



উত্তরবঙ্গ কৃষি বিশ্ববিদ্যালয়

পুণ্ডিবাড়ী, কোচবিহার, পশ্চিমবঙ্গ-৭৩৬১৬৫

UTTAR BANGA KRISHI VISWAVIDYALAYA

P.O. PUNDIBARI, DIST. COOCH BEHAR, WEST BENGAL- 736165

□ :শুভেন্দু বন্দ্যোপাধ্যায়

(নিয়ামক ভারপ্রাপ্ত)

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NOTICE INVITING TENDER (NIT)

E-Tender Ref. No. UBKV/Est T/P-02/02/2019-20 Date: 26/08/2019

Sealed Tenders are being invited under Two Bid System viz, **Part-I Technical Bid and Part II Financial Bid** from the intending reputed, bonafied and experienced manufacturers / authorized dealers/ experienced agencies of liquid bio-fertilizers equipment for Establishment of **Carrier Based and Liquid Bio-fertilizers production lab (10000 Kg or Litres capacity/annum)** on **TURN KEY BASIS** under the scheme Establishment of RKVY Project on Bio-fertilizer production Unit as per following specification:-

Background:

Uttar Banga Krishi Viswavidyalaya, Pundibari, Cooch Behar is a GoWB Aided reputed Agricultural University in West Bengal. We are planning to implement **Carrier Based and Liquid Bio-fertilizers production lab (10000 Kg or Litres capacity/ annum)** on TURNKEY BASIS at Uttar Banga Krishi Viswavidyalaya, Pundibari, Cooch Behar under RKVY Project for the following products:

- *Rhizobium Liquid Bio-fertilizer*
- *Azotobactor Liquid Bio-fertilizer*
- *Azospirillum Liquid Bio-fertilizer*
- *Bacillus Megaterium (PSB) Liquid Bio-fertilizer*

1.1 Scope of Work for Proposed Bio-fertilizer production Unit:

- The Scope of work includes Design, Supply, Installation, Testing, Commissioning, training of client's personnel and validation of Bioreactors and Harvest Cell mixing Vessel.
- This Facility shall be compliance to CGMP quality. UBKV has developed the manufacturing Process at R&D scale for Upstream, Recovery and Down Stream stages successfully and now intended to have Pilot cum Production facility with 100 Litres Production Fermentor.
- The URS (User Requirement Specification) mentioned below shall be taken into design & construction consideration and Vendor has to specify the Technical details, make of Components and Instruments etc. in the Techno-commercial quote. Client/Consultant shall have to access parts and/or area of the Vendor's shop where any activity occurs related to the fabrication and testing of the system. Vendor shall quote separately for supply of essential spare parts required for one year and a set of special tools if any.
- Acceptance criteria for the equipment includes successful completion of Factory Acceptance Test (FAT), Installation, Testing, Commissioning and Validation of the system including required trial runs and submission of all necessary documents. Vendor shall provide personnel and technical assistance for Performance Qualification (PQ). Vendor shall submit all details including general arrangement drawings, P&IDs, control panel details etc. for review & approval before taking up the fabrication. Vendor shall submit the protocols to Client/Consultant for review and approval well before the commencement of FAT and Site Acceptance Test (SAT).
- Vendor shall provide a detailed delivery schedule including provision for technical discussions and drawing & document approval during bid stage/post contract stage etc. The schedule shall include details pertaining to stage inspections, FAT, shipment, installation, commissioning and SAT.

- The Bio Process equipments supplied by the vendor shall be skid mounted, ready to use & able to perform the complete cycle of process, CIP & SIP as specified in Technical Specification.
- There shall be 2 x 20 Lits. Seed Vessels, 2X100Lits Production Fermentor, 1X 200Lits Harvest Cell & mixing Vessel. It is proposed to have Centralized common SCADA for all Bio Process Equipment.
- Vendor shall estimate utilities required for the plant and confirm Equipment /Machine capacity and will supply –install –commissioned all utilities equipment required e.g. CTW, Chiller & Pump, Compressed Air System (including Surge tank, filters & Air Dryer), Steam Generation system with Steam filter etc and clean utility /RO water etc.
- These above three systems are packaged system, Vendor shall install the systems along with piping work for interconnecting piping & Utility Piping.
- Scope of work is expected to be ready at site with basic amenities where required power supplies, water line connection etc will be provided by University authority. Bidder should clearly mention the total amount of required electricity in their quotation.
- Vendor to assure design which should not be any cross-contamination problems and prepare SOP ensuring constant yield per batch/product.
- The successful bidder should install/ implement the whole bio-fertilizer unit along with supply of required instruments with installation, supply & fixing of laboratory furniture, media composition & SOP for production of each product with stabilized output.
- **The successful bidder should provide training to at least two persons for 7 days after starting of production of Bio-fertilizers.**

1.2 Status of the Project:

Building Construction is in final completion stage and almost 90 % is completed, where balance civil work will be completed within One month positively. We envisage completing all activities associated with procurement & installation of Equipment & Machinery for Process and Utilities within next 2-3 months period.

2. TECHNICAL SPECIFICATION

2.1 Technical Specification of required Instruments/ Equipment’s for Proposed Bio-fertilizer production Unit :

SI No	Item & Specification	Qty
<u>PART -A</u>		
Production Unit		
1.a.	<p>Fermenter with Seed Inoculation **</p> <ul style="list-style-type: none"> • Vessel Capacity: 100 Litre . • Skid Mounted Aerobic Fermentor • OPERATING REQUIREMENTS: Working Volume 75-80% of GV, Air flow rate 2 VVM, Sterilization Temp 121 °C, Back Pressure 0.2 to 0.7 kg/cm², Running Temp 25-27°C • CONSTRUCTION: Vertical Vessel, Leg supported, L/D - 2.5:1, Top mounted Agitator, Jacketed, Joint eff 80% & 100% of Shell & Dish respectively, Insulated & Cascaded. Inside surface finish <0.5 Ra, Outside 1.2/Matt finish. • MATERIAL OF CONSTRUCTION (MOC): <ul style="list-style-type: none"> ○ Contact parts SS316L, Non-contact parts: SS304, Food grade steam sterilizable elastomeric (EPDM/PTFE) ○ Outer Shield should have with Stainless steel 304 Grade (<i>MOC Testing certificate will be required</i>). ○ The main vessel should be typically a cylindrical vessel made of 3mm steel 316 Grade, (<i>MOC Testing certificate will be required</i>) held upright on a welded on 	2

stainless steel skin with domed top and bottom (bidder may quote both 304 & 316)

- The top dome has a Side positioned oval opening with the snap type enclosure which uses Vinton O-ring seal
- **DESIGN TEMPERATURE:** 5 to 150°C,
- **WORKING PRESSURE** : 3Kg/cm²,
- **DESIGN PRESSURE** : 4.5 kg/cm²,
- **SYSTEM DESCRIPTION** : Skid mounted, Semi automated operation (PLC based with other Bio process equipment). System will Comprise as follows:
 - **Aeration system:** 2 stage Air Filter, Pre 1.2 micron & Final 0.22 micron, 6" PTFE Cartridge, Sartorius make or equiv , Air Sparger Ring type. Manually adjustable Air flow rota meter/ Vortex flow meter, and Back Air Pressure Control, Air regulator.
 - **Vent Line** with Condenser/Heater(Option) & Vent Filter 6"PTFE Cartridge, 0.22 micron
 - **Agitation:** Top mounted Agitator, Single Mechanical Seal (Bidder to specify), Impeller Ruston Flat 6 blade, 2.5 to 6.5 m/s Tip speed, Motor HP 2 to 3HP(By bidder), VFD .
 - Steam Sterilisation (Insitu) by Filtered Steam, Cooling & Temp Control by Chilled water / cooling water to Jacket.
 - **Instrumentation & Control System:**
 - Instrumentation: Temp Transmitter & Sensor, Pressure transmitter & Sensor, PH Sensor, DO transmitter & Sensor, Air Flow Rotameter, Foam indicator, Back pressure sensor & gauge, Temp gauges,
 - Automation & Controls: Centralised common PLC based Controls for Temp Control, DO control (Closed loop with RPM & Air flow), 10-200LPM Air flow Rota meter / Vortex Flow meter,
 - Piping/Fittings/Valves: Process piping & Clean Utilities shall be ASME BPE 2016 (OD based), SS316L, Diaphragm Valves, Utilities Piping SS 304 and Ball Valves/Angle seat valves for Chilled water, Cooling water and Steam.
 - Bottom and Sample Valves: Flushed Bottom Valves
 - 1 No. Common Peristaltic Pump for Acid/base dosing
 - Addition ports & lines: The vessel shall be provided with ports for addition of base, acid, antifoam, media, nutrients & inoculums. All addition ports shall be of sterile arrangement with four valve or block valve assembly for steaming, draining and isolation. Temperature sensor shall be provided for temperature indicating controller cum recorder to measure & control the temperature during sterilization. All ports shall have a J tube arrangement facing the interior wall of the vessel.
For all the addition through peristaltic pumps, transfer lines shall be provided with autoclavable & detachable two valves system, which can be sterilized with the dosing bottles connected with flexible tubes.
- **NB: The System Should have the following Accessories:**
 - ❖ A steam pressure relief valve, with cooling water inlet and outlet port
 - ❖ Aeration system with filter for the intake the exit of sterile air.
 - ❖ All valves should have with stainless steel ball with Teflon sheet and automatic exhaust pressure release /cut off system
 - ❖ Should have with Automatic Temperature control system with display
 - ❖ Should have with on-line pH measurement system with display and optional pH control System
 - ❖ Should have with on-line DO measurement system with display and DO cascading mechanism
 - ❖ Should have with Gear Based Variable Speed system with RPM controller along with Agitator- Shaft SS 1" attached with Impellers 2 Sets
 - ❖ Should have with RPM display system
 - ❖ Should have with Viewing windows on top with lighting arrangement
 - ❖ Should have with Single mechanical shield arrangement
 - ❖ Should have arrangement for 100 Ltr. Water Chiller or Suitable Cooling Tower
 - ❖ Should have with LPG arrangement
 - ❖ Should have with HMI system

Design and fabrication of seed vessel shall be preferably as per ASME section VIII, DIV I,

	<p><u>BPE 2016 , should have with ISO 9001-2015 certification followed with WHO-GMP Certification CE certification, ISO 18001: 2007 , ISO 3690-2012 certification (welding process) & ISO 10002-2004 certification and quality compliance to CGMP WHO</u></p> <p><u>(Quote should be complete with Optional spares for next one year like Online pH probes , DO Membrane , 1 HP motor, Teflon Mechanical Seal, Shaft SS 1", Impellers 2 Sets, Baffle Plate-2" wide 60 cm long and other necessary spares)</u></p>	
1.b.	<p>Seed Vessel **</p> <ul style="list-style-type: none"> • Capacity : 20 Lits (GV) • Design & Standard code: Design & Fabrication of Seed Vessel shall be as per ASME Section VIII, Div I, BPE 2016, quality compliance to CGMP,WHO • Operating Requirements: Working Volume 75-80% of GV, Air flow rate 2 VVM, Sterilization Temp 121 °C, Back Pressure 0.2 to 0.7 kg/cm², Running Temp 25-27°C, • Construction: Vertical Vessel, Leg supported, L/D 2.5:1, Top mounted Agitator, Jacketed, Joint eff 80% & 100% of Shell & Dish respectively, Insulated & Cascaded. Inside surface finish <0.5 Ra, Outside 1.2/Matt finish. • MOC : Contact parts SS316L, Non contact parts: SS304, Food grade steam sterilisable elastomer (EPDM/PTFE) • Design Temp : 5 to 150 deg C, • Working Pressure : 3KG/CM², Design Pressure 4.5 kg/cm², • System Description: Skid mounted, Semi automated operation (PLC based with other Bio process equipment). System will Comprise as follows: <ul style="list-style-type: none"> - Aeration system: 2 stage Air Filter, Pre 1.2 micron & Final 0.22 micron, 6" PTFE Cartridge, Sartorius make or equiv , Air Spurger Ring type. Manually adjustable Air flow rota meter and Back air Pressure, Air regulator, - Vent Line with Condenser/Heater (Option) & Vent Filter 6" PTFE Cartridge , 0.22 micron - Agitation: Top mounted Agitator, Single Mechanical Seal, Impeller Ruston Flat 6 blade, 5 to 6m/s Tip speed, Motor HP 1HP (By bidder), VFD (option) - Instrumentation & Control System: Centralised common PLC based operation ,Temp Control, Pressure sensor , 0-50LPM Air flow Rota meter , - Piping/Fittings/Valves: Process piping & Clean Utilities shall be ASME ,BPE OD based, SS316L, Diaphragm Valves, Utilities Piping SS 304 and Ball Valves/Angle seat valves for Chilled water, Cooling water and Steam. - Bottom and Sample Valves: Diaphragm Valves, minimum dead leg - Addition lines/ports: The vessel shall be provided with ports for addition of base, acid, media, nutrients & inoculums. All addition ports shall be of sterile arrangement with four valve or block valve assembly for steaming, draining and isolation. Temperature sensor shall be provided for temperature indicating controller cum recorder to measure & control the temperature during sterilization. All ports shall have a J tube arrangement facing the interior wall of the vessel. <ul style="list-style-type: none"> • pH probe as Optional for future upgradation 	2
1.c	<p>Skid Mounted Sterilisable Harvest Cell Mixing Vessel with Piping **</p> <ul style="list-style-type: none"> • Capacity : 200 Lits (GV) • Design & Standard code: Design & Fabrication of Harvest Vessel shall be as per ASME Section VIII, Div I, BPE 2013, quality compliance to CGMP. • Operating Requirements: Working Volume 75-80% of GV, Sterile Filtered Air , Running Temp 25-27degC, CIP & ESIP able. • Construction: Vertical Vessel, Leg supported, L/D - 1.2: 1, Top mounted Agitator, Jacketed, Joint eff 80% & 100% of Shell & Dish respectively, Insulated & Cascaded. Inside surface finish <0.5 Ra, Outside 1.2/Matt finish. • MOC : Contact parts SS316L, Non contact parts: SS304, Food grade steam sterilisable elastomer (EPDM/PTFE) 	2

1.d.	<ul style="list-style-type: none"> • Design Temp: 5 to 150 °C, • Working Pressure: 3 kg/cm², Design Pressure 4.5 kg/cm², • System Description: Skid mounted. System will Comprise as follows: <ul style="list-style-type: none"> - Aeration system: Vent & Air supply (Common)Filter 0.22 micron, 6" PTFE Cartridge, Sartorius make or equiv , CIP & ESIP manually operated. - Agitation: Top mounted Agitator, Single Mechanical Seal, Impeller PBT, 3.5 m/s Tip speed, Motor 1or 2HP(By bidder), No VFD - Cooling water supply to Jacket for Cooling after ESIP. Manual operation. - Instrumentation & Control System: <ul style="list-style-type: none"> ➤ Instrumentation: Temp Controller with Indicator, Temp Transmitter &Sensor, Pressure transmitter &Sensor, Pressure gauge, Temp gauges, - Piping/Fittings/Valves: Process piping & Clean Utilities shall be ASME, BPE2016 OD based, SS316L, Diaphragm Valves, Utilities Piping SS 304 and Ball Valves/Angle seat valves for Chilled water, Cooling water and Steam. - Bottom and Sample Valves: Flushed Bottom Valves/ Diaphragm Valves - 1 No. Common Peristaltic Pump for Acid/base - Addition lines/ports :The vessel shall be provided with ports for addition of base, acid, Vent/Air, All addition ports shall be of sterile arrangement with four valve or block valve assembly for steaming, draining and isolation. Vendors will submit Detailed Specifications/ datasheet, G A drgs, P&ID after order placement for approval from Client , before commencing Fabrication. <ul style="list-style-type: none"> • SIP/CIP Machine, Transfer Pump with piping • One no of L Hot Water dosing tank • Two no of Acid, Alkali&Sanitize Tank <ul style="list-style-type: none"> ○ Two no of S.S. Dosing Pump ○ Controlled panel ○ Complete made in S.S. 304 • CIP system Fully Automatic, which can clean Fermentor, <ul style="list-style-type: none"> - By Air washing - By Alkali Washing - By Acid Washing - By Sensitizer washing - By Hot Water / Steam • Semi /Fully Automated Process Cycles • On line display of process parameters with P & I of Operating Systems • Display of Fault messages • Supervisory access code prevent unauthorized changes • Detergent / Acid / Alkali dosing • On Line pH, DO & Temp Sensing • Flow range 1.0 m³/hr to 50.0 m³/hr • CIP is designed in accordance with ASME BPE and EHEDG guidelines • Scope: Design, Supply, Installation & Testing 	1
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1.e	Miscellaneous Equipment	
	<p>For Miscellaneous Related Work **</p> <p>A. Piping work for Utility & Process</p> <ul style="list-style-type: none"> • Piping work required for Utility & Process Piping. Utility Piping /Fittings/ Valves shall be SS304, Schedule & Non sanitary grade, and Process piping /interconnection shall be SS316/ SS316L and Sanitary grade Pipes/Fittings Valves. <p>Utility Piping will include generation & distribution of Chilled water , Steam, Comp Air, Cooling water , CIP Liquid. Most of Utility Piping sizes will be 25</p>	As per Requirement

	<p>mm NB , Ball Valves. Process piping, possible sanitary grade for Inter connections of Process equipments, Clean RO Water & Filtered steam, and Process Air & CIP liquid as per requirement.</p> <ul style="list-style-type: none"> • Scope: BOQ preparation as per site requirement, Drgs, material Supply of Std make, Installation and Testing/ commissioning. 	
1.f.	<p>Steam Boiler / Steam Generator **</p> <p>Should be attached with suitable Electrical Heater Boiler of 30Kg/hr , 3kg/c²</p>	01
1.g.	<p>Oil Free Air Compressor **</p> <ul style="list-style-type: none"> • Capacity : 200 LPM, • Tank : 90 L • Operate : 220 Volt • Ideal : 50 L to 200 L Fermentor / Bioreactor • Oil Free Air Compressor, • 25 CFM (200 LPM) Capacity: 7 Bar, • Duplex Oil Free Air Compressor mounted on a 90 Liters Compressed Air Receiver • Fully automatic with safety valve & Auto on/off switch <p>Preferred Make/ Model : Any good make</p>	01
Packing Unit		
3	<p>Semi-Automatic Two Head Liquid Filling Machine **</p> <p>Filling Heads : Single Head Operating System : Induction Motor With Cam System Output/ Min : 2-3Bottles /min of 200ml Bottle</p> <p>Power : 1 HP 440v 3 Phase 50Hz 3 Wire Characteristics : System Air : N/A Input (Container Dia/ Height) : 24mm Dia to 56mm Dia/ Height 120mm Max. Filling System : Piston filling with Mechanical valve Fill Range : 100 ml to 1000 ml with Cam Follower Mechanism Filling Accuracy : ± 0.5 to 1% Filling accuracy on single dose Tank Storage : N/A Capacity : Machine : Stainless steel SS 304 Construction</p> <p>Preferred Make/ Model : Inpak or Equivalent with ISO 9001: 2008 certification</p>	01
4	<p>Blister Mixing Machine **</p> <p>Storage Capacity – 200 kg working storage – 180 kg Geard Motor – 1HP MOC – complite made in SS Shaft size – 50 mm Preferred Make/ Model : Inpak or Equivalent with ISO 9001: 2008 certification</p>	01
5	<p>Semi Automatic Pouch Filling & Sealing Machine **</p> <p>Filling Heads : 1 Heads Operating System : PLC integrated MMI screen or modular</p>	01

	PCB controlling	
Output/ Hr	: 800 to 1000 PPH Depends of fill volume and nature flow of Liquid	
Power Characteristics	: 440v / 3 Phase 50Hz 4 Wire System	
Air	: 6 to 8 cfm (customer scope)	
Input Power consumption	: 3KW/hr	
Filling System	: Electro pneumatic filling device valve	
Fill Range	: 200 ml 1000 ml (with half of change parts)	
Filling Accuracy	: ± 1 to 3% Filling accuracy on single dose Depends of the nature of Liquid.	
Tank Storage Capacity	: Overhead tank of 20 to 35 lit. Capacity	
Machine Construction	: All Contact Parts Stainless steel SS 304	
Preferred Make/ Model: with ISO 9001: 2008 certification		

**** (Interested bidders are requested to submit Individual Unit rates with specific Make & Model for each quoted product in hard copy ; otherwise , their bid will be cancelled)**

***** WARRANTY: 2 Years Mandatory followed by 3 Years CMC (Otherwise, their bid will be cancelled)**

**** Fermentor and Reaction vessel design as per below norms ***(Preferably):***

- **Manufacturer should have**
 - ISO 9001-2015 certification
 - WHO-GMP Certification,
 - ISO 3690-2012 certification *(welding process)*
- **Assuring safe vessel design**

CE certification

- **Vessel and Piping design as per:**
 - ASME BPE (Bio processing Equipment) SEC II, DIV VII 2016 Standard
 - To provide surface finish as per ASME BPE/ANSI B46.1 surface roughness. Standard
 - piping should be as per ASME BPE (Bio processing Equipment) SF1 and ASTM A270 S2 standard
- **Agitation System** should be ***preferably*** with Most Advanced Technology –Low energy consumption –Low Mechanical Force & High Oxygen Transfer Rate; where **Aeration System** should be ***preferably*** with Most Advanced Technology –High Diffusion-High Gas Transfer Rate & High Oxygen Transfer Rate.
- ***Bidder Should confirm Performance Test on Bio Fertilizer Unit for three consecutive batches for sterility & production before final hand over to UBKV.***

➤ **Electricity & Utility Availability:**

i. Electricity: ~

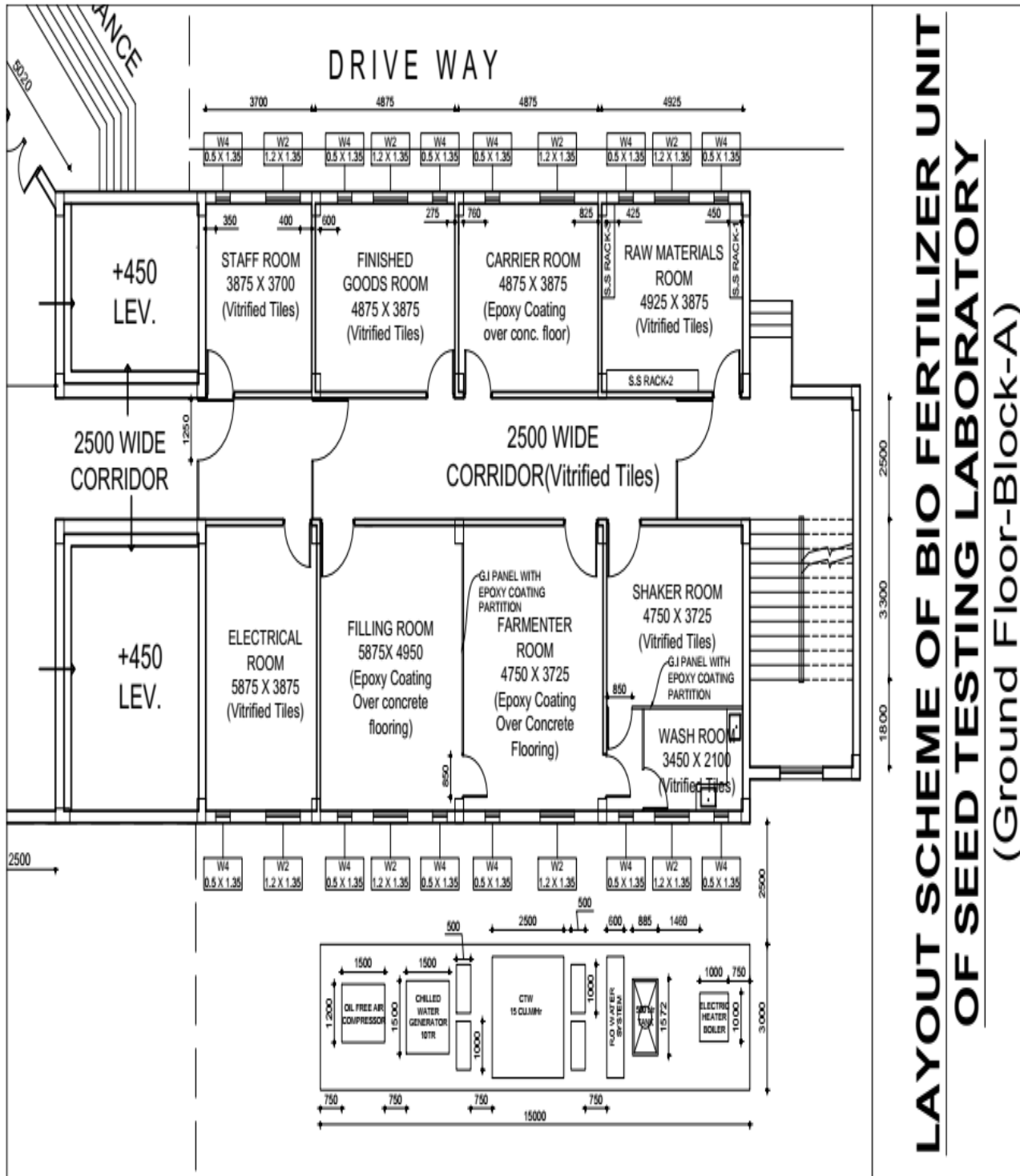
Electric Power	
Motors/Agitators/Mixers	380 V ±5%/ 3Ph+N+E / 50 Hz ±5% Raw power, Combined voltage and frequency variation ± 10%
Control power	230 V / 1 Ph + E / 50 Hz
UPS Power	Vendor to specify if required

ii. Utility :-

Utility description	Temperature (°C)	Pressure(available)
PW	Ambient	2 bar
Filtered Steam	133.5-143.5	2bar
Plant Steam (LP)	133.5-143.5	3 bar
Cooling water	25 -30	2.5 bar
Chilled water	6-10	2.5 bar
Process Air	NA	6 bar(2-6bar)
Instrument Air	NA	6 bar

iii. General

System Requirement	<ul style="list-style-type: none"> Skid mounted, Semi-automated, contact parts MOC SS316, Instruments and Microprocessor based controls of Standard makes.
Instrumentation & Calibration	<ul style="list-style-type: none"> All measuring instruments should be identified and calibrated
Documentation	<ul style="list-style-type: none"> DQ/IQ/OQ, &Validation Documents as per Std
Spares list	<ul style="list-style-type: none"> Standards spare kit.
Misc.	Vendor shall specify the details to comply CGMP/WHO Quality requirement,



LAYOUT OF PROPOSED BIO-FERTILIZER UNIT

➤ **Tender Schedule:**

•	Date of Online Publication	:	26/08/2019
•	Date for displaying on	:	26/08/2019
•	Starting Date of Online Upload & Submission	:	26/08/2019
•	Last date of online bid submission	:	16/09/2019
•	Last date of quotation submission (Hard copy)	:	18/09/2019
•	Opening date of Technical bids	:	19/09/2019
•	Tender fee	:	Nil
•	EMD	:	Rs. 2,00,000.00 (Two lakh) by means of demand draft from any nationalized Bank in favour of <i>Uttar Banga Krishi Viswavidyalaya</i>

1. General Instructions:

In the event of e-tendering, intending bidder may download the tender documents from the website: <http://wbtenders.gov.in> directly with the help of Digital Signature Certificate (DSC) or from the UBKV's website www.ubkv.ac.in.

2. Submission of bids:

Both Technical bid and Financial Bid are to be submitted concurrently duly digitally signed by the Authorized Company personnel who is in the pay roll of the Company in the website <http://wbtenders.gov.in>. All papers must be submitted in English language.

3. Warranty: 2 years (Mandatory)

4. Comprehensive Maintenance Contract (CMC) :

A period of 3 years CMC should be quoted along with the Price Bid as Mandatory. The Final Price in the BOQ should be comprises of price of "Establishment of Carrier Based and Liquid Bio-fertilizers production lab (10000 Kg or Litres capacity/annum)" & Cost of 3 Years CMC.University will sign a contract with the successful bidder for the above mentioned 3 Years Comprehensive Maintenance Contract (CMC).

Detailed Schedule of CMC after completion of 2 years warranty period has been mentioned below:

- No TA/DA will be provided to Service Engineer by University up to completion of CMC period. CMC Period
- Service Engineer will have to be available within 48-72 hrs. according to service call during CMC Period
- Scheduled preventive maintenance on Quarterly visit of Service Engineer which includes checkup of Fermenter, cleaning, calibration and Operational overhaul of the Fermenter during CMC Period.
- Changing of Membranes and other replaceable consumables as and when required during CMC Period where cost of all spare parts and consumables will be included with in the rate of CMC.
- Breakdown Maintenance of Fermenter
- Free up gradation of PLC Software and SCADA
- Always available on Phone and Internet
- 24X7 Online troubleshooting of the problems

5. Visit to Factory of successful bidder during Manufacturing of Fermenter/other equipment:

Authorized persons from University will visit to the factory of successful bidder during manufacturing of Fermenter/other equipment atleast for twice to ensure the quality of the materials.

6. Eligibility for Quoting:

- Original Equipment Manufacturers (OEM) or Dealers/Distributors/Agents duly authorized by the manufacturers who are able to supply the assured quantities as per requirement & have requisite qualification for meeting the requirements as per this tender are only eligible for quoting.
- Further, vendors who were declared black listed and/or insolvent by any Govt. Concern/any Institutions in the Country for particular item or items are not eligible to participate in the current tender for that item or items.

7. Annual Turnover Requirements:

Vender having average annual Turn Over more than Rs.30 Lakh in India for last three financial years 2016-17 , 2017-18 & 2018-19 are eligible to participate in the Tender.

8. Submission of Tenders

8.1 General process of submission

Tenders are to be submitted online through the website stated in Clause 1. All the documents including addendum/ Corrigendum related to the tender uploaded by the Tender Inviting Authority form an integral part of the contract. Tenderers are required to upload all the tender documents along with the other documents, as asked for in the tender, through the above website within the stipulated date and time as given in the Tender. Tenders are to be submitted in two folders at a time, one is Technical Bid and the other is Financial Bid. The tenderer shall carefully go through the notice and prepare the required documents and upload the scanned documents of originals in Portable Document Format (PDF) to the portal in the designated locations/folders of Technical Bid. He needs to fill up the active cell at BOQ and upload the same in designated location of Financial Bid. The documents uploaded are virus scanned and digitally signed using the Digital Signature Certificate (DSC). Tenderers should in general upload the latest documents as part of the tender, however, in case of failure in uploading such documents, it will be deemed that they (tenderers) have taken acceptant of such latest documents including addendum/corrigendum, if published till the bid submission ends.

8.2 Technical Bid

The Technical Bid should contain scanned copies and/or declarations in the following standardized formats in two covers (folders):

I. Technical File (Statutory Cover) containing:

1. Technical details of the Items Quoted "Bidders" must submit Technical specification along with Catalogue of the item quoted in **"Technical Details"** Folders.
2. Audited Annual Accounts for last three years **2016-17, 2017-18 & 2018-19** or during the period since formation of the Firm, if it was set up in less than such 3- year period. Bidders whose accounts are not audited must submit 26AS for the above years as available in the official website of the Income Tax Department, Government of India. (to **be submitted in "Accounts" folder**)

II. My Document (Non-Statutory Cover) containing as follows:

Sl. No.	Category	Sub-Category	Sub-Category Description
1	Certificates	Certificates	PAN Card of the Bidder
			GST Registration Certificate
2	Company Details	Company Details 1	Trade License/Enlistment Certificate
			Registration with Registrar of Companies
			Memorandum of Articles for Limited Companies.
3	Credential	Credential 1	Copy of the purchase order with compliance certificate for supplying Similar nature of items at least for last 2 years in an Institute of Higher Education Brief User List preferably for users in West Bengal in an Institute of Higher Education
4	Financial Information	Payment Certificate 1	Income Tax Returns submitted for the Assessment year 2016-17
			Income Tax Returns submitted for the Assessment year 2017-18
			Income Tax Returns submitted for the Assessment year 2018-19
			GST Return for last 3 months in 2019-20
5	Product Catalogue (Coloured)		
6	Compliance Statement		Mandatory

8.3 Financial Bid

The Financial Bid should contain the following document in one cover (folder):

Bill of Quantities (BOQ): The tenderer should fill-up the designated cell as marked by the University in the BOQ sheet.

(All the required essential / optional accessories / Rate of CMC or incidental services should be mentioned in the hard copy of Financial Bid)**

9. Evaluation of the tenders

During the tender evaluation process, the “Technical Bid” will be opened first. Those Bidders who are qualified in respect of the essential & other requirements in “Technical Bid” will be identified and their financial bid will be opened. The financial bid of those Tenderer failing to meet the technical specification & other requirements laid down in the tender notice will not be opened and be rejected. The Tenderer offering the item found suitable and as per the tender specifications will only be selected. Final selection of the bidder in respect of Financial Bid is subject to further verification of several parameters allied with Financial Bid Evaluation.

10. TERMS & CONDITIONS REGARDING PURCHASE POLICY OF TENDERING AUTHORITY:

10.1 Bid Information:

- a) Bidder may quote in Currency as available in the BOQ Sheet.
- b) The rate quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- c) Bidder must follow the instruction for filling up BOQ as per Clause 8.3.
- d) Partial Tender/Incomplete Tender both for Technical and Commercial aspects may subject to cancellation of tender. However, University Authority will define the Partial Tender/Incomplete Tender based on the tender evaluation status.

10.2 Evaluation of Quotation: The Purchaser will evaluate and compare the quotations determined to be substantially responsive stage wise. Firstly, Technical Bid will be evaluated and thereafter Price Bid for technically qualified bidders will be evaluated for selection of vender.

10.3 Award of Contract: The purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive both technically and commercially. Purchaser reserves the right to reject any or all the tender, wholly or partly, without assigning any reason thereof and shall not be bound to accept the lowest bid.

10.4 The vendor should quote and be capable to supply all the necessary items as per Tender. However, the University has the right to procure a part or a whole of the tendered items.

10.5 University enjoys the discretion to select vendor either in full or in part (item wise) for the betterment for pursuing of tender objectives.

10.6 Adequate support service facility: The bidder/manufacturer should have adequate service support Centre in Kolkata for any emergency breakdown/fault offering facility within 48 hours and should be agreeable to provide AMC facility after the warranty period.

10.7 Bidder must provide Technical Compliance Sheet duly certified by OEM as per the Tender Specification. Any non-compliance will lead to rejection of tender.

10.8 Manufacturer’s Authorization: Document in support of Manufacturer/Dealer and Service Provider has to be submitted along with the tender paper. If the bidder is not the manufacturer, proper manufacturer’s authorization and warranty from manufacturer is required and, in this case, bidder should have full- fledged registered office in India.

10.9 Bidder should submit copy of updated Trade License, GST, IT and P. Tax Return submission document.

10.10 Credentials: Documents of supplying similar items in last two previous years in an Institute of Higher Education must be submitted along with the tender. Bidder must submit User List with copy of Purchase Order and Job completion certificate ensuring sale of similar items at least for five times in last three years in an Institute of Higher Education.

10.11 DSIR Certification: University possesses the privilege for availing the facility of procuring items at Concessional Customs Duty and without incurring any excise duty as per DSIR certification.

10.12 GST Exemption Certification: University possesses the privilege for availing the facility of procuring items at Concessional GST (5%) as per the decisions taken by GST Council.

10.13 Statutory deduction for GST and other Government taxes in the hand of the payee will be made as per the law in force.

10.14 Time Schedule: The supply & installation work must be completed within 60 days from the date of receipt of the supply order.

10.15 Validity of offer: A bidder should spell out in the tender that it shall remain valid for a minimum period of 180 days from the date of opening of the tender and during this period, the bidder shall not be entitled to revoke or cancel its offer.

10.16 After Sales and Service:

- i. The name and complete address of the company in India authorized by the manufacturer, to provide after sales service for the equipment should be mentioned. The appointed authorized service provider should be holding a valid certificate from the manufacturer to this effect.
- ii. The manufacturer should give an undertaking that after the warranty period, they shall provide spares and after sale service of the equipment in India for the normal life time of the equipment.

10.17 University reserves the discretion to issue work/ supply order either in full or phase wise depending upon the requirement and selected vendor will not charge any extra amount for such supply and delivery.

10.18 Place of delivery: In-charge, Bio fertilizer Project, RKVY building, UBKV, Pundibari, Cooch Behar, 736165.

10.19 Payment Schedule: 100% Payment be made after delivery and successful installation of the item.

10.20 Performance Security:

Successful bidder should deposit Performance Security money equivalent to the 10% of the order value in the form of DD/ BG from any nationalized bank in favour of UBKV payable at Cooch Behar. Such security will be refunded after completion of the warranty period in normal case without any accrued interest.

University may forfeit the Security Money (EMD) and Performance security in the event of the following circumstances:

- i. Selected bidder withdraws the bid before expiry of its validity and after receipt of the Purchase/work Order.
- ii. Selected bidder does not accept the order after issuing the same or fails to enter into a contract within validity period of offer.
- iii. Selected bidder fails to supply the items within the scheduled time as specified in the Purchase Order.
- iv. If before expiry of the warranty period, the supplied items break down or do not function satisfactorily due to the cause related with the item itself or for its installation and not for any reason caused by the University Authority and the supplier denies to take the responsibility to make the supplied items in order.
- v. In case of any false submission /statement by the bidder
- vi. In case of any refusal to abide by terms and conditions or refusal to enter into a written agreement as per prefixed terms and conditions

10.21 Quantity Changeability: Quantity as stated in the tender document may subject to change at the time of issuing purchase order due to the fund crunch or for other valid reasons.

10.22 Disposal of Disputes: In case of any dispute, the University's decision will be treated as the final and conclusive. All legal actions are subject to Cooch Behar jurisdiction only

10.23 Conditional bid may be liable for rejection.

11. Discretion of the University:

11.1 University may take decision about non-purchase of the said item even after selection of vendor due to its fund constraints.

11.2 University may seek documents from the bidder in addition to the scanned documents sent by them at the time of uploading technical bid for verification and evaluation of tender.

11.3 University reserves the right to relax any clause as stated hereinabove for selection of responsive vender.

11.4 The University reserves the right not to accept the rate even from the lowest bidder.

11.5 The University reserves the right to accept or reject any or all tenders without giving any reason whatsoever.

12 Opening of financial bid will BE NOTIFIED LATER ON.

Financial bid can be seen & accessed by the bidder through the NIC Portal after opening of financial bid on line. Objections raised by any Bidder in this respect will not be entertained by the University. No informal tender will be entertained in the Bid further.

13 During the scrutiny, if it comes to the notice of the tender inviting authority that the credential or any other paper found incorrect/ manufactured/ fabricated, that bidder would not be allowed to participate in the tender and that application will be rejected outright without any prejudice.

14 The Tender Selection Committee reserves the right to cancel the N.I.T. due to any unavoidable Circumstances and no claim in this respect will be entertained.

Sd/-
Registrar (Actg.)