Jiwaji University, Gwalior

No. JU/TEM/PHYS/02/2013  Dated: 23/02/2013

Tender Notice

Sealed tenders are invited in prescribed form, from reputed manufacturers or their subsidiary or authorized Indian Representative for the supply of the following items:

1. Supply and Installation of a CCD/CMOS Camera for a Model JEM 1230, JEOL make 120 KV Transmission Electron Microscope
2. Spin Coating Machine
3. Basic Solar Simulator (Source of Light) along with I-V curve tracer for the characterization of solar cells.
4. Ultrasonic Spray System
5. Digital Electronic Balance
6. Microprocessor controlled Hot air oven

The tender documents along with detailed instructions can be obtained from the Store, Jiwaji University, Gwalior, on payment of Rs. 500/- on or before 14/03/2013. The tender documents can also be downloaded from the website www.jiwaji.edu.in, in which case, a demand draft of Rs 500/- drawn in favour of the Registrar, Jiwaji University, will have to be attached with the tender proposal. The details of the equipment and their specifications can be seen on the Jiwaji University Website.

Separate tenders must be submitted for each item.

The last date for submitting the tender bid is 14/3/2013 up to 5 PM at the office of the Registrar, Jiwaji University, Gwalior 474 011. The tenders will be opened on 15/3/2013 at 12:00 PM at the Registrar’s office.

REGISTRAR
List of Equipment

1. Digital CCD /CMOS Camera for JEOL 120 KV Transmission Electron Microscope

2. Spin Coating Machine with oil free vacuum pump

3. Basic Solar Simulator & I-V Curve Tracer

4. Ultrasonic spray system consisting of Ultrasonic Generator and Atomizer

5. Digital Electronic Balance

6. Microprocessor controlled Hot Air Oven

Note:

i) Tender Document for item 1 consists of pages 2 to 12

ii) Tender Document for items 2 to 6 consists of pages 13 to 25
The camera should be compatible with the JEOL 120 kV (Model JEM 1230) TEM. The specifications of the CCD/CMOS Camera should be preferably as given below or better:

**Specifications:**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CCD/CMOS format (pixels)</strong></td>
<td>Quote for all three 1920 x 1440 and 2048 x 2048 pixels and 3296 x 2472 pixels or higher</td>
</tr>
<tr>
<td><strong>Pixel size (μm)</strong></td>
<td>14μm or better for CCD; 6.5μm or better for CMOS</td>
</tr>
<tr>
<td><strong>Coupling</strong></td>
<td>Fiber optics 1:1 or Lens Please Specify</td>
</tr>
<tr>
<td><strong>CCD/CMOS sensor-Progressive scan</strong></td>
<td>Progressive interline device / enhanced QE, Scientific grade, progressive Scan sensor</td>
</tr>
<tr>
<td><strong>CCD/CMOS readout</strong></td>
<td>Full and sub area</td>
</tr>
<tr>
<td><strong>Anti-blooming</strong></td>
<td>On-chip / both real time &amp; slow scan</td>
</tr>
<tr>
<td><strong>Scintillator</strong></td>
<td>High-resolution phosphor optimized for kV</td>
</tr>
<tr>
<td><strong>Camera Mount</strong></td>
<td>On-axis TEM bottom port / Side Mount</td>
</tr>
<tr>
<td><strong>Dynamic range / real time frame integration</strong></td>
<td>&gt;16 bits with frame integration; &gt;12 bits without frame integration</td>
</tr>
<tr>
<td><strong>Frame rate</strong></td>
<td>&gt;30 fps @ 4x binning</td>
</tr>
<tr>
<td><strong>Readout speed</strong></td>
<td>Preferably &gt;50 MHz</td>
</tr>
<tr>
<td><strong>Peltier cooling</strong></td>
<td>10˚C or Lower</td>
</tr>
<tr>
<td><strong>Dark current</strong></td>
<td>&lt;2 counts/pixel/sec (1x binning)</td>
</tr>
<tr>
<td><strong>Readout noise</strong></td>
<td>&lt;10 counts</td>
</tr>
<tr>
<td><strong>Gain uniformity</strong></td>
<td>Transparent gain correction and dark subtraction; better than 10% rms in uncorrected images; better than 0.5% rms in gain corrected image</td>
</tr>
<tr>
<td><strong>Conversion efficiency</strong></td>
<td>&gt;6 counts/primary electron (100kV)</td>
</tr>
<tr>
<td><strong>MTF for Lens</strong></td>
<td>&gt; 50% MTF at 130 line pairs /mm</td>
</tr>
<tr>
<td><strong>Non-linearity</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td><strong>Full well</strong></td>
<td>&gt;85,000 e- for CCD</td>
</tr>
<tr>
<td><strong>Exposure setting</strong></td>
<td>20 msec to 1 sec/ 1msec to 10 sec with Electronic shutter</td>
</tr>
<tr>
<td><strong>CCD/CMOS overheat protection</strong></td>
<td>Required</td>
</tr>
<tr>
<td><strong>Binning</strong></td>
<td>1x, 2x and 4x</td>
</tr>
<tr>
<td><strong>Software</strong></td>
<td>Required Software should be Supplied.</td>
</tr>
</tbody>
</table>
Jiwaji University, Gwalior
Annexure-1
(To be enclosed with the Technical Bid)

Tender for the Supply and Installation of a CCD/CMOS camera for a JEOL 120 KV TEM

Tender Form No. JU/TEM /PHYS/02/2013

Name of the party in whose favour the Tender form has been issued

To
The Registrar
Jiwaji University
Gwalior 474 011, MP, India

Dear Sir,

1. I/We hereby submit our tender for Supply and Installation of a CCD/CMOS camera for a JEOL 120 KV Transmission Electron Microscope:

2. I/WE now enclosing herewith D.D. No.…………………… dated……………. For Rs………………… drawn in favour of the “The Registrar, Jiwaji University, Gwalior” towards EMD, and D.D. No.…………………… dated……………. For Rs. 500 towards tender fee for downloaded tenders. (TENDERS NOT ACCOMPANIED WITH EMD ALONGWITH THE TECHNICAL BID SHALL BE SUMMARILY REJECTED).

3. I/We have gone through all terms and conditions of the tender documents before submitting the same.

4. I/We hereby agree to all the terms and conditions, stipulated by the Jiwaji University, in this connection including delivery, warranty, penalty, etc. Quotations for each item are being submitted under separate covers, and sheets and shall be considered on their face value.

5. I/We have noted that overwritten entries shall be deleted unless duly cut & re-written and initialed.

6. Tenders are duly signed (No thumb impression should be affixed).

7. I/We undertake to sign the contract/agreement, if required, within 15 (Fifteen days) from the date of issue of the letter of acceptance, failing which our/my earnest money deposited may be forfeited and our/my name may be removed from the list of suppliers at Jiwaji University, Gwalior.

NOTE: The price quoted should be gross, inclusive of all taxes, payable by us. Vague terms, such as “extras as applicable”, are not acceptable.

Yours faithfully,

Signature of Tenderer(s) with full Address.
CHECK LIST FOR TERMS AND CONDITIONS
Check list for Terms and Conditions (To be filled by the bidder and submitted along with the technical bid).
Supporting documents must be numbered serially and the same must be indicated here on this page.
These documents should be placed inside the envelope containing technical bid

1. Certificate for Manufacturer/Indian Subsidiary of the Manufacturer/Sole representative in India, enclosed.

2. Performance reports/List of organizations supplied with the same model/similar equipment from same manufacturer of the equipment (at least 05 in India) _________________

3. Whether rates quoted included all taxes, customs clearance, i.e., FOR Gwalior/CIF Gwalior:

4. Whether rates are quoted as per tender’s specifications ________________

5. Authorised dealership Certificate ________________________

6. Quotation being submitted directly by the manufacturer or authorized distributor ________________.

7. Quality assurance certificate like ISI, ISO 9002, IP/BP or any other, please specify ________________.

8. Proof of having filled IT Return for the assessment years 2010-11, 2011-12 and 2012-13 attached ___________________________________________________________________________

9. EMD draft is enclosed___________________________

10. Tender fee for downloaded tenders enclosed _____________

11. Literature of original catalogue of the product and accessories are attached for reference ______

12. Comprehensive Guarantee/Warranty period for one year and thereafter, comprehensive AMC for 2 years to be quoted separately and not as a part of the price: YES/NO.

13. Compliance Statement with relation to specification ________________

(SIGNATURE OF THE BIDDER WITH NAME & SEAL)
Tender Form No. JU/TEM/PHY/02/2013

Name of work: Supply and Installation of a CCD/CMOS camera for a JEOL 120 KV TEM

Last Date for purchase of Tender Document: 14.03.2013.

Last date for submission of Tender form: 14.03.2013 up to 5.00 p.m.

Tender Opening Date: 15-03-2013 at 12 Noon in the University office

Tender Cost: Rs 500/-

Earnest Money Deposit (EMD): Rs.20,000

TERMS AND CONDITIONS FOR THE SUPPLY AND INSTALLATION OF A CCD/CMOS CAMERA FOR JEOL (JEM 1230) 120 KV TRANSMISSION ELECTRON MICROSCOPE AT JIWAJI UNIVERSITY, GWALIOR

Sealed Tenders are invited from Manufacturers or their sole Authorized Indian Representative for the supply and installation of a CCD/CMOS camera for a JEOL 120 KV TEM with specifications as mentioned in the enclosed list. Written Permission/No Objection for Installing CCD/CMOS camera must be obtained by the bidder from JEOL India/Japan prior to receiving the Order. Tenders will be considered subject to following the terms and conditions.

1) All tenders must be accompanied by a Bank draft drawn in favour of Registrar, Jiwaji University, Gwalior for an amount mentioned in the attached sheet as earnest money. Tenders received without earnest money are liable to be rejected and may not be considered.

2) Bidders can obtain tender documents against payment of Rs.500/- by demand draft drawn in favour of the Registrar, Jiwaji University, Gwalior on or before 14-3-13 on any working day between 11 AM to 5 PM either by post or courier or in person. Alternatively, the tender document can be downloaded from the website www.jiwaji.edu, in which case a demand draft for Rs. 500/- drawn in favour of the Registrar, Jiwaji University Gwalior must be enclosed along with the EMD draft.

3) The last date for submitting the Tender is 14-3-13 before 5 pm. at the office of the Registrar, Jiwaji University, Gwalior.

4) The bidder should agree to furnish a Bank Guarantee from a Nationalized Bank up to 10% of the cost of the equipment during the Warrantee Period and extendable to at least five years or as may be desired by the University so as to ensure proper maintenance and satisfactory working of the equipment.

5) The bidder should agree to execute an agreement for proper supply, installation and satisfactory working of the equipment exactly to the specifications mentioned.

Signature of the Bidder with seal
6) The rates quoted should be FOR Gwalior. For imported equipment through L.C., the CIP/CIF prices should be quoted. The prices should be inclusive of sales tax and other charges. However, the exact details of taxes should be given separately.

7) Being an Educational Institution it is entitled to issue Concessional sales tax certificate. No other sales tax form is issued. If concessional sales tax certificate is not acceptable to the supplier, the actual rate of sales tax to be charged must be clearly mentioned.

8) This institution is exempted from payment of Central Excise duty in terms of Govt. Notification No. 1097 – Central Excise Dated 01/03/1997 and modifications thereafter. Necessary certificate copy will be provided by the University.

9) For Imported equipment, the price should be without any custom duty. The institution is registered with Department of Science and Industrial Research (DSIR) Govt. of India vide Government Notification No. TU/V/RS-CDE(56)/2009 Customs dated 26-11-2009 is exempted from payment of Custom duty; Necessary Certificate copy to be provided by the University.

10) If the rates are quoted Ex-Godown or F.O.R. Railway Station of dispatch, then the tenders must also indicate charges towards packing & forwarding. Railway freight etc. so as to compare these rates with those of others who have quoted FOR destination failing which such offer will be ignored. The transportation up to Jiwaji University should be undertaken by the supplier and prices should be included in the bid. All relevant documents shall be provided by the University.

11) Manufacturer’s name, their trademark and brand should invariably be mentioned in the tender and illustrated leaflets giving technical particulars/ details etc. should be attached with the quotation to facilitate consideration of the offer.

12) The bidder must furnish a list of customers to whom the equipment quoted (or at least similar equipment from the same Manufacturer) has been supplied preferably in Central/Northern India. Name and contact telephone numbers of the customers must be furnished.

13) The Bidder should quote their best willing price which should be firm for the period of 120 days from the due date of tender.

14) The minimum period of delivery of the equipment should be quoted.

15) The quantities of each item to be purchased may vary according to actual requirement at the time of placing order.

16) If there is any DGS & D rate contract of Government approved rates the same should be quoted enclosing the copy of the Rate Contract.

17) The tender should avoid the use of vague terms such as ‘extra as applicable’.

18) Printed condition on the back of the offer submitted will not be binding unless separately mentioned.

19) Quotations for each item (as per serial number in the specification sheet) along with terms and conditions must be submitted separately in separate cover so that for individual items separate comparative statements could be prepared.

20) Advance payment either direct or through bank will not be accepted in any case. As per rule, full payment will be made after receipt of material, inspection thereof and after satisfactory working of the entire equipment.

Signature of the Bidder with seal
21) In case of imported equipment required letter of Credit (LC) or similar procedure, like sight draft, shall be opened/followed only after the security deposit/bank guarantee is received by the University. The security/bank guarantee shall be used as has already been mentioned earlier (condition No 4) in this document.

22) The tenderer should clearly state regarding charges for maintenance, etc. of the equipment, if any. Installation should be done free of cost.

23) Offers received not according to our terms and conditions and within the time prescribed shall be rejected. Delay due to postal services of any kind will not be considered for acceptance of the tender.

24) In all matters of dispute, the decision of the Registrar, Jiwaji University, Gwalior shall be final & binding on the Bidders.

25) The address of Customer Care Centre for maintenance along with the list of well- reputed organizations that have purchased the same equipment should be provided.

26) List of spare parts must be supplied.

27) The test reports of the equipment quoted from reputed government organizations/academic institutions must be submitted along with the offer.

28) In case of an authorized dealer, a copy of the current Certificate from Manufacture must be attached as proof.

29) Date and time of opening of envelopes is 15/03/2013 at 12 Noon in the presence of intending Bidders or their representative who may like to be present in the office of the Registrar, Jiwaji University, Gwalior.

30) If any of the dates of receipt/opening of Tender happen to be declared as holiday, the schedule will be shifted to the next working day automatically. The University reserves the right to change the date.

31) The Sealed Tender envelope should contain three sealed envelopes.

   A. the “First” envelop should be superscribed ‘Technical Bid for ----------- (Name of the item, Ad No. and date)’. This should contain the specifications of the equipment and terms & conditions of supply, and the questionnaires for terms of supply and the specification sheets (supplied by the University along with Tender document) duly checked yes/no etc. No price should be mentioned.

   B. The ‘second’ sealed envelop should be superscribed ‘Commercial Bid for -------- (Name of the item, Ad No. and date)’. This should contain the competitive price of the equipment.

   C. The ‘third’ sealed envelop should be superscribed ‘EMD for ----------- (Names of the item) and should contain the Ernest money Demand Draft in original and the tender fee DD for Rs. 500/-.

The above three sealed envelopes must be placed in one sealed envelop and should be superscribed “Tender No JU/TEM/PHYS/02/2013 for (name of item) Serial No………vide No. …………. to be opened on 15/3/2013”. Only those who fulfill the technical specifications shall be considered for opening the commercial bid.

31) Separate tenders are to be submitted for each item.

   Signature of the Bidder with seal
32 Tenders, duly sealed, should reach the Registrar, Jiwaji University, Gwalior only by Speed Post or Registered Post. Telegraphic. Fax and conditional tenders shall not be accepted.

33 Any item or offer may increase in number or even may not be purchased. The Registrar, Jiwaji University, Gwalior, reserves the right to accept or reject any or all tenders without assigning any reasons thereof.

34 The prices charged for the items supplied by successful Tenderer shall in no event exceed the lowest price at which the successful Tenderer sells the same items to any other persons during the period of supply to the university. If any time, during the period of supply, the tenderer reduces the sales price chargeable for any item, he shall forthwith notify such reduction to the Registrar, Jiwaji University, Gwalior and the price payable for the items supplied after the date of coming into force of such reduction or sale shall stand corresponding reduced.

35 All the accessories are to be treated as one unit and separate tenders are not required for each accessory. The cost of Essential Accessories will have to be included in the total cost of the equipment.

36 Performance reports/ List of organizations in India (along with phone numbers of users) who have been supplied the same model of the equipment, should be provided.

37 Canvassing for support in any form for the acceptance of any tender is strictly prohibited. Any tenderer doing so will tender himself liable to penalties which may include removing of his name from the register of approved Suppliers.

38 Written Permission/No Objection for Installing CCD/CMOS camera must be obtained by the bidder from JEOL India/Japan and proof submitted to Jiwaji University only after which the Order will be placed.

39 The bidder shall forfeit the EMD if we find the bidder providing any false information and no further communication in this respect shall be entertained.

Registrar
Jiwaji University

I/We accept all the terms and conditions of the tender and understand that the decision of the University shall be final and acceptable to me/us.

Signature and Seal of the Tenderer

Date
1. Reputed manufacturers of equipment (specified in the tender notice) or their authorized agents with well established sales and services facilities only need to respond to the tender notice. | Conform/ do not conform to requirement

2. Separate quotation must be submitted for each item specified in the tender notice. Taxes, duties, packing & forwarding charges, transport and insurance charges may be separately indicated where applicable. | Complied/ Not complied

3. The make, model no. detailed specifications, illustrative pamphlets must accompany the quotation without which the quotation are liable to be rejected. | Complied /Not complied

4. In case the bidder is an authorized agent, documentary proof to this effect must be enclosed with the quotation. | Enclosed/ not enclosed

5. Bidders detailed company profile, information on after sales/service and test facilities available along with address and telephone no. of sales office and service centre catering to Gwalior must be given along with the quotation. Details of product & application support available may also be indicated. | Information enclosed /not enclosed.

6. The Bidder must indicate whether he is willing to supply complete circuit diagram, wiring diagrams, component layout diagrams, service manuals and component identification catalogue along with the equipment free of charge in case an order is placed with him. The supply of this literature will be considered as part of the supply of equipment offered. | Will be supplied/cannot supply

7. The bidder must furnish a list of customers to whom the equipment quoted (or at least similar equipment from the same Manufacturer) has been supplied preferably in Central/Northern India. Name and contact telephone nos. of the customers must be furnished. | Enclosed not enclosed

8. Quotation must be furnished in sealed envelopes separately for each item quoted under the tender. The name of the item quoted and tender notice particulars should be clearly indicated on the top of the envelope. | Complied/ not complied

9. Bidders are requested to carefully go through the specifications given in the tender and quote only when they are sure they have the product specified to offer. In case of any doubt the bidders can contact the Registrar, Jiwaji University Gwalior on any working day with prior appointment. | Complied/ not Complied

10. Warranty details and terms and conditions of warranty must be given. If any component of the equipment quoted is not covered by the warranty, the same must be specified. | Complied/not complied

11. Bidder must indicate the year in which the model quoted by him was introduced in the market. Bidder must indicate whether he is willing to give an undertaking that all spare parts for the equipment quoted will be supplied as and when ordered for at least a period of 10 years from the date of supply and inability to supply the spares due of obsolescence of the equipment will not be pleaded. | Complied/ Not Complied
<p>| | | |</p>
<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>12</strong></td>
<td>Where the equipment offered is controlled by a personal computer and it is possible to use an indigenous PC, the same should be quoted instead of an imported PC. The same would apply to a Printer or any compiled other subsystem of good quality available in India</td>
<td>Complied/ not complied</td>
</tr>
<tr>
<td><strong>13</strong></td>
<td>Where the equipment offered is modular, the price break-up of individual modules/accessories/parts must be given. The bidder may not be given a chance to indicate the price break-up at a later date. However the total price shall be considered</td>
<td></td>
</tr>
<tr>
<td><strong>14</strong></td>
<td>The bidder will furnish a test certificate along with complete test result and the test conditions for the equipment specifications offered in case an order is placed.</td>
<td>Agreeable / Not agreeable</td>
</tr>
<tr>
<td><strong>15</strong></td>
<td>Bidders must indicate whether he can arrange for comprehensive service training to staff of the instrumentation department on the model offered at his expense.</td>
<td></td>
</tr>
</tbody>
</table>
| **16** | (a) If an order is placed with the bidder, the bidder will install and test the equipment to its specifications at site of installation free of charge.  
   b) If it is not possible to test some specifications, the same may be indicated. | Agreeable / Not agreeable  
Agreeable / Not agreeable |
| **17** | The bidder is agreeable to install and test the equipment and undertake after-sales-service only through a factory trained certified engineer. *Evidence to availability of trained personal may be enclosed.* |   |
| **18** | Bidder will carry out validation of the instrument offered at the time of installation at his cost. | Yes / No |
| **19** | Agency commission (percentage) payable in Indian Rupees should be mentioned in the quotation i.e. in “Commercial Bid”. | Complied / Not complied / Not applicable |
| **20** | Performance guarantee: In case the Purchase Order is placed, 10% of the equipment value has to be submitted as performance security deposit in the form of bank Guarantee till the completion of warranty period. |   |
| **21** | The bidders must ensure that GLP principles are complied with. He must ensure that qualified and well-trained personnel are available to install the equipment and test the functions. The bidders must ensure that GLP compliance programmes are built in to the system and all these tests are carried out at the site of installation. Wherever required, the standards required to carry out such tests, must be provided by bidder with all the particulars of the standards like composition, weight, particulars and operating conditions etc. specified. | Specified / not specified |
| **22** | The bidders must be a member of the National or International GLP Compliance Agencies. | Complied / not complied / not applicable |
| **23** | The bidder(s) must carry validation test at the site of installation at their own cost. | Yes / No |
| **24** | The bidders must also mention the frequency at which the validation test are to be carried out and if so that cost of such analyses. | Information provided / not provided / not applicable |
Note: 1) Unless the questionnaire is completely filled in and detailed information provided as required, your offer is liable to be rejected.

2) Complete questionnaire should be signed by the bidder and sent along with the quotation in Technical Bid and a copy in Price Bid.

Further Instructions

1. Technical bid and price bid should be submitted separately under sealed covers and both the envelopes put together in another cover which should be sealed. This is to ensure that if the technical bid qualifies with the laid down specifications and configurations, only then price bid will be opened. Otherwise the price bid will automatically get rejected along with the technical bid not fulfilling the specifications/configurations. The envelopes should be superscribed has been mentioned earlier, carefully.

2. EMD: EMD and Tender Fee SHOULD BE KEPT IN SEPARATE SEALED COVER (EMD cover)

3. The technical bid must have the following enclosures:
   a. True copy of the commercial bid but with the prices omitted. All items quoted must be clearly indicated.
   b. Detailed literature, illustrative pamphlets, company profile, customers list & questionnaire duly filled and Annexures 1-5 duly signed.

4. The three sealed envelopes (i.Technical bid, ii. Commercial bid and iii. EMD) should be kept in the outer sealed cover.

5. Latest income tax and sales tax clearance certificate must accompany the technical bid.

6. Authorized dealers should submit a copy of valid dealership certificate along with quotation.

7. Last date for the receipt of the sealed quotation shall be on or before 14.03.2013 at 5.00 P.M.

8. Late/ delayed offers will not be accepted.

9. Conditional, telegraphic, tenders by hand or by courier shall not be accepted.

10. In event of any date indicated above is a declared holiday the next working day shall become operative for the respective purpose mentioned therein.

11. The technical bids will be opened in the presence of the bidders or their authorized representatives on 15.03.2013 at 12 Noon in the University Office, Jiwaji University, Gwalior. It is the responsibility of the bidders to present themselves at the time of opening of the technical bids.

Signature of the Bidder with seal
12. The Registrar of Jiwaji University reserves the right to accept or reject any offer in part or whole without assigning any reasons whatsoever.

13. The tender document can be downloaded from the website of the university. The Downloaded tenders should be accompanied by a draft of Rs 500/- towards the tender fee.
Minimum Specifications for Equipment (items 2-6)

2. **Spin Coating Machine with oil free vacuum pump**

   i) **Spin Coater**
   - Microcontroller controlled
   - Brushless DC motor
   - Speed range: 100 rpm – 10,000 rpm;
   - Less than ±1% error across full speed Range
   - Acceleration: 2000 RPM/sec
   - 2 spinning control stages
   - Real time display of RPM and timing
   - Substrate size: .04 to 4 sq inch for glass substrates and 20 sq inch for Silicon wafers

   ii) **Oil free Vacuum Pump**
   - 4 pole ¼ Horse Power
   - Noise level less than or equal to 52 dB

3. **Basic Solar Simulator & I-V Curve Tracer**

   AM 1.5 Light Source for Characterization of Solar Cells.
   The Photometric measurement device (programmable) must contain the following specifications:

   - Basic solar simulator (white Light Source) with varying intensity from 100-1000 lux.
   1) Solar Simulator: Class AAA
   2) Lamp type: Xenon/Halogen
   3) Operation: CW
   4) Lamp wattage: 150 W
   5) Typical power output: 100 mW/cm²
   6) Shutter: Manual and/or automatic
   7) Direction of Irradiance: Downward
   8) Air Mass Filter: AM 1.5 G

   - I-V tracer for solar cell interfacing with PC [(Current range 0-20mA) and (Voltage range 0-2 Volt)].

4. **Ultrasonic spray system consisting of 130 K Hz Ultrasonic Generator and Atomizer**

   i) Digital ultrasonic generator for atomizers, with front panel.
   - Programmable Generator with a membrane Key Pad & LCD display.
   - Generator should be able to take several nozzles one at a time of different frequencies from 20 KHz to 130 KHz or higher.
   - Microprocessor Operated with Variable power control, probe selection, run time, contrast adjustment, Accessible external enable/disable.
   - Sufficient output power for optimized performance.
   - Preferably should be able to operate any ultrasonic transducer.
ii) Ultrasonic Atomizer
- 120/130 K Hz wide spray Atomizer
- 0.160 inch diameter Titanium Probe Tip
- 1/4 shank with 0.030 inch center through hole
- Teflon or Viton O-ring seals in the nozzles Atomizer transducers
- Welded Stainless Steel design of the nozzle
- Atomization rate 0-20 ml/min Water
- Drop diameter around 12 microns or less.
- Cooling Ports at Rear of Atomizer Nozzle

5. Digital Electronic Balance

   Essential Features and Minimum Specifications

- Capacity: 220 g
- Minimum Readability: 0.0001 g
- Repeatability (sd) : 0.1 mg
- Linearity: 0.2 mg
- Sensitivity temperature drift (10-30°C) : 1.5 ppm/ °C
- Stabilization time : 2 s
- Minimum weight (acc. to USP): 0.3 g
- Minimum weight (acc. to 1%, k=2) : 0.02 g
- IP Protection: IP54 in use
- FACT fully automatic time and temperature controlled internal adjustment
- MonoBloc weighing technology
- Overload Protection
- High-grade chemical resistant die-cast Metal housing
- HCD (High Contrast Display) with big numbers and clear symbols
- RS232 port for connection to printer or bar code
- USB port for connection to PC via standard USB cable.
- Built in Date and Time function
- Taring over the entire weighing range
- Programmable 3 SmartKeys for shortcut access to applications
- Protective Cover enclosing the balance
- Easy installation

6. Microprocessor controlled Hot Air Oven

- Temperature range : 50-400 °C
- Electronic temperature controller: microprocessor based Auto Tune P.I.D. temperature controller cum Indicator with PT 100 sensor
• Tripple Walled: Inner walls of 304 quality SS; Outer walls of Powder coated GI sheets
• Heating elements on three sides of the oven
• Air circulation system with fan
• Should Include Safety Thermostat
• electronic timer;
• S.S inner body
Jiwaji University, Gwalior
School of Studies in Physics

Annexure-1
(To be enclosed with the Technical Bid)


Tender Form No. JU/TEM/PHY/S/02/2013

Name of the party in whose favour the Tender form has been issued

To
The Registrar
Jiwaji University
Gwalior 474 011, MP, India

Dear Sir,

1. I/We hereby submit our tender for: ________________________________

2. I/WE am/are enclosing herewith D.D. No…………………… dated……………. For Rs………………… drawn in favour of the “The Registrar, Jiwaji University, Gwalior” towards EMD, and D.D. No…………………… dated……………. For Rs. 500/- towards tender fee for downloaded tenders. (TENDERS NOT ACCOMPANIED WITH EMD ALONGWITH THE TECHNICAL BID SHALL BE SUMMARILY REJECTED).

3. I/We have gone through all terms and conditions of the tender documents before submitting the same.

4. I/We hereby agree to all the terms and conditions, stipulated by the Jiwaji University, in this connection including delivery, warranty, penalty, etc. Quotations for each item are being submitted under separate covers, and sheets and shall be considered on their face value.

5. I/We have noted that overwritten entries shall be deleted unless duly cut & re-written and initialed.

6. Tenders are duly signed (No thumb impression should be affixed).

7. I/We undertake to sign the contract/agreement, if required, within 15 (Fifteen days) from the date of issue of the letter of acceptance, failing which our/my earnest money deposited may be forfeited and our/my name may be removed from the list of suppliers at Jiwaji University, Gwalior.

NOTE: The price quoted should be gross, inclusive of all taxes, payable by us. Vague terms, such as “extras as applicable”, are not acceptable.

Yours faithfully,
CHECK LIST FOR TERMS AND CONDITIONS

Check list for Terms and Conditions (To be filled by the bidder and submitted along with the technical bid). Supporting documents must be numbered serially and the same must be indicated here on this page. These documents should be placed inside the envelope containing technical bid.

1. Certificate for Manufacturer/ Indian Subsidiary of the Manufacturer/ Sole representative in India, enclosed.

2. Performance report/List of organizations supplied with the same equipment (at least 05 in India) ____________________

3. Whether rates quoted include all taxes, customs clearance, i.e., FOR Gwalior /CIF Gwalior: ____________________

4. Whether rates are quoted as per tender’s specifications ____________________

5. Authorized dealership Certificate ____________________

6. Quotation being submitted directly by the manufacturer or authorized distributor ________________.

7. Quality assurance certificate like ISI, ISO 9002, IP/BP or any other, please specify ________________.

8. Proof of having filled IT Return for the assessment years 2010-11, 2011-12 and 2012-13 attached ____________________

9. EMD draft is enclosed________________________________

10. Tender fee for downloaded tenders enclosed ________________

11. Literature of original catalogue of the product and accessories are attached for reference________

12. Comprehensive Guarantee/Warranty period for one year and thereafter, comprehensive AMC for 2 years to be quoted separately and not as a part of the price: YES/NO.

13. Compliance Statement with relation to specification ________________

(SIGNATURE OF THE BIDDER WITH NAME & SEAL)
Tender Form No. JU/TEM/PHY/S/02/2013

Name of work: Supply of -----------------------------------

Last Date for purchase of Tender Document: 14.03.2013

Last date for submission of Tender form: 14.03.2013 up to 5.00 p.m.

Tender Opening Date: 15-03-2013 at 12 Noon in the University Office

Tender Cost: Rs 500/- per equipment.

Earnest Money Deposit (EMD): 3% of the quoted price rounded off to the nearest 100/-.


Sealed Tenders are invited from Reputed Manufacturers or their Authorized Representatives for the supply and installation of a ----------------------------------- with specifications as mentioned in the enclosed list. Tenders will be considered subject to the following terms and conditions.

1) All tenders must be accompanied by a Bank draft for EMD (as applicable) drawn in favour of Registrar, Jiwaji University, Gwalior for an amount mentioned in the attached sheet. Tenders received without earnest money are liable to be rejected and may not be considered.

2) Bidders can obtain tender documents against payment of Rs.500 by demand draft in favour of the Registrar, Jiwaji University, Gwalior on or before 14-3-13 on any working day between 11 AM to 5 PM either by post or courier or in person. Alternatively, the tender document can be downloaded from the website www.jiwaji.edu, in which case a demand draft for Rs. 500 drawn in favour of the Registrar, Jiwaji University Gwalior must be enclosed along with the EMD draft.

3) The last date for submitting the Tender is 14-3-13 before 5 pm. at the office of the Registrar, Jiwaji University, Gwalior.

4) The bidder should agree to furnish a Bank Guarantee from a Nationalized Bank up to 10% of the cost of the equipment during the Warrantee Period and extendable to at least five years or as may be desired by the University so as to ensure proper maintenance and satisfactory working of the equipment.
Signature of the Bidder with seal

5) The bidder should agree to execute an agreement for proper supply, installation and satisfactory working of the equipment exactly to the specifications mentioned.

6) The rates quoted should be FOR Gwalior. For imported equipment through L.C., the CIP/CIF prices should be quoted. The prices should be inclusive of sales tax and other charges. However, the exact details of taxes should be given separately.

7) Being an Educational Institution it is entitled to issue Concessional sales tax certificate. No other sales tax form is issued. If concessional sales tax certificate is not acceptable to the supplier, the actual rate of sales tax to be charged must be clearly mentioned.

8) This institution is exempted from payment of Central Excise duty in terms of Govt. Notification No. 1097 – Central Excise Dated 01/03/1997 and modifications thereafter. Necessary certificate copy will be provided by the University.

9) For Imported equipment, the price should be without any custom duty. The institution is registered with Department of Science and Industrial Research (DSIR) Govt. of India vide Government Notification No. TU/V/RG-CDE(56)/2009 Customs dated 26-11-2009 is exempted from payment of Custom duty; Necessary Certificate copy to be provided by the University.

10) If the rates are quoted Ex-Godown or F.O.R. Railway Station of dispatch, then the tenders must also indicate charges towards packing & forwarding. Railway freight etc. so as to compare these rates with those of others who have quoted FOR destination failing which such offer will be ignored. The transportation up to Jiwaji University should be undertaken by the supplier and prices should be included in the bid. All relevant documents shall be provided by the University.

11) Manufacturer’s name, their trademark and brand should invariably be mentioned in the tender and illustrated leaflets giving technical particulars/ details etc. should be attached with the quotation to facilitate consideration of the offer.

12) The Bidder should quote their best willing price which should be firm for the period of 120 days from the due date of tender.

13) The minimum period of delivery of the equipment should be quoted.

14) The quantities of each item to be purchased may vary according to actual requirement at the time of placing order.

15) If there is any DGS & D rate contract of Government approved rates the same should be quoted enclosing the copy of the Rate Contract.

16) The tender should avoid the use of vague terms such as ‘extra as applicable’.

17) Printed condition on the back of the offer submitted will not be binding unless separately mentioned.
18) Quotations for each item (as per serial number in the specification sheet) along with terms and conditions must be submitted separately in separate cover so that for individual items separate comparative statements could be prepared.

19) Advance payment either direct or through bank will not be accepted in any case. As per rule, full payment will be made after receipt of material, inspection thereof and after satisfactory working of the entire equipment.

20) In case of imported equipment required letter of Credit (LC) or similar procedure, like sight draft, shall be opened/followed only after the security deposit/bank guarantee is received by the University. The security/bank guarantee shall be used as has already been mentioned earlier (condition No 4) in this document.

21) The tenderer should clearly state regarding charges for maintenance, etc. of the equipment, if any. Installation should be done free of cost.

22) Offers received not according to our terms and conditions and within the time prescribed shall be rejected. Delay due to postal services of any kind will not be considered for acceptance of the tender.

23) In all matters of dispute, the decision of the Registrar, Jiwaji University, Gwalior shall be final & binding on the Bidders.

24) The address of Customer Care Centre for maintenance along with the list of well-reputed organizations that have purchased the same equipment should be provided.

25) List of spare parts must be supplied.

26) The test reports of the equipment quoted from reputed government organizations/academic institutions must be submitted along with the offer.

27) In case of an authorized dealer, a copy of the current Certificate from Manufacture must be attached as proof.

28) Date and time of opening of envelopes is **15/03/2013 at 12 Noon** in the presence of intending Bidders or their representative who may like to be present in the office of the Registrar, Jiwaji University, Gwalior.

29) If any of the dates of receipt/opening of Tender happen to be declared as holiday, the schedule will be shifted to the next working day automatically. **The University reserves the right to change the date.**
30) The Sealed Tender envelope should contain three sealed envelopes.

A. the “First” envelop should be superscribed ‘Technical Bid for ----------- (Name of the item, Ad No. and date)’. This should contain the specifications of the equipment and terms & conditions of supply, and the questionnaires for terms of supply and the specification sheets (supplied by the University along with Tender document) duly checked yes/no etc. No price should be mentioned.

B. The ‘second’ sealed envelop should be superscribed ‘Commercial Bid for ------- (Name of the item, Ad No. and date)’. This should contain the competitive price of the equipment.

C. The ‘third’ sealed envelop should be superscribed ‘EMD for --------- (Names of the item) and should contain the Ernest money Demand Draft in original and the tender fee DD for Rs. 500/-.

The above three sealed envelopes must be placed in one sealed envelop and should be superscribed “Tender No JU/TEM/PHYS/02/2013 for (name of item) Serial No ………… to be opened on 15/3/2013”. Only those who fulfill the technical specifications shall be considered for opening the commercial bid.

31 Separate tenders are to be submitted for each item.

32 Tenders, duly sealed, should reach the Registrar, Jiwaji University, Gwalior only by Speed Post or Registered Post. Telegraphic. Fax and conditional tenders shall not be accepted.

33 Any item or offer may increase in number or even may not be purchased. The Registrar, Jiwaji University, Gwalior, reserves the right to accept or reject any or all tenders without assigning any reasons thereof.

34 The prices charged for the items supplied by successful Tenderer shall in no event exceed the lowest price at which the successful Tenderer sells the same items to any other persons during the period of supply to the university. If any time, during the period of supply, the tenderer reduces the sales price chargeable for any item, he shall forthwith notify such reduction to the Registrar, Jiwaji University, Gwalior and the price payable for the items supplied after the date of coming into force of such reduction or sale shall stand corresponding reduced.

35 All the accessories are to be treated as one unit and separate tenders are not required for each accessory. The cost of Essential Accessories will have to be included in the total cost of the equipment.

36 Performance reports/ List of organizations in India (along with phone numbers of users) who have been supplied the same model of the equipment, should be provided.

37 Canvassing for support in any form for the acceptance of any tender is strictly prohibited. Any tenderer doing so will tender himself liable to penalties which may include removing of his name from the register of approved Suppliers.
The bidder shall forfeit the EMD if we find the bidder providing any false information and no further communication in this respect shall be entertained.

Registrar
Jiwaji University

I/We accept all the terms and conditions of the tender and understand that the decision of the University shall be final and acceptable to me/us.

Signature and Seal of the Tenderer with Date
1. Reputed manufacturers of equipment (specified in the tender notice) or their authorized agents with well established sales and services facilities only need to respond to the tender notice. Conform/ do not conform to requirement

2. Separate quotation must be submitted for each item specified in the tender notice. Taxes, duties, packing & forwarding charges, transport and insurance charges may be separately indicated where applicable. Complied/ Not complied

3. The make, model no. detailed specifications, illustrative pamphlets must accompany the quotation without which the quotation are liable to be rejected. Complied /Not complied

4. In case the bidder is an authorized agent, documentary proof to this effect must be enclosed with the quotation. Enclosed/ not enclosed

5. Bidders detailed company profile, information on after sales/ service and test facilities available along with address and telephone no. of sales office and service centre catering to Gwalior must be given along with the quotation. Details of product & application support available may also be indicated. Information enclosed /not enclosed.

6. The Bidder must indicate whether he is willing to supply complete circuit diagram, wiring diagrams, component layout diagrams, service manuals and component identification catalogue along with the equipment free of charge in case an order is placed with him. The supply of this literature will be considered as part of the supply of equipment offered. Will be supplied/cannot supply

7. The bidder must furnish a list of customers to whom the equipment quoted has been supplied preferably in Central/Northern India. Name and contact telephone no. of the customers may be furnished. Enclosed not enclosed

8. Quotation must be furnished in sealed envelopes separately for each item quoted under the tender. The name of the item quoted and tender notice particulars should be clearly indicated on the top of the envelope. Complied/ not complied

9. Bidders are requested to carefully go through the specifications given in the tender and quote only when they are sure they have the product specified to offer. In case of any doubt the bidders can contact the Registrar, Jiwaji University Gwalior on any working day with prior appointment. Complied/ not Complied

10. Warranty details and terms and conditions of warranty must be given. If any component of the equipment quoted is not covered by the warranty, the same must be specified. Complied/not complied

11. Bidder must indicate the year in which the model quoted by him was introduced in the market. Bidder must indicate whether he is willing to give an undertaking that all spare parts for the equipment quoted will be supplied as and when ordered for at least a period of 10 years from the date of supply and inability to supply the spares due of obsolescence of the equipment will not be pleaded. Complied/ Not Complied

12. Where the equipment offered is controlled by a personal computer and it is possible to use an indigenous PC, the same should be quoted instead of an imported PC. The same would apply to a Printer or any compiled other subsystem of good quality available in India. Complied/ not complied
<table>
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<th>Where the equipment offered is modular, the price break-up of individual modules/accessories/parts must be given. The bidder may not be given a chance to indicate the price break-up at a later date. However the total price shall be considered</th>
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<td>14</td>
<td>The bidder will furnish a test certificate along with complete test result and the test conditions for the equipment specifications offered in case an order is placed.</td>
<td>Agreeable / Not agreeable</td>
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<td>15</td>
<td>Bidders must indicate whether he can arrange for comprehensive service training to staff of the instrumentation department on the model offered at his expense.</td>
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| 16 | (a) If an order is placed with the bidder, the bidder will install and test the equipment to its specifications at site of installation free of charge.  
   b) If it is not possible to test some specifications, the same may be indicated. | Agreeable / Not agreeable |
| 17 | The bidder is agreeable to install and test the equipment and undertake after-sales-service only through a factory trained certified engineer. *Evidence to availability of trained personal may be enclosed.* |   |
| 18 | Bidder will carry out validation of the instrument offered at the time of installation at his cost. | Yes / No |
| 19 | Agency commission (percentage) payable in Indian Rupees should be mentioned in the quotation i.e. in “Commercial Bid”. | Complied / Not complied / Not applicable |
| 20 | Performance guarantee: In case the Purchase Order is placed, 10% of the equipment value has to be submitted as performance security deposit in the form of bank Guarantee till the completion of warranty period. |   |
| 21 | The bidders must ensure that GLP principles are complied with. He must ensure that qualified and well-trained personnel are available to install the equipment and test the functions. The bidders must ensure that GLP compliance programmes are built in to the system and all these tests are carried out at the site of installation. Wherever required, the standards required to carry out such tests, must be provided by bidder with all the particulars of the standards like composition, weight, particulars and operating conditions etc. specified. | Specified / not specified |
| 22 | The bidders must be a member of the National or International GLP Compliance Agencies. | Complied / not complied / not applicable |
| 23 | The bidder(s) must carry validation test at the site of installation at their own cost. | Yes / No |
| 24 | The bidders must also mention the frequency at which the validation test are to be carried out and if so that cost of such analyses. | Information provided / not provided / not applicable |
Note: 1) Unless the questionnaire is completely filled in and detailed information provided as required, your offer is liable to be rejected.
   2) Complete questionnaire should be signed by the bidder and sent along with the quotation in Technical Bid and a copy in Price Bid.

Further Instructions
1. Technical bid and price bid should be submitted separately under sealed covers and both the envelopes put together in another cover which should be sealed. This is to ensure that if the technical bid qualifies with the laid down specifications and configurations, only then price bid will be opened. Otherwise the price bid will automatically get rejected along with the technical bid not fulfilling the specifications/ configurations. The envelopes should be superscriped has been mentioned earlier, carefully.

2. EMD: EMD and Tender Fee SHOULD BE KEPT IN SEPARATE SEALED COVER (EMD cover)
3. The technical bid must have the following enclosures:
   a. True copy of the commercial bid but with the prices omitted. All items quoted must be clearly indicated.
   b. Detailed literature, illustrative pamphlets, company profile, customers list & questionnaire duly filled and Annexures 1-5 duly signed.

4. The three sealed envelopes (i. Technical bid, ii. Commercial bid and iii. EMD) should be kept in the outer sealed cover.

5. Latest income tax and sales tax clearance certificate must accompany the technical bid.

6. Authorized dealers should submit a copy of valid dealership certificate along with quotation.

7. Last date for the receipt of the sealed quotation shall be on or before 14.03.2013 at 5.00 P.M.

8. Late/ delayed offers will not be accepted.

9. Conditional, telegraphic, tenders by hand or by courier shall not be accepted.

10. In event of any date indicated above is a declared holiday the next working day shall become operative for the respective purpose mentioned therein.

11. The technical bids will be opened in the presence of the bidders or their authorized representatives on 15.03.2013 at 12 Noon in the University Office, Jiwaji University, Gwalior. It is the responsibility of the bidders to present themselves at the time of opening of the technical bids.

12. The Registrar of Jiwaji University reserves the right to accept or reject any offer in part or whole without assigning any reasons whatsoever.

13. The tender document can be downloaded from the website of the university. The Downloaded tenders should be accompanied by a draft of Rs 500/- towards the tender fee.

Signature of the Bidder with Seal