PONDICHERRYUNIVERSITY

(A Central University)
(www.pondiuni.edu.in)
Kalapet, R.V.Nagar
Puducherry-605 014

Tender Notice for Major Laboratory Equipments

The Centre for Nanoscience and Technology,Pondicherry University invites sealed tenders underTwo Bid system (Technical andCommercial) for the purchase of Major Laboratory Equipments under. The complete details regarding Specifications, Technical details, Eligibility, TenderDSR-SERB project.Document Fee, EMD, address and Method for submission of Bid Documents, etc are available onthe

University website: www.pondiuni.edu.in.

The last date and time for submission of Tenders is

8th January 2014, 3.00 pm.

Pondicherry University
Centre for Nanoscience and Technology

Tender Document

The Centre for Nanosceince and Technology, Pondicherry University invites sealed tenders under two-bid system for the supply and installation of the following items under DST-SERBResearch project funded by SERBof **Dr.S. Kannan, Assistant Professor**. The technical specifications for the equipments are given below. All tenders should be sent to the address given below. The last date for the submission of tender is **8th January 2014, 03.00 PM**.

Name and List of the Equipments:

Equipment No.1 : INVERTED TRINOCULAR FLUORESCENCE MICROSCOPE

Equipment No.2 : TUBULAR FURNACE (1500° C)

Equipment No.3 : ELECTRONIC ANALYTICAL BALANCE

Equipment No.4 : ELECTROPHORESIS POWER SUPPLY

DETAILED TECHNICAL SPECIFICATIONS

No.1 INVERTED TRINOCULAR FLUORESCENCE MICROSCOPE

No.	Details	Specifications
	MICROSCOPE STAND	Co-axial coarse & fine focusing system with tension adjustment , 6V30W Halogen Koehler illumination system , lamp socket , built –in frosted & heat absorption filters. detachable illuminator, insert plate, Allen wrench corresponded to WEEE regulation.
	POWER CORD	To work Indian Standard electrical system.
	DAY LIGHT FILTER	Interference light balance daylight filter, 45mm dia.
	TRINOCULAR OBSERVATION TUBE	Trinocular tube, FN20, fixed light pass, Bi/Photo: 50/50
	EYE PIECES	Wide field eyepiece 10X, FN20
	STAGE EXTENSION PLATE	Stage extension plate
	ATTACHABLE MECHANICAL STAGE	Attachable mechanical stage with right-hand vertical low drive controls (including Petri-dish holder, Terasaki- plate holder, and Slide glass holder)
	PHASE CONTRAST SLIDER	Phase contrast slider, precentered
	OBJECTIVE	Plan achromat objectives, 4X, 10X, 20X, and 40X with high NA and Working distance. All should be precentered.
	FILTER	Neutral density filter, 45mm dia
		Interference green contrast filter 45mm dia

	Reflected light fluorescence illuminator equipped with field stop, 3-position fluorescence slider (with B excitation filter set and G excitation filter set) and 3-position (ND, empty and shutter) ND slider, including UV shield plate, operation knob, Allen wrenches (2 pcs) and screws (3 pcs)
	Fluorescence filter set (for narrow band U excitation), Including excitation filter (BP360-370), dichromaticmirror (DM400), barrier filter (BA420)
	Neutral density filter
	Lamp housing For 100W Mercury, Achromat
	Power supply unit For 100W Mercury burner
	100 watts mercury burner**(2 Nos.)**
GENERAL	Dust cover should be provided. Radiation protective cover should be provided.
CAMERA	**NON Cooled Micropublisher Camera** High quality 1/2" 3.3 mega pixel color Cooled CCD camera, Pixel pitch: 3.45 x 3.45µm, Resolution up to 2048x1536 Pixel, Binning modes 2x2, 3x3, 4x4 in full color, 1.6µs to 17.9min in 1µs increments exposure/ integration control, 10 bits digital output, 30 fps full field of view, Digital interface
SOFTWARE	Real time image preview and capture; independent control of preview and capture provides maximum flexibility, Advanced color management; built-in ICC color profiling for Q Imaging cameras provides: superior color imaging; color correction algorithms ensure accurate, true color imaging, Background and darkfield correction, Time-lapse sequences , Auto exposure, auto white balance, auto contrast (dynamic and manual controls) Full control over all camera features, including : Binning for increased sensitivity Gallery: ROI for increased image capture speed and image cropping, RGB color filter support for QImaging monochrome cameras, External triggering, Exposure, gain, and EM gain controls, Image annotation Measurements: Calibrate images to perform linear measurements, Create and edit image sequences, image sequences, Gamma correction, Live histogram, Line, circle, or free-form histogram profiles, Filters for image enhancement. Color merging for fluorescence imaging, Line profiles; surface plots, Measurement capabilities, Image processing
CAMERA ADAPTOR	Direct image video port
	C mount adapter
Desktop PC	Intel Core i3 processer , suitable intel mother board, DVD Witter, 4 GB RAM, 500 GB HDD, Graphics card 1 GB VRAM , 23" TFT Monitor, Key Board, Mouse, Windows 7 Professional, SP3 , fire wire port,

No.2 TUBULAR FURNACE (1500° C)

Technical Specifications :

Furnace Type	:	Horizontal
Working inner Tube	:	High Purity Alumina Tube 99.7%
Working Tube Dimensions	:	ID 60mm x 900mm L
Hot Zone Length	:	150mm L
Max. Temperature	:	1500 Degs. C
Operating Temperature	:	1400 Degs C
Insulation	:	Ceramic Fiber
Hot Face	:	Vacuum Formed Board
Temperature Control	:	Programmable PID Controller

Power Control	:	Thyristor Power Control
Accuracy	:	+ / - 2 to 3 Deg. C
Safety Protection	:	Safety Controller
Thermocouple	:	R Type
Max. Power Cons.	:	3.5 Kw.
Heating Element	:	Imported Silicon carbide Rods
Power Input	:	230 V +/- 10 % Single Phase AC 50 Cys.

Details of the Furnace :

The furnace should havevertical having Alumina tube in the middle heated by heating elements and the furnace should have Single Hot zone length as per specifications and temperature controlled by microprocessor based Digital PID Controller or Programmer type Controller with GUARANTEED SOAK FACILITY apart from multi pattern multi-segmented heat/cool/soak cycles.

The power to the heating elements should be controlled by Thyristor pack.

Outer Chamber:

The outer chamber should be fabricated out of thick CRCA with powder coating finish with double wall fully reinforced with angle iron frame work to make the equipment mechanically very rigid. The outer shell should have air cooling facility to have a cool exterior to make the skin temperature is maintained as min. as possible.

Working Tube :

The working Tube should be made of High Purity Alumina with a dimensions of 60 mm ID x 800 to 900 mm length.

Insulation:

The space between the inner holding Tube and outer chamber should be provided with a Hot face by High Quality Vacuum formed Ceramic and backed up with superior quality high density ceramic fiber blankets to totally eliminate the radiation heat loss.

Heating Elements:

High quality Silicon Carbide heating elements should be provided and the power to the heating elements should be fed through Thyristor power control device. The temperature of the furnace should be uniform throughout the inner chamber. The terminals of the heating elements should be neatly brought out in a compact junction box.

Temperature Indication and Control :

The temperature inside the chamber should be indicated and controlled by Programmable type PID controller that should have ramp/soak programming features and Auto/manual control features and other standard control systems.

An **additional safety Controller**should be provided for a backup control to safe guard the heaters and the system.

Tube End Fittings :

The Working chamber Alumina Tube should be provided with end fittings with water cooling inlet and outlets for high temperature operation under Ambient / Air/ Gas.Provisions for 2 Gas inlet / Mixing Gas to enable easy sample loading and retrieving.

No.3 ELECTRONIC ANALYTICAL BALANCE

Technical Specifications :

Capacity	:	220 gms
Readability	:	0.1 mg
Volts	:	12 V DC
Repeatability Std. Deviation	:	</=0.1mg
Linearity	:	+/-0.2mg
Response Time	:	3 secs.
Operating ambient Temp.	:	5 to 40 deg.C
Temp. coefficient of sensitivity 10 to 30 Deg.C	:	+/-2ppm/ Deg.C When PSC is OFF
Sensitivity stability against temperature change When PSC is ON, 10 to 30 Deg.C	:	+/-2ppm
Pan Size	:	80 mm dia approximately
Body Dimensions		220mmW x 330mmD x 310mmH approx.
Other essential Accessories should be possible	:	Should have Built-in Clock Function, GLP/ GMP/ ISO Calibration Report, Windows Direct FunctionInterval Timer Output, RS-232 I/ F, Specific Gravity measurement software, Piece Counting Function. % Display Function, Unit Conversion, Analog Display Function

No.4 ELECTROPHORESIS POWER SUPPLY

Technical Specifications

- Should be compact and low-voltage unit and be able to easily operate with only one switch and one adjustment knob to control the unit's voltage output
- Should have LED display that could toggle between output voltage or output current
- Should be Ideal for submarine gels, mini SDS-PAGE, mini tank (wet) electroblotting and pulsed-field electrophoresis (requires pulse controller)
- **Maximum Current:**400mA
- **Maximum Voltage:**300V
- **Mode:**Voltage or current
- **Number of Jacks:** Atleast should be3
- **Timer:**0-999 min.

TERMS AND CONDITIONS

I. General Information:

a) Last date and time of receipt of the Quotations: **8th January 2013, 03.00 PM**.

b) Date and Time of Opening of the Quotations: **8th January2013, 03.30 PM**.

b) Quotation / Tender Document fee Rs. 500/-

c) EMD rates: 2.5% of the Total Equipment Cost

d) Two bid systems have to be strictly followed. One for Technical bid and another forcommercial bid and each bid should be submitted in separate sealed covers.

e) However, the tender document fee and EMD as specified above should be remitted by eachfirm / bidder, collectively for all their bids advertised under this tender.

f) Quoting merely the lowest price does not confer any right to any bidder for award of supplyorder. The University's Purchase Committee, reserves the right to select the equipment any bidunder the grounds of specification compliance, technologically advanced quality, provenperformance track record, brand reputation, service backup support & training, offer ofadditional / special features, compatibility with the existing System, etc.

g) The Tender Document Fee and EMD should be submitted in a separate cover superscribing**Bank Demand Draft** and **which should be enclosed with the technical bid**.***Tenders received without the appropriate fees will not be entertained***.

h). The Photo Copies of the Bank Instruments on payment of EMD should be attached with each bidding covers.

i) 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 equipments the tender is quoted for.

j) 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.

k). The tenders should be addressed to ***Dr. S. Kannan, Principal Investigator and Assistant Professor, Centre for Nanoscience and Technology, Pondicherry University, Puducherry – 605 014.***

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. S. Kannan,
Principal Investigator and Assistant Professor,
Centre for Nanoscience and Technology,
Pondicherry University,
Puducherry – 605 014.

From
Supplier's Address

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.

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

II. Common Conditions (Import or Indigenous)

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 asspecified above, by means of a D.D, drawn in favor of **The Finance Officer, PondicherryUniversity, payable at Puducherry**. The downloaded application should be accompanied withthe 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 theUniversity. The price should include the delivery, installation, training charges, etc. at therespective Department, Pondicherry University. The prices quoted shall remain firm until theequipment 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 postsaleservice of the items they are quoting. The firm should have been in existence for at least sixyears as on the date of this quotation and must have executed at least three orders for this kind ofequipment during the last three years.

5. Duty Exemption

The University has been granted the benefit of exemption from the payment of the CentralExcise 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, inrespect 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 equipments covered under the purchase order, when installed, shall bewarranted for the quality, workmanship, trouble free operation and performance for a period of atleast 36 months from the date of putting the system into operation at theCentre for Nanoscience and Technology, Pondicherry University, or at least 42 months from the date of receiptof 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 allthe 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 isto 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 forsatisfactory 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 phaseelectrical power.

xiii) If the bidder is an authorized representative in India, they are requested to inform theirtechnical ability to take care of the problems in the system, if developed later within the warrantyand 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 appropriateauthorities in his country or the country of origin for items to be shipped to India in case of itemsto be imported. 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 fromclosing 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 Universityunder any circumstances.

xviii) The University shall not be responsible for any delay / loss or non-receipt of quotations bypost / 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 theUniversity 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 withinthe 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 acceptany offer other than the lowest offer without assigning any reason thereof. Any offer containingincorrect 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 tosupply within the time specified in the Purchase order, a penalty / LD of 0.5% of the total valueper week or a part thereof shall be levied subject to a maximum of 7.5% in respect of itemswhich 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 therespective equipment.

v) The Bidders must enclose authorization letter from the respective global / national serviceproviders of the above equipments particularly mentioning an undertaking that in case of defaultby the Bidder, they (Global Service Provider) shall take over all the responsibilities of theBidder.

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: -

Sl. No.	Name of the Department/Centre	Name of the PI	Contact Details
01.	Centre for Nanoscience and Technology	Dr S. Kannan	0413-2654973 para_kanna@yahoo.com

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.*** *TheSmall Scale units are exempted from payment of EMD provided they enclose the proof of theirexemption 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 fulfill 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.

REGISTRAR

------*----------*------