



**G.B. PANT UNIVERSITY OF AGRI. & TECH.  
PANTNAGAR, U.S. NAGAR (UTTARAKHAND)**

Speed Post

Quotation Invitation form in Two Bid System

No. G.T.E./FMPE/EAAI/ / quotation

Dated:- 12/5/17

M/s.....

Sub: LAB SCALE PYROLYSIS OIL SET

"PLEASE CAREFULLY GO THROUGH THIS DOCUMENT AND ENSURE COMPLIANCE AND NON-COMPLIANCE OF ANY CONDITION MAY MAKE YOUR OFFER INVALID"

Dear Sirs,

We are interested in the Purchase of the articles mentioned overleaf. Please send your quotation in **SEALED COVERS (sealed with sealing wax)** so as reach this office on or before 21/6/17..... **REGISTERED/SPEED POST ONLY** while submitting quotations please note that:-

1. The quotation is to be submitted under **two bid system i.e. Technical Bid & Financial Bid**. Technical Bid & Financial Bid will be received in two separate sealed envelopes. Both the envelopes will then be put in to one big envelope and sealed properly super scribing "**Technical Bid & Financial bid for the supply of .....**", your No..... dt..... Due date.....
2. (a) The Technical bid should be consisting of all technical details/specification EMD in separate envelope as required in para 13 and other requirements as mentioned overleaf and your terms & conditions. The envelope contained technical bid should be super scribed "**Technical bid for the supply & installation of Lab scale Pyrolysis oil set**".  
(b) The financial bid should indicate items wise price for the item mentioned in technical bid. The envelope contained Financial bid should be super scribed "**Financial bid for the supply & installation of Lab scale Pyrolysis oil set**".
3. Rates quoted should be F.O.R. Pantnagar including packing forwarding and transit insurance. The goods should be insured against theft, loss or breakage during transit by the supplier before dispatch is made. The responsibility in this respect will be of the supplying firm and not of the University.
4. The rates of sales Tax (Central and Provincial etc.) should be clearly indicated at which rate is chargeable.
5. The rates of Excise duty should also be clearly indicated, if included in cost the excise duty component should be indicated separately.
6. In case of the item being on D.G.S. & D. Rate Contract, please enclose a copy of the Rate Contract.
7. The quotation shall be opened in the presence of the representative of any or all of the quoting firms at **3.00 p.m. on next day or 2<sup>nd</sup> or 4<sup>th</sup> Saturday in the office of under signed** at G.B. Pant University of Agriculture & Technology, Pantnagar.
8. Payment will be made by crossed cheques on the State Bank of India/United Commercial Bank/Punjab National Bank, Pantnagar or a account payee draft at the cost of the supplier only after the receipt of material in good condition.
9. The acceptance of the quotation will rest with the Vice-Chancellor who does not bind himself to accept the lowest quotation and reserves the right himself to reject or partially accept any or all the quotation received without assigning any reason.
10. In case of any dispute the matter shall be referred to the Vice-Chancellor of this University whose decision shall be binding to both the parties.
11. Please quote your **sales Tax No. & Income Tax No.** also on your quotation. Copy of VAT registration must be enclosed.
12. In case of supply order being placed on you:  
"As time is the essence of this order, the date of delivery should be strictly adhered to otherwise the Vice-Chancellor reserves the right not to accept delivery in part or full and claim the liquidated damages 1% per week subject to a maximum of 10% of total value of the supply order."
13. You will have to deposit upto **1.00 lac 5%, 1.00 lac to 5 lac 4%, 5 lac to 25 lac 3%** of the total cost of items quoted by you as earnest money in the form of demand draft or fixed deposit receipt or bankers cheque in favour of Comptroller G.B. Pant University of Agriculture & Technology, payable at SBI/PNB/UCO Bank, Pantnagar.
14. The imported equipments above ₹ 3.00 lac may be purchased in Indian currency provided Custom Duty Exemption is made available by the firm.
15. The quotations are liable to be cancelled, if any of the above conditions are not complied with.
16. The validity of rates should be **90** days from the date of opening of bid quotation.

Yours faithfully

Signature & Seal of Purchaser  
Specification overleaf

**Head**  
**Deptt. of Farm Machinery**  
**& Power Engg.**

**AICRP on EAAI (PC-119)**  
**Department of Farm Machinery and Power Engineering**  
**College of Technology**

S.No.	Description of material (Specification if any)	Quantity Required	Rates quoted
1.	<p><b>Lab scale Pyrolysis oil set</b></p> <p>Lab scale Pyrolysis oil set specification:</p> <p><b>1. Pyrolysis chamber with the following design specifications (As shown in figure)</b></p> <ul style="list-style-type: none"> <li>The main furnace should be of tubular shape with an inner diameter of 150 mm, length of 600 mm, made of ceramic material.</li> <li>Outer side should be provided with suitable long lasting heating elements of high ampere rating with suitable electrical connections (about 20 amp. or appropriate) to get a heating rate of about 100°C/min and maximum temperature of 750°C.</li> <li>Outer side of heating element should be covered with suitable ceramic blanket, over the blanket powder coated MS cover.</li> <li>One side of the furnace should be provided with an air tight door. At the center of the door a nozzle should be provided to pass nitrogen gas with an inner diameter of 10 mm and sufficient length to avoid excess heating.</li> <li>A gas flow meter should be fitted with the nozzle to measure gas flow rate with a range of 100 to 1000 ml/min or near to it.</li> <li>Another side of the furnace should be closed except an opening of 20 mm to connect with a chilling unit. The connection should be done with SS pipe of not more than a length of 150 mm. It should be covered with sufficient asbestos rope to prevent heat loss.</li> <li>The whole unit should be mounted on stands of suitable height so that a person can easily handle it.</li> </ul> <p><b>2. Chilling unit with the following design specifications (As shown in figure)</b></p> <ul style="list-style-type: none"> <li>Copper pipe condenser of minimum four copper pipes of 16 mm inner diameter and 600 mm length standing vertically and interconnected as shown in the figure.</li> <li>Each pipe should be open in both ends. Upper ends should be closed by suitable size of corks. Lower ends will be attached with 100 ml conical flasks with arrangements of air tight attachment. The flasks should rest on platform.</li> <li>The whole copper piping should be provided with suitable chilling unit which can attain a temperature range of - 5 (minus) to 10° C. the unit should be then covered with suitable insulating material and then by powder coated MS sheet.</li> <li>The whole unit should be mounted on stands of suitable height so that a person can easily handle it.</li> <li>A smoke extraction vent (300 mm x 300 mm with PVC pipe of 75 mm) should be mounted over the chilling unit which should be fitted with a suction blower of small capacity.</li> <li>Chilling unit should be fitted with suitable temperature sensor and temperature controller to control the temperature between - 5 to 10° C.</li> </ul> <div style="text-align: center;"> </div> <p><b>3. Programmable PID controller for furnace unit</b></p> <ul style="list-style-type: none"> <li>The furnace unit should be fitted with programmable PID temperature controller which can vary the rate of heating from 10° C/min to 100° C/min.</li> </ul> <p>All units should be compete in all respects with all connecting tubes, joints and wrings, switch boards etc. to operate on 230 VAC.</p> <p><b>The equipment should be supplied with one spare set of heating element, One large nitrogen cylinder (47 lit or more capacity) with two stage good quality pressure regulator.</b></p>	<p>One Complete Set</p>	

Signature of Purchaser

**Head**

Name..... **Deptt. of Farm Machinery**

Designation ..... **& Power Engg.**

Date : 12/5/17