



**PONDICHERY UNIVERSITY  
(A Central University)**

**Madanjeet School of Green Energy Technologies**

**Centre for Green Energy Technology**

**Tender document for supply of major  
scientific instrument under SERB grant  
- Reg**

**(1) Thin Film Measurement System  
(UV-VIS-NIR spectrometer)**

**(Tender No. Ref: - PU/CGET/TFM/SERB/AP/2012-13/548 Dt. 08.03.2013)**

# **Tender Document**



**PONDICHERRY UNIVERSITY**  
(A Central University)  
(R.V.NAGAR, KALAPET,  
PUDUCHERRY – 605 014)

## **SCHEDULE OF TERMS & CONDITIONS**

Sub: Supply of Major Scientific Instrument under SERB grant - Reg.

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On behalf of the Registrar, Pondicherry University **sealed tenders** are invited under **two bid systems** for supply of Major Scientific instrument under Department of Science and Technology-Science and Engineering Research Board (**DST-SERB**) grant to Dr. R. Arun Prasath, Assistant Professor, Center for Green Energy Technology (CGET), Pondicherry University. **The last date for the submission of tender is 10<sup>th</sup> April 2013, 03.00 PM.**

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**TERMS AND CONDITIONS (UNDER TWO BID SYSTEM)**

**I. Instructions to the Bidder: -**

**1. Purchase of Tender Document**

The Tender document can be either downloaded from the University website [www.pondiuni.edu.in](http://www.pondiuni.edu.in) or procured from the Information Facilitation Counter, Dr.Ambedkar Administrative Block, Pondicherry University on payment of tender document fee as specified below, by means of a Demand draft drawn in favour of **The Finance Officer, Pondicherry University, payable at Puducherry**. In case of downloaded documents, it should be submitted along with the tender document fee in the form of Demand draft drawn as mentioned above.

**2. Tender Document fee and EMD to be submitted**

Sl. No.	Name of the Equipment	Tender Document fee	E.M.D.
1.	<b>Thin Film Measurement System (UV-VIS-NIR spectrometer)</b>	Rs.500/-	Rs. 25,000/-

**3. Last Date & Time for submission of Tender Documents**

*10-04-2013 at 3.00 p.m. and the technical bid will be opened on the same day at 3.30 p.m.*

**4. Submission of tender Document**

- Tender/quotation under two bid system (**strictly followed two bid system - One for technical bid and another for commercial bid to be submitted in separate covers**) must be submitted in sealed cover superscribing thereon bidder's name, Notification No. and name of the instrument for which the bid is submitted, the name of the centre for whose instrument is quoted for, along with tender document.
- Any tender, submitted without tender document fee, will not be accepted. The Photo copy for the payment of EMD should be attached with commercial bid documents.
- The Tender Document Fee and EMD should be submitted in a separate cover superscribing **Bank Demand Draft** and which should be enclosed along with the technical bid and it should not be enclosed in the commercial bid.

- **Quoting merely the lowest price does not confer any right to any bidder for award of supply order. The University's Purchase Committee, reserves the right to select the instrument/equipment bid under the grounds of specification compliance, technologically advanced quality, proven performance track record, brand reputation, service backup support, additional warranty, offer of additional / special features, Compatibility with the existing System, Training, etc.**
- The tenders should be addressed to **Dr. R. Arun Prasath, Assistant Professor, Centre for Green Energy Technology, Pondicherry University, R. V. Nagar, Kalapet, Puducherry- 605 014.**
- In case of local delivery, all tenders are to be dropped in the tender box placed at the Information Facilitation Counter, Bharat Ratna Dr. B. R. Ambedkar Administrative Block, Pondicherry University, R.V. Nagar, Kalapet, Puducherry – 605 014. positively before the tender bid closing time. **Tenders sent through Fax or by email will not be accepted.**

#### **5. Quoting the Core price & Tax, Duties, Discount etc.**

The taxes / duties / discounts, if applicable, are to be explicitly and separately shown in the bid and under no circumstances these components shall be added to the basic price and shown as single price. All the components of taxes, if applicable, should be shown explicitly and separately.

#### **6. The validity of the Quotation**

The validity of the quotation should be at least for SIX MONTHS from closing date

#### **7. Late Bids**

The offers will not be considered if received after the bid closing date and time.

#### **8. Invalid quotes**

The offers received through telex / tele-fax / e-mail will not be accepted by the University under any circumstances.

#### **9. In case of Postal loss**

The University shall not be responsible for any delay / loss or non-receipt of tenders by post / courier service.

#### **10. No unsolicited correspondence**

No unsolicited correspondence shall be entertained after the submission of the offer.

### **11. Purchase Agreement**

If an order is placed with the firm, the purchase shall be governed by an agreement as per the University rules in force at the time.

### **12. Additions in terms and conditions**

Additional terms and conditions will be incorporated in the purchase order, if needed, to safe guard the interests of the University.

### **13. Non-transferable**

Tender is not transferable.

### **14. Power to reject the offer**

- Any offer containing incorrect and incomplete information shall be liable for rejection.
- Pondicherry University reserves the right to accept / reject any offer in full or in part or accept any offer other than the lowest offer without assigning any reason thereof.
- No Agency commission will be paid to any authorized agent in India.
- Liquidated damages: Timely supply of the ordered items, installation, commissioning (wherever is applicable) and training etc. is the essence of the contract. In case of failure to supply within the time specified in the Purchase order, a penalty / LD of 0.5% of the total value per week or a part thereof shall be levied subject to a maximum of 7.5% in respect of items which are not supplied. The decision of Pondicherry University shall be final in this regard.
- Bidder(s) must be authorized business partners of Global / National service providers of the respective equipment.
- The Bidders must enclose authorization letter from the respective global / national service providers of the above equipments particularly mentioning an undertaking that in case of default by the Bidder, they (Global Service Provider) shall take over all the responsibilities of the Bidder.
- The Bidder should not be involved in any Bankruptcy filing for protection from it.
- The training should be provided by the supplying companies on the specimen and operation of the equipments for a minimum period of two weeks from the date of installation with an expert team.

## **II. Price Schedule**

1. The bidder who is capable of supplying the entire solutions for the instrument quoted, is alone need to submit their quotation.
2. The rates should be quoted for a single unit.
3. The price should include the delivery, installation, training charges, etc. at the respective Department/Centre, Pondicherry University. The prices quoted shall remain firm until the equipment is supplied to the respective Department/Centre, Pondicherry University.

## **III. Eligibility:**

1. The firm must have the requisite domain expertise with regard to supply, installation and post-sale service of the items they are quoting.
2. The firm should have been in existence for at least three years as on the date of this document and must have executed at least three orders of this kind of equipment during the last three years.
3. The firm should have sufficient number of installations of the similar instrument/equipment in the premier Research Institutes in India.
4. The firm should have nation-wide Service Network all over India,
5. The feedbacks from the present users of the similar equipment about the performance, service support, accuracy of result, etc. are to be submitted along with the Tender Document (attached with the technical bid document).
6. Any other techno commercial information, pertaining to this particular Equipment, principal suppliers, technical background and capability, local agents' background on Scientific Equipment Business, etc. may also be appended along with testimonials and documentary proof.

## **IV. Conditions of Contract: -**

1. The offer must be in English. The rates should be indicated both in figures and words against item specified in the given Annexure. It is preferable that the price be quoted in Indian Rupees or in US Dollars or in major foreign currencies.
2. **The total cost should be quoted for FOB as well as for CGET, - Pondicherry University, Puducherry.**

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3. The price quotes under FOB should also include the expected installation cost in the Centre for Green Energy Technology at Pondicherry University. The total cost should be quoted for FOB as well as CGET, Pondicherry University. However, the price quoted under FOB or should also include the following cost if they are required during the initial stage:
  - Local freight / insurance for Chennai airport to University laboratory.
  - Cost of consumables which are required for the equipment for initial operation up to three year time.
4. In case of the Principal supplier of foreign country unable to meet the conditions, the local agent / dealer should fulfil the above said conditions in respect of Local Insurance, Freight, safety transport and installation, etc.
5. The prices quoted shall remain firm until equipment is supplied to the Centre for Green Energy Technology, Pondicherry University, R.V.Nagar, Kalapet, Puducherry
6. The University has been granted the benefit of exemption from the payment of the Central Excise Duty and Customs Duty by the Department of Scientific and Industrial Research (DSIR), India, vide their Notification No. 10/97 dt. 01-03-1997 and 51/96 dt. 23.07.96 respectively.

**In respect of**

- a. Scientific and technical instruments, apparatus, equipment including computers.
  - b. Accessories and spare parts of goods specified in (a) above and consumables.
  - c. Computer software, compact disks, CD ROM, Recording magnetic tapes, microfilms, micro-chips etc.
  - d. Prototypes.
- Customs duties at Indian port, if any, will be to the account of the University.
7. Infra-structural, power and any other requirement for satisfactory installation and commissioning of the whole system must be provided, at least 120 days in advance of the installation to be commenced. All drawing for electrical connections, electrical safety items piping work etc. must be provided in detail.
  8. Complete technical specifications and literature, including process flow, to be included with the quotation. Manufacturers of various major parts/equipment must be mentioned explicitly.
  9. A clear statement regarding availability of after-sales service and availability of spare-parts for next 5 to 10 years should be included.
  10. Please give a recent customer list (within last three years) with copies of the invoice and contact details including email address (attached with technical bid document)

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11. If you have an authorized representative in India, you are requested to inform his technical ability to take care of the problems in the system, if developed later within the warranty and outside the warranty period. The responsibility of the Indian agent must be clearly specified.
12. The bidder from abroad shall obtain, if required, export permission from the appropriate authorities in his country or the country of origin for items to be shipped to India in case of items to be imported. The University shall provide necessary information if required for this purpose.
13. The bidder from within India shall obtain the requisite approval for Imports etc., if required.
14. **Warranty:**
  - The instrument covered under the purchase order, when installed, shall be warranted for the quality, workmanship, trouble free operation and performance for a period of **at least 36 months from the date of putting the system into operation** at the Centre for Green Energy Technology, Pondicherry University, or at least 42 months from the date of receipt of the last lot of the consignment in India. (A signed Bidder's Warranty as per Annexure – I has to be submitted along with the Bid Document) If any item covered under warranty fails, the same shall be replaced free of cost including all the applicable charges including shipping cost both ways.
  - The necessary service support should be provided by Bidder during the agreement period.
  - The training should be provided by the supplying companies for a minimum period of two days from the date of installation with an expert team.
  - Technical post sale support by email and telephone will be provided during the period.
  - Operating Manual should be provided in English.
  - If the equipment is proprietary a product, a proprietary product certificate should be enclosed.
  - The equipment must operate 220- 240V / 50 Hz ( $\pm 1$ ) single phase and / or equivalent three phase electrical power.
15. **Payments terms:**
  - Normally a letter of Credit will be opened for *100%* on receipt of order acknowledgement, however, 90% of the LC amount will be paid on proof of the shipment of the consignment with necessary documents to be detailed at the time of placing of the purchase order.



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- Balance of 10% of the LC amount shall be made after satisfactory installation and commissioning and against submission of the Installation & Commissioning certificate, duly accepted by the purchaser, and **a performance bond of 10% of the total contract / purchase value in the form of bank guarantee (obtained from Nationalized Bank of India) for the duration of the Warranty period.** (Refer Annexure – II for Bank Guarantee Format)
  - Bank charges in India shall be borne by the purchaser and outside India shall be borne by the contractor / supplier.
16. In case of any dispute in respect of the tender, all legal matters shall be instituted within the jurisdiction of the place where the purchaser ordinarily resides.

For any clarification with respect to technical specifications, please contact  
Dr. R. Arun Prasath, Assistant Professor, Centre for Green Energy Technology, email:  
[raprasath.get@pondiuni.edu.in](mailto:raprasath.get@pondiuni.edu.in), office: 413 2654963  
(10.00 AM to 5.00 PM, except weekends -up to 31st March 2013)

**Name of the Instrument and specification**

<b>S.No</b>	<b>Instrument</b>	<b>Specification</b>
1	UV-VIS-NIR Spectrometer for measurement of thin films	<ol style="list-style-type: none"><li>1. Wavelength covering range of UV-VIS-NIR (200-1700nm)</li><li>2. Thickness measurement range of 5nm-100 <math>\mu\text{m}</math> or whichever wide range.</li><li>3. Accuracy in thickness measurement: better than 0.5%</li><li>4. Precision of thickness measurement: 0.1nm or 0.1% whichever greater.</li><li>5. Spot size up to 5 mm</li><li>6. The equipment should be capable of measuring single film deposited and multiple films (minimum 5 layers) deposited one over the other.</li><li>7. The equipment should be capable of measuring thicknesses of layer materials used in solar cell applications [Semiconductors (inorganic/organic), compound Semiconductors (metal oxides-semiconductors/doped materials/hybrid materials), polymer films, hybrid films (polymer-inorganic, e.g Ag-polymer, Cu-Polymer) and various other films.</li><li>8. In future, the supplier should provide library for unknown samples, whenever asked for.</li><li>9. The equipment should have adjustable light source for UV-VIS-NIR.</li><li>10. The system should capable to measure transmission and absorbance for coated films (solid samples) as well as liquid samples with capable software.</li><li>11. The system should be supplied with the computer system required for data acquisition.</li><li>12. The system should be supplied with fully functional software for data analysis.</li></ol>

		<p>13. The supplied software should be able to perform the necessary calculations for computing the film thickness, optical constants and film roughness for single layer as well as multilayer film samples.</p> <p>14. The system should be supplied with thickness standards, library, and the associated literature.</p> <p>15. The complete system comprising of spectrometer, computer, printer, UPS etc. should be designed for use with 220 -240 V A.C with a mains frequency of <math>50 \pm 1\%</math> Hz.</p> <p>16. Suitable UPS with backup power of up to 30 minutes to be quoted with details separately.</p> <p>17. Other optional accessories should be quoted separately.</p> <p>18. Delivery, Installation and training at CGET, Pondicherry University in supplier scope.</p> <p>19. Minimum 3 year warranty, during the warranty period the update software should be provided at free cost.</p> <p>20. Supplier may be asked to arrange for demonstration of identical or similar equipment already installed in India</p>
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**BIDDER'S WARRANTY**

The Registrar, Pondicherry University, Puducherry invited Bid Document for Supply of Minor Equipments at Centre for Green Energy Technology, Pondicherry University and M/s. \_\_\_\_\_

There in after referred to as "The Bidder" having carefully studied all the bid documents, Specifications, etc. accompanying the tender for supply of the \_\_\_\_\_ (Name of the Instrument) and desirous to submit the bids as per the Tender Document advertised vide Notification -Tender No. - **PU/CGET/TFM/SERB/ AP/2012-13/548 Dt. 08.03.2013**)

**DO HEREBY WARRANTY THAT**

1. The bidder is familiar with all the requirements of the bid documents.
2. The bidder has investigated the site and satisfied, he regarding the character and scope of the work and local conditions that may affect the supply or its Performance.
2. The bidder is satisfied that the supply can be performed and completed as required in the contract.
4. The bidder accepts all risk directly or indirectly connected with the performance of the contract.
5. The bidder has had no collusion with other contractors, with any of the men of Pondicherry University, Puducherry, or with any other person in preparation of the bid.
6. The bidder has not been influenced by any statement or promise of the Officials of Pondicherry University, Puducherry but only by the bid documents.
7. The bidder is financially solvent.
8. The bidder is experienced and competent to perform the contract to the satisfaction of the SERB project investigator, Centre for Green Energy Technology, Pondicherry University, Puducherry.
9. The statements submitted with the bid are true.
10. The contractor is familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, State and Central Government that may affect the work, its performance or personnel employed therein.
11. All the terms & conditions of the Supply Order will bind the bidder once his quote is accepted and supply order issued.

**Signature of the Bidder**

**BANK GUARANTEE**

Pondicherry University  
Bharat Rathna Dr. B R Ambedkar Administrative Building  
R Venkataraman Nagar  
Puducherry 605 014

This guarantee made this \_\_\_\_\_ day of \_\_\_\_\_ 201\_ by \_\_\_\_\_ Bank having its Registered Office at \_\_\_\_\_ and one of its branches at \_\_\_\_\_ (hereinafter referred to as “the Guarantor” which expression shall, unless it be repugnant to the subject, meaning or context thereof, be deemed to mean and include its successors and assigns) in favour of the Pondicherry University, Puducherry 605014 represented by its Registrar, having his office at R. Venkataraman Nagar, Kalapet hereinafter referred to as the “University” which expression shall include his successors in office for an amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) at the request of M/s. \_\_\_\_\_ (more fully described hereunder)

2. Whereas the University has placed work Order No: PU/\_\_\_\_\_ dated \_\_\_\_\_ for \_\_\_\_\_ with M/s. \_\_\_\_\_ having its office at \_\_\_\_\_ and hereinafter referred to as the “Contractor” which expression shall include their successors and assigns.

3. And whereas the Contractor has accepted and agreed to execute the work as per the work order as per undertaking / agreement dated \_\_\_\_\_ within the time stipulated and in the manner specified therein.

4. And whereas the University has called upon the Contractor to furnish Bank Guarantee for the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) for fulfilment of the said work as specified in the work order and as agreed to by the Contractor.

5. And whereas the Contractor has requested the Guarantor herein to furnish an irrevocable and unconditional Bank Guarantee in favour of the University for an amount of Rs. \_\_\_\_\_ as guarantee towards execution of the work as agreed to by the contractor to the University.

6. Now, therefore, we \_\_\_\_\_ Bank, the Guarantor herein, do hereby irrevocably and unconditionally Guarantee the payment to the University the sum not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) in the event of any breach, failure, neglect or inability on the part of the Contractor in the execution of the said work, on demand without reference of the matter to the Contractor and

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without any prior consent of the Contractor, at all times throughout the period of execution of the work, without demur, cavil or argument or delay.

7. The Guarantor agrees and undertakes that the decision of the University as to whether the contractor has committed any breach of the obligation with respect to the work to be executed, and the quantum of amount therefore payable by the Contractor to the University in that regard, shall be final, binding and conclusive as against the Guarantor and the Guarantor shall make payment accordingly, on demand by the University.

8. The Guarantor further agrees and undertakes to pay to the University the amount demanded by the University irrespective of and notwithstanding any dispute raised by the Contractor in any suit or proceeding before any judicial forum relating to the Contracted work and the Guarantor's liability under this Guarantee shall be absolute and unequivocal.

9. This Guarantee is issued subject to the condition that the liability of this Guarantor under this guarantee is limited to the maximum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) and the guarantee shall remain in full force up to \_\_\_\_\_ and cannot be invoked otherwise than by a written demand or claim by the University for the payment of the said amount by the Guarantor on or before \_\_\_\_\_ or any extended date as decided by the University.

10. This University shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the contracted work or to extend time for performance of the work by the Contractor. Any change to the contracted work shall not in any way release the Bank (Guarantor) from liability under this Guarantee and we waive notice of any such change. The University shall have full liberty to forbear or enforce any of the terms and conditions of the contracted work.

11. This Guarantee shall not be affected by any legal limitation, disability or other circumstances relating to the Contractor or the Guarantor.

12. This Guarantee shall be valid for the period up to \_\_\_\_\_ and shall extend further and beyond \_\_\_\_\_ for such period as determined by the University.

13. The Guarantor undertakes not to revoke this guarantee except with the previous consent of the University in writing.

14. Notwithstanding anything contained herein:

- Our liability under this guarantee shall be limited to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only)

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- This guarantee shall be valid up to \_\_\_\_\_ and for such further period as determined by the University for fulfilment of the contract.
- We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before \_\_\_\_\_ or such extended period / date.

In witness whereof, this Guarantee has been executed by \_\_\_\_\_ for an on behalf of the Bank (Guarantor) on the day, month and year first above written.

**SIGNATURE AND SEAL**

**NAME OF THE BANK (GUARANTOR):**

**ADDRESS:**