

Department of Earth Sciences
PONDICHERRY UNIVERSITY
R.V.Nagar, Kalapet, Puducherry- 605014



Sealed quotations under single bid system are invited for the purchase of the Portable online smart **Radon monitor model-smart Rn, Bench top UV-Spectrophotometer, Groundwater Modeling System Software (GMS v 10.0)** under DST (SERB) research project. The quotations duly signed and sealed should be submitted to **Dr.K.Srinivasamoorthy, Associate Professor, Department of Earth Sciences, Pondicherry University, Puducherry – 605 014.**

The last date and time for submission of tenders is **10th February, 2017 at 3.00 pm.**

Principal Investigator
Dr. K.Srinivasamoorthy

Department of Earth Sciences
PONDICHERY UNIVERSITY
R.V.Nagar, Kalapet, Puducherry- 605014

PU/ES/2016-17/KS/DST-Equip-Tender/20117

Date: 20/01/2017

Tender Notification for Equipments and Software

Sub: Pondicherry University- Supply & Installation of following equipments/software under Department of Science and Technology –Science and Engineering Research Board (DST-SERB) funded project – Sealed Quotations called for – reg.

LIST OF EQUIPMENTS AND SOFTWARE:

S.No	Name of the Equipment	Quantity
1	Portable Online Smart Radon Monitor Model – Smart Rn	one
2	Bench top UV-Visible Spectrophotometer	one
3	Groundwater Modeling System Software (GMS v 10.0)	one (up to 50 user license)

1. SPECIFICATIONS FOR PORTABLE ONLINE SMART RADON MONITOR MODEL-SMART RN

Detection: Radon detection by alpha Scintillation of radon and its decay products.

Sampling: By diffusion mode and Flow mode with external pump.

Detector volume: ~ 150 cc.

Total sensitivity: 1.2 cph/(Bq/M) .

Radon sensitivity: 0.8 cph/(Bq/M³) for 1 hr counting 0.6 cph/(Bq/M) for 15 min counting .

MDL: 14 Bq/M³ (or lower) at 95% confidence with 1 hour counting .

Range: 5 to 10 MBq/M.

Cycle time: 15 to 180 minutes .

Radon Response time: 15 minutes for 95% of radon detection.

Thoron Interference: < 5% using Thoron discriminator.

Sensors: Temperature and humidity sensors inbuilt.

Display: Alphanumeric display.

Data storage: a minimum of 1000 data storage capacity.

Battery backup: minimum 12 hours battery back up.

Operating conditions:

Temperature: 0 to 50°C.

Rel. Humidity: 0 to 98% non-condensing.

Communication: Online and offline data communication with RS232 port.

Accessories to be supplied with Portable Smart Radon Monitor Model Smart Rn

- Mains DC adapter / External Battery charger for radon monitor (operating on 240 V AC, 50 Hz.).
- Sampling Tube (2 meter long).
- Spare scintillation cylinder in a bin without charcoal.
- Flow mode / diffusion mode accessory.
- Software on CD.
- RS-232 Data transfer cable.
- Operation and application manual.
- Water bubbler Kit with 10 nos. of Samples bottle, 2 nos. bubbler, 1 no. 500ml Syringe with 10 cm long nozzle).

2. SPECIFICATIONS FOR BENCHTOP UV-VISIBLE SPECTROPHOTOMETER

Measurement: Beam technology with in built programme for water analysis.

Wavelength range: 190-1100 nm.

Measuring mode: Concentration, absorbance, transmission, multi wavelengths, and spectra kinetics in absorbance and transmission mode.

Lamp type: Xenon Flash lamp.

Ambient light protection: Measurement with Open shaft.

Spectral bandwidth: 1.8 nm.

Wavelength resolution: 1nm with scanning capacity of 0.1 nm.

Wavelength reproducibility: ± 0.1 nm.

Wavelength accuracy: ± 1 nm.

Stray light: ≤ 0.1 % transmission at 340 nm; ≤ 1 % transmission at 198 nm.

Photometric range: ± 3.3 Abs.

Absorbance resolution: 0.001 Abs.

Absorbance reproducibility: ± 0.003 absorbance at 1 absorbance between 200 nm and 900 nm.

Absorbance accuracy: Should have at 230 – 900 nm, 1 absorbance: ± 0.004 absorbance, 2 absorbance: ± 0.004 absorbance and 2.5 absorbance: ± 0.006 absorbance.

Scan: free selectable wavelength range with increments of 0.1/1 and 5 nm.

Measurement: Capable to measure COD range up to 90,000 mg/l & Color range up to 1,000 mg/l Pt/Co (Hazen) without dilution.

Display: Touch screen p-cap glass display.

Live ID system: 2-D Barcode recognition for cell and reagent tests (bar code should contain lot, calibration data and expiry date) and data should be stored for each measurement.

Cell size and holder: 16 mm rectangular/circular cells with sizes 10, 20, 50 and 100 mm and removable.

Methods: Pre programmed for 200 and above tests.

Applications: Free pre-programmed applications for water Analysis, Brewery packages (MEBAK/EBC methods), Sugar (ICUMSA), Oil (DOBI, olive oil).

AQA Prime: with Individual settings for all methods in AQA 1 mode: instrument check using Photo Check or standards.

AQA 2 mode: system check using Combi Check or CRM standard solutions.

Sample matrix check: Easy access through setting menu to perform instrument supported matrix check for each method.

Ad hoc measurement: Direct access to absorbance/transmission, kinetic and spectrum measurement.

Software updates: With free updates available at Manufacturer website.

Communication interfaces: USB: 2 x USB-A (for printer, USB memory devices, keyboard or barcode reader), 1 x USB-B; Ethernet: LAN connection.

Data storage: with 2,000 single measured values from measuring modes like concentration, absorbance / % transmission and multi wavelengths. 20 measurements result records for spectra and kinetic methods each.

Protection class: with IP 31 for optics and electronics.

Power supply: Power supply with cables.

Power consumption: At standard working condition: 15 W; power save mode: 8.4 W.

Temperature: Operation between: 10 – 35°C; storage: -20°C to +60°C for 24 hours.

Allowable relative humidity: At operation: 20 – 80 % RH, storage in ambient relative humidity conditions of 20 % to 95 %.Non-condensing.

Warranty: 12 months or more.

3. SPECIFICATIONS FOR GROUNDWATER MODELING SYSTEM SOFTWARE (GMS V 10.0)

- Interact with models in true 3D.
- Optimized OpenGL graphics for improved hardware rendering.
- Create photo-realistic renderings.
- Generate animations for PowerPoint or web presentations.
- Drape images over the model and control the opacity.
- Annotations – Add north arrows, scale bars, reference images, company logos, and more.
- Raster images including georeference and projection support.
- Topographical maps & elevation data.
- Borehole data including stratigraphy and geophysical data.
- Native MODFLOW files.
- MODFLOW files from Visual MODFLOW, Groundwater Vistas and PM Win.
- Web data services such as TerraServer.
- ArcGIS geodatabases and shape files.
- CAD files including .dwg, .dgn, and .dxf formats.
- Worldwide projection support including Cartesian and Geographic Systems.
- File Import wizard for delimited text files and spreadsheets.
- Generate iso-surfaces from 3D data to visualize plumes.
- Cut cross-sections anywhere through 3D data.
- 2D & 3D geostatistics – Kriging, IDW and Natural Neighbor.
- Robust and fast algorithms to create solids from horizons.

Components

- 3D Grid Tools
- 3D Animation Tools
- Conceptual Modeling Tools
- Online Maps
- GIS Tools
- CAD / Image / DEM Support
- Annotation Tools
- 32 or 64-bit Installation
- MODFLOW Model & Interface
- MODFLOW-LGR Model & Interface
- Zone Budget Utility
- MODPATH Model & Interface
- MT3DMS Model & Interface
- RT3D Model & Interface
- SEAWAT Model & Interface
- PHT3D Model & Interface
- PEST Utility - Single Core
- Parallel PEST Utility - Multi Core
- Geostatistics & Scatter Data Tools
- SAMG Solver Utility
- Subsurface Characterization Tools
- Stochastic Modeling Tools
- T-PROGS Utility
- Groundwater Analyst for ArcGIS
- MODFLOW Analyst for ArcGIS

TERMS AND CONDITIONS

I. General Information:

- a). Last date and time of receipt of the Tenders: 10.02.2017, 3.00 PM.
- b). Date and Time of Opening of the Quotations: 10.02.2017, 3:30 PM.
- c). Tender Document fee Rs. 500/-
- d). EMD rates: 2.5% of the quoted price.
- e) Single bid system have to be strictly followed.

- f) 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.
- g) 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.
- h) The Tenders Document Fee and EMD should be submitted along with your Quotations.
- i) The Tenders must be submitted along with the stipulated Tender document fee and EMD in a sealed cover super-scribing the name and serial number of the equipments/software along with Department for which the equipment's the tender is quoted for. The name and address of the bidder should also be mentioned at the from address space.
- j) The Tenders should be addressed and posted to the following address by speed or registered post or by courier to Dr. K.Srinivasamoorthy, Associate Professor, Principal Investigator, DST-SERB project, Department of Earth Sciences, Pondicherry University, Puducherry – 605 014.
- k) Tenders will not be accepted through fax / e-mail.

II. Common Conditions (Import or Indigenous)

1. 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.

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

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

3. 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 tender and must have executed at least three orders for this kind of Equipment during the last three years.

4. 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, dated 01-03-1997 and No.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, micro-chips etc.
- d) Prototypes.

Customs duties at Indian port, if any, will be to the account of the University.

5. Technical Specifications

i) **WARRANTY:** 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 (preferably 3 years) from the date of putting the system into operation at the Department of Earth Sciences, Pondicherry University, or at least 42 months from the date of receipt of the last lot of the consignment.

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.

iii) Complete technical specifications of the Equipment including the Operating system to be included in the bid.

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

v) The training should be provided by the supplying companies.

vi) Operating Manual should be provided in English.

vii) 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.

viii) If the Equipment is proprietary a product, a proprietary product certificate should be enclosed.

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

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

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

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

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

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

xv) 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.

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

xvii) Tender is not transferable.

xviii) 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.

6. 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 said Equipment 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.

III. Specific Conditions for Imported Equipments

1. Payment of EMD:

The Quotation/Limited Tender 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:

Normally a payment 90% will be released after the installation & training. However, 100% payment will be released if the supplier provides Bank Guarantee towards performance Security for the 10 % of the total cost of the furnace to cover the warranty period. Bank charges in India shall be borne by the purchaser and outside India shall be borne by the contractor / supplier. 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 US Dollars or in major foreign currencies.
