#### **PONDICHERRY UNIVERSITY, PUDUCHERRY – 605 014**

(A central University)

## **DEPARTMENT OF EARTH SCIENCES**

#### **Ref. No.:** PU/ES/UGC-MRP/191112/1

**Date:** 19-11-2012

Sealed quotations are invited for purchase of **Digital Resistivity Meter** by the Principal Investigator, UGC Major Project, Department of Earth Sciences, Pondicherry University. The technical specifications are given below:

#### Item required

Digital resistivity meter – 1 No.

#### **Technical specifications**

**Purpose:** The electrical resistivity surveying of ground to provide information on geology and ground water to depths of up to 500 Meter.

**Requirement**: It should be portable (light), rugged and battery operated Equipment, should be complete and sufficient to conduct electrical resistivity surveying and come with manuals (In English)

**Functions:** Measurement of apparent resistivity using current and potential electrodes through user friendly menu operated feather touch key pad.

Display: Alpha numeric display easy to read in field conditions like sunshine

**Voltage, Current and power:** Voltage up to 1000 V (2000 V Peak to Peak) automatic voltage selection, Output power 80-3500 W, current up to 2 amp, bipolar

Frequency: 0.8.Hz.

Noise Rejection: 95 db

**Input power source:** 24 V Rechargeable batteries (with charger for mains and vehicle recharging). Minimum 12 hours of Continuous working.

Self Potential Cancellation: Automatic

Resistivity Measurement range: 0.0001 to 10000 Ohms

Data averaging: 12 to 16 cycles

**Output display:** Survey No. Date, Time, Display of electrode spacing Resistance, Apparent resistivity.

Error Signal display: For Poor current and potential grounding and discontinuity

Storage Memory: More than 1000 readings.

Accuracy:  $\pm 1\%$  Measurement of apparent resistivity

**Data transfer:** The data can be transferred directly to any windows based PC through USB connectivity

## The instrument should be supplied with the following working tools and Accessories (with no extra cost):

- 1) Data retrieving unit for Data processing and interpretation with standard software
- 2) Ten standard electrodes
- 3) Two reels 500 meter wire including winches for each reel
- 4) Two reels of 200 meter wire including winches for each reel
- 5) Crocodile Clips: 12 Nos. for electrodes
- 6) Hammers: 4 Nos. of 3kg. Weight approximately
- 7) Measuring tape: 100 meters. -1No All connecting cords required for the instruments

### TERMS AND CONDITIONS

**1.** Last Date & Time for submission of Tender Documents: 03.12.2012 at 2.30 p.m. and they will be opened on the same day at 3.00 p.m.

#### 2. Submission of tender Document:

Tender/ quotation must be submitted in sealed cover super-scribing thereon bidder's name and name of the item. This is to be submitted to **Dr. K.Srinivasamoorthy, Department of Earth Sciences** or sent by registered post/courier service addressed to **Dr. K.Srinivasamoorthy, Department of Earth Sciences, School of Physical Chemical and Applied Sciences, Pondicherry University, R. V. Nagar, Kalapet, Pondicherry 605 014, India on or before the tender bid closing time (03.12.2012).** 

#### 3. Quoting the Digital Resistivity Meter.

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. **The Indian component of the supply should be quoted in rupees.** 

#### 4. The validity of the Quotation:

The validity of the quotation should be for at least 180 days from the closing date of the bid.

## 5. Late Bids:

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

#### 6. Invalid quotes:

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

#### 7. In case of Postal loss:

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

#### 8. No unsolicited correspondence:

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

#### 9. 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.

## 10. 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.

## 11. Non-transferable:

Tender is not transferable.

## 12. 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. *However, deficiencies on any one or, more of the following crucial criteria will be a material factor, for consideration other than the Lowest Quotation: -*

1. Total Number of installations of the similar Equipment in the premier Research Institutes in India.

2. Availability of Service Network in India, especially in Chennai or Bangaluru.

3. Valuable feedback from the present users about the performance, service support, accuracy of result, etc.

4. Any other techno commercial information which is deemed fit to be important in the opinion of the University.

## II. Price Schedule

# 1. The price should include the Delivery, installation, training charges (if any), etc. at the Department of Earth Sciences, Pondicherry University, Puducherry.

## III. Eligibility:

- 1. The firm must have the requisite domain expertise with regard to supply, installation and post sale service of the items for which they are quoting.
- 2. The firm should have sufficient number of installations of the similar Equipment in the premier Research Institutes in India.
- 3. The firm should have nation-wide Service Network all over India, especially in Chennai/ Bangaluru.
- 4. 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 CIF Pondicherry University, Puducherry.
- 3. The price quotes under FOB and CIF should also include the expected installation cost in the University Laboratory at Puducherry and also cost of consumables which are required for the main equipment for initial operation up to a reasonable period.
- 4. 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.
- 5. The prices quoted shall remain firm until the equipment is supplied.
- 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 softwares, 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.

- 7. Infra-structural, power and any other requirement for satisfactory installation and commissioning of the whole system must be provided, at least 60 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. Furnish a recent customers list (within last five years) with contact details including email address.

- 11. If the firm has an authorized representative in India, it is requested to inform its 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 material 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 12 months from the date of putting the system into operation at the Pondicherry University. A minimum of 2 years AMC after the expiry of Warranty has to be covered. (A signed Bidder's Warranty and AMC 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.
- 15. **Payments terms:** Normally a letter of Credit (LoC) will be opened for 100% FOB price 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.

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. All the Bank charges within India shall be borne by the purchaser and outside India shall be born 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.
- 17. No Agency commission will be paid to any authorized agent.
- 18. 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.

19. The training should be provided by the firm on the specimen and operation of the equipment for a minimum period of two weeks from the date of installation with an expert team for two persons.

For any clarification with respect to technical specifications, please contact:

Dr. K.Srinivasamoorthy, Department of earth sciences, Pondicherry University, Puducherry (Tel: 0413-2654489, 2655562 Email: moorthy\_ks@gmail.com)