

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

Silchar – 788 010 (ASSAM)

No: NITS/PS-605/Phy/Plinth Mounted Lab Workstation with Fume Hood/18

Date: 08/10/2018

NOTICE INVITING TENDER

FOR SUPPLY AND INSTALLATION OF PLINTH MOUNTED LAB WORKSTATION WITH FUME
HOOD FOR PHYSICS DEPARTMENT AT NIT SILCHAR



LAST DATE & TIME OF SUBMISSION : 16/11/2018 up-to 01.00 PM

DATE & TIME OF OPENING : 16/11/2018 at 03.30 PM



**NATIONAL INSTITUTE OF TECHNOLOGY
SILCHAR - 788 010**

Tel.No. Director: (03842) 224879

Fax: (03842) 224797

NOTICE INVITING TENDER

Adv. No: NITS/PS-605/Phy/Plinth Mounted Lab Workstation with Fume Hood/18

Sealed Tender/Quotations are invited from reputed Firms/Agencies/Manufacturer/Authorized Dealer **FOR SUPPLY AND INSTALLATION OF PLINTH MOUNTED LAB WORKSTATION WITH FUME HOOD FOR PHYSICS DEPARTMENT AT NIT SILCHAR (TURN KEY BASIS) along with Earnest Money Deposit (EMD) @2% of the total bid value in the form of Demand Draft/Bank Guarantee in favour of "The Director, NIT Silchar", Payable at Silchar. No Interest shall be paid on EMD at the time of return.**

NIT Silchar will hold a Pre-bid conference with all interested bidders for technical and commercial discussion/clarifications. This conference will be held in the department of Physics, NIT Silchar on 29/10/2018 at 11:00 am.

Detail specification of the item/items is given in **(Annexure – A)**.

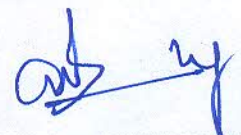
Tender documents can be obtained from Purchase Section, NIT Silchar or may be downloaded from our website www.nits.ac.in or <http://eprocure.gov.in>. **The cost of tender document is Rs.1,000/-** (Non-refundable) to be submitted in the form of DD in favour of The Director, NIT Silchar-788010, Payable at Silchar. The last date and time for submission of Tender document will be 16/11/2018 up-to **01.00PM** and tender will be opened on the same date at **03.30 PM** in office of HOD, PHYSICS Dept., NIT SILCHAR.

The offers without Cost of Tender & Earnest Money Deposit (EMD) shall be out rightly be rejected.

Director, NIT Silchar reserves the right to extend the date or cancel the tender, accept or reject any/all quotations or not to purchase all or any of the items.

Quotations are to be sent/submitted in sealed covers addressed to:-

The Faculty-In-Charge, Purchase
National Institute of Technology, Silchar-788 010, Cachar, Assam
Email : purchasecell.nits@gmail.com


Registrar, NIT Silchar

NOTICE INVITING TENDER

Credential Criteria:

- The bidder should have provided similar nature of services to IITs/NITs/Govt. Departments/Semi Govt. Departments/PSU/Educational Institutions of National Importance etc. during last 3(three) years. **Duly certified copies are to be enclosed.**
- Quotations are to be submitted in **TWO PARTS** i.e. **(a) Technical Bid and (b) Price Bid**, in two separate properly sealed covers; and both these covers will have to be again put in to a single sealed cover. Also, the address of the firm submitting the quotation must appear distinctly on both the inner sealed covers, indicating also **TECHNICAL BID / PRICE BID** as may be applicable. The outer most cover shall be super scribed as
- "QUOTATION FOR SUPPLY & INSTALLATION OFFOR
..... NIT SILCHAR.
- VIDE TENDER REF NO NITS/PS-....., DATED.....
- DATE OF OPENING

[The bid will summarily be rejected & returned to the bidder if the sealed envelope containing the quotation is not super scribed as above].

- **Genuine Pricing** (Both foreign & indigenous) :Vendor is to ensure that quoted price is not more than the price offered to any other customer in India to whom this particular item has been sold recently, particularly to IIT/Institutes and other Government Organization.
- **No Part Delivery:** Part shipment for any items will not be allowed.
- **Any Optional item quoted by the supplier will not be entertained.**
- **Termination for default** : Default is said to have occurred -
- If the supplier fails to deliver any or all of the items/services within the time period(s) specified in the purchase order or any extension thereof granted by NIT Silchar, the Institute may terminate the contract / purchase order in whole or in part and forfeit the EMD/PBG as applicable.

TERMS & CONDITIONS:

1. The bidding agency should be reputed firm and having all necessary certificates, viz. GST registration certificate, PAN, Registration, Sale Tax clearance Certificate, Authorized Dealership/Distributorship certificate, etc. The photocopies of all the certificates should be attached with the tender.
2. The firm should be an original lab furniture manufacturer (OEM) in the business of manufacture or supply of lab furniture for minimum 3-5 years. The firm should submit audited financial statements for latest three financial years in support of this claim. **Bidder should submit at least two POs having more than 30 lakh each or one PO of more than 40 lakh in last 5 years in organizations such as IITs/NITs/Govt. Departments/Semi-Govt. Departments/PSO/Educational Institute of National importance. Bidder should have minimum bank solvency of 20 lakhs.**
3. The items being quoted should be of Original Manufacturer and no non-standard item should be quoted. **Bidder should have ISO 9001-2016 quality management system and the product should be tested as per SEFA 8M, SEFA 3, by third party. Bidder should have ASHRAE-110:2016 or equivalent European test facility for fume hood.** All detailed specifications with make & model no. of the items accompanied by proper leaflets should be clearly mentioned and attached with the offer. In case of proprietary or patented item, necessary certificates in support of the same should be attached. The bidder must submit the Compliance Statement and Deviation Statement of technical specification.
4. The firm should have satisfactorily manufactured and supplied lab furniture, as requisitioned in this tender, to IITs/NITs/Govt. Departments/Semi Govt. Departments/PSU/Educational Institutions of National Importance etc. during the last 3(three) years ending the last day of March 2017.

5. **The rate quoted must be both in words and figures and F.O.R. / Destination National Institute of Technology Silchar -788010, Assam inclusive of packing, forwarding etc. Octroi, surcharge, insurance, Installation, Demonstration and any other charges.** Educational discount, if any should be indicated clearly. Tenderer(s) may note that the Government of India exempts this Institute from paying custom duty/excise duty on selected items. Necessary documents will be furnished if required on demand by the Tenderer(s). **Rate quoted for any other destination shall not be accepted.**
6. Quoted rate should be inclusive of all taxes. Nothing extra will be paid by the Institution. If there is any increase / decrease of statutory taxes will be reimbursed accordingly.
7. **Payment: Payment 100% shall be made only after receipt of ordered items as per specification and quantity and after successful installation, demonstration, training (where applicable) and commissioning.**
 - **In connections to foreign items Payment shall be made 90% through irrevocable Letter of Credit and 10% after receipt of ordered items as per specification and quantity and after successful installation, demonstration, training (where applicable) and commissioning.**
8. Manufacturer's/Company's name, it's trademark should be mentioned in the tender and illustrative leaflets giving technical particulars, etc. should be attached in the tender.
9. Tenderer(s) registered with the State/Central Government must quote his registration numbers, if any, and submit a xerox copy of registration along with the tender.
10. **Warranty: Bidder should provide minimum 3years warranty against all manufacturing defect from the date of installation.**
11. The rates to be quoted by the agency should be valid for a period of **6(six) months** after the deadline date specified in the tender.
12. The quantity against each item mentioned in the tender may vary according to the actual requirements at the time of placing Purchase Order.
13. It is not binding for the bidding agency to quote for all the items.
14. **Each bidder should clearly specify that the bidder agrees to abide by the conditions of this tender document on their printed letter head duly sealed & signed by an authorized person.**
15. **Bid Price**
 - a) The contract shall be for the full quantity as described above. Corrections, if, shall be made by crossing out, initialing dating and rewriting.
 - b) **The bidder should quote the total price for each item inclusive of packing and forwarding, all duties, levies, insurance, installation, demonstration and any other charges, etc. only taxes & (discount if any) should be mentioned separately.**
 - c) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
16. Each bidder shall submit only one quotation.
17. All necessary documents shall be furnished along with the bid.
18. Validity of Tenders/Quotations: Tenders/Quotations shall remain valid for a period not less than **6 (six) months** after the deadline date specified for submission of tender.
19. **Packing**
 - a) The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall have to be taken into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
 - b) The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements.

20. **Evaluation of Quotations :**

NIT Silchar will evaluate and compare the quotations determined to be substantially responsive i.e. which

- a) are properly signed
- b) Conform to the terms and conditions, and specifications.

21. **Award of contract:**

NIT Silchar will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

- a) The bidder whose bid is accepted will be notified of the award of contract by the NIT Silchar prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
- b) Normal commercial warranty/guarantee shall be applicable to the supplied goods.
- c) The goods (both indigenous & imported) should be insured against theft, loss or breakage during transit till destination.
- d) Upon delivery of goods, the supplier shall submit Suppliers Invoice, Insurance certificate, Warranty Certificate, or any other document as required/demand.

22. **Acknowledgement of the Purchase Order:** The supplier shall give an acknowledgement of the Purchase Order within 15(fifteen) days of the date of the Purchase Order. In case, the supplier fails to acknowledge the Purchase Order within the stipulated time, the Institute is at liberty to cancel the Purchase Order.

23. No alternations in tender forms shall be made by the bidder and if any such alteration is made, the tender is liable to be rejected.

a) Delivery Schedule and Penalty for Delay: Delivery of lab furniture should be made within 90(ninety) days OR as per terms and condition of Purchase Order from the date of issue of Purchase Order. **Penalty at the rate of 0.5% or part thereof of the order value per week, subject to a maximum of 2.5% will be imposed for delayed delivery and installation.**

24. Demurrages and penalty, if any, paid by the supplier shall not be borne by the Institute.

25. The tenders submitted shall clearly mention the name of the firm/person in whose favour the purchase order is to be placed.

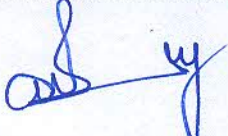
26. Contact details of the person for all post sales/installation maintenance support should clearly be given with **Name & Designation, Phone No, Fax No, Mobile, E-mail and official address.**

27. National Institute of Technology Silchar is not liable for non-receipt of the tender forms in time due to wrong address/ any delivery delay of the mail service provider/ force majeure. Tender documents received after the last date and time for receiving tenders will be summarily rejected.

28. **Successful bidder shall give a performance security @10% (as per Purchase Order) of the total order value in the form of Bank Guarantee.** The performance security shall be furnished after the order for supply is placed and before the final payment. Validity of the Performance Security shall cover the warranty period.

- The proceeds of the Performance Security shall be payable to the purchaser as compensation for any loss resulting from the suppliers failure to complete its obligations under the contract.

29. All legal disputes shall be under the jurisdiction of the Silchar Courts of Cachar District in the state of Assam.


Registrar, NIT Silchar

DECLARATION

I / We hereby declare that no case is pending with the police/ court against the proprietor/ firm/ partner or the company (Agency). Also I /We have not been suspended / blacklisted by any PSU / Government Department / Financial Institution / Court.

(Signature & seal of the contractor)

Place:

Date:

NO DEVIATION CERTIFICATE

Notwithstanding anything mentioned in our bid, we hereby accept all the terms and conditions of this tender and we do not have any deviation to this tender enquiry. We hereby undertake and confirm that we have understood the scope of work properly and shall be carried out as mentioned in this tender enquiry.

(Signature & seal of the contractor)

Place:

Date:

BIDDERS DETAILS

Name of the Contractor /Party/ Firm :

Name of Authorized Representative :

Phone Nos. :

Mobile Nos. :

Fax No. :

E-Mail Address :

Web Site Address (If Any) :

(Signature & seal of the contractor)

Place:

Date:

CHECK-LIST (TECHNICAL BID)

SUMMARY OF COMPLIANCE TO REQUIREMENT OF TENDER

Sl. No.	Description of Requirement	Yes / No / NA	Page No.
1.	Tender Cost Rs.500/- (Non-refundable) in the form of Demand Draft in favour of "Director, NIT Silchar" in a separate envelope		
2.	EMD @2% of total bid value in the form of Demand Draft /Bank Guarantee in favour of "Director, NIT Silchar" in a separate envelope		
3.	Copy of Manufacturer/ Authorized Supplier Certificate		
4.	Audited financial statement for the last 3 years		
5.	Copy of the PAN card.		
6.	Copy of GST registration certificate		
7.	Copies of previous work order of similar work with completion certificate (if any)		
8.	Declaration certificate		
9.	No Deviation certificate		
10.	Bidder's details		
11.	Technical Specification		
12.	NSIC/SSI Certificate where applicable		
13.	All the pages of tender document have been signed		
14.	Price bid in separate sealed envelope.		
15.	Complete copy of Techno Commercial Bid submit along with the Price Bid.		

(Signature & seal of the contractor)

Place:

Date:

Item no	Specification of Articles	Number/Qty. reqd.
1	Plinth Mounted Laboratory workstation along with Laboratory Fume Hood (TURN KEY BASIS)	As per layout

Technical Specifications for Laboratory Furniture and Fume Hood

LABORATORY FURNITURE & ACCESORIES

- The entire laboratory furniture should be tested as per SEFA-8M standards in SEFA approved labs with latest 2016 Guidelines published by SEFA.
- Should be modular construction & design made of mainly Skin passed/zero spangle G.I. (Galvanized Iron) duly coated with at least 60-70 micron Epoxy Powder Coated in panel form and in CKD (Completely Knocked Down) construction so can be erected at site as per attached layout. The design should have provision for reconfiguration for change in layout using simple tooling and should provide independent access to the utilities installed, electrical panel & instrumentation panel.
- All GI sheet components (TATA Steel/SAIL/Jindal) should be fabricated by precision shearing, levelling, notching, piercing, machines to achieve consolidated dimensions within close tolerances under the strict quality checks and assembled with the aid of fixtures. Exposed welding marks should be polished smooth to improve aesthetic. Corner intersections of vertical and horizontal members should be in the same plane with bolted joints and should be suitably aligned.

A. The design of furniture should be Plinth mounted type:

1.	Worktop	Made of (18 ± 1 mm) thick Jet Black Granite Top with chamfer moulding at the front & groove at the bottom to avoid chemical spillage on the modules. Worktop will be fixed with the module by foam tape, all joints are sealed thru Epoxy sealeant.
2.	Material of Construction:-	Completely made of minimum 1 mm GI sheets.
3.	Under Bench Module:-	Completely made of min 1 mm GI sheets as per IS 277 standard. The sound deadening plastic bumpers to be used while closing the shutter. The entire module is made up of GI panels and are bolted/ rivetted for achieving maximum strength with high corrosion resistance. The shutters or doors are mounted to the modules by hinges which are openable to 95 degree. Drawers are mounted with the ball bearing based telescopic slides which can take load upto 30kg. Lock and key for all drawers are mandatory. Laboratory Work Stations should be available in 2 heights of 900mm (Standing purpose) and 750mm (sitting

		purpose) in metallic Construction designed to have completely flexible modular system. Necessary leg space should be provided between two modules wherever required. Length : 450mm / 600mm / 750mm / 900mm L Depth : 750mm D
4.	Construction:-	Floor mounted Plinth based type
5.	Reagent Rack:-	Worktop mounted reagent rack in double tier design. Vertical member and main bracket of the reagent rack shall be in Aluminum construction, duly anodized and epoxy coated for excellent corrosion resistance. Rack platform shall be in wire reinforced glass or Phenolic Resin construction. Shelf height shall be adjustable as per requirement.
6.	Electrical fittings:	Sockets and switches with complete internal wiring. Fittings shall be mounted on electrical trunk. Electrical Trunking shall be 1.2 mm thick GI with epoxy powder coating. Electrical switch and Sockets - North West/ Legrand or equivalent make. LAN (data) Sockets (RJ45)- North West/ Legrand or equivalent make
7.	Sink:	In one piece, molded Sink in Polypropylene (PP) construction.
8.	Peg Board:	Peg Board in Phenolic resin construction with 20 Nos. PP Pegs.
9.	Powder coating:	Complete module & frame work are processed with 8 tank pre- treatment and finished with highly corrosion resistant 'Akzonbel/PolyBond/Kansai Nerolac/Jotun/equiv' epoxy powder coating With 70 - 80 microns thickness. Our Automatic coating plant and fully conveyORIZED Oven ensures that coating surface get appropriate temperature to bond with the surface. The paint surface was tested for quality and longevity out of which 1000 hours salt spray test is important factor.
10.	HARDWARE FITTINGS: (As per attached layout)	(a) Hinges:- 'Haffle/Hettich' Make CED coated/SS. (b) Handle:- S.S. 304 matt finish/Aluminium Flushed Type. (c) Lock:- 'Haffle/ Hettich ' Lock and a pair of keys. (e) Drawer Channel :- 'Haffle/Hettich ' make common sleeve telescopic drawer slides - 45 Kgs

		<p>(f) Utility Taps: Epoxy powder coated brass taps with DIN 12920 colour coding.</p> <p>(h) Eye Wash:-Portable Eye Wash with Single eye wash (Indian make) (2 bar Pressure required).</p>
11.	One Way Water Faucet:	<p>Technical Specification of 1 Way Water Faucets:</p> <p>1. Raw Material:</p> <ul style="list-style-type: none"> • Brass as per IS: 319 (I) (Machining Grade). • Brass as per IS: 8737 (Forging Grade). • Pipe as per IS: 407 (CuZn37). • Polypropylene Knob. • All Gasket / 'O' Ring Nitrile Rubber. • Inlet Connection 1/2" B.S.P. <p>2. Testing:</p> <ul style="list-style-type: none"> • Pneumatic Test at 18 bar • Hydraulic Test at 9 bar • Bursting Test at 36 bar • Working Temperature Range: 0' to 70' Celsius

Laboratory wise specification (Details as per layout):

Sr. No.	Description	Qty.	Unit	Quantity required
SMaRT Lab				
1.	Wall Bench (WB - 1) Size: L 2400 x W 750 x H 750 mm			
	- Work top in 18 ± 1 mm thick Black Granite construction.	1.80	Sqm	As per layout
	- 750 mm wide storage module with one drawer two shutters Nos.	1.00	Nos.	
	- 500 mm wide storage module with one drawer one shutter	2.00	Nos.	
	- Leg Space with Key Board Tray, CPU Trolley & Cable Manager	1.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	2.40	Rmt.	
	- 16 Amp Electrical sockets and switch	8.00	Nos.	
	- Data Socket	1.00	Nos.	
	- Filler Panel in G.I. Construction	2.00	Nos.	
2.	Wall Bench (WB - 2) Size: L 2320 x W 750 x H 750 mm			
	- Work top in 18 ± 1 mm thick Black Granite construction	1.74	Sqm.	
	- 500 mm wide storage module with one drawer one shutter	3.00	Nos.	
	- Leg Space with Key Board Tray, CPU Trolley & Cable Manager	1.00	Nos.	

	- Worktop mounted electrical raceway in GI construction	2.32	Rmt.
	-16 Amp Electrical sockets and switch	8.00	Nos.
	- Data Socket	1.00	Nos.
	- Close Panel in G.I. Construction	1.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
3.	Wall Bench (WB - 3) Size: L 5830 x W 750 x H 750 mm		
	- Work top in 18 ± 1 mm thick Black Granite construction	4.37	Sqm.
	- 500 mm wide storage module with one drawer one shutter	8.00	Nos.
	- Leg Space with Key Board Tray, CPU Trolley & Cable Manager	3.00	Nos.
	- Worktop mounted electrical raceway in GI construction	5.83	Rmt.
	-16 Amp Electrical sockets and switch	22.00	Nos.
	- Data Socket	3.00	Nos.
	- MS Support	4.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
4.	Wall Bench (WB - 4) Size: L 3550 x W 900 x H 900 mm		
	- Work top in 18 ± 1 mm thick Black Granite construction	3.20	Sqm.
	- 750 mm wide storage module with one drawer two shutters	2.00	Nos.
	- 750 mm wide storage module with two shutters	2.00	Nos.
	- 500 mm wide storage module with one drawer one shutter	1.00	Nos.
	- Single sided double tier reagent rack with electrical raceway	1.25	Rmt.
	-16 Amp Electrical sockets and switch	2.00	Nos.
	- Big PP sink (L 600 x W 450 x D 315 mm)	2.00	Nos.
	- Worktop mounted three way water tap with swan neck spout	2.00	Nos.
	- Peg Board in Phenolic resin construction with 20 Nos. PP Pegs	2.00	Nos.
	- Back Panel in G.I. Construction	1.00	Nos.
	- MS Support	2.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
5.	Corner Bench (CB - 1) Size: L 1030 x W 1030 x H 750 mm		

	- Work top in 18 ± 1 mm thick Black Granite construction	1.06	Sqm.	
	- Corner storage module with one shutter	1.00	Nos.	
	- Big PP sink (L 600 x W 450 x D 315 mm).	1.00	Nos	
	- Worktop mounted three way water tap with swan neck spout	1.00	Nos.	
	- Peg Board in Phenolic resin construction with 20 Nos. PP Pegs	1.00	Nos.	
	- Filler Panel in G.I. Construction	2.00	Nos.	
6.	Anti-Vibration Table (AVT) Size: L 900 x D 600 x H 900 mm			
	- Work top in 18mm thk Black granite construction.			
	- Fabricated out of 1.2 mm thk Galvanized Iron sheet,			
	- Frame Structure in 50 x 50 x 2 mm thk Hollow Pipe construction with epoxy powder coated,			
7.	Low Constant Volume type Bench Fume Hood for A.C. Lab Environment (Size: L 1500 x D 915 x H 2300 mm)	2.00	Nos.	
	As specified in Annexure A			
AC Lab				
1.	Wall Bench (WB - 1) Size: L 1625 x W 750 x H 750 mm			
	-Work top in 18 ± 1 mm thick Black Granite construction.	1.22	Sqm	As per layout
	- 500 mm wide storage module with one drawer one shutter	2.00	Nos.	
	- Leg Space with Key Board Tray, CPU Trolley & Cable Manager	1.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	1.63	Rmt.	
	- 16 Amp Electrical sockets and switch	6.00	Nos.	
	- Data Socket	1.00	Nos.	
	- Filler Panel in G.I. Construction	2.00	Nos.	
2.	Wall Bench (WB - 2) Size: L 4620 x W 750 x H 750 mm			
	- Work top in 18 ± 1 mm thick Black Granite construction	3.47	Sqm.	
	- 750 mm wide storage module with two shutters	1.00	Nos.	
	-500 mm wide storage module with one drawer one shutter	5.00	Nos.	
	-Leg Space with Key Board Tray, CPU Trolley & Cable Manager	2.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	3.70	Rmt.	

	-16 Amp Electrical sockets and switch	14.00	Nos.
	- Data Socket	2.00	Nos.
	- Close Panel in G.I. Construction	1.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
	-MS Support	3.00	Nos.
	-Peg Board in Phenolic resin construction with 20 Nos. PP Pegs	1.00	Nos.
	- Worktop mounted three way water tap with swan neck spout	1.00	Nos.
3.	Wall Bench (WB - 3) Size: L 1625 x W 750 x H 750 mm		
	-Work top in 18 ± 1 mm thick Black Granite construction.	1.22	Sqm
	- 500 mm wide storage module with one drawer one shutter	2.00	Nos.
	- Leg Space with Key Board Tray, CPU Trolley & Cable Manager	1.00	Nos.
	- Worktop mounted electrical raceway in GI construction	1.63	Rmt.
	- 16 Amp Electrical sockets and switch	6.00	Nos.
	- Data Socket	1.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
4.	Wall Bench (WB - 4) Size: L 3550 x W 900 x H 900 mm		
	- Work top in 18 ± 1 mm thick Black Granite construction	3.20	Sqm.
	- 750 mm wide storage module with one drawer two shutters	2.00	Nos.
	- 750 mm wide storage module with two shutters	2.00	Nos.
	- 500 mm wide storage module with one drawer one shutter	1.00	Nos.
	- Single sided double tier reagent rack with electrical raceway	1.25	Rmt.
	-16 Amp Electrical sockets and switch	2.00	Nos.
	- Big PP sink (L 600 x W 450 x D 315 mm)	2.00	Nos.
	- Worktop mounted three way water tap with swan neck spout	2.00	Nos.
	- Peg Board in Phenolic resin construction with 20 Nos. PP Pegs	2.00	Nos.
	- Back Panel in G.I. Construction	1.00	Nos.
	- MS Support	2.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.

5.	Corner Bench (CB - 1) Size: L 1030 x W 1030 x H 750 mm			
	- Work top in 18 ± 1 mm thick Black Granite construction	1.06	Sqm.	
	- Corner storage module with one shutter	1.00	Nos.	
	- Filler Panel in G.I. Construction	2.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	1.63	Rmt.	
	-16 Amp Electrical sockets and switch	4.00	Nos.	
6.	Anti-Vibration Table (AVT) Size: L 900 x D 600 x H 900 mm			
	- Work top in 18mm thk Black granite construction.			
	- Fabricated out of 1.2 mm thk Galvanized Iron sheet,			
	- Frame Structure in 50 x 50 x 2 mm thk Hollow Pipe construction with epoxy powder coated,			
7.	Low Constant Volume type Bench Fume Hood for A.C. Lab Environment (Size: L 1500 x D 915 x H 2300 mm)	2.00	Nos.	
	As specified in Annexure A			
SRM Lab				
1.	Wall Bench (WB - 1) Size: L 1625 x W 750 x H 750 mm			
	-Work top in 18 ± 1 mm thick Black Granite construction.	1.22	Sqm	As per layout
	- 500 mm wide storage module with one drawer one shutter	2.00	Nos.	
	- Leg Space with Key Board Tray, CPU Trolley & Cable Manager	1.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	1.63	Rmt.	
	- 16 Amp Electrical sockets and switch	6.00	Nos.	
	- Data Socket	1.00	Nos.	
	- Filler Panel in G.I. Construction	2.00	Nos.	
2.	Wall Bench (WB - 2) Size: L 4620 x W 750 x H 750 mm			
	- Work top in 18 ± 1 mm thick Black Granite construction	3.47	Sqm.	
	- 750 mm wide storage module with two shutters	1.00	Nos.	
	-500 mm wide storage module with one drawer one shutter	5.00	Nos.	
	-Leg Space with Key Board Tray, CPU Trolley & Cable Manager	2.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	3.70	Rmt.	

	-16 Amp Electrical sockets and switch	14.00	Nos.
	- Data Socket	2.00	Nos.
	- Close Panel in G.I. Construction	1.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
	-MS Support	3.00	Nos.
	-Peg Board in Phenolic resin construction with 20 Nos. PP Pegs	1.00	Nos.
	- Worktop mounted three way water tap with swan neck spout	1.00	Nos.
3.	Wall Bench (WB - 3) Size: L 1625 x W 750 x H 750 mm		
	-Work top in 18 ± 1 mm thick Black Granite construction.	1.22	Sqm
	- 500 mm wide storage module with one drawer one shutter	2.00	Nos.
	- Leg Space with Key Board Tray, CPU Trolley & Cable Manager	1.00	Nos.
	- Worktop mounted electrical raceway in GI construction	1.63	Rmt.
	- 16 Amp Electrical sockets and switch	6.00	Nos.
	- Data Socket	1.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
4.	Wall Bench (WB - 4) Size: L 3550 x W 900 x H 900 mm		
	- Work top in 18 ± 1 mm thick Black Granite construction	3.20	Sqm.
	- 750 mm wide storage module with one drawer two shutters	2.00	Nos.
	- 750 mm wide storage module with two shutters	2.00	Nos.
	- 500 mm wide storage module with one drawer one shutter	1.00	Nos.
	- Single sided double tier reagent rack with electrical raceway	1.25	Rmt.
	-16 Amp Electrical sockets and switch	2.00	Nos.
	- Big PP sink (L 600 x W 450 x D 315 mm)	2.00	Nos.
	- Worktop mounted three way water tap with swan neck spout	2.00	Nos.
	- Peg Board in Phenolic resin construction with 20 Nos. PP Pegs	2.00	Nos.
	- Back Panel in G.I. Construction	1.00	Nos.
	- MS Support	2.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.

5.	Corner Bench (CB - 1) Size: L 1030 x W 1030 x H 750 mm			
	- Work top in 18 ± 1 mm thick Black Granite construction	1.06	Sqm.	
	- Corner storage module with one shutter	1.00	Nos.	
	- Filler Panel in G.I. Construction	2.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	1.63	Rmt.	
	-16 Amp Electrical sockets and switch	4.00	Nos.	
6.	Anti-Vibration Table (AVT) Size: L 900 x D 600 x H 900 mm			
	- Work top in 18mm thk Black granite construction.			
	- Fabricated out of 1.2 mm thk Galvanized Iron sheet,			
	- Frame Structure in 50 x 50 x 2 mm thk Hollow Pipe construction with epoxy powder coated,			
7.	Low Constant Volume type Bench Fume Hood for A.C. Lab Environment (Size: L 1500 x D 915 x H 2300 mm)	2.00	Nos.	
	As specified in Annexure A			
Micro-science and Nanophysics Lab				
1.	Wall Bench (WB - 1) Size: L 1625 x W 750 x H 750 mm			
	-Work top in 18 ± 1 mm thick Black Granite construction.	1.22	Sqm	As per layout
	- 500 mm wide storage module with one drawer one shutter	2.00	Nos.	
	- Leg Space with Key Board Tray, CPU Trolley & Cable Manager	1.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	1.63	Rmt.	
	- 16 Amp Electrical sockets and switch	6.00	Nos.	
	- Data Socket	1.00	Nos.	
	- Filler Panel in G.I. Construction	2.00	Nos.	
2.	Wall Bench (WB - 2) Size: L 1215 x W 750 x H 750 mm			
	-Work top in 18 ± 1 mm thick Black Granite construction.	1.09	Sqm	
	- 500 mm wide storage module with one drawer one shutter	1.00	Nos.	
	- Leg Space with Key Board Tray, CPU Trolley & Cable Manager	1.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	1.22	Rmt.	
	- 16 Amp Electrical sockets and switch	4.00	Nos.	

	- Data Socket	1.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
	-Vertical support for Granite Worktop	1.00	Nos.
3.	Wall Bench (WB - 3) Size: L 1875 x W 750 x H 750 mm		
	-Work top in 18 ± 1 mm thick Black Granite construction.	1.40	Sqm
	- 750 mm wide storage module with one drawer two shutters	1.00	Nos.
	- 500 mm wide storage module with one drawer one shutter	1.00	Nos.
	- Leg Space with Key Board Tray, CPU Trolley & Cable Manager	1.00	Nos.
	- Worktop mounted electrical raceway in GI construction	1.88	Rmt.
	- 16 Amp Electrical sockets and switch	4.00	Nos.
	- Data Socket	1.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
4.	Wall Bench (WB - 4) Size: L 3550 x W 900 x H 900 mm		
	- Work top in 18 ± 1 mm thick Black Granite construction	3.20	Sqm.
	- 750 mm wide storage module with one drawer two shutters	2.00	Nos.
	- 750 mm wide storage module with two shutters	2.00	Nos.
	- 500 mm wide storage module with one drawer one shutter	1.00	Nos.
	- Single sided double tier reagent rack with electrical raceway	1.25	Rmt.
	-16 Amp Electrical sockets and switch	2.00	Nos.
	- Big PP sink (L 600 x W 450 x D 315 mm)	2.00	Nos.
	- Worktop mounted three way water tap with swan neck spout	2.00	Nos.
	- Peg Board in Phenolic resin construction with 20 Nos. PP Pegs	2.00	Nos.
	- Back Panel in G.I. Construction	1.00	Nos.
	- MS Support	2.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
5.	Corner Bench (CB - 1) Size: L 1030 x W 1030 x H 750 mm		
	- Work top in 18 ± 1 mm thick Black Granite construction	1.06	Sqm.
	- Corner storage module with one shutter	1.00	Nos.

	- Filler Panel in G.I. Construction	2.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	1.63	Rmt.	
	-16 Amp Electrical sockets and switch	4.00	Nos.	
6.	Anti-Vibration Table (AVT) Size: L 900 x D 600 x H 900 mm			
	- Work top in 18mm thk Black granite construction.			
	- Fabricated out of 1.2 mm thk Galvanized Iron sheet,			
	- Frame Structure in 50 x 50 x 2 mm thk Hollow Pipe construction with epoxy powder coated,			
7.	Low Constant Volume type Bench Fume Hood for A.C. Lab Environment (Size: L 1500 x D 915 x H 2300 mm)	2.00	Nos.	
	As specified in Annexure A			
Solid State Ionics Lab				
1.	Wall Bench (WB - 1) Size: L 1625 x W 750 x H 750 mm			
	-Work top in 18 ± 1 mm thick Black Granite construction.	1.22	Sqm	As per layout
	- 500 mm wide storage module with one drawer one shutter	2.00	Nos.	
	- Leg Space with Key Board Tray, CPU Trolley & Cable Manager	1.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	1.63	Rmt.	
	- 16 Amp Electrical sockets and switch	6.00	Nos.	
	- Data Socket	1.00	Nos.	
	- Filler Panel in G.I. Construction	2.00	Nos.	
2.	Wall Bench (WB - 2) Size: L 4620 x W 750 x H 750 mm			
	- Work top in 18 ± 1 mm thick Black Granite construction	3.47	Sqm.	
	- 750 mm wide storage module with two shutters	1.00	Nos.	
	-500 mm wide storage module with one drawer one shutter	5.00	Nos.	
	-Leg Space with Key Board Tray, CPU Trolley & Cable Manager	2.00	Nos.	
	- Worktop mounted electrical raceway in GI construction	3.70	Rmt.	
	-16 Amp Electrical sockets and switch	14.00	Nos.	
	- Data Socket	2.00	Nos.	
	- Close Panel in G.I. Construction	1.00	Nos.	

	- Filler Panel in G.I. Construction	2.00	Nos.
	-MS Support	3.00	Nos.
	-Peg Board in Phenolic resin construction with 20 Nos. PP Pegs	1.00	Nos.
	- Worktop mounted three way water tap with swan neck spout	1.00	Nos.
3.	Wall Bench (WB - 3) Size: L 3550 x W 900 x H 900 mm		
	- Work top in 18 ± 1 mm thick Black Granite construction	3.20	Sqm.
	- 750 mm wide storage module with one drawer two shutters	2.00	Nos.
	- 750 mm wide storage module with two shutters	2.00	Nos.
	- 500 mm wide storage module with one drawer one shutter	1.00	Nos.
	- Single sided double tier reagent rack with electrical raceway	1.25	Rmt.
	-16 Amp Electrical sockets and switch	2.00	Nos.
	- Big PP sink (L 600 x W 450 x D 315 mm)	2.00	Nos.
	- Worktop mounted three way water tap with swan neck spout	2.00	Nos.
	- Peg Board in Phenolic resin construction with 20 Nos. PP Pegs	2.00	Nos.
	- Back Panel in G.I. Construction	1.00	Nos.
	- MS Support	2.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
5.	Corner Bench (CB - 1) Size: L 1030 x W 1030 x H 750 mm		
	- Work top in 18 ± 1 mm thick Black Granite construction	1.06	Sqm.
	- Corner storage module with one shutter	1.00	Nos.
	- Filler Panel in G.I. Construction	2.00	Nos.
	- Worktop mounted electrical raceway in GI construction	1.63	Rmt.
	-16 Amp Electrical sockets and switch	4.00	Nos.
6.	Anti-Vibration Table (AVT) Size: L 900 x D 600 x H 900 mm		
	- Work top in 18mm thk Black granite construction.		
	- Fabricated out of 1.2 mm thk Galvanized Iron sheet,		
	- Frame Structure in 50 x 50 x 2 mm thk Hollow Pipe construction with epoxy powder coated,		

7.	Low Constant Volume type Bench Fume Hood for A.C. Lab Environment (Size: L 1500 x D 915 x H 2300 mm)	2.00	Nos.	
	As specified in Annexure A			

Technical Specification of fume hood

Fume Hood will consist of following features:

Overall Dimensions with base cabinet: 1500 mm W X 900 mm D X 2300 mm H
 Fume Hood dimensions: 1500 mm W X 900 mm D X 1200 mm H
 Base Cabinet dimensions: 750 mm W X 500 mm D X 780 mm H – 2 nos.
 Inside Fume Hood working volume: 1300 mm W X 640 mm D X 1200 mm H
 Bed size: 1300 mm W X 640 mm D

Quantity: As per layout (10 Nos)

Sr. No	Specification	Description
1	Usage	Regular usage
2	Design Basis	American Design Standard: ASHRAE110- 2016 All tests including "Tracer gas containment test" passed or European Design Standard: EN-14175- 2003 'Inner Plane Containment test' passed.
3	Design Structure	Aerodynamic, Floor mounted Plinth based
4	Airflow Type	Low Constant Volume (for A.C. environment)
5	Colour Combination	Grey & White
6	Powder coating	Pre-treated with 8 tank chemical processes and powder coated with highly chemical resistant epoxy Colors having dry film thickness of 70 to 80 microns. Passes all conformity performance tests as per IS standards.
7	Material of Construction of superstructure	Galvanized Iron (GI) as per IS 277: 2003 standard of <ul style="list-style-type: none"> • 1.0 ±0.1mm - 1.2 ±0.1mm thickness for all sheet metal panelling converted as main superstructure. • Same panel converted as corner post and panel as single piece.
8	Front Top Panel	Easily openable hinged Top Panel for easy access to Flow Control Valve and Electrical Lighting fixtures for maintenance.
9	Construction (Interior)	Chemical & Heat Resistant, Fire Retardant, Smooth Finish, Easily Cleanable Panels Made out of durable Trespa or equivalent Thermosetting Resin integral work walls (6 mm thick). ASTM flame spread index < 25. Entire internal structure is boltless and fixed with premium quality 3M adhesives.
10	Active Kinetics exhaust system	<u>Interstitial</u> 7-point active kinetics exhaust system (for light, normal & heavy fumes) with baffle to ensure rapid exhaust of fumes.
11	Airfoil	Aerodynamic Design, Horizontal fixed airfoil mounted on the worktop made of SS 304 (min 1.2 mm thick).
12	Worktop	Chemical resistant splash & spillage proof dished ' Jet Black Granite ' worktop (min 18 mm thick). Skirting of 15 mm from all sides for no chemical spillage.
13	Sink, Water tap with drain arrangement	Worktop will have sink sealed with silicon sealant for drainage with water tap on left back side of worktop. Sink will have a trap for waste collection. <ul style="list-style-type: none"> • Oval shaped 100 mm X 200 mm sink

14	Sash (Shutter)	Vertical rising sash counter-balanced with pulley and counter-weight system. Toughened Float Glass sash (min 4 mm thick). Smooth and light sash operation. Clear openable height = 750 mm. Impact Resistance of the sash (Toughened Glass) is four times higher than other sash materials (like Safety Glass and Polycarbonate). Breaking Stress value for fully toughened glass (Tempered Glass) = 24,000 psi.
15	Wet & Dry Service valves	Remotely operated Colour coded Brass Needle Valves(FAR-Italy/BroenMake/ Water saver) for fine control over utilities (as per DIN 12920 norms) total 07 nos. service valves with SS braided plumbing with 6 mm internal dia, withstands up to 5kgf pressure <ul style="list-style-type: none"> • 1 for Raw water (SS-304 braided hose) • 1 for Nitrogen(SS-304 braided hose) • 1 for Vacuum (SS-304 braided hose) • 1 for Compressed Air (SS-304 braided hose) • 1 for Oxygen (SS-304 braided hose) • 1 for Argon (SS-304 braided hose) • 1 for Hydrogen (SS-304 braided hose)
16	Internal nozzles	Brass powder coated fittings are staggered in the fume hood on the back wall to avoid the intermingling of the flexible hoses. Also the taps are tapered in shape to use with flexible tubing of sizes from ¼” to ½” in dia, to provide greater flexibility to the user. Note: - Our Scope of supply for utility lines ends at 1/4 th BSP male adapter.
17	Lighting	Fluorescent light (40 watt, 2 Nos.) with vapour-proof fitting for proper illumination. Intensity approx 400 lux at worktop level.
18	Electrical Utilities	On/off (touchpad) for fan and light, 3 nos. electrical sockets North West/Legrand or equivalent make (230 V, 16 A, 50 Hz), 16 A two-pole power trip North West/Legrand or equivalent make, 3 nos. North West/ Legrand or equivalent make MCBs with blower NO/NC switch with built –in starter & light switch on base of front fascia. 20 A industrial socket, plug and MCB North West/ Legrand or equivalent make Cables & wires ‘Fire Retardant’ grade.
19	Built-in Starter	The electrical wiring will have built-in starter of “Telemechanique” make; suitable to blower motor capacity.
20	Cable entering port	For easy access of cables from fume hood to electrical sockets.
21	Chemical Storage Base Cabinet (Ventilated & on castors)	Base cabinet will be ready to receive the fume hood at its top. It will have following features: <ol style="list-style-type: none"> 1) Completely made from 1mm thick GI sheet with Highly corrosion resistant epoxy powder coating,60-80 microns thickness. 2) Cabinet integral work walls will be Special chemical & heat resistant, smooth finish, easily cleanable panels made out of durable PRL sheets. 3) Two exhaust ports connected to the fume hood exhaust system internally. 4) One removable horizontal partition to store chemicals. 5) PP Trays for chemical storage 2 nos. or more. 6) Cabinets on castors. 7) Roller catch of “HAFELE”– Germany” Make for the Base Cabinet doors. Overall Dimensions: 750 mm W X 500 mm D X 780 mm H – 2 nos
22	Apparatus Holding Grid (Lattice Assembly)	A grid made up of Duralumin Powder coated rod (Dia. 12.7 mm) to hold the apparatus. It will cover the entire length of the fume hood and

	(Optional - To be ordered separately if required)	will be built-in at fume hood backside. Installed at the distance of 150 mm from backside of fume hood.
23	Air Flow Monitor AFA 1000/1 Tel. UK (Optional - To be ordered separately if required)	Model AFA 1000/1'. This device is an accessory for Fume hood to indicate the approximate face velocity of airflow with primary purpose of warning when a low flow condition occurs. Red & green LEDs correspond to low & normal flow rates. When flow decreases from Normal to Low, an audible alarm will also actuate requiring manual acknowledgement for silence. <ul style="list-style-type: none"> • Digital display of face velocity in m/sec or fpm • On screen display for Safe and Alarm conditions with • Audible alarm and LED indication. • Push button calibration and configuration • Plug-in connections for power supply and airflow sensor • 3 programmable output relays • 3 configurable inputs • Com port for local or PC network connection
24	Temperature indicator	'PPI make model Zenex/Delta'. Size 48 x 48 x 110, mm (Panel cutout - 44 x 44 mm) Accuracy $\pm 0.25\%$ of reading ± 1 LSD, $\pm 1^\circ\text{C}$ Supply Voltage 85 to 264 V AC, 50 / 60 Hz User Interface Display : 2 rows of 3 digit x 7 segment high intensity LED Upper Row : Process Value for PID 1 Lower Row : Process Value for PID 2 Key Board : 3 front panel keys for settings
25	Level adjusting screws	Made of SS Bolts to adjust the fume hood level by ± 10 mm.
26	Exhaust Port	Unique exhaust port design ensures that the fumes will be exhausted smoothly without any turbulence at the exhaust port. Also it ensures low noise level.
27	Flow control valve	To regulate airflow.
28	Noise Level	< 70db at 1 meter from fume hood.

CENTRIFUGAL BLOWER: (For air suction for Fume hood) – As per Layout

Silent PP+FRP high efficiency remote blower consisting of continuous rating motor and chemical resistant impeller. It satisfies international safe velocity norms.

Sr. No	Specification	Description
1	Construction	SISW type, chemical & heat resistant PP + FRP blower with aerodynamically balanced PP impeller, with drain plug.
2	Air Suction Capacity	600 CFM conforming to international face velocity norms and as per safe fume hood airflow pattern.
3	Motor	' Crompton / LHP/Other Reputed ' make, 1 HP Motor 3 Phase TEFC, IP 55, Class F, continuous rating. As per IS 325. blower rating may change if number of hoods connected in a single blower.
4	Drive	Direct Drive

DUCTING:

Chemical resistant PP + FRP (**3mm + 2mm**) rigid & flexible ductwork from Fume hood to exhaust stack point with weatherproof canopy. Total ducting with horizontal, vertical members, flanges, bends, bracketed supports and gooseneck exhaust stack.

INSTALLATION:

It will be carried out by our skilled team with ductwork design, fitting, fixing of blower, commissioning & testing of the same at a fixed extra cost.

IQ/OQ/PQ: (Optional)

Entire IQ/OQ/PQ protocols can be filled up and submitted to you after completion of the installation at extra cost.

TESTING:

All fume hoods are "factory tested" as per **ASHRAE110:2016** face velocity norms. Also, "Onsite Validation" will be carried out to ensure working of fume hood as per international norms. "tracer gas containment testing" can be carried out only in our factory at extra cost.

WARRANTY:

03 years warranty against all manufacturing defects from the date of installation.

AFTER SALES SERVICE:

Annual Maintenance Contracts after completion of Warranty period of 03 years.

DELIVERY:

90 days from the date of receipt of your valued order

Misc. SCOPE:

1. Provision for Blower foundation (R.C.C.) or Platform (M.S. structure).
2. Provision of scaffoldings/Holes for ducting Required.
3. Site survey for duct route it should be ease of maintenance
4. Connection from nearest electrical point to fume hood and blower
5. Connection of utility from the nearest point (Maximum 1 meter) to the fume hood or bench

**FORMAT TO BE FILLED BY THE OEM/AUTHORIZED VENDORS FOR SUBMITTING
TENDER FOR**

**Procurement and Installation of Laboratory Furniture and Fume Hood in Physics Laboratories at
new academic building at NIT Silchar (TURN KEY BASIS)**

1. Name of the Tenderer :
2. Status of the Tenderer :
(attach documents, if registered
Company/partnership/propriety ship)
3. Whether OEM/authorized certificate holder : (attach copy
of certificate/authorization)
4. Details of experiences in a Govt. Organization for: last 05
years. Detailed Name, Address/contact details of the present
and past clients
5. Details of experiences in any
IITs/NITs/CFTIs/ Central Universities/ Govt.
Labs during last 05 years :
6. Copy of the ISO certificate(s) of the vendor :
7. Copy of Company Registration Certificate/
Trade License and PAN Card, GST/CST, ST
no. :
8. Copies of acknowledgement of Income Tax return for
the last three financial years :
9. A certificate for not debarred or blacklisted for
any Services/supplies/products dealing :
10. Signed copy of the tender document, with seal :
Details of EMD/Tender fee Bank Draft No.,
11. **issuing branch and date** :
Mention all the brand name(make &
specification) of all the materials and items
12. that would be using in the proposed work :

Certified that all above information are correct to the best of my/our information, knowledge and belief.

Dated signature & seal of the OEM/Vendor

NOTE: This is to be submitted in a separate sealed envelope **super scribing "TECHNICAL BID"**