00 P.M |
| Technical Bid Opening date/time | 13.08.2012 at 04:00 P.M. |
| Price Bid opening date/time | 14.08.2012 at 05:30 P.M |
| Bid Document fee | Rs.5,000/- |
| Contact person | Registrar, RGUKT |
| Reference No | RGUKT/Proc/MME/HTL/T 23/2012 |

Registrar,
RGUKT

TENDER FORM

Not transferable

Reference. No. RGUKT/Proc/ MME/HTL/T 23/2012

Dated 25.07.2012

Subject: Invitation of Tenders for Supply, installation and commissioning of Heat Treatment Lab Equipments to the Metallurgical & 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 **09.08.2012 up to 4:00PM**

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 **32 pages of which pages from 6 to 17** are instructions and **page No.23** 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 super scribed "Tender for Supply, Installation & Commissioning of Heat Treatment Lab Equipments to the Metallurgical & Materials Engineering Departments at the three campuses of RGUKT. The last date for submission of bid is **09.08.2012 and closing time is 04:00 PM.**
- C. The Sealed Tenders should be deposited in the Tender box kept in the office of Registrar, RGUKT, Hyderabad up to **04:00 P.M. on 09.08.2012.**

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.2,00,000/- by way of Demand Draft from any Nationalised Bank or by way of irrevocable bank guarantee from any Nationalised Bank only. DD/BG from other than Nationalised Banks will not be accepted. |
| Bid Validity Period | 365 days from the date of opening of Financial bid |
| EMD Validity Period | 90 days from the date of opening of Financial bid |
| Warranty Period | 3 years |
| Variation in quantities/number of residents | + 40 % |
| Period for furnishing performance Security Deposit | Within 10 days from date of receipt of award |
| Delivery Schedule | Bidder shall deliver the goods in one single lot within 30days from the date of award of the contract. |
| Performance security value | 5% of contract value by way of irrevocable Bank Guarantee from any Nationalised Bank |
| Performance security validity period | 38 months from award of contract (including 30 days of installation period) |
| Period for signing the order Acceptance | Within 7 days from date of receipt of notification of award |

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| 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, commissioning 2. Balance 20% will be paid after 3 months after obtaining the satisfactory certificate from the Director, RGUKT IIITs. |
| 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 firms within India who are eligible to do business under relevant Indian laws as in force at the time of bidding, subject to meeting the pre-qualification criterion. They should provide 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 |
|--|--|
| 25 lakhs | 50 lakhs |
| 50 lakhs | 1 crore |
| 50-100 lakhs | 2 corers |
| Greater than 100 lakhs | 3 Crores |

The bidder should have adequate experience in supply of such materials/ equipment as required in the tender. Bidder should furnish proof of having supplied such materials as required in the tender in the previous financial year ending 31st March 2012 as mentioned above . A certificate of the bidder's turnover in Rupees must be enclosed and be duly certified by a firm of chartered accountants. In this certificate the turnover of subject material during 2011-2012 (ending with 31.03.2012) must be covered.

4. The bidder should furnish satisfactory performance certificate from the parties concerned to whom bulk supplies were effected, in case such supplies were made. RGUKT may contact any such parties to elicit details.
5. Bidder should be registered under 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.
6. All bidders shall also include the following information and documents with their tenders (in the Technical bid cover)

- a) 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 Bid to commit the Bidder.
 - b) Machinery/equipment owned by the bidder and number of employees.
 - c) Latest Income Tax returns and VAT/CST Returns filed.
 - d) 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 in support to their claim for eligibility in placing bid. **The tenders received without the above documents will be rejected.**

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 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 | <p>Electrically heated salt bath furnaces</p> <ul style="list-style-type: none"> • Mild steel steel casing > long service life, extremely resistant hardened fibre module as inner chamber > high mechanical resilience, short firing cycles, low power consumption • Maximum temperature 1200 C • Heating wire embedded in ceramic plates • Exhaust pipe in rear wall > any gases possibly released can escape • Door safety switch > power supply interrupted when door is opened. • PID Controller/ indicator for temperature monitoring; Chromel-alumel thermocouple. • Chamber size : 200mmx200mmX300mm |
| 2 | <p>Electric Muffle furnace</p> <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 |

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| | <p>powder supply whenever the door opened and restart when the door is closed.</p> <ul style="list-style-type: none"> • 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 C and a Maximum Temperature of 1000 C • Chamber internal dimensions shall be 300x300x450 mm. |
| 3 | Direct heating electrical Furnace |
| | <ul style="list-style-type: none"> • Mild steel steel casing > long service life, extremely resistant hardened fibre module as inner chamber > high mechanical resilience, short firing cycles, low power consumption • Maximum temperature 1200 C • Heating wire embedded in ceramic plates • Exhaust pipe in rear wall > any gases possibly released can escape • Door safety switch > power supply interrupted when door is opened. • PID Controller/ indicator for temperature monitoring; Chromel-alumel thermocouple. <p>Chamber size : 200mmx200mmX300mm</p> |
| 4 | Tube furnace with high alumina muffle |
| | <ul style="list-style-type: none"> • Recrystallised Alumina/ Quartz tube for sample heating • Length of quartz muffle tube : 30", Internal diameter of Muffle tube 30mm/40mm • Controlled inert / reducing atmosphere heating must be possible. • Water cooled Stainless Steel end fittings for Vacuum / controlled Atmosphere • Operating temperature upto 1150°C • Super kanthal/ Silicon carbide heating elements • Chromelalumel-A based thermocouple • Programmable heating, soaking and cooling cycles. • Provision for PC connectivity and data logging • Horizontal desktop model |
| 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 |

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| | <ul style="list-style-type: none"> • Sintering chamber to have ceramic insulation housing (batch system). The primary function of the insulation is to preserve the heat generated in the work piece. • The temperature is to be monitored by optical sheathed thermocouples placed close to the surface of the sample. • Max. Temp developed Insitu : 1,400 deg. C, • The system shall be equipped with stainless steel Housing including air circulation, glass door <p>Programmable controller with max. 8 or 10 Program steps, control output indicator and Exhaust device as well</p> |
| 6 | High temperature ceramic sintering furnace |
| | <ul style="list-style-type: none"> • Operating temperature 1700° C or higher. • Controlled Reducing atmosphere heating • Programmable heating and cooling, soaking cycles. • 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 Controller • 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. Maximum Temperature 1250°C • Quick transfer of specimen to quenching fixture within specific time with the special tong. |

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| | <ul style="list-style-type: none"> • 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. |
| 9 | Digital PID Controller |
| | <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 : $\pm 0.25\%$ of Full Scale • Digital Display : -9999~9999 • 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 • 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 ± 0.1 °C/1°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) |

7. General Requirements & Qualification Criteria

- Bidding Firm offering the product should have ISO 9001 Accreditation certification.
- Bidding Firm, offering the product, should have supplied similar type of test systems for a several years to Government establishments, defense organizations & National higher learning institutions like IITs, IISC etc., in India
- Bidding Firm offering the product should submit list of supplies made by it, during last two years with complete contact details of the end users such as

phone number, fax number, e-mail ID etc. It should submit copies of order placed by such organizations and user certificates for goods of same/similar nature.

- Bidding Firm offering the Product should have a Local Service Support Facility, preferably in Hyderabad, and should submit address and contact details
- Bidding Firm should give an Undertaking that, an interrupted service support will be given for a minimum period of 10 years with unbroken availability of spares supply.
- Bidding Firm should give an undertaking that, the Software upgrades if any, during the warranty period of three year, should be supplied free of charge
- Bidding Firm should offer pre-dispatch inspection free of charge at their factory premises for 2 users for 3 days and post installation training at our three laboratories in different campuses to 2 users for 5 days.

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 favour of "Registrar, Rajiv Gandhi University of Knowledge Technologies" and payable at Hyderabad (India).