



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA – 769 008, ODISHA

ADVERTISED TENDER ENQUIRY

Department: Life Science

Tender Notice No: NITR/PW-SR/LS/2020/38

Dated: 28/02/2020

To

Important Dates

Bidding through

e-Procurement Portal of Ministry of HRD, Govt. of India (e-Wizard)

Event	Date	Time
Pre-bid Conference	NA	NA
Last Date of submission of bid	23/03/2020	03:00 PM
Date of Opening of techno-commercial bid:	24/03/2020	03:00 PM

Dear Sir,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly send your offer with prices and complete terms within the time mentioned above.

For any queries kindly contact to:

Attention:
Prof. Samir K. Patra
Department of Life Science
NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ODISHA, India
Phone: (0661) – 2462683
E-mail: samirp@nitrrkl.ac.in

Yours sincerely,

Sd/-

Name: Prof. Samir K. Patra
PI, Project: SR/17/LS/021

Encl:

- (1) Schedule of requirement, specifications, dates etc.
- (2) Bid document containing detail terms and conditions.

1. Schedule of requirements

Sl. No.	Description of Goods/Service	Quantity
01.	Fast Protein Liquid Chromatography with its accessories (as per detail Annexure-I)	01 Unit

2. Specifications and allied Technical Details

As per Annexure – I

3. Format of Quotation

It is a **two-part** bid with separate techno-commercial and price bids.

4. The bid should be submitted through <https://mhrd.euniwizarde.com/HomePage/ebidSites?siteName=mhrd>

5. Quotations should be valid for a period of **90** days from the closing date of opening of techno-commercial bid.

6. Some important dates:

- | | | | |
|------|---|-------------------------|-----------------------|
| i. | Pre-bid Conference | Date: NA | Time: NA |
| ii. | Last date for submission of bid | Date: 23/03/2020 | Time: 03:00 PM |
| iii. | Opening of Techno-commercial bid | Date: 24/03/2020 | Time: 03:00 PM |

7. **Warranty:** 3years' comprehensive onsite warranty must be provided.

8. **Technical Evaluation Criteria:** As per the detailed equipment technical specifications given in Annexure –I. If required, the bidder may be asked to provide clarification regarding the technical aspects.

9. Other Qualification criteria:

Eligibility of Bidders:

1. The bidder should be a equipment manufacturer (OEM) / authorized distributor/ Reseller. The manufacturer (OEM) should authorize the distributor for this tender specifically. Documentary proof regarding this must be attached.
2. All Passive materials should be same make.
3. Firms should quote products that are not expected to go into end of sale in next 3 years.
4. Bidders must submit a declaration on their letter head that they are not black listed in any Govt. body, undertaking, and PSU or Autonomous bodies. If found the declaration is false, their offer will be out rightly rejected and their EMD amount will be forfeited.
5. The Vendor shall provide the following information with the bid to provide background information on vendor to Tender Committee.
6. **The list of clients** (contact details of a person phone/ mob. no. with e-mail ids should be attached) where the bidder/OEM had supplied the similar type of materials (as mentioned in schedule of requirements) with successful installation in last three years.
7. **Quality certificate** from a recognized institution for their manufacturing/ assembly/ system integration facilities anywhere located in India or abroad.
8. **Delivery period** 60 days from the date of placement of the Purchase Order.
9. **Customer support** strength by the vendor.
10. Possible quicker **availability** of the vendor when problem occurs.
11. **Mode of handling complains** (whether by fault ticket/complain even by email or by phone etc.)
12. **Necessary documents** as mentioned in **Annexure -I**

13. Any other points may have deemed fit by the committee at time of technical evaluation of bid documents.
14. Details of Technical Specification and other specifications so as to enable technical assessment of the proposal. Unpriced bid document exactly same as the price bid with full break up without the costs mentioned.
- 10. Financial Bid Evaluation Criteria:** The comparison will be made for the award of contract on the overall price basis.
- 11.** (a) All prices to be quoted on FOR basis (NIT Rourkela) in INR.
(b) GST: GST should be charged at applicable rates against DSIR certificate.
- 12. Bid Security (EMD) and Tender Cost: EMD (Earnest Money Deposit)** need to be submitted through online portal only for **INR 70000/- (Rupees Seventy thousand only)** and Tender cost (Non-refundable) through online mode for **INR 500/- (Rupees Five Hundred only)**. The EMD (Earnest Money Deposit) of unsuccessful bidders should be returned to them at the earliest and latest on or before the 30th days after the award of the contract. EMD shall bear no interest. Any bid without accompanying with EMD & Tender Cost is liable to be treated as non-responsive and rejected.
- 13. Performance Security: 5% of contract value** in shape of Bank Guarantee/Demand Draft (DD) in favor of "Director, NIT Rourkela" payable at Rourkela from any Scheduled Commercial Bank except Co-operative and Gramin bank. Performance security should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty obligation. Performance Security should be submitted within 15 days from the date of receipt of Order. And EMD (Earnest Money deposit) amount of successful bidder will be returned after the receipt of performance security in case of award of contract to successful bidder.
- 14.** Please send your quotations through e-Procurement Portal of Ministry of HRD Portal <https://mhrd.euniwizarde.com/>
- 15.** For technical details, you may contact

Prof. Samir K.Patra
Department of Life Science
National Institute of Technology, Rourkela – 769 008.

NB: Please furnish your Dealership Certificate (must) and Proprietary Nature Certificate (If applicable)



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA – 769 008, ODISHA

BID DOCUMENT

1. Instructions to the bidders

- 1.1 Bids are invited on behalf of the Director, National Institute of Technology (NIT), Rourkela – 769008, Odisha, from the intending bidders for supply of the goods/stores/equipment's for the Institute as detailed in the enquiry letter.
- 1.2 The bidders should quote their offer/rates in **BOQ** in clear terms without ambiguity.
- 1.3 In case of any discrepancy between the rates in figures and that in words, the rate in words will be accepted as correct.
- 1.4 The last date for receipt of the bid is marked in the enquiry.
- 1.5 The Bid should be uploaded in MHRD Portal <https://mhrd.euniwizarde.com/> Please follow the guideline of the site.
- 1.6 If a prospective bidder requires any clarification in regard to the bidding documents, he may make a request the concerned officer or faculty member at least 15 days before the deadline for receipt of bids.
- 1.7 Bids received after the deadline of receipt indicated in Para 1.4 above shall not be taken into consideration.
- 1.8 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered nonresponsive.
- 1.9 (In respect of high value plant, machinery etc. of a complex and technical nature). The bids may be submitted in two parts, viz., techno-commercial bid and financial bid.
- 1.10 The bidder has to sign in full at all pages of the scanned part of the bidding document. No over-writing in those pages are acceptable.
- 1.11 Bidders registered with any of the following agencies/ bodies as per Public procurement policy for Micro & Small Enterprises (MSE) order 2012 are exempted categories from payment of EMD provided that the registration Certificate issued by any one of these below mentioned agencies must be valid as on close date of tender. Micro small or medium enterprises who have applied for registration or renewal of registration with any of these agencies/bodies but have not obtained the valid Certificate as on close date of tender are not eligible for exemption.
 - i) Khadi and Village Industries Commission (KVIC)
 - ii) National Small Industries Corporation (NSIC)
 - iii) Any other body specified by Ministry of MSME/GOI

2. INSTRUCTIONS FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bid electronically on the e-Wizard Portal (<https://mhrd.euniwizarde.com>) using valid Digital Signature Certificates. Below mentioned instructions are meant to guide the bidders for registration on the e-Wizard Portal, prepare their bids in accordance with the requirements and submitting their bids online on thee-Wizard Portal. For more information, bidders may visit the e-Wizard Portal <https://mhrd.euniwizarde.com>

2.1 REGISTRATION PROCESS ON ONLINE PORTAL

1. Bidders to enroll on the e-Procurement module of the portal <https://mhrd.euniwizarde.com> by clicking on the link "Bidder Enrollment". Enrollment on the e-wizard Portal.
2. The bidders to choose a unique username and assign a password for their accounts. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the eWizard Portal. Bidders to register upon enrollment their valid Digital Signature Certificate (Only Class III Certificates with signing + encryption key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
3. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse. Foreign bidders are advised to refer "DSC details for Foreign Bidders" for Digital Signature requirements on the portal.
4. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / eToken.
5. Bidders must ensure that they have the latest version of Java installed in their local system.
6. The scanned copies of all original documents should be uploaded in pdf format on portal <https://mhrd.euniwizarde.com>
7. After completion of registration payment, you need to send your acknowledgement copy on our help desk mail id ewizardhelpdesk@gmail.com for activation of your account.

2.2 TENDER DOCUMENTS SEARCH

1. Various built in options are available in the e-Wizard Portal to facilitate bidders to search active tenders by several parameters. These parameters include Tender ID, organization, location, date, value, etc.
2. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the Online Portal.
3. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the Online Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
4. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

2.3 BID PREPARATION

1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
3. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
4. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / PNG etc. formats. Bid documents may be scanned with 100 dpi with black and white option.

2.4 BID SUBMISSION

1. Bidder to log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. The bidder to digitally sign and upload the required bid documents one by one as indicated in the tender document.
3. Bidder to select the payment option as Online" to pay the tender fee/ EMD wherever applicable and enter details of the instrument.
4. A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders to note that they should necessarily submit their financial bids in the prescribed format and no other format is acceptable. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the unprotected cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
5. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
6. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data, which cannot be viewed by unauthorized persons until the time of bid opening.
7. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
8. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
9. Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

2.5 AMENDMENT OF BID DOCUMENT

At any time prior to the deadline for submission of proposals, the institutions reserve the right to add/modify/delete any portion of this document by issuance of a Corrigendum, which would be published on the website and will also be made available to the all the Bidder who have been issued the tender document. The Corrigendum shall be binding on all bidders and will form part of the bid documents.

2.6 ASSISTANCE TO BIDDERS

1. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
2. e-Procurement support any queries relating to the process of online bid submission or queries relating to e-Wizard Portal in general may be directed to the **24x7 e-Wizard Helpdesk. The contact number for the helpdesk is 011-49606060, 23710092, 23710091, Er Sanjeet Kumar Jha (+91-8882495599), 9355030626. Amit Kumar Jha 9355030627, 9205898226**

Email Support:

For any eProcurement Application Service Requests and Technical issues related to Document Uploads, Tender Publishing, Issue of Corrigendum, Encryption/Decryption Key issues, Bid Evaluation, Bidder Login issues, New Registration issues, Key Uploads, DSC Key installation, Bid Submission, system users may please mail to Sanjeet Kumar Jha ewizardsanjeet.kumar@gmail.com

3. Conditions of the bid:

- 3.1 The rates quoted should preferably be net, inclusive of all taxes and duties, packing, forwarding, freight, Insurance and all other incidental charges. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or Ad Valorem rate must be specified. Packing, forwarding, freight etc., when quotes separately are reimbursable at actuals. If external agencies are employed, their receipts must be enclosed with the invoice.
- 3.2 Duties and Taxes are to be quoted separately. Ad Valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules.
It may be noted that the Institute is availing custom duty exemption in terms of Notification No. 51/96 – Customs dt. 23.07.1996, Notification No. - 47/2017- Integrated Tax (Rate) dt. 14.11.2017 and Notification No- 45/2017 – Integrated tax (Rate) dt. 14/11/2017 & Notification No. - 45/2017- Central tax (Rate) dt. 14.11.2017, Notification No. - 45/2017- Union Territory Tax (Rate) dt. 14/11/2017 [Vide DSIR, Ministry of Science and Technology, Government of India, Registration No.: TU/V/RG-CDE (227)/2016, dated: 13.11.2018]
- 3.3 The goods are required to be delivered at the indenting Department of NIT, Rourkela, and must be reached within **60 days** from the date of placement of the supply of order under the risk and arrangement of the bidder and offers with delivery beyond the above period shall be treated as unresponsive. In case the delivery time is higher, the same must be mentioned clearly in the quotation.
- 3.4 The bid should remain valid for a period of **90 days** from the date of opening. In case your offer has a different validity period that should be clearly mentioned in the quotation.
- 3.5 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 3.6 The goods offered should strictly conform to the specification and technical details mentioned in Annexure-I.
- 3.7 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 3.8 Period of guarantee/warranty, where applicable, should be specified in the bid.
- 3.9 If the successful bidder, on receipt of the supply order, fails to execute the order within the stipulated period, in full or part, it will be open to the Director, NIT Rourkela to recover liquidated damage from the firm at the rate of 1 percent of the value of undelivered goods per month or part thereof, subject to a maximum of 5 percent of the value of undelivered goods. Alternatively, it will also be opened to the Director, to arrange procurement of the required goods from any other source at the risk and expenses of the bidder.
- 3.10 The successful bidder may be required to execute a contract, where applicable.
- 3.11 The bidder has to furnish up to date Income Tax Clearance Certificate along with the bid.
- 3.12 Payment (100 percent) will be made by Account Payee Cheque/Bank Draft, within 30 days from the date of receipt of the goods in good condition or receipt of the bill, commissioning of the equipment, where applicable, whichever is later/latest.

- 3.13 In case of Advance payment, the payment will be made on either in Foreign Demand Draft or Wire Transfer only. The proforma invoice copy need to be sent for advance payment.
- 3.14 In the event of any dispute arising out of the bid or from the resultant contract, the decision of the Director, NIT, Rourkela shall be final.
- 3.15 The bid document/resultant contract will be interpreted under Indian Laws.

Technical Specification

1. It should be automated with a flow rate not less than 100 ml/min with a suitable piston pump.
2. **System Pump** : 0.01 to 100 ml
3. **Pump Type** : Reciprocating Piston Type Pump
4. **Pressure (back- pressure tolerance) range** : Greater than or equivalent to 1,450 psi (100 bar, 10 MPa)
5. **Buffer Inlet Valves**: The instrument should be capable of accommodating additional Inlet valves at a later stage of purchase of the Instrument allowing automatic switching between multiple buffers during method development and column regeneration.
6. **Online Buffer Preparation**: The instrument should have the optional provision for automatic mixing of buffers during a run. Using acid, base, water & salt stock solutions the system should generate specific pH buffers over a linear salt gradient or a pH gradient at a specific salt concentration. Buffer system, concentration, pH and salt gradient should be definable in the Method Editor.
7. **Mixer**: The Instrument should carry a Binary Gradient Mixer with barrels of 263 µl & 750µl. 5ml & 12ml barrel should be available optionally.
8. **Injection Valve**: Automated Sample Loading compatible with fixed volume loops variable, volume loops, Auto sampler & Sample Pumps
9. **Fixed Volume Sample Loops**: Fixed volume sample loops of 100 µl, 250 µl, 500 µl 1ml, 2ml & 5ml should be provided along with the Instrument.
10. **Sample Pump & Sample Inlet Valves** : The instrument should have optional provision for accommodating Integrated Sample Pump enabling the injection of large sample volumes, or allow repetitive, accurate, and consistent multiple loadings from a single sample stock or automated sequential purification of multiple large samples.
11. **Detectors**: Multiple Wavelength Detection with minimum 4 Wavelength Detection Capabilities, a Tungsten Halogen/Deuterium lamp, 190 to 800nm range with an integrated Conductivity Meter and Temperature Monitor.
12. The Detector should carry a "switch Off" feature to turn off the lamps when not in use to save on the lamp hours and prolong the lifespan of the detectors.
13. **External Detectors (3rd party)**: The system should support up to two external detectors via a SIM module.
 - Signal Input: External detector signals should be imported into the chromatogram, scaled and provided with customized names via the Analysis software.
 - Signal Output: The system should be capable of UV signal output to third party detectors, such as the MALs particle size analyzer, via the SIM module.
14. **Software**: The software should control all functions like instrument setup, calibration, method development, real-time monitoring and system control, chromatogram comparison, and peak analysis. Multiple Analysis Software (10 User Licenses) should be provided along with the Instrument. Software and Firmware Upgrades should be available free of cost for the entire lifetime of the Instrument.
15. **Fraction Collector: An X-Y type fraction collector** capable of collecting all fractions based on time and vol , Threshold or Collection Windows. 1 to 50 ml collection capability in 1.5ml tubes / 15 ml /50ml Tubes . Collection in 96 well plates capability should be available ion optional.

16. **Others:**

- The various modules of the system should be user installable without any cable connectors and the modules should be installable at any position on the Instrument to optimally utilize the flow path of the Instrument.
- The Instrument should have the provision to allow Tandem/2D Chromatography with optional upgrades.
- The Instrument should allow Buffer Blending/High flow Applications with optional upgrades.
- The Instrument should allow Automatic Column Switching, Reverse Flow, By-pass, Pre & Delta Column Pressure Monitoring with optional upgrades

17. **Accessories:**

- VERTICAL MINI ELECTROPHORESIS SYSTEM with High current Power supply.
- Gel size (W x L) Precast: 8.6 x 6.8; handcast: 8.3 x 7.3
- Glass plate size : Short plate 10.1 x 7.3
- Spacer plate: 10.1 x 8.2
- Total buffer volume for 2 gels, ml: 700 ml
- Total buffer volume for 4 gels, ml: 1,000 ml
- Typical run times for SDS-PAGE 35–45 min (at 200 V constant)
- Dimensions (W x L x H), cm 12 x 16 x 18
- Weight(kg/lb): 1.0/2.2
- Gel format: Mini
- MINI TRANS-BLOT ELECTROPHORETIC TRANSFER CELL
- Maximum gel size (W x L, cm) 10 x 7.5
- Buffer requirement, ml 950
- Gel capacity: 2 Mini-PROTEAN gels
- Dimensions (W x L x H, cm) 12 x 16 x 18
- Weight (kg/lb): 0.79/1.7
- POWERPACK HIGH-CURRENT POWER SUPPLY
- Output specifications: 250 V, 3.0 A, 300 W
- Output range(programmable):5–250 V, fully adjustable in 1 V increments,0.01–3.0 A, fully adjustable in 0.01 A increments,1–300 W, fully adjustable in 1 W increments
- Type of output : Constant voltage, current, or power with automatic crossover
- Output terminals: 4 pair recessed banana jacks in parallel
- Timer: 1 min–99 hr 59 min, fully adjustable
- Pause/resume function: Yes
- Display : 2-line, 16-character backlit LCD
- Operating conditions: 0–40°C, 0–90% humidity in the absence of condensation
- Safety compliance : Should confirm to CE standards for emissions and immunity class A
- Safety features : No-load detection, rapid resistance change detection, ground leak detection, overload/short circuit detection, overvoltage protection, over temperature protection
- Input protection: Fuse on hot and neutral
- Input power(nominal): 100–120/220–240 VAC, auto switching
- Dimensions (Wx L x H), cm/in 25 x 28.5 x 8/9.8 x 11.2 x 3.1
- Weight (kg/lb): 2.0/4.4
- THERMAL CYCLER GRADIENT MODEL
- Method of heating/cooling : Peltier Method of temp monitoring- Calculated & Block
- Programming: Step-based graphical Reporting: Exportable run logs, system logs
- Instant Incubation: Yes
- Memory: 500 typical programs onboard; unlimited With USB flash drive expansion
- With USB flash drive expansion

- Dimensions: 26 x 47 x 23 cm (W x D)
- Communication: 1 USB port Electrical Approvals: IEC, CE
- Display: 5.7" VGA color touch screen Operating
- Temp: 15-31 deg C ambient
- Sample capacity: 96 wells x 0.2ml
- Temp Range: 4 to 100 deg C
- Accuracy: +/- 0.5 deg C
- Uniformity: $\pm 0.5^{\circ}\text{C}$ well-to-well within 30 sec of Arrival at target temperature Heated lid - Up to 110 deg C
- Maximum Ramp Rate - Up to 4.0 deg C / s Average Ramp Rate - Up to 2.5 deg C / s
- Reaction Volume: 1 to 100 μl
- Gradient capability: Yes
- Gradient Accuracy: $\pm 0.5^{\circ}\text{C}$ of programmed Temperature Row uniformity: $\pm 0.5^{\circ}\text{C}$ well-to-well (within row) Within 30 sec
- Gradient range: 30-100 $^{\circ}\text{C}$
- Temperature Differential Range: 1-25 $^{\circ}\text{C}$
- Power supply: 230v and 50Hz single phase

18. Consumables :

- A pack of 5, 5 ml, prepacked Ni-charged column should be supplied along with the Instrument.
- A pack of 1, 10 x 300 mm, 24 ml, prepacked high-resolution size exclusion column, size range 5k–650k Da, 0.75–2.0 ml/min flow rate, max. operating pressure 600 psi should be supplied along with the instrument
- A pack of 5, 5 ml, Desalting Cartridges should be supplied along with the Instrument.
- A pack of 5, 5 ml, prepacked ion exchange column, both Q & S Chemistries should be supplied along with the Instrument.
- A mini Ion Exchange Sample Pack of 1 ml bed volume of various chemistries should be provided for scouting applications.
- A pack of 1, 10 x 100 mm, 8 ml, prepacked high-resolution Ion exchange column, 1,000 mg max. protein load, 0.5–2.0 ml/min flow rate, max. Operating pressure 500 psi with particle size of 10 Microns of both Q & S chemistries should be provided along with the Instrument.
- **The Instrument should carry a comprehensive warranty of 3 Years from the date of installation**

19. System should be quoted with a suitable desktop computer & 10 KVA Online UPS with 2 hours back up