



PONDICHERRYUNIVERSITY

(A Central University)

(www.pondiuni.edu.in)

Kalapet, R.V. Nagar

Puducherry-605 014

Tender Notice for Major Laboratory Equipment

The Centre for Nanoscience and Technology, Pondicherry University invites sealed tenders under Two Bid system (Technical and Commercial) for the purchase of two Major Laboratory Equipments under DST-SERB (Core Research Grant) project. The complete details regarding Specifications, Technical details, Eligibility, Tender. Document Fee, EMD, address and Method for submission of Bid Documents, etc. are available on the **University website: www.pondiuni.edu.in**.

The last date and time for submission of Tenders is **17th April 2018, 3.00 pm.**

Tender opening on 17th April 2018, 3.30 pm



Pondicherry University
Centre for Nanoscience and Technology

Tender Document

Sealed tenders are invited **under two-bid system** for the supply and installation of the following Major Scientific Equipment under DST-SERB (Core Research Grant) of **Dr K. Suresh Babu, Assistant Professor, Centre for Nanoscience and Technology, Pondicherry University**. The technical specifications for the equipment are given below. All tenders should be sent to the address given below:

DETAILED TECHNICAL SPECIFICATIONS:

Major Equipment (Imported)		
S.No	Details	Description
I. Name of the Equipment: <u>High Temperature Furnace (1800°C)</u>		
1	Furnace Type	Bench top chamber furnace
2	Maximum Temperature	1800° C
3	Continuous operating temperature	1700° C or higher
4	Chamber Volume	4 Litre or more
5	Heating Element	Kanthal Super-1900 Grade molybdenum disilicide
6	Heating Rate	2- 25 °C / min
7	Temperature Accuracy	± 1°C or better (against the set temperature)
8	Furnace Structure	a) Double walled inner and outer body should be made of proper thick metallic sheet b) Furnace chamber has to be lined with top quality durable fibre materials c) Appropriate insulation to avoid maximum thermal loss.

		<p>d) Fan assisted air circulation to cool the outside case as well as the electronic components as per the global standards</p> <p>e) Lift door opening mechanism to keep the hot face away from the operator</p> <p>f) An exhaust vent system in the furnace to remove the fumes generated in the furnace.</p>
9	Thermocouple	Pt20%Rh-Pt40%Rh or B-Type
10	Temperature Controller	A minimum of 8 segment Microprocessor based Programmable temperature PID Controller with each segment consisting of one pair of ramp and dwell having one program (Provide the technical details of the PID controller including Make and Model)
11	Communication	Digital RS232 / RS485 or USB port for communication
12	Electrical Power supply	220-240 V, single/three phase
13	Safety and Standards	<p>a. Heating elements safety: Door positive break safety switch for isolating power to the heating elements when door is open.</p> <p>b. Over temperature protection against any failure</p> <p>c. All electrical components should comply with the universal standards and the manufacturer has to provide ISO certificate and Declaration on CE Conformity</p>
Optional Accessories:		
14	Standard four heating elements as spare	
15	Provision for purging of inert gases or oxygen in the chamber to create desired atmosphere by piped to a ceramic tube which leads gas into the chamber	
16	Stabilized Zirconia crucible with volume- 60 ml, outer diameter – 55 mm and height – 40 mm	

II. Name of the Equipment:**Electrochemical Workstation (Pontentiostat- Galvanostat- Impedance analyser)**

1	Frequency range	10 μ Hz to 10 MHz
2	Compliance voltage	± 30 V
3	Compliance Current	± 2 A or more
4	Input voltage range	± 10 V or better
5	Current ranges	10 nA to 2 A or more
6	AC amplitude	0.5 mV to 2 V
7	Resolution of measured potential	10 μ V or less
8	Resolution of measured current	10 fA or better
9	Potentiostat rise fall time	<500 nS
10	Acquisition speed	700,000 samples/second or better
11	Bandwidth of electrometer	10 MHz or better
12	Interface	USB
13	Electrode configurations	2, 3, 4 & 5 electrode configurations.
14	Power supply	~ 220 V, AC – 5 Amps
15	Ambient temperature conditions	From 0 to 50°C
16	Channel	single
17	Software requirements: A complete, user friendly, windows based, software compatible with the supplied instrument to perform at least the following tests <ol style="list-style-type: none">(1) Potentiodynamic Polarization tests(2) Pulse software(3) Fuel cell, Battery, supercapacitor and photovoltaic testing software(4) Electrochemical Noise tests(5) Electrochemical Impedance Spectroscopy (EIS) tests.(6) Corrosion software(7) Equivalent fitting circuit software(8) Data presentation: Nyquist, Bode, Admittance, Dielectric, Mott-Schottky, Data analysis: Fit and simulation, Find circle, Element subtraction, Kramers-Kronig(9) Free life time upgradation of software	

Optional Accessories	
18.	Appropriate high configuration branded desktop computer having colour monitor, keyboard, mouse, DVD drive with multiple USB/ Ethernet/ interface ports for system control, data acquisition and analysis
19.	Electrochemical Cell: It should consist of 50 mL Glass cell with glassy carbon electrode, one Pt wire Counter electrode & one Ag/AgCl reference electrode, lid, and purge tube with valve in addition to electrode polishing kit
20.	Suitable power back up for a minimum continuous operation of computer and workstation for 30 minutes

TERMS AND CONDITIONS

I. General Information:

1. Last date and time of receipt of the Quotations: **17th April 2018, 03.00 PM.**
2. Date and Time of Opening of the Quotations: **17th April 2018, 03.30 PM.**
3. Quotation / Tender Document fee Rs. 500/-
4. EMD rates: 2.5% of the Total Equipment Cost
5. Two bid systems have to be strictly followed. One for Technical bid and another for commercial bid and each bid should be submitted in separate sealed covers.
6. However, the tender document fee and EMD as specified above should be remitted by each firm/bidder, collectively for all their bids advertised under this tender.
7. 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 equipment any bid under the grounds of specification compliance, technologically advanced quality, proven performance track record, brand reputation, service backup support & training, offer of additional / special features, compatibility with the existing System, etc.
8. The Tender Document Fee and EMD should be submitted in a separate cover superscribing **Bank Demand Draft** and **which should be enclosed with the bid. *Tenders received without the appropriate fees will not be entertained.***
9. The Photo Copies of the Bank Instruments on payment of EMD should be attached with each bidding covers.

10. The tender / quotation must be submitted along with the stipulated tender document fee and EMD in the sealed cover, super-scribing the name of the Department / Centre for whose equipment the tender is quoted for.
11. The cover should also contain the information like, Name of the Equipment and Serial Number of Equipments for which the bids are submitted. The name and address of the bidder should also be mentioned at the from address space.
12. The tenders should be addressed to ***Dr. K. Suresh Babu. Kannan, Principal Investigator and Assistant Professor, Centre for Nanoscience and Technology, Pondicherry University, R V Nagar, Kalapet, Puducherry – 605 014, India.***
13. The examples for super-scribing the envelopes of the different categories of tenders are given below: -

Tender Submitted under Double bid system for the Centre for Nano Science & Technology

Name of the Equipment: _____

To
Dr. K. Suresh Babu,
Principal Investigator and Assistant Professor,
Room No: F-08,
Centre for Nanoscience and Technology,
Pondicherry University (A Central University),
R V Nagar, Kalapet,
Puducherry – 605 014, India.

In the 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.

Quotations will not be accepted through fax / e-mail.

II. Common Conditions

1. Purchase of Quotation Document:

The Quotation / Tender document can be downloaded from the University website **www.pondiuni.edu.in** or procured from the Pondicherry University on payment of fee as specified above, by means of a D.D, drawn in favor of **The Finance Officer, Pondicherry**

University, payable at Puducherry. The downloaded application should be accompanied with the quotation document fee, in the form of a Demand Draft.

2. Price Schedule

The rates should be quoted for a single unit and also for the total quantity required by the University. The price should include the delivery, installation, training charges, etc. at the respective Department, Pondicherry University. The prices quoted shall remain firm until the equipment is supplied to the respective Department, Pondicherry University.

3. Quoting the Core price & Tax, Duties, Discount etc.

The taxes / duties / discounts, if applicable, are to be explicitly and separately shown in the bid.

4. Eligibility:

The firm must have the requisite domain expertise with regard to supply, installation and post sale service of the items they are quoting. The firm should have been in existence for at least six years as on the date of this quotation and must have executed at least three orders for this kind of equipment during the last three years.

5. Duty Exemption

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 dated 23.07.96 respectively, in respect of

- a) Scientific and technical instruments, apparatus, equipment, Software 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, microchips etc.
- d) Prototypes. Customs duties at Indian port, if any, will be to the account of the University.

6. WARRANTY:

- i) The equipment 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 Nanoscience and Technology, Pondicherry University, or at least 42 months from the date of receipt of the last lot of the consignment in India.

ii) 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 information pertaining to infra-structural, power and any other requirement for satisfactory installation and commissioning of the whole system must be provided by the bidder, at least 120 days in advance of the installation to be commenced if purchase order is issued. All drawing for electrical connections, electrical safety items piping work etc. must be provided in detail.

iii) Complete technical specifications to be included in the Technical bid. Complete technical specifications and literature, including process flow, to be included with the quotation. Manufacturers of various major parts/equipment must be mentioned explicitly.

iv) The necessary service support should be provided by Bidder during the agreement period.

v) 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.

vi) Technical post sale support by email and telephone will be provided during the period.

vii) Detailed service and operating manuals in English with necessary electronic circuitry shall be provided along with the system.

viii) A clear statement regarding availability of after-sales service and availability of spare-parts for next 5 to 10 years should be included.

ix) A recent customer list (within last five years) with contact details including email address is to be submitted with technical bids / bids as the case may be.

x) If the equipment is proprietary a product, a proprietary product certificate should be enclosed.

xi) The information pertaining to infrastructural, power and any other requirement for satisfactory installation and commissioning of the whole system must be provided by the bidder, at least 30 days in advance of the installation to be commenced if purchase order is issued.

xii) The equipment must operate at 230V / 50 Hz single phase and / or equivalent three phase electrical power.

xiii) If the bidder is an authorized representative in India, they are requested to inform their

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.

xiv) The bidder from abroad shall obtain, if required, export permission from the University shall provide necessary information if required for this purpose.

xv) The validity of the each quotation should be at least for SIX MONTHS from closing date.

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

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

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

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

xx) 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.

xxi) Additional terms and conditions will be incorporated in the purchase order, if needed, to safeguard the interests of the University.

xxii) Quotation is not transferable.

xxiii) In case of any dispute in respect of the quotation, all legal matters shall be instituted within the jurisdiction of the place where the purchaser ordinarily resides.

7. Power to reject the offer:

i) 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. Any offer containing incorrect and incomplete information shall be liable for rejection.

ii) No Agency commission will be paid to any authorized agent in India.

iii) 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.

iv) Bidder(s) must be authorized business partners of Global / National service providers of the respective equipment.

v) 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.

vi) The Bidder should not be involved in any Bankruptcy filing for protection from it.

vii) 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.

viii) For any clarification with respect to technical specifications, please contact the respective Department Heads as per the details given below: -

Name of the Department/Centre	Name of the PI	Contact Details
Centre for Nanoscience and Technology	Dr K. Suresh Babu	0413-2654976 sureshababu.nst@pondiuni.edu.in

III. Specific Conditions for Imported Equipments

1. Payment of EMD:

The Quotation must be accompanied by EMD as stated above, by means of a Demand Draft, drawn in favor of ***The Finance Officer, Pondicherry University, payable at Puducherry.*** *The Small Scale units are exempted from payment of EMD provided they enclose the proof of their exemption Certificate issued by the competent authority.*

2. *Payments terms:*

- i) Normally a letter of Credit will be opened for 90% of CIP price, on receipt of order acknowledgement. However, 100% of the LC also be considered, if the supplier provide Bank Guarantee towards performance Security for the 10 % of the total cost of the equipment to cover the Warranty Period.
- ii) Bank charges in India shall be borne by the purchaser and outside India shall be borne by the contractor / supplier.
- iii) The offer must be in English. The rates should be indicated both in figures and words against item specified in the given table. It is preferable that the price be quoted in Rupees or in US Dollars or in major foreign currencies.
- iv) The total cost should be quoted for FOB as well as CIF – Pondicherry University.
- v) However, the price quoted under FOB or should also include the following cost if they are required during the initial stage:
 - a) Local freight / insurance for Chennai airport to University laboratory.
 - b) Installation cost if any.
 - c) Cost of consumables which are required for the equipment for initial operation upto a reasonable time.
- vi) In case of the Principal supplier of Foreign country unable to meet the conditions stated at para no.4, the local agent / dealer should fulfil the above said conditions in respect of Local Insurance, Freight, safety transport and installation, etc.
- vii) The bidder from within India shall obtain the requisite approval for Imports etc., if required.
