



GAUHATI UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY
Gopinath Bordoloi Nagar, Guwahati-781014
Telephone No.: 9954028440
www.gauhati.ac.in

NO.: GUIST/ DBT-Food/2016-01

Date: December 24, 2016

Notice Inviting Quotations

NIQ No. NO.: GUIST/ DBT-Food/2016-01 Date: December 24, 2016

Sealed quotations from reputed vendors, dealers and suppliers are invited for supply, installation, fixing of Equipments , Lab Accessories, video conferencing facility etc. under a DBT sponsored project on “Food Science”.

Technical Bid is to be submitted in an envelope (Envelope-I) **super scribing clearly as Technical Bid** and Financial Bid is to be submitted separately in a separate envelope (Envelope-II) **super scribing clearly as Financial Bid**. Both the Technical Bid and Financial Bid in two different envelope (Envelope-I & Envelope-II), must be put in to **One Single Envelope super scribing Qoutation for supply of “Equipments for Food Science”**. The last date of submitting the quotations to the undersigned is 5th January, 2016 upto 3 PM. Opening will be on 7th January, 2016 at 11AM. The sealed quotations are to be submitted alongwith the earnest money of 2% of total quoted value in the form of DD in favour of The Registrar, Gauhati University, in the GUIST office on all working days till the last date and time, during office hours. Interested agency may collect the detail NIQ Document from the office of the GU IST, on payment of a fee of Rs. 1000/- in the form of DD in favour of The Registrar, Gauhati University.

Quoted price should include AMC for five years (if any)

Manab Deka
PROFESSOR-Director

Copy To:

1. Treasurer, GU for information
2. Jt Registrar, GU, for publishing this notice in the GU website
3. M/s Gulf Adv. Agency, Punbazar, for publishing the notice in the Assam Tribune in Classified Tender Section in its immediate next issue, and submit the bill for payment
4. Notice Boards
5. Office Files

Terms and conditions:

1. Rates must be shown in following order:

SI No	Item Specification	Unit Price	Tax applicable	Quantity	Total Price
			Total Price w/o Tax		
			Tax:		
			Total Price with Tax		

2. Only vendors who collect the detail NIQ paying the prescribed fee of Rs. 1000/- may submit the Quotations.
3. The agency must be OEM/Dealer/Service Integrator.
4. If the agency is not OEM, OEM authorization to quote against this NIQ must be submitted.
5. EMD against the total quoted value (Not on Unit Price) must be deposited through DD in favour of The Registrar, Gauhati University @ 2% of the total value (Not the unit price).
6. The agency that quotes for video conferencing should write "Video Conferencing" on the top of the envelope. .
7. All tax clearance certificates and Tax Registration certificates applicable in Assam must be attached.
8. The Bidder's audited annual financial statements (balance sheet, Income statement) for the last three years shall be provided. Annual turnover must be of atleast 3 times of the Quoted Value.
9. Bidder must have previous experience of successfully executing minimum of two (2) similar nature contracts within the last two years, each of value not less than 70% of the current quoted value.
10. The Bidder must submit certified copies of supply orders that substantiate fulfillment of the above criteria and information.
11. Bidder must have executed similar orders in Educational Organisations/Govt./Semi Govt organizations. Certificate must be produced.
12. A signed copy of the Detail NIQ must be submitted alongwith the technical bid.
13. The Quotation must be submitted in two envelope system: 1. Technical Bid: Detail specifications, all relevant documents alongwith the technicals of the submissions. 2. The price bid against the detail specifications. Softcopies in CD must be put inside the envelopes.
14. Price bid will be considered only after qualifying in the technical bid system
15. All specifications are minimum.
16. Date of opening of quotation is 7th January, 2016 at 11 AM. Representatives of the agencies may attend the Quotation Opening Meeting
17. The GUIST reserves the right to modify/cancel the requirements.
18. Non-Conformity of the any of the terms and conditions will disqualify the Agency and price bid will not be considered.
19. All terms and conditions will be as per Gauhati University rules, regulations and decisions.



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Detail specifications and requirements

Category I. Food Science Lab

1) Microbiological Blender

Specification

- Lab blender adapted to all kinds of applications and with optimal bacterial extraction
- All stainless steel
- Silent and robust
- Fixed blending speed (8 strokes/sec)
- Variable time (30, 60, 90, 120, 180, 210 secs. or ∞)
- Useful Volume: 50-400 ml
- Adjustable Paddles (Patented)
- Easy cleaning: door opens at 270° C
- Compact & ergonomic
- Size (w x d x h): 26 x 39 x 29 cm
- Door weight: 1050 g
- Weight: 16.5 Kg
- Power: 110/220 V ~50-60 Hz
- Security Drip Tray (in option)
- In compliance with: ISO 7218
- Designed and made in France
- Manufactured under: ISO 9001 V2008, CE, WEEE 2002/96/EC, RoHS 2002/95/EC standards
- 3 year Guarantee (after registration)
- Window Door Life-Time Guarantee
- Shock Absorbers Life-Time Guarantee
- Life-time service

DELIVERY WITH

- Power cord
- User manual
- Quick user guide
- Free sample pack of bags

2) Digital Viscometer

Specification

Features :

- Low cost digital viscometer
- Easy to use (Flip a switch, Turn a knob)
- No Calculations required
- Direct reading of Viscosity in cP or mPa*s
- 18 speeds for complete range capability

Specification :

Min. Viscosity Range : 15Cp

Max. Viscosity Range : 20 Lac Cps

Speeds : 0.3 - 100 RPM

Speed Increments : 18

Accuracy : +/- 1.0 % of range

Repeatability : +/- 0.2 %

3. Rheometer

Features: 7 inch Full Colour Touch Screen display -2600 selectable speeds -Analyze characteristics such as yield stress, flow curves, leveling and recovery -Built-in math models for data analysis in stand-alone mode -Complete computer control with RheocalcT Software - Convenient Bubble Level -Download custom test programs with PG Flash Software

Specifications:

Min. Viscosity Range: 15cps

Max. Viscosity Range: 6M cps

Speeds: 0.1-250RPM

Speed Increments: 2.6K
Accuracy: +/-1.0% of range
Repeatability: +/-0.2%
Min. Viscosity Range: 15cps
Max. Viscosity Range: 6M cps
Speeds: 0.1-250RPM
Speed Increments: 2.6K
Accuracy: +/-1.0% of range
Repeatability: +/-0.2%

4) Ultra High Water Purification System

Specification

Pre Filter to counter the Particulate Load

One Stage Purification 5 Micron or 1 Micron Polypropylene graded density wrapped type depth filter with Low Voltage 20 Watts powered DC Pump. Additional Iron removal filter 100 Liter per Hour should be included which can take care of Iron upto 4 ppm..

Analytical Grade Water System(Type II)

Feed water Specifications:

Tap water nature: Potable (as per WHO,EC, EPA and ISO)
Conductivity: < 2000 μ S/cm @ 25°C
Temperature: 2 to 35 °C
pH: 4 to 10
Fouling Index: upto 12
Free Chlorine: upto 3 ppm
TOC: upto 2000 ppb
CO₂: < 30 ppm
Hardness: upto 300 ppm

Product Water should meet or exceed Type II water quality corresponding to analytical –grade water as defined by ASTM, CAP, NCCLS and ISO 3696/BS 3997 with the following Product Water Technical Specifications:

- Resistivity 10-15 Megh Ohms
- TOC Levels less than 30 ppb
- Flow Rate 3 Ltrs/Hr
- Bacteria count < 0.1 cfu/ml
- Automatic EDI – With Carbon Beads at cathode and which doesn't required pre softening.
- System should have facility to control remotely with the help of software interface.

The System should have ideally a three stage Purification system:

Stage 1: Pretreatment Cartridge with anti scaling compounds, activated carbon filter and 0.5 Micron Particulate filter to obtain Chlorine and Colloid free water, and compatible with Feed Water Quality of SDI levels up to 12 and total Chlorine level of 3 ppm and conductivity of 2000 micro Siemens/cm. Should be fitted with a easy lock and release mechanism for future maintenance. The pretreatment pack contains silver-impregnated activated carbon, which prevents the proliferation of bacteria present in tap water; antiscaling compounds; and a prefilter to

efficiently protect the RO membrane against oxidation, scaling and plugging.

The cartridge should have an RFID tag for traceability.

Stage 2: The system should have A high Flux thin RO Membrane with 200 Daltons cutoff. The system should compulsorily have conductivity cells before and after the RO Membrane to 95-99 % rejection of Inorganic Ions 99% rejection of all Dissolved organic substances.

RO cartridge should have high recovery loop to reduce the wastage of feed water to drain.

Stage 3: The System should have the Electro De-ionization module (EDI Module), with mixed Bed Ion Exchange Resin along with Carbon Beads at cathode to avoid scaling so that the Regeneration of the Resins happens on application of Electric current.

To reduce the consumable replacement, the water system will include an automatic regenerative EDI (Electro DeIonization) module that does not require softening pre-treatment

The system should have Temperature Compensation of Product water temperature of max +/- 0.1 degree irrespective of temperature changes. And system should have co axial resistivity meter with 0.01 per cm coefficient.

Automatic self-maintenance functions (i.e., flush mode, rinsing mode, sanitization cycle) keep the system's reverse osmosis membrane in top operating condition, and ensure optimal water quality. System sanitization is recommended approximately four times a year, and takes just a few minutes to perform.

The system should have the following:

- In built display to ensure the system parameters are displayed all the times
- Auto diagnostic facility with Error NO and Alarm Code and real time clock to log reports with date and time to ensure complete traceability.
- Automatic Cleaning, Rising, and Flush mode.
- The screen should change colour to indicate maintenance or poor quality water delivery.

Specifications for Storage Reservoir

Blow molded conical bottom Polypropylene reservoir with 30 Ltrs Capacity with sensor rod float switch and single 3 stage vent filter consisting of soda lime, activated carbon and 0.22 micron hydrophobic membrane and have the option of using Automatic sanitization Module.

TECHNICAL SPECIFICATION OF TYPE 1 WATER PURIFICATION SYSTEM

Type I water should be produced from two stage mixed bed ion exchange and activated carbon cartridge, and conductivity sensor, and an option for final filter in dispensing arm.

STAGE 1.

- Type II water should pass through feed water specific cartridge for removal of trace contaminants.
- Application Specific cartridges to remove ionic and organic contaminants to trace levels
- To prevent deterioration of water quality during periods of non-use, the ultrapure water system will be able to recirculate water to maintain high water quality.
- Water production unit that can be placed either on the bench, under the bench or on the wall with LCD monitor displaying: resistivity, level of water in reservoir, volume dispensed and consumables replacement and service clearly written on the display alarms, printing etc.

Dispensing arm:

1. Adjustable height and rotating arm-adjustable to any glassware.

Ultrapure (Type I) water:

Ultrapure Water (Type 1) Flow Rate (L/min).....	1.5 -2 L/min
Ultrapure Water Resistivity (MΩ·cm at 25°C).....	18.2
Microorganisms (cfu/mL).....	<0.1
Particulates < 0.22 μm (/ mL).....	< 1
Pyrogen Levels (EU/mL)	<0.001
RNase Level (ng/mL)	< 0.01
DNase Level (pg/μL)	< 4
TOC (ppb)	< 5
VOC filter.....	To remove volatile organic compound
EDS Polisher.....	Water for endocrine disrupters experiments

❖ Compatible with RS-232 Port

❖ Inbuilt software provides data management, remote access to dashboard, and long-term archiving capabilities. For Title 21 CFR Part 11 compliance, Software provides additional features such as e-signature, audit trail, and account management for full system control. Should have facility to control remotely with the help of software interface.

5) Deep Freezer

Specifications

Capacity: 340 L

External Dimension: 24' x 25' x 73'
Baskets/ Shelves Qty: 7 Nos.
No. of Door/Type: I/Solid
Energy Consumption-Unit/24Hrs : 0.83
Temp. range: -16⁰C- -24⁰C
Castors: Yes

6) Ultra Sonicator

Specification

Sample volumes from 0.1 to 1000ml.

Probe made of Titanium, tip diameter 3 mm, approx length 100 mm, male thread M8 x 1, for samples from 5 ml up to 200 ml. Stand- mounted operation 200 watts, ultrasonic frequency 24 kHz, Automatic frequency tuning system, Amplitude should be adjustable from 20 to 100%. Dry running should be protected, with 9 – pin DSUB interface. In portable case for use with stand ST1- 16 or sound protection box, with mounting tools. Ip40 grade, Titanium horn with female thread MB x 1 dimensions (L x W x H): 290mm x 210mm x100mm

7) Ultrasonic Cleaner

Specification:

Should be ideal for cleaning a wide range of laboratory instruments as well as in other healthcare, medical and industrial applications. The ultrasonic activity generated must allow rapid and effective cleaning and processing of a wide range of instruments and components . The technology should provide more homogeneous ultrasonic activity throughout the tank, reducing dead spots and standing waves. Should be accurate in process control of time, temperature, ultrasonic activity, degas and power. Stainless steel basket – should be designed specifically to generate maximum ultrasonic activity, prevent items resting in the tank and prevent operators coming into contact with chemical solutions. Should be with ergonomic ABS plastic lid to reduce noise volume and to minimise potential of aerosol escape

- Working capacity (litres) : 2.5
- Max capacity (litres) : 2.75
- Ultrasonic Power : 35 W
- Per litre/W : 14 W
- Operating frequency LEAP : 44 kHz
- Heated : Yes
- Maximum heating capacity : ambient + 5 to 70°C
- Heater power : 150 W
- Timer : 0 -15 mins
- Drain outlet BSP valve : N/A
- Supply voltage : 230 V

8) Laminar Air Flow Vertical

Specification:

Working table of S.S.304, HEPA of 3.0 μ of an efficiency of 99.97% down to 0.3 micron. Media should be of glass fiber & made of pleats back & fro in an anodized aluminum frame. Pre filter of dry fiber washable type with the frame of on all the sides. Should conform the international standard 209 E. Statically balanced motor blower Assembly (Heavy Duty). Velocity at the output of HEPA should be 90 \pm 20FPM. Noise level and vibration should be very Low. Normal working fluorescent light. Static pressure Manometer. U.V. light. The Body should be made of laminated board duly satin finished wherever necessary M.S. Duly Powder Coated. Front and side Door of Acrylic sheet (Transparent). Working size: 3'x2'x2'

9) Biological Safety Cabinet Class (II)

Specification:

Size: 3' x 2'x 2'. Application should include isolation and identification of plant/human pathogens, work in virology, tissue culture etc. Should be operator protective from low to moderate risk biological agents (or chemical carcinogens) while providing a sterile work environment for the procedure. The cabinet should be under negative pressure with partial quantity of reticulated air exhausted through a HEPA filter. External exhaust from the laboratory preferable. Powerful exhaust system. Built-in-positive Air curtain. Exhaust ducting to carry the air outside. Front sliding door, U.V. light Manometer, gas cock etc FACE velocity: A face velocity of 90 \pm 20FPM should be maintained.

10) Circulating water Bath

Specification

Chamber made should be SS 304. Size of water bath: 7" x 11" 7". Temperature range: Ambient +5⁰ C to 50⁰. Should be provided with variable speed regulator to control the speed of Circulation. Digital Temperature Controller with an accuracy of \pm 1⁰ C.

11) Analytical Electronic Balance

Specification :

Capacity: 220 gm.

Minimum Display: 0.1 mg.

Type: Analytical

Pan size: \varnothing 91

Calibration: Internal

Main Body Dimension (mm) approx: 213(W) x 356(D) x 338(D)

Power Requirement: 12V, 1A

12) Vortex Shaker

Specification :

Speed : 100- 3200rpm.

Operation : Touch/Continuous

Working condition : 4 to 60⁰C ambient.

Body : MS with powder coated.
Input Voltage : 230V, 50Hz. A.C. Supply

13) Digital Colony Counter

Specification :

3 digit colony counter. Display Digital

14) Autoclave

Specification :

Vertical Autoclave for Sterilization of culture media, glassware, utensils instruments etc. in stem under pressure. Steam lined construction. Outer body Stainless steel. Inner chamber should be made of Stainless Steel. Lid should be made of Stainless Steel & should be provided with radial locking systems, worked by a paddle at the bottom provided with Silicon gasket, hydraulically tested up to 40 psi. The chamber should be absolutely leak proof & should be operated at any selected point in between 5 to 20 pound per sq. inch (psi). Should be provided with safety valve, pressure setting, S.s. basket & water level indicator with cord & plug. **Temperature should be controlled by Digital Temp. Controller** for Temperature indication and setting. To work on 220/230V AC supply. Capacity: 50 ltr.

15) Microprocessor Based pH Meter

Specification:

Microprocessor Based pH Meter. pH range 0-14 pH , Resl. 0.01pH/hr, standard Buffer – 7.00/4.00/9.183, Buffer Deviation +/-0.5pH, mV range 0 to +/-1999mv, Resl. 1mv, Accuracy +/- 1mv +/- 1 digit, Temperature Compensation Auto/Manual, 0-99.9 degree C, Resl. 0.1, 7digit 7 segment LED Display. Printer Port for Epson 80 col Dot Matrix Power 230V +/-10%, 50Hz

16) Auto Ranging Conductivity Meter

Specifications:

Frequency 100Hz or 1KHz Automatic, Conductivity Range 0.1micro S to 100mS (6decadic ranges), Accuracy +/- 1% FS +/-1 digit, Resl. 0.001 micro S. Temperature 0-100 degree C (Auto/Manual), Resl. 0.1 degree C, Accuracy +/- 1% FS +/- 1digit. Cell Constant 0.1 to 5.0 Temp Coefficient 0.0% to 9.9%(user selectable). 7digit 7 segment LED Display. Printer Port for Epson 80 col Dot Matrix

17) Microprocessor Flame Photometer

Specification: Microcontroller controlled automation for ease of operation. Determination upto four elements with single aspiration (Na, K, Li, and Ca). Sensitivity – Na-2ppm, K-1ppm, Ca-30ppm, Li-1ppm. Repductibility: low conc. +/- 1% Full scale High conc. +/- 2% full scale. Minimum sample : 3ml. Data processing with linear mode or quadratic curve fitting. Printer port for Epson compatible Dot Matrix / Inkjet printers to get hard copy of results (printer optional). Printout facility for individual sample, batch samples in the memory (700 max). Air compressor with built-in air regulator and air filter.

18) Microprocessor Auto Karl Fischer Titrator

Specification:

Measuring Range: pH 0.00 to 14.00, mV 0.00 to ± 1999 , Temp. 0.0 to 100⁰C, Resolution: 0.01 pH, mV 0.1⁰C, Accuracy: ± 0.01 , ± 0.5 mV, $\pm 1^0$ C

pH Calibration : with 2, 3 & 5 points standard buffer or user selectable standard with Auto or Manual Temp. Compensation.

Solution Dispensing Mechanism: Highly Accurate Sipper pump with Auto calibration

Display range & Resolution of Volume Dispenses: 0-99.9ml with 0.001ml resolution by using Static Analysis

Calibration for KF Factor: In built automatic KF Factor calculation facilities, After standardization one should use same factor for different sample or can re-standardize the KF reagent.

Moisture Content calculation: 0 to 100% Display with % as well as mg

End Point Alarm: After Titration is over it should give audible beep

Hold Time for End Point: 0 to 50 second hold time, when end point is achieved.

Potentiometric Titration: 1st derivative for peak point (pH/ mV) determination, 2nd derivative for volume (ml) determination

Display and Keyboard: Graphic LCD 240 x 128 display and soft touch keyboard with 20 keys.

Printer: Should print the Data and Graph on 80 column DMP printer

Stirrer: In built Magnetic stirrer with adjustable speed

Power: 230V $\pm 10\%$, 50 Hz

Dimension: 430 (H) x 250 (W) x 120 (L) mm

19) I.R. Moisture Balance

Specification : Digital Moisture Analyzer . Capacity: 50gm. Should directly calibrate in moisture percentage, portable and sturdy instrument for laboratory use for determination of moisture contents of materials.

20) Pocket Type pH Meter

Specification: Waterproof , 1 point Calibration pH range 0-14 pH, mV range 0 to +/-1999mv

21) Heating Mantle with Energy Regulator

Specification: Most suitable for labs, Pharmaceutical, Chemicals glass plants etc. useful for heating inflammable liquids electric heating net is hand knitted from glass yarn (without any joint) and for durability & stands. Temperature up to 350⁰C. Body is duly powder coated. Mantles are logged with special grade mineral wool. Most suitable to work on 220 volts A.C. Supply Capacity: 500ml

22) Muffle Furnace

Specification: Muffle Furnace with Digital temp. Controller, Size: 125 x 125 x 250mm (5" x 5" x 10")

Body should be made M.S. Body, Light weight High Temp. Ceramic fibre Wool insulation. Outer Body should be Double walled Thick. P.C. R.C Sheet Duly Powder Coated. Heating Elements should be of KHANTHAL A-1 Wire, temperature Control Unit should consist of Energy Regulator, Fitted in Front of Furnaces, and Two Pilot lamps with Pyrometer. The Apparatus should be fitted with Silver fuse/Thermocouple, Supplied with mains lead with power plug to work on 220/230 Volts AC. Maximum Temp. 1000⁰C.

23) Butyro Refractometer (oil and Sugar)

Specification : Digital Butyro Refractometer ,Calibration with Standard liquid, Large, Easy to read display of both Butyro & RI scale. Range: Butyro 30 to 90.0, RI 1.4450 to 1.4850 (Converted at 40⁰ C) Minimum Indication: Butyro 0.1 RI 0.0001. Accuracy: Butyro \pm 0.5 (at 40⁰C), RI \pm 0.0003 (at 40⁰C).

24) Hand Refractometer

Specification: Light instrument for field and laboratory use, for estimation of sugar contents, Brix and T.S.S. Range: 0-32 %

25) Polarimeter

Specification: Maximum Length of tubes which this model can take is 400mm; smaller tubes can also be used. The tubes supplied have a bubble trap. Polaroid Sheets used for polarising the incident light. Glass circular scale finely marked in angular degrees and also in ISS degrees. The range on ISS Scale is from- 30⁰ to 130⁰ The Scale is properly illuminated to facilitate reading. Permanent focus. Once the dividing line is focused for the eye. The focus is not disturbed by inserting tubes containing solutions, regardless of the nature of solution or of the length of the tube. Permanent good definition even with difficult liquids. Rotating half shadow Effect/ Triple Shadow effect Provision for attaching lamp to the instrument thus keeping alignment correct at all times.

26) Low Temperature/ Humidity Incubator

Specification: Size: 455x410x610mm 4 CU ft., Capacity: 112L, Temp. Controlled by Digital Temperature Controller Inner, Stainless steel outer body M.S. Duly powder coated, Temp. Range: 5-50 0C. CFC Free Compressor. Full view inner glass door. Lock & Key Arrangement.

Caster wheel mounted cabinet. The inner chamber should be properly insulated with special grad, PUF to prevent thermal losses. Air Circulating Fan for Uniform temperature.

27) Cryostat

Specification: The machine should utilize running tap water and should convert it in the form of Ice flakes continuously. Compact, self contained unit, covering less floor area & easily instable. Capacity: 65-70Kg Per day, Storage Capacity: Approx. 30kg

28) Food Texture Analyzer

Specification: Load Range : 0-10kg, Load Resolution: 0.5 For 4.5k & 1.0 For 10k In 1g Increments, Load Accuracy: Better Than $\pm 0.5\%$ Of Full Scale, Load Repeatability: Better Than 0.5% Of Full Scale, Position Range :0-100mm, Position Accuracy: 0.1mm, Position Setting Resolution : 0.01mm, Position Measuring Resolution : $0.1\text{mm}\pm$, Test Speed Range : 0.01-10 Mm/S In Increment Of 0.01 Mm/S, Test Speed Accuracy: Better Than 0.1% Of Full Scale, Speed Accuracy: Better Than $\pm 0.1\%$ Of Set Point, Test Modes: Single , Hold, Repeat/Tpa, Cycle, Compression, Tension, Data Output Options: Usb Port, Rs232 Compatible Serial Port.

Data Acquisition: 26 Data Sets Per Second, Protection: Load Cell Overload Protected By Electronic Stop In Both, Direction And By Mechanical Stop In Compression., Approvals: Ce Marked., Security: Software Password Different Levels Of User, Protection Is Required For Excessive Dust., Operation Temperature: 5oc To 35oc, Power Supply: 230 V Ac 50hz, Ct3-Weight: 4.5kg /10 Kg.

Texture Analyser Software (P/N-Ta-Ct-Pro-Ay)

Probe Kit: General Probe Kit, Cylindrical (Bs Std); Ta5; 60mm Wide Knife Edge Ta7; 1.0mm Dia Needle Ta9; 12.7mm Cylindrical, (Aacc Std) Ta10; 25.4 Mm Cylindrical, (A0ac Std) Ta11/1000, 45 Deg Cone Ta15/1000; 30 Deg Cone Ta 17; 12.7mm Ball Ta-18; 50.8mm, Cylindrical Ta25/1000; 0.33 Mm Cutting Wire, Ta 26; 2mm Rod Ta39; 38.1 Mm Cylinder Ta4/1000, 6mm Cylindrical Ta41; 25.4mm Ball Ta 43; 4mm Cylinder Ta 44 And Ta-Pcc. Three Point Bend Assembly, Ta-Mp-Mesh Probe

**29) SUPPLY AND INSTALLATION OF VIDEO CONFERENCING SYSTEM AT
INSTITUTE OF SCIENCE AND TECHNOLOGY GAUHATI UNIVERSITY**

ITEMS TO BE SUPPLIED

- 1) Video Conferencing
- 2) Interactive Solution
- 3) Digital Lectern

Detailed specification in Annexure III

Mode of submission of Tender:

Technical Bids as per format given in **Annexure-I** containing all required particulars is to be submitted in a envelope (Envelope-I) **super scribing clearly as Technical Bid**. Financial Bid as per format given in **Annexure-II** is to be submitted separately in separate envelope (Envelope-II) **super scribing clearly as Financial Bid**. Both the Technical Bid and Financial Bid in two different envelope (Envelope-I & Envelope-II), must be put in to **One Single Envelope super scribing Tender for supply of Interactive Audio Visual Class Room solution**. The last date of submitting the tenders to the undersigned is 5th January, 2016 upto 3 PM. Opening will be on 7th January, 2016 at 11AM. The sealed quotations are to be submitted alongwith the earnest money of 2% of total quoted value in the form of DD in favour of The Registrar, Gauhati University, in the GUIST office on all working days till the last date and time, during office hours.

ANNEXURE-I

**OFFICE OF THE DIRECTOR, GUIST:: GUWAHATI- 14
TECHNICAL BID AGAINST THE TENDER NOTIFICATION TO SUPPLY AND
INSTALL INTERACTIVE AUDIO VISUAL CLASSROOM SOLUTION
INTERACTIVE AUDIO VISUAL CLASSROOM SOLUTION**

I. General Particulars:

The Tenderer should provide the following particulars along with relevant supporting documents:

1. Name of the firm :.....
2. Status of the firm (please tick) Proprietorship/ Partnership/ Co-operative/Company
3. Name of the Proprietor/Partner/Managing Director (as the case may be)
4. Mailing address:
5. Firm Registration No..... VAT No..... TIN No.....
6. (i) Tel. No..... (ii) Mobile No..... (iii)Fax No.....
7. E-mail address.....
8. Name and designation of the person authorized to make commitments to the

9. Year of establishment of the Organization.....
10. Description of business and business background (on firm's letter head with seal).
11. Client profile.... (On firms' letter head with seal).
12. Details of similar work of Govt./ Semi Govt./ Autonomous/ Local bodies / Universities/ other institutions during last two years (on firm's letter head with seal)
13. Turnover details for past two years, please enclose Profit & Loss A/c and Balance Sheets duly audited by Chartered Accountant. (Attach copies of Work Order and satisfactory completion of work)
14. Details of Bank Account No.
 - (i) Name of the Bank.....
 - (ii) Branch Code.....
 - (iii) IFSC Code.....
 - (iv) MICR Code.....
15. Details of Tender Processing fee (non refundable)
 - (i) Amount.....
 - (ii) D. D. No.....Date.....Bank.....

Verification

1. We confirm that we shall abide by all the terms and conditions contained in the application for pre-qualification.
2. All the details mentioned above are true and correct and if there are misrepresentations of facts on any matter at any stage, competent Authority of the Gauhati University has the right to reject the proposal and disqualify us from the process.
3. We hereby acknowledge and unconditionally accept that Gauhati University can at its absolute discretion apply whatever criteria, if deems appropriate for short listing of bidders.
4. We also confirm that we have noted the contents of the enclosed documents forming part of it and have ensured that there is no deviation in filling our offer in response to the tender. The Gauhati University shall have the option to disqualify us in case of any such deviations.
5. We have enclosed all the relevant documents as mentioned above.

Signature & Seal of Tenderer

ANNEXURE-II

FINANCIAL BID (FOR ENVELOPE-II)

SI. No.	Item	Brand	Qty	Unit Price	Tax	Total Inc. of all Taxes

ANNEXURE –III

1. Video Conferencing

<p>The proposed system must support PAL with a PTZ camera. The codec must be based on ITU standards. The VC End Point should be a codec based hardware. No software based solution is accepted here. All components of the VC system like Codec, Camera and Microphone should be from the same OEM.</p>			
Sr. No.	Description	Specification Parameter	Compliance
1	Package	Full HD 1080p camera, codec, Microphone Array, cables, and remote control	
2	Video Standards and Resolutions	It should support H.323, SIP standards for communications.	
		It should support H.261, H.263, H.264 AVC/ SVC, H.264 High Profile	
		It should support 1080p 60 fps, 1080p 30 fps, 720p 60 fps and 720p 30fps	
3	Content Standards and Resolutions	It should support content sharing using standard based H.239 and BFCP over SIP. It should also support audio from PC used for content sharing.	
		It should transmit both people and content both simultaneously to the far end location at 1080p 30fps	
4	Audio Standards and Features	It should support G.711, G.728, G.729A, G.722, G.722.1, AAC-LD or better	
		It should support 20kHz or better bandwidth with crystal clear audio and stereo sound.	

		Automatic Gain Control and Automatic Noise Suppression	
		Keyboard noise reduction and instant adaptation echo cancellation	
5	Video and Audio Inputs	1 x HD input for connecting main HD camera	
		1 x HDMI input for connecting PC/Laptop to share HD content	
		1 x Microphone Input or more(Support for minimum 3 mics)	
		1 x 3.5mm stereo line-in	
6	Video and Audio Outputs	2 x HDMI output for connecting main monitor & second monitor.	
		1 x 3.5 mm stereo line-out	
7	Other Interfaces	1 x 10/100/1000 LAN port	
		2 x USB 2.0 for software upgrade and connecting external devices	
		1 x RS-232 mini-DIN 8-pin	
8	Camera	It should support 1080p60fps with 10x optical zoom.	
		It should be capable of enhancing video conferencing experience with advanced face-recognition technology such that it automatically scans the room and seamlessly commands the main camera to appropriately frame the users during a call without any manual intervention.	
		It should support PAN Range of +/-90°, and Tilt of +/-20°	
9	Network Features	H.323 and SIP bandwidth up to 6 Mbps	
		IPv4 and IPv6 support from day one	
		Auto Gatekeeper Discovery	
		IP Precedence	
		H.323 based Packet Lost Recovery	
10	Multisite Feature	It should support atleast 4 sites at 1080p from day one	
11	Security	Media Encryption (H.323, SIP): AES-128, AES-256	
		Authenticated access to admin menus, web interface and telnet API	
		Local account password policy configuration	
12	Other Standards	H224/H.281, H.323 Annex Q, H.225, H.245, H.241, H.239, H.243, H.460	
		It should support native Lync server integrations	
		Auto sensing power supply	

2. Interactive Solution

Interactive Solution	
Digitizing Technology	Optical Touch Tracking, near-infrared pen to write and operate.

Active area	40-160 inch
Resolution	SVGA, XGA, 800X600, 1024X768, 1200X800
Responding rate	Signal tracking rate: ≥ 3 m/s, Signal processing rate: 480 dot/s, Refresh rate: 30 frames
Calibration	Provide 4 points and 9 points calibrations.
Mounting	Ceiling Mounting or Desktop Mounting
Operating system	Windows XP/Vista/7
PC connection	Provide 10M USB cable for PC connection. Provide optional 2M or 20M USB cable. Provide optional USB extender for connecting USB cable with device specifications.
Power supply	Through USB Cable
Power consumption	≤ 0.5 W
Stylus Specifications	
Pen battery	2 AAA batteries
Extendable pointer	Extendable pointer for remote-control within receiver and screen

3) Digital Lectern

- One gooseneck MIC and one lamp.
- 60W rated power output.
- 1 aux input, 2 MIC inputs, 1 line output and 1 REC output.
- Power Supply : ~ 230 V/ 50Hz/ ~ 110 V/60Hz