Indian Institute of Technology Hyderabad Kandi, Sangareddy - 502 284, Telangana, India

Phone: 040-23016071:

Date: 05.04.2024

Website: www.iith.ac.in, Email: office.stores@iith.ac.in>

NOTICE INVITING TENDER

NIT NO: IITH/SATHI/MSME/RAJESHK/2024/0/T001

IIT Hyderabad intends to set up a world-class instrumentation facility to carry out highend research. The facility known as SATHI will be set up in the existing Research Centre Complex (RCC) building within the premises of the campus at Kandi, Sangareddy, Telangana, India.

Online tenders in two bid form (Technical and Financial) are invited from the intending eligible bidders to provide a turnkey solution from concept to commissioning involving all civil, electrical, mechanical and network components as a composite execution. The details of eligibility, scope of work, technical evaluation, payment schedule etc., are given in the foregoing sections.

Copy of valid Registration of Firm (ROF) certificate, PAN card, GST Registration certificate & GSTIN should accompany the Technical Bid and those certificates should be valid on the last date of submission of bid.

1.1	NIT No.:		IITH/SATHI/MSME/RAJESHK/2024/O/T001		
1.2	Name of Work:		Setting up of labs for SATHI-CISCOM centre at th Research Centre Complex Building at II Hyderabad on turnkey basis.		
1.3	Location of wor	rk	Indian Institute of Technology (IIT) Hyderabad campus, Kandi-502284, Sangareddy, Telangana, India		
1.4	Estimated Cost	t: as a rough guide)	xxxxxx		
1.5	A. Earnest Money Deposit (EMD): B. Tender fee (Non refundable):		INR 5,00,000/- INR 2,360/-		
1.6	Period of Completion:		90 (Ninety) days		
1.7	Date of Online Publication/Download of Tender		05/04/2024 @ 15:00hrs		
1.8	Last Date & Date & Time time for		11/04/2024 @1500hrs		

	receiving of Pre-Bid Queries and to mail ID	<u>To</u> Mai	I	rajeshk@msme.iith.ac.in, shourya@msme.iith.ac.in, srkm@msme.iith.ac.in
1.9	Date and Time of Pre-bid meeting at IIT Hyderabad			12/04/2024 @ 1100 hrs , Location:ROOM NO:110, MSME CONFERENCE ROOM, MSME BUILDING
1.10	Last Date for Submission of Bids			24/04/2024 @ 11:00hrs
1.11	Date and ti Technical Bids		Opening of	25/04/2024 @ 11:30hrs
1.12	Date and ti Financial Bids		Opening of	Will be intimated to the qualified bidders after technical qualification
1.13	Cost of Bid Do	cument:	:	NIL

Instructions to the Bidders for Online Bid Submission

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: https://eprocure.gov.in/eprocure/app.

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link "Online bidder Enrolment" on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g., Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e- mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g., PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

<u>Note:</u> My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e., on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date and time of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise, the uploaded bid will be rejected.

- 5) Tenders without valid EMD and Tender fee will be summarily rejected. No exemption of EMD's or process fee for MSME/NSIC registered contractors.
- 6) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 7) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 8) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 9) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 10) Upon the successful and timely submission of bids (i.e., after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 11) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

NOTICE INVITING TENDER

NIT Reference No. IITH/SATHI/MSME/RAJESHK/2024/0/T001

1. Bidders shall produce definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:-

Criteria of eligibility for submission of tender documents apart from basic eligibility:

Three similar works each of value not less than INR 1 Crore

(OR)

Two similar works each of value not less than INR 1.5 Crore

(OR)

One similar work of value not less than INR 2 Crore in last 7 (Seven) years ending last day of the month previous to the one in which the tenders are invited.

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to the last date of submission of tender.

"Similar Work" shall mean setting up of instrumentation facilities / clean rooms / data centres at reputed educational institutions / corporate offices / industries/research labs which include electrical, HVAC, networking and IT, civil works such as aluminium partitions, false ceiling, false flooring under a single work order.

The intending bidders shall submit a Similar work experience certificate furnishing with all details of the format provided in Annexure – B.

- **2.** To become eligible, the tenderer shall have to furnish an affidavit as per Form 'J' of the NIT.
- 3. Agreement shall be drawn with the successful tenderer on prescribed Form which is available in the website: https://drive.google.com/file/d/19_LkFZ1leQb_3BznXQtinslcLISYVdbo/view (with up-to-date correction slips if any and additional conditions are enclosed as annexure I) Tenderer shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
- **4.** The time allowed for carrying out the work will be as stated at para 1 from the date of start as defined in Schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the tender documents.

- **5.** The site for the work is available.
- **6.** Applicants are advised to keep visiting the above IITH Tender website from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respects including updates thereof, if any. An incomplete application may be liable for rejection.
- 7. The contractor whose tender is accepted, will be required to furnish performance guarantee of 5% (Five Percent) of the tendered amount within the period specified in Schedule F. This guarantee shall be in the form of Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any scheduled bank or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F'. including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.

8. The description of the work is as follows:

The SATHI-CISCoM center is an interdisciplinary multi-institute research facility catering to high-end in-situ correlative microscopy needs across various length scales. To achieve this, various state-of-the-art equipment ranging from atom probe tomography (APT) to optical microscopy are being procured and would be installed. Each of these sophisticated equipment requires installation rooms with stringent criteria concerning vibration levels, acoustic levels, electrical supply, AC supply, and other essential utilities. Through this tender, we invite tenderers to provide a turn-key solution which shall include all required civil, electrical, HVAC, and customization works for converting the rooms in the Research Centre Complex (RCC) building (5 rooms on the ground floor (Room No.: D048 to D052) and 3 rooms on the first floor (Room No.: D117 to D119)) to house these instruments.

The detailed scope of work is given under a separate section.

- **9.** Tenders with any condition including that of conditional rebates shall be rejected forthwith.
- **10.** Cost of Tender Fee and EMD may also be remitted to Institute's account number as per bank particulars given below:

Name of the Account Holder : Indian Institute of Technology Hyderabad

Account Number : 30412797764 (Current Account)

Name of the Bank : State Bank of India

Address of the Bank : IIT Kandi, IIT Hyderabad Campus,

Kandi, Sangareddy, Telangana - 502284

Branch code : 14182

IFSC code: SBIN0014182MICR code: 502002528SHIFT code: SBININBB762

- 11. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.
- 12. Canvassing whether directly or indirectly, in connection with tenderers is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
- 13. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
- 14. The contractor shall not be permitted to tender for works if his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Institute.

- 15. No Engineer of gazette rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.
- 16. The tender for the works shall remain open for acceptance for a period of one hundred and twenty (120) days from the date of opening of technical bid and Sixty days (60) from the date of opening of financial bid. If any tenderer withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the tenderer shall not be allowed to participate in the retendering process of the work
- 17. (A) All taxes, Labour Cess etc., as applicable shall be borne by the contractor himself. The contractor shall quote his rates considering all such taxes including <u>GST on works</u>. Any recovery towards GST is notified by the competent authority, the same shall be effected and no claim what so ever shall be entertained by IITH. The contractor shall quote his rates accordingly.
- (B) 2% as TDS amount of GST amount payable on the bills will be deducted as per the Govt. of India, Ministry of Finance, Department of Revenue notification vide No.65/39/2018-DOR, dtd: 14-09-2018.
- 18. GST registration certificate of the state in which the work is to be taken up, if already obtained by the bidder.

If the bidder has not obtained GST registration in the state in which the work is to be taken up or as required by GST authorities, then in such a case the bidder shall scan and upload following under taking along with other bid documents.

"If the work awarded to me, I/We shall obtain GST registration certificate of the state, in which work is to be taken up, within one month from the date of receipt of award letter or before release of any payment by IIT Hyderabad, whichever earlier, failing which I/We shall responsible for any delay in payments which will be due towards me/us on a/c of the work executed and/or for any action taken by IIT Hyderabad or GST department in this regard."

19. Bidder has to submit Undertaking on their letter head pursuant to the

Section 206AB (as applicable) of the Income Tax Act,1961 in prescribed format as enclosed at Annexure-A along with each and every bill submitted for payment.

- **20.** This notice inviting Tender shall form a part of the contract document. The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-
- a) The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
- b) Standard Contract form (General Conditions of Contract) as posted in the website of the Institute. The bidder is deemed to have gone through and understood the Standard Contract Form and the General Conditions of Contract.

21. Public Procurement (Preference to Make in India), Order 2017:

IIT Hyderabad shall compare all substantially responsive bids to determine the lowest valuated bid. This Institute is following and abiding with the *Public Procurement (Preference to Make in India), Order 2017, DIPP, MoCI Order No. P-45021/2/2017-B.E.II dated 15th June 2017* and its subsequent amendments. Accordingly, preference will be given to the Make in India products while evaluating the bids, however, it is the sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India product along with respective documentary evidence as stipulated in the aforesaid order in the technical bid itself.

As per the above order and its subsequent amendments "Local Content" means the amount of value added in India which shall be value of the item procured (excluding net domestic indirect taxes) minus the value of the imported content in the item (including all the custom duties) as a proportion of the total value, in percent. Accordingly, the suppliers will be classified in following categories.

Class I local Supplier – has local content minimum 50% Class II local Supplier – has local content minimum 20%

Verification of Local Content: The Class I Local Supplier /Class II Local Supplier at the time of bidding shall be required to indicate the percentage of local content and provide **self-certification as per Annexure-C** that the items offered meet the local content requirement. The details of the location(s) at which the local value addition is made also needs to be specified.

In case of procurement in excess of Rs.10 crores, the suppliers shall be required to provide the certificate from the Statutory auditor or cost auditor of the company giving the percentage of local content.

The bidders can be debarred for a period up to two years as per Rule 151(iii) of GFR 2017, in case of false declaration.

FORM 'J'

AFFIDAVIT

I/we undertake and confirm that our firm/partnership firm has not been blacklisted by any state/Central Departments/PSUs/Autonomous bodies during the last 7 years of its operations. Further that, if such information comes to the notice of the department, then I/we shall be debarred for bidding in IIT Hyderabad in future forever. Also, if such information comes to the notice of IIT Hyderabad on any day before date of start of work, the Engineer-in-charge shall be free to cancel the agreement and to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee (Scanned copy of this notarized affidavit to be uploaded at the time of submission of bid)

NOTE: Affidavit to be furnished on a 'Non-Judicial' stamp paper worth Rs.100/-

Signature of Bidder(s) or an authorized Officer of the firm with stamp

Signature of Notary with seal

Checklist of documents to be submitted along with Technical Bid

SI. No.	Doc Ref	Description of the Document	Enclosed Yes/No	Remarks
1	As per GCC, Applicant shall submit the documents for Technical scrutiny	Copy of valid contractor's/Firm registration certificate, PAN card, GST Registration certificate & GSTIN should accompany the Technical Bid		
2	Details of Works completed during last 7 years	Not less than INR 1 Crore (Three similar works)		
	(Detailed statements to be enclosed)			
	The intending bidders shall submit the Similar work experience certificate	Not less than INR 1.5 Crore (Two similar works)		
	furnishing with all details of the format provided at Annexure – B	Not less than INR 2 Crore (One Similar work)		
3	As per the NIT (Affidavit)	The tenderer shall have to furnish an affidavit in prescribed format. (Form J)		
4	As per Para No. 1.5 of NIT	EMD Details		
5	As per SI. No.18 of NIT	Undertaking for GST registration in the state in which the work is to be taken up		
6	As per SI. No. 19 of NIT	Undertaking pursuant to Section 206AB (as applicable) of the Income Tax Act, 1961 (Proforma enclosed as Annexure-A)		
7	As per SI. No. 21of NIT	Self-certification for Declaration of Local Content (Proforma enclosed as Annexure-C)		

Annexure - A

On Contractor/ Agency's Letter Head

Dear Sir/Madam,		
Subject: Declaration confirm preceding years.	ning filing of Income Tax Retu	ırn for immediate two
I, Ms./Mrs./Mr. having PAN		thorized Signatory o registered office a declare tha
immediately last 2 preceding under Section 139 (1) of the which are as given under:	Financial Years as mentioned	
Financial Year for which Income Tax Return was due as per Section 139(1)	Acknowledgement no. of ITR filed under Section 139(1)	Date of Filing
2022-23 (if applicable on date of this declaration)		
2021-22		
2020-21		
Further, I confirm that with Aadhaar number as on t		lined the above PAN
I also undertake that		y (including any Tax

SCOPE OF WORK:

Detailed Scope of Work:

The SATHI-CISCoM center is an interdisciplinary multi-institute research facility catering to high-end in-situ correlative microscopy needs across various length scales. To achieve this, various state-of-the-art equipment ranging from atom probe tomography (APT) to optical microscopy are being procured and would be installed. Each of these sophisticated equipment requires installation rooms with stringent criteria concerning vibration levels, acoustic levels, electrical supply, AC supply, and other essential utilities. Through this tender, we invite tenderers to provide a turn-key solution which shall include all required civil, electrical, HVAC, and customization works for converting the rooms in the Research Centre Complex (RCC) building (5 rooms on the ground floor (Room No.: D048 to D052) and 3 rooms on the first floor (Room No.: D117 to D119)) to house these instruments. The arrangement of the rooms on both the Ground Floor and First Floor is shown in Figure 1.

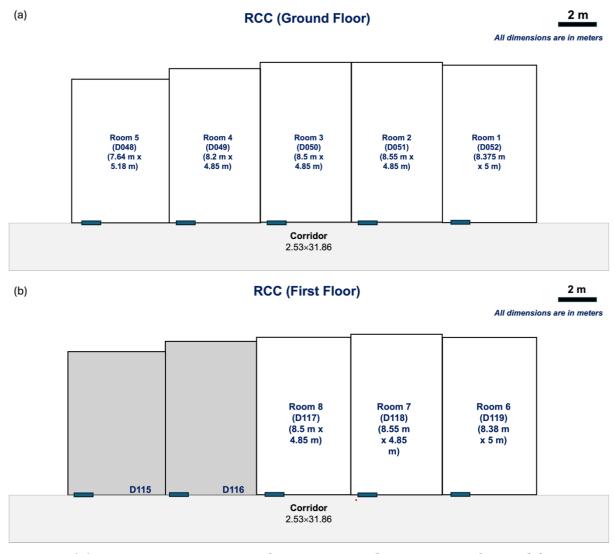


Figure 1. (a) Layout and numbering of rooms on the Ground Floor of the RCC building. (b) Layout and numbering of rooms on the First Floor of the RCC Building.

In the following section, we provide the requirements of each room for all the utilities (Civil, Electrical, Acoustic shielding, AC, Water, UPS supply, Network connections, etc.) and other requirements (Workbenches, gas cylinder storage, etc.).

A. General scope of work

[1] All the required wiring that needs to be drawn from the central distribution board/panel of the building to the supplied DG (load needs to be calculated by the tenderer) and from DG to UPS and from UPS to each of the rooms should be done as part of the current work order. Also, the required DB and electrical panels should be provided, as well as the electrical layout.

B. Room 1 (Ground Floor, D052) - Diagram in Figure 2

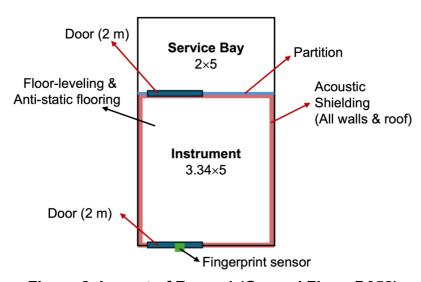


Figure 2. Layout of Room 1 (Ground Floor, D052)

[1] Civil:

- The door must be widened to 2 m and 2.1 m in height.
- The floor must be modified to achieve a cleanroom-grade smooth finish with a variation of within 2 - 4 mm from one end of the room to the other. This should be done using a selfleveling compound/material. Subsequently, anti-static vinyl flooring should be done.
- The partitioning must be made using appropriate materials and must be covered with acoustic panels to ensure noise levels of less than 50 dB within the enclosure created. The wall paneling and portioning material should have a double skin, Pre-Insulated Rockwool infilled modular paneling system complying to fire rating minimum for 2 hrs, negligible humidity transmission, having chemical resistant paint, complete with coving & Joints sealed using cleanroom grade silicon sealant to match the panel color.

[2] Electrical

- All the electrical sockets present in the room should be accessible by extending them on top of the acoustic panels that will be installed.
- Additionally, the room should be provided with

- 1. Two number 200-240 V AC 32 A single phase sockets
- 2. Five 16/6 A single phase sockets (UPS line)
- All the sockets should be drawn from the UPS dedicated to this room. Each socket should have its own switch.
- A surge protector must be provided between the UPS and the sockets.

[3] Acoustic shielding

- Acoustic shielding must be done in the room to isolate the instrument location and the service bay. After completing the acoustic shielding, a final noise level of <50 dB should be achieved in the room.
- Acoustic shielding (all the walls, roof, and other required locations) must be done only in the instrument room.

[4] AC

- The heat load of the instrument being installed here would be approximately 0.9 kW in the instrument room and 2.8 kW at full operational load. Considering this, the precision air conditioning system (using a chilled water supply system) should be provided to meet the following requirements:
 - 1. Room temperature: 18 to 23°C
 - 2. Drift: 0.2 °C /h or less
 - 3. Fluctuations: 0.05°C /min or less
 - 4. Humidity: 60% or less
 - 5. Pressure fluctuations: 1 Pa or less
 - 6. Air flow: 100 mm/s or less
- Appropriate humidity controllers and measurement tools should be provided to monitor both temperature and humidity.
- HEPA filters must be provided such that the room is a class 1,00,000 cleanroom.
- Both the instrument area and the service bay need to be cooled, and separate vents should be provided for each region.
- In the instrument room, the AC vents (inlets and outlets) should be positioned in such a way that no direct circulation of air is present on the instrument column.

[5] Water

No additional water supply is required in this room.

[6] UPS supply

 A UPS of 15 KVA should be provided for a backup of 30 min for the instrument.

[7] Network connections

 Two LAN sockets (from a reliable brand) connection should be provided. The network connectors and switches must be from a reliable manufacturer such as HP/Cisco/Aruba

[8] Room access

 Access control via fingerprint reader should be provided at the entrance door. This must be of a reliable manufacturer such as Matrix/ESSL/CP-Plus. It must be possible to access the complete log of the access history.

[9] Any additional modifications:

- Dedicated grounding with terminal resistance should be less than 100 Ohm, with a total of 5 to 6 no.
- Require dedicated earthing 4 to 5 nos. in the UPS Room & 1 in the peripheral room for the main instrument.

C. Room 2 (Ground Floor, D051) – Diagram in Figure 3

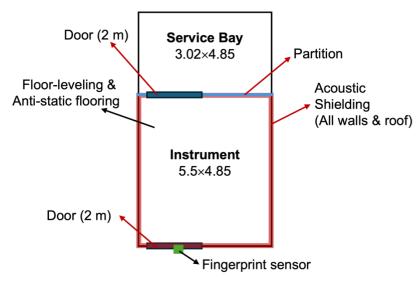


Figure 3. Layout of Room 2 (Ground Floor, D051)

[1] Civil:

- The door must be widened to 2 m and 2.1 m in height.
- The floor must be modified to achieve a cleanroom-grade smooth finish with a variation of within 2 - 4 mm from one end of the room to the other. This should be done using a selfleveling compound/material. Subsequently, anti-static vinyl flooring should be done.
- The partitioning must be made using appropriate materials and must be covered with acoustic panels to ensure noise levels of less than 50 dB within the enclosure created. The wall paneling and portioning material should have a double skin, Pre-Insulated Rockwool infilled modular paneling system complying to fire rating minimum for 2 hrs, negligible humidity transmission, having chemical resistant paint, complete with coving & Joints sealed using cleanroom grade silicon sealant to match the panel color.

[2] Electrical

- All the electrical sockets present in the room should be accessible by extending them on top of the acoustic panels that will be installed.
- Additionally, the room should be provided with
 - 1. One 63 A 2 pole MCB should be installed in the service bay (to be connected to one UPS)

- 2. One 63 A 4 pole MCB should be installed in the service bay (to be connected to one UPS)
- 3. Four number 16/6 A single phase socket drawn from the UPS
- A surge protector must be provided between the UPS and the sockets.

[3] Acoustic shielding

- Acoustic shielding must be done in the room to isolate the instrument location and the service bay. After completing the acoustic shielding, a final noise level of <50 dB should be achieved in the room.
- Acoustic shielding (all the walls, roof, and other required locations) must be done only in the instrument room.

[4] AC

- The heat load of the instrument being installed here would be approximately 3.65 kW in the instrument room at full operational load. Considering this, the precision air conditioning system (using a chilled water supply system) should be provided to meet the following requirements:
 - 1. Room temperature: 18 to 23°C
 - 2. Drift: 0.2 °C /h or less
 - 3. Fluctuations: 0.05°C /min or less
 - 4. Humidity: 60% or less
 - 5. Pressure fluctuations: 1 Pa or less
 - 6. Air flow: 100 mm/s or less
- Appropriate humidity controllers and measurement tools should be provided to monitor both temperature and humidity.
- HEPA filters must be provided such that the room is a class 1,00,000 cleanroom.
- Both the instrument area and the service bay need to be cooled, and separate vents should be provided for each region.
- In the instrument room, the AC vents (inlets and outlets) should be positioned in such a way that no direct circulation of air is present on the instrument column.

[5] Water

No additional water supply is required in this room.

[6] UPS supply

- One UPS of 15 KVA (3-phase input and single phase with output 220 V) should be provided for a backup of 30 min for the instrument.
- One UPS of 15 KVA (3 phase input and 3 phase output) should be provided for a backup of 30 min for the instrument.

[7] Network connections

 Two LAN sockets (from a reliable brand) connection should be provided. The network connectors and switches must be from a reliable manufacturer such as HP/Cisco/Aruba

[8] Room access

- Access control via fingerprint reader should be provided at the entrance door. This must be of a reliable manufacturer such as Matrix/ESSL/CP-Plus.
- It must be possible to access the complete log of the access history.

[9] Any additional modifications:

- Dedicated grounding with terminal resistance should be less than 100 Ohm, with a total of 5 to 6 no.
- Require dedicated earthing 4 to 5 nos. in the UPS Room & 1 in the peripheral room for the main instrument.

Room 3 (Ground Floor, D050) - Diagram in Figure 4

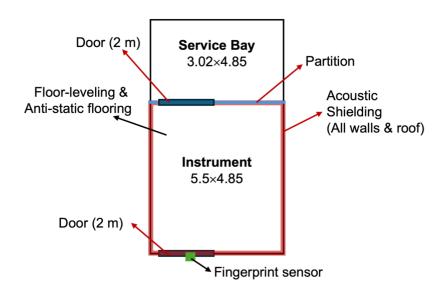


Figure 4. The layout of Room 3 (Ground Floor, D050)

[1] Civil:

- The door must be widened to 2 m and 2.1 m in height.
- The floor must be modified to achieve a cleanroom-grade smooth finish with a variation of within 2 - 4 mm from one end of the room to the other. This should be done using a selfleveling compound/material. Subsequently, anti-static vinyl flooring should be done.
- The partitioning must be made using appropriate materials and must be covered with acoustic panels to ensure noise levels of less than 50 dB within the enclosure created. The wall paneling and portioning material should have a double skin, Pre-Insulated Rockwool infilled modular paneling system complying to fire rating minimum for 2 hrs, negligible humidity transmission, having chemical resistant paint, complete with coving & Joints sealed using cleanroom grade silicon sealant to match the panel color.

[2] Electrical

- All the electrical sockets present in the room should be accessible by extending them on top of the acoustic panels that will be installed.
- Additionally, the room should be provided with
 - 1. One 63 A 2 pole MCB should be installed in the service bay (to be connected to one UPS)
 - 2. One 63 A 4 pole MCB should be installed in the service bay (to be connected to one UPS)
 - 3. Four number 16 A single phase socket drawn from the UPS
- A surge protector must be provided between the UPS and the sockets.

[3] Acoustic shielding

- Acoustic shielding must be done in the room to isolate the instrument location and the service bay. After completing the acoustic shielding, a final noise level of <50 dB should be achieved in the room.
- Acoustic shielding (all the walls, roof, and other required locations) must be done only in the instrument room.

[4] AC

- The heat load of the instrument being installed here would be approximately 3.65 kW in the instrument room at full operational load. Considering this, the precision air conditioning system (using a chilled water supply system) should be provided to meet the following requirements:
 - 1. Room temperature: 18 to 23°C
 - 2. Drift: 0.2 °C /h or less
 - 3. Fluctuations: 0.05°C /min or less
 - 4. Humidity: 60% or less
 - 5. Pressure fluctuations: 1 Pa or less
 - 6. Air flow: 100 mm/s or less
- Appropriate humidity controllers and measurement tools should be provided to monitor both temperature and humidity.
- HEPA filters must be provided such that the room is a class 1,00,000 cleanroom.
- Both the instrument area and the service bay need to be cooled, and separate vents should be provided for each region.
- In the instrument room, the AC vents (inlets and outlets) should be positioned in such a way that no direct circulation of air is present on the instrument column.

[5] Water

No additional water supply is required in this room.

[6] UPS supply

- One UPS of 15 KVA (3-phase input and single phase with output 220 V) should be provided for a backup of 30 min for the instrument.
- One UPS of 15 KVA (3 phase input and 3 phase output) should be provided for a backup of 30 min for the instrument.

[7] Network connections

 Two LAN sockets (from a reliable brand) connection should be provided. The network connectors and switches must be from a reliable manufacturer such as HP/Cisco/Aruba

[8] Room access

- Access control via fingerprint reader should be provided at the entrance door. This must be of a reliable manufacturer such as Matrix/ESSL/CP-Plus.
- It must be possible to access the complete log of the access history.

[9] Any additional modifications:

- Dedicated grounding with terminal resistance should be less than 100 Ohm, with a total of 5 to 6 no.
- Require dedicated earthing 4 to 5 nos. in the UPS Room & 1 in the peripheral room for the main instrument.

Room 4 (Ground Floor, D049) - Diagram in Figure 5

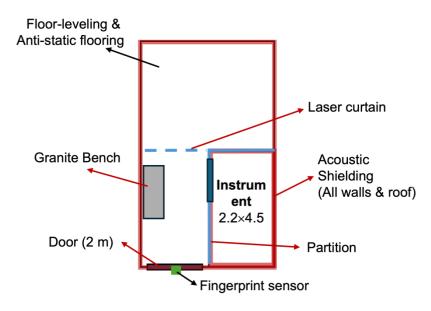


Figure 5. The layout of Room 4 (Ground Floor, D049)

[1] Civil:

- The door must be widened to 1.5 m and 2.1 m in height.
- The floor must be modified to achieve a cleanroom-grade smooth finish with a variation of within 2 - 4 mm from one end of the room to the other. This should be done using a selfleveling compound/material. Subsequently, anti-static vinyl flooring should be done.
- The partitioning must be made using appropriate materials and must be covered with acoustic panels to ensure noise levels of less than 50 dB within the enclosure created. The wall paneling and portioning material should have a double skin, Pre-Insulated Rockwool infilled modular paneling system complying to fire rating minimum for 2 hrs, negligible humidity transmission, having chemical resistant paint, complete with coving & Joints sealed using cleanroom grade silicon sealant to match the panel color.

[2] Electrical

- All the electrical sockets present in the room should be accessible by extending them on top of the acoustic panels that will be installed.
- Additionally, the room should be provided with
 - 1. 8 points of 16/6 A 220 V (50Hz) single phase from UPS power should be provided in the partitioned area.
 - 2. 40 A 2-pole single-phase UPS power should be provided.
 - 3. One 16 A 2 pole UPS power should be provided.

- 4. Four number of 16/6 A single-phase sockets of UPS power (inner part of the room)
- 5. Four points of 16/6 A single phase sockets of UPS power near the granite bench should be provided.
- Each socket should have its own switch.
- A surge protector must be provided between the UPS and the sockets.

[3] Acoustic shielding

- Acoustic shielding must be done in the room to isolate the instrument location and the service bay. After completing the acoustic shielding, a final noise level of <50 dB should be achieved in the room.
- Acoustic shielding (all the walls, roof, and other required locations) must be done only in the instrument room.

[4] AC

- The heat load of the instrument being installed here would be approximately 3.5 kW in the instrument room at full operational load. Considering this, the precision air conditioning system (using a chilled water supply system) should be provided to meet the following requirements:
 - 1. Room temperature: 18 to 23°C
 - 2. Drift: 0.2 °C /h or less
 - 3. Fluctuations: 0.05°C /min or less
 - 4. Humidity: 60% or less
 - 5. Pressure fluctuations: 1 Pa or less
 - 6. Air flow: 100 mm/s or less
- Appropriate humidity controllers and measurement tools should be provided to monitor both temperature and humidity.
- HEPA filters must be provided such that the room is a class 1,00,000 cleanroom.
- The instrument area and the service bay need to be cooled, and separate vents should be provided for each region.
- In the instrument room, the AC vents (inlets and outlets) should be positioned in such a way that no direct circulation of air is present on the instrument column.

[5] Water

No additional water supply is required in this room.

[6] UPS supply

- One UPS of 10 KVA should be provided for a backup of 30 min for the instrument (FIB).
- Two UPS of 5 KVA should be provided for a backup of 30 min for the other instruments (TERS and FTIR)

[7] Network connections

 Two LAN sockets (from a reliable brand) connection should be provided. The network connectors and switches must be from a reliable manufacturer such as HP/Cisco/Aruba

[8] Room access

- Access control via fingerprint reader should be provided at the entrance door. This must be of a reliable manufacturer such as Matrix/ESSL/CP-Plus.
- It must be possible to access the complete log of the access history.

[9] Any additional modifications:

- Three dedicated Grounding with terminal resistance should be less than 100 Ohm.
- Granite bench, as shown in the diagram, should be provided and installed. The bottom part of the granite bench should have storage for consumables and chemicals. The exact length and dimensions of the granite bench need to be proposed by the tenderer and should be based on the optimal utilization of the room space.
- The laser curtain asked for should be black in color, flame retardant, absorb any stray laser radiation and prevent any transmission of visible laser radiation.

D. Room 5 (Ground Floor, D048) - Diagram in Figure 6

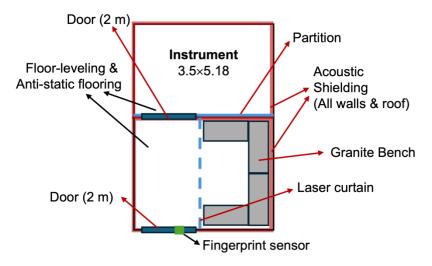


Figure 6. The layout of Room 5 (Ground Floor, D048)

[1] Civil:

- The door must be widened to 2 m and 2.1 m in height.
- The floor must be modified to achieve a cleanroom-grade smooth finish with a variation of within 2 - 4 mm from one end of the room to the other. This should be done using a selfleveling compound/material. Subsequently, anti-static vinyl flooring should be done.
- The partitioning must be made using appropriate materials and must be covered with acoustic panels to ensure noise levels of less than 50 dB within the enclosure created. The wall panneling and portioning material should have a double skin, Pre-Insulated Rockwool infilled modular panelling system complying to fire rating minimum for 2 hrs, negligible humidity transmission, having chemical resistant paint, complete with coving & Joints sealed using cleanroom grade silicon sealant to match the panel color.

[2] Electrical

- All the electrical sockets present in the room should be accessible by extending them on top of the acoustic panels that will be installed.
- Additionally, the room should be provided with
 - 1. Eight points of 16/6 A UPS sockets in the instrument area.
 - 2. Ten points of 16/6 A UPS sockets in the outer room near the granite tables.
- Each socket should have its own switch.
- A surge protector must be provided between the UPS and the sockets.

[3] Acoustic shielding

 Acoustic shielding must be done in the room to isolate the instrument location and the service bay. After completing the acoustic shielding, a final noise level of <50 dB should be achieved in the room. • Acoustic shielding (all the walls, roof, and other required locations) must be done only in the instrument room.

[4] AC

- The heat load of the instrument being installed here would be approximately 0.9 kW in the instrument room and 2.8 kW at full operational load. Considering this, the precision air conditioning system (using a chilled water supply system) should be provided to meet the following requirements:
 - Room temperature: 18 to 23°C
 - 2. Drift: 0.2 °C /h or less
 - 3. Fluctuations: 0.05°C /min or less
 - 4. Humidity: 60% or less
 - 5. Pressure fluctuations: 1 Pa or less
 - 6. Air flow: 100 mm/s or less
- Appropriate humidity controllers and measurement tools should be provided to monitor both temperature and humidity.
- HEPA filters must be provided such that the room is a class 1,00,000 cleanroom.
- The instrument area and the service bay need to be cooled, and separate vents should be provided for each region.
- In the instrument room, the AC vents (inlets and outlets) should be positioned in such a way that no direct circulation of air is present on the instrument column.

[5] Water

No additional water supply is required in this room.

[6] UPS supply

 A UPS of 10 KVA should be provided for a backup of 30 min for the instrument.

[7] Network connections

 Two LAN sockets (from a reliable brand) connection should be provided. The network connectors and switches must be from a reliable manufacturer such as HP/Cisco/Aruba

[8] Room access

- Access control via fingerprint reader should be provided at the entrance door. This must be of a reliable manufacturer such as Matrix/ESSL/CP-Plus.
- It must be possible to access the complete log of the access history.

[9] Any additional modifications:

- Two dedicated ground terminals with terminal resistance should be less than 100 Ohm.
- Granite bench, as shown in the diagram, should be provided and installed. The bottom part of the granite bench should have storage for consumables and chemicals. The exact length and dimensions of the granite bench need to be proposed by the tenderer and should be based on the optimal utilization of the room space.

 The laser curtain asked for should be black in color, flame retardant, absorb any stray laser radiation and prevent any transmission of visible laser radiation.

E. Corridor (Ground Floor)

[1] Corridor isolation:

- Two fire-safety compatible doors (with a width of 2 m) must be installed at either end of the corridor to make the complete corridor a clean area.
- In one of the entrances, a double door entry with the necessary air-shower area should be provided.
- A user should be able to enter the corridor using a face or fingerprint recognition-based reader at the outer door.
- It must be possible to access the complete log of the access history.

[2] CCTV cameras

- CCTV cameras must be placed both inside and outside the doors used for isolating the corridor. These cameras should enable monitoring of the users/personnel entering and exiting the microscopy facility.
- All the required cabling from the CCTV cameras to the associated computer should be carried out.

[3] Civil

- Anti-static vinyl flooring should be done in the whole corridor.
- [4] Any other modifications
 - NA

F. Room 6 (First Floor, D119)

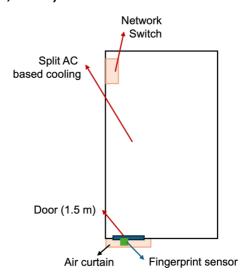


Figure 7. Layout of Room 6 (First floor, D119)

[1] Civil:

Not applicable

[2] Electrical

- All the electrical sockets present in the room should be accessible by extending them on top of the acoustic panels that will be installed.
- Additionally, the room should be provided with
 - 1. Ten points of 16 A UPS sockets in the instrument area.
 - 2. Ten points of 6 A UPS sockets in the instrument area.
- Each socket should have its own switch.
- A surge protector must be provided between the UPS and the sockets.

[3] Acoustic shielding

Not required

[4] AC

- The heat load of the instrument being installed here would be approximately 2 kW at full operational load. Considering this, the air conditioning system (using a split AC type ACs) should be provided to meet the following requirements:
 - 1. Room temperature: 21-24°C
 - 2. Humidity: 60% or less
- Appropriate humidity controllers and measurement tools should be provided to monitor both temperature and humidity.

[5] Water

No additional water supply is required in this room.

[6] UPS supply

- Not applicable
- [7] Network connections
 - LAN connections (total of 14 numbers) should be provided.
 - A network switch compatible with the LAN network and connecting the computers to the IITH network should be provided. The LAN sockets (from a reliable brand) connection

should be provided. The network connectors and switches must be from a reliable manufacturer such as HP/Cisco/Aruba

[8] Room access

- Access control via fingerprint reader should be provided at the entrance door. This must be of a reliable manufacturer such as Matrix/ESSL/CP-Plus.
- It must be possible to access the complete log of the access history.

[9] Any additional modifications:

Not required.

G. Room 7 (First Floor, D118)

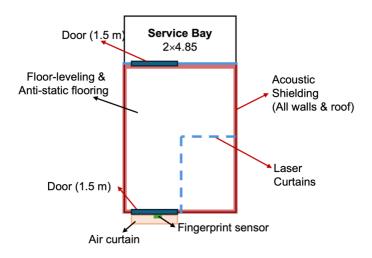


Figure 8. Layout of Room 7 (First floor, D118)

[1] Civil:

- An anti-static vinyl flooring should be done.
- The partitioning must be made using appropriate materials and must be covered with acoustic panels to ensure noise levels of less than 50 dB within the enclosure created. The wall paneling and portioning material should have a double skin, Pre-Insulated Rockwool infilled modular paneling system complying to fire rating minimum for 2 hrs, negligible humidity transmission, having chemical resistant paint, complete with coving & Joints sealed using cleanroom grade silicon sealant to match the panel color.

[2] Electrical

- All the electrical sockets present in the room should be accessible by extending them on top of the acoustic panels that will be installed.
- Additionally, the room should be provided with
 - 1. 10 points of 16 A UPS sockets in the instrument area.
 - 2. 10 points of 6 A UPS sockets in the instrument area.
- Each socket should have its own switch.

 A surge protector must be provided between the UPS and the sockets.

[3] Acoustic shielding

- Acoustic shielding must be done in the room to isolate the instrument location and the service bay. After completing the acoustic shielding, a final noise level of <50 dB should be achieved in the room.
- Acoustic shielding (all the walls, roof, and other required locations) must be done only in the instrument room.

[4] AC

- The heat load of the instrument being installed here would be approximately 3 kW in the instrument room at full operational load. Considering this, the air conditioning system (split type ACs) should be provided to meet the following requirements:
 - 1. Room temperature: 21 to 24°C
 - 2. Humidity: 60% or less
- Appropriate humidity controllers and measurement tools should be provided to monitor both temperature and humidity.
- Both the instrument area and the service bay need to be cooled, and separate vents should be provided for each area.
- In the instrument room, the AC vents (inlets and outlets) should be positioned in such a way that no direct circulation of air is present on the instrument column.

[5] Water

No additional water supply is required in this room.

[6] UPS supply

Not applicable

[7] Network connections

 Two LAN sockets (from a reliable brand) connection should be provided. The network connectors and switches must be from a reliable manufacturer such as HP/Cisco/Aruba

[8] Room access

- Access control via fingerprint reader should be provided at the entrance door. This must be of a reliable manufacturer such as Matrix/ESSL/CP-Plus.
- It must be possible to access the complete log of the access history.

[9] Any additional modifications:

- Three dedicated Grounding with terminal resistance should be less than 100 Ohm.
- The laser curtain asked for should be black in color, flame retardant, absorb any stray laser radiation and prevent any transmission of visible laser radiation.

H. Room 8 (First Floor, D117)

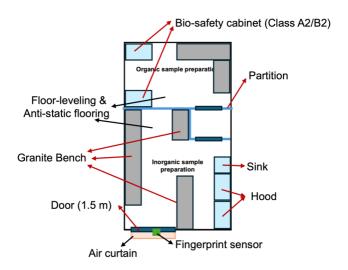


Figure 9. Layout of Room 8 (First floor, D117)

[1] Civil:

- An anti-static vinyl flooring should be done.
- The partitioning must be made using appropriate materials and must be covered.

[2] Electrical

- All the electrical sockets present in the room should be accessible by extending them on top of the acoustic panels that will be installed.
- Additionally, the room should be provided with
 - 1. (Inner room) Four points of 16/6 A UPS sockets.
 - 2. (Inner room) Eight points of 16/6 A raw power sockets
 - 3. (Outer room) Eight points of 16/6 A UPS power sockets
 - 4. (Outer room) Eight sockets of 16/6 A raw power sockets
- Each socket should have its own switch.
- A surge protector must be provided between the UPS and the sockets.

[3] Acoustic shielding

Not required

[4] AC

- The heat load of the instrument being installed here would be approximately 4 kW full operational load. The AC should be provided to meet the following requirements:
 - 1. Room temperature: 21 to 24°C
 - 2. Humidity: 60% or less
- Appropriate humidity controllers and measurement tools should be provided to monitor both temperature and humidity.
- If possible, HEPA filters must be provided such that the inner room is a class 1,00,000 cleanroom.
- Both the instrument area and the service bay need to be cooled, and separate vents should be provided for each area.

 In the instrument room, the AC vents (inlets and outlets) should be positioned in such a way that no direct circulation of air is present on the instrument column.

[5] Water

Water must be provided to the sink being supplied in this room. All the connections and tubing from the building water supply (as indicated by the IIT Hyderabad Construction & Maintenance Division) as part of this work order. The outlet of the sink should be connected to the drain in the building in this work order.

[6] UPS supply

Not applicable

[7] Network connections

 Two LAN sockets (from a reliable brand) connection should be provided. The network connectors and switches must be from a reliable manufacturer such as HP/Cisco/Aruba

[8] Room access

- Access control via fingerprint reader should be provided at the entrance door. This must be of a reliable manufacturer such as Matrix/ESSL/CP-Plus.
- It must be possible to access the complete log of the access history.

[9] Any additional modifications:

- One dedicated Grounding with terminal resistance should be less than 100 Ohm.
- Granite bench, as shown in the diagram, should be provided and installed. The bottom part of the granite bench should have storage for consumables and chemicals. The exact length and dimensions of the granite bench need to be proposed by the tenderer and should be based on the optimal utilization of the room space.
- Two vertical biosafety cabinets (Class A2 or class B2) should be provided and installed. The biosafety cabinets should have appropriate HEPA filters installed for purifying the air circulating the working area of the hood. These should be suitable for providing a sterile and safe environment for performing human cell cultures and associated biochemical assays.
- Two fume hoods for safely handling chemicals should be provided.

I. General scope of work in First floor

[1] CCTV cameras

- CCTV cameras must be placed to monitor entry and exit from the three labs on the first floor. These cameras should enable monitoring of the users/personnel entering and exiting the microscopy facility.
- All the required cabling from the CCTV cameras to the associated computer should be carried out.

[2] UPS

 A UPS of 50 KVA capacity should be provided for a backup of 30 min for the supporting the UPS sockets of rooms D117, D118 and D119.

J. Outdoor service bay (On the raised platform between the Gas Bank of RCC building and RCC building)

[1] Civil:

- A proper enclosure should be built around the utility area to protect the electrical and AC units from the environment.
- No permanent structures should be built in the service bay.
- Any modifications made to the wall need to be closed properly and in a leak-proof manner.

[2] Electrical panels

- All the electrical panels, UPS batteries, UPS panels, etc., required for the high-end instrument (as mentioned earlier) should be arranged in this area.
- This plan should facilitate and provide sufficient area required for servicing these panels/utilities.

[3] AC Units

- All AC-related outdoor units should be placed in this service area, and proper ducting should be drawn from this area to the respective labs.
- This plan should facilitate and provide sufficient area required for servicing these panels/utilities.
- Any modifications made to the wall need to be closed properly and in a leak-proof manner.

[4] Water

 Any additional water required for the water chillers should be mentioned in the tender. The tenderer should connect the chillers to the main water supply (as indicated) as part of the work order.

K. General scope of work in First floor

[1] Diesel Generator:

- An appropriate Diesel Generator of suitable capacity (minimum125 kVA) bearing the load of all the equipment proposed in the ground and first floor including the HVAC System must be supplied.
- This must be from a reputable brand such as Ashok Leyland/Cummins/Caterpillar/Kirloskar/Mahindra with AMF panel.
- For housing this a proper platform and appropriate enclosure must be maintained
- The location of the DG is as per the Figure 10. The wiring must be concealed with appropriate casing (preferably RCC pipes of suitable dia) and should be below the paver blocks at the location. For the concealed wiring, the paver blocks must be removed and on completion of the installation and wiring, the paver blocks must be re-laid to return the premises back to the previous state.

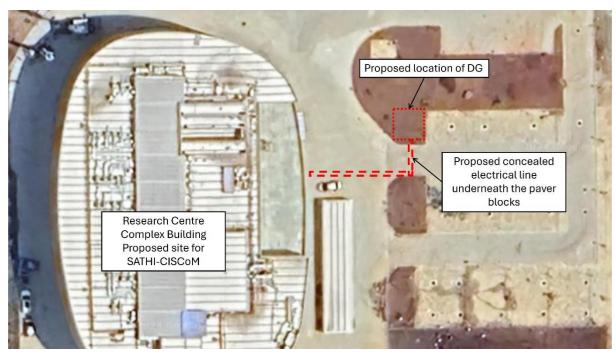


Figure 10. Location of the DG and suggested electrical pathway

All the said works shall be planned properly and get approved by the institute before execution.

Copies of other drawings and documents pertaining to the works will be open for inspection by the tenderers at the office of the above-mentioned officer.

Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

Additional Information:

- Each of the sophisticated equipment proposed in this centre require installation rooms with stringent criteria concerning vibration levels, acoustic levels, electrical supply, AC supply, and other essential utilities.
- All the works that enable these stringent requirements need to be adhered to.
 We require a turn-key solution which shall include all required civil, electrical,
 HVAC, and customization works for converting the rooms in the Research
 Centre Complex (RCC) building (5 rooms on the ground floor (Room No.: D048
 to D052) and 3 rooms on the first floor (Room No.: D117 to D119)) to house
 these instruments.
- This includes painting internal walls and false ceilings with acrylic emulsion paint, synthetic enamel paint on steelwork over a coat of zinc chromatic primer, power coated aluminium sections;
- Dismantling and making good wherever required. The contractor shall seek the Institute's written permission before engaging in any dismantling work, including core cutting.
- It is the responsibility of the bidder to ensure the usable materials that are removed for the work (piping, false ceiling tiles, ducts, doors/frames, switches, lights etc.,) are to be returned to the institute Construction & Maintenance Division while all the debris from the work needs to be cleared up and taken out of the institute for safe disposal.

PROFORMA OF SCHEDULES

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Schedule of quantities (Enclosed): As enclosed Annexure V at Page No 58 to 113

SCHEDULE 'B'

Schedule of materials to be issued to the contractor

SI. No.	Description of item	Quantity	Rates in figure & words at which the material will be charged to the Contractor	Place of issue			
NIL							

SCHEDULE 'C'

Tools and plants to be hired to the contractor

SI. No.	Description	Hire Charges per day	Place issue	of			
NIL							

SCHEDULE 'D'

Extra schedule for specific requirements/documents for the work, if any.

--- NIL ---

SCHEDULE 'E'

Reference to General Condition of Contract.: Posted in the website of the Institute.

Name of the work : Setting up of labs for SATHI-CISCOM centre at

the Research Centre Complex Building at IIT

Hyderabad on turnkey basis

Estimated cost of work : xxxxxxxx

Earnest money : **Rs.5,00,000** /-

Performance Guarantee : 5.0% of the accepted tendered value

Security Deposit : 2.50% of the tendered value

SCHEDULE 'F'

GENERAL RULES AND DIRECTIONS:

Officer inviting tender: : Dr. Korla Rajesh, Associate

Professor, Department of Materials

Science & Metallurgical Engg.

Maximum percentage for quantity of items of

work to be executed beyond which rates are to

be determined in accordance with Clauses12.2

& 12.3

See below

Definitions:

2(v) Engineer -in- Charge : *Dr.* Korla Rajesh, *Associate*

Professor, Department of Materials

Science & Metallurgical Engg

2(viii) Accepting Authority : Director, Indian Institute of

Technology, Hyderabad.

2(x) Percentage on cost materials and : 15% (Fifteen) per cent.

Labour to cover all overheads and profit

2(xi) Standard Schedule of Rate : Not applicable.

Standard Contract Form : IITH General Conditions of Contract

Clause 1

i) Time allowed for submission of : 7 (Seven) Working Days

Performance Guarantee, Programme Chart (Time and Progress) and applicable licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance, in days

ii)Maximum allowable extension beyond the period

provided in(i) above : 7 (Seven) Working Days

Clause 1A

Whether Clause 1A is applicable : Yes

Clause 2

Authority for fixing Compensation under Clause 2 : Director, Indian Institute of

Technology, Hyderabad

Clause 3(VII): If the contractor had secured the contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement-will be made ineligible.

Clause 5:

Number of days from the date of issue of letter of : 7 Days or date of issue of acceptance for reckoning date of start

LOC or handing over of the site whichever is later

Milestones : Not Applicable

Time allowed for execution of work 90 Days

Authority to give fair and reasonable Extension of time for completion of

work (Web based hindrance register)

Dr. Sai Rama Krishna Malladi. Assistant Professor, Department of Materials Science & Metallurgical Engg., IITH

Rescheduling of mile stones As above

Clause 6:- Measurement Book

Clause deleted. Clause applicable, 6

Clause 7:

Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment

Clause deleted

Clause 7A: Clause not applicable. However, Whether Clause 7A is applicable

No running account bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-charge.

Clause 10A:

List of testing equipment to be:

provided by the contractor at site lab

Not applicable

Clause 10B (ii)-**Mobilization** advance:

Whether Clause 10 B (ii) shall be:

applicable

Applicable

Clause 10C:

Component of labour expressed as : Not applicable

percent of value of work

Clause 10CA : Not Applicable

Clause 10CC :Not Applicable

Clause 11:

Specification to be followed for execution : CIVIL WORKS

of work

CPWD Specifications 2019 Vol. I & II, with up to date correction slips,

For ELECTRICAL WORKS

CPWD General Specifications

Part I Internal 2023

Part II External 2023

Part III Lifts & Escalators 2003

Part IV Substations 2013

Part V Wet Riser

Sprinkler System 2020

Part VI Fire Detection and Alarm

System 2018

Part VII DG Sets 2013

Part VIII: Gas based fire extinguisher

systems 2013

all with up to date Corrections Slips.

Clause 12:

12.2 & 12.3: Deviation limit beyond which

Clause 12.2 &12.3 shall apply for building : Not applicable work

12.5 : Deviation Limit beyond which

clauses 12.2 & 12.3 shall apply for : Not applicable

foundation work

Clause 14: Yes.

Whether Clause 14 is applicable

Clause 16

Competent Authority for deciding reduced : Director, IITH.

rates.

Clause 18: : As required for the work.

List of mandatory machinery, tools & plants to be deployed by the contractor at site

Clause 25:

(i) Settlement of disputes by Conciliation and Arbitration:

Conciliator
 Dean (Admin)

Authority to appoint arbitrator
 Director, IIT Hyderabad

Place and Seat of Arbitration
 Hyderabad

Venue and of Arbitration
 IIT Hyderabad

Type of Arbitration Tribunal Sole Arbitrator

Note: Provisions of Arbitration and Conciliation Act 1996 with latest amendments in force shall be applicable.

Clause 32: Requirement of Technical Representative(s) and Recovery Rate

SI. No	Minimum Qualification of Technical Representativ e	Discipline	Designation (Technical Representative)	Minimum Experien ce (years)	Number	shall be mad	ch recovery de from the in the event fulfilling of Clause / Month /
						Figures	Words
1	Engineering Graduate	Civil/ Electrical/ Mechanic al	Sr. Technical Representative	10	1	50,000/-	Rupees Fifty Thousand Only
2	Diploma Engineer		Technical Representative (Construction Manager)	5	1	30,000/-	Rupees Thirty Thousand Only

3	Diploma Engineer	Electrical/ Mechanic al	Technical Representative (Construction Manager)	5	1	30,000/-	Rupees Thirty Thousand Only
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Note: Assistant Engineers retired from government services that are holding diploma will be treated at par with graduate engineers.

Clause 38

(i): Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates

Not applicable

(ii): Variations permissible on theoretical quantities:

Not applicable

Special Conditions of Contract

- 1. Before tendering, the bidder shall inspect the site of work and shall fully acquaint himself with the conditions prevailing at the site, availability of materials, availability of land and suitable location for the construction of godowns, stores and camp, transport facilities, the extent of lead and lifts involved in the work (over the entire duration of contract) including local conditions, as required for satisfactory execution of the work and nothing extra whatsoever shall be paid on this account.
- 2. The Bidder shall at his own expense and risk arrange land for accommodation of labour, setting up of office, the storage of materials, erection of temporary work- shops, and construction of approach roads to the site of the work including land required for carrying out of all jobs connected with the completion of the work. In any case. IIT Hyderabad (Institute) shall not permit setting up of labour camps within its premises. If during construction it becomes necessary to remove or shift the stored materials shed workshop, access roads, etc. to facilitate execution of any other work by any other bidder, the contractor shall do as directed by the Engineer-in-charge and no claim whatsoever, shall be entertained on this account.
- 3. It shall be deemed that the bidder shall have satisfied himself as to the nature and location of the work, transport facilities, availability of land for setting up of camp etc. The department will bear no responsibility for lack of such knowledge and the consequences thereof.
- 4. The Bidder shall have to make approaches to the site, if so required and keep them in good condition for transportation of labour and materials as well as inspection of works by the Engineer-in-charge. Nothing extra shall be paid on this account.
- 5. The Bidder shall at his own cost submit samples of all materials sufficiently in advance and obtain approval of the Engineer-in-charge. Subsequently, the materials to be used in the actual execution of the work shall strictly conform to the quality of samples approved by the Engineer- in-charge and nothing extra shall be paid on this account. The acceptance of any sample or material on inspection shall not be a bar to its subsequent rejection, if found defective.
- 6. The contractor shall at his cost, make all arrangements and shall provide necessary facilities as the Engineer-in-charge may require for collecting, preparing, packing forwarding and transportation of the required number of samples for tests for analysis at such time and to such places as directed by the Engineer-in-charge, and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The cost of tests shall be borne by the contractor.
- 7. Materials used on work without prior inspection and testing (where testing is necessary) and without approval of Engineer-in-charge are liable to be considered unauthorized, defective and not acceptable. The Engineer-in-charge shall have full powers to require removal of any or all of the materials brought to site by contractor which are not in accordance with the contract,

Specifications or do not conform in character or quality to the samples approved by the Engineer-in-charge. In case of default on the part of the contractor in removing rejected materials, the Engineer-in- charge shall be at liberty to have them removed at the risk and cost of the contractor.

- 8. The work shall be carried out in such a manner so as not to interfere/or effect or disturb other works being executed by other agencies, if any.
- 9. Any damages done by the contractor to any existing work or work being executed by other agencies shall be made good by him at his own cost.
- 10. The work shall be carried out in the manner complying in all respects with the requirement of relevant rules and regulations of the local bodies under the jurisdiction of which the work is to be executed and nothing extra shall be paid on this account.
- 11. The contractor shall maintain in good condition all work executed till the completion of the entire work entrusted to the contractor under this contract and nothing extra shall be paid on this account.
- 12. No payment will be made to the contractor for damage caused by rain, floods and other natural calamities whatsoever during the execution of the works and any damage to the work on this account shall have to be made good by the contractor at his own cost and nothing whatsoever' shall be paid on this account.
- 13. The Item Rates or the quoted lump sum amount for the whole work on turn key basis / all items of work if quoted separately for any such items, unless clearly specified otherwise, shall be deemed to have been included the cost of all labour for materials, de-watering, cutting the holes in walls, floors and others, any temporary works required to complete the job, scaffolding, any other supports etc., and other inputs involved in the execution of the items.
- 14. No claim whatsoever for idle labour, additional establishments, costs of hire and labour charges for tools and plants etc. would be entertained under any circumstances.
- 15. For the safety of all labour directly or indirectly employed in the work for the performance of the contractor's part of this agreement, the contractors shall, in addition to the provisions of Safety code and directions of the Engineer-incharge make all arrangements to provide facility as per the provisions of Indian Standard Specifications (Codes) listed below and nothing extra shall be paid on this account.
 - (a) IS 3696 Part I Safety Code for scaffolds and ladders
 - (b) IS 3696 Part II Safety Code for scaffolds and ladders Part II ladders
 - (c) IS 764 Safety Code for excavation work
 - (d) IS 4081 Safety Code for Blasting and Drilling operations,
 - (e) IS4138 Safety Code for working in compressed air.
 - (f) IS 7293 Safety Code for working with construction machinery
 - (g) IS 7969 Safety Code for storage and handling of building materials
 - (h) IS 5216:1982 code of safety procedures and practices in electrical works

- 16. The contractor shall take all precautions to avoid all accidents by exhibiting necessary caution boards and by providing red flags, red lights and barriers. The con- tractor shall be responsible for any accident at the site of work and consequences thereof.
- 17. Water & Power: The contractor shall make his own arrangements for the water and power required for discharging his obligations under the scope of this tender. In case the Institute supplies water and or power, the contractor shall be liable to pay the charges on actual consumption basis at the same prevailing rates that the local authorities charge the Institute.
- 18. The ESI and EPF Contribution on the part of the employer in respect of the contract shall be paid by the contractor.
- 19. The contractor shall obtain a valid licence under the contract labour (R A) Act, 1970 and the contract labour (Regulation and Abolition) Central Rules, 1971 before the commencement of the work, and continue to have a valid licence until the completion of the work. The contractor shall also comply with provision of the Inter- State Migrant Women (Regulation of Employment and conditions of service) Act 1979.
- 20. All tools, tackles, safety equipment and labours required for maintenance and testing works / AMC at all levels and heights shall have to be provided by the tenderer at no extra cost.
- 21. Spare parts used by vendor should conform to IS specifications as applicable.
- 22. Any damaged due to mishandling by the person deputed by the vendor shall have to be restored back to its original condition by the vendor at their own cost.
- 23. Inspection before Dispatch: All routine tests shall be conducted before dispatch of all equipments/items specified in the tender as per schedule of quantities. No equipment shall be dispatched out from the manufactures premises before such tests are conducted and test result recorded. These test certificates shall be given along the supply of equipment. The Engineer- in-charge shall if he so desires inspect and witness the pre-delivery tests for DG set and UPS at the Manufacturer premises. The main contractor at his own cost shall have to organize the FAT inspection for EIC or his authorized representatives by intimating 30days in advance without any additional cost implication to IITH. However, the inspection shall be done purely at the discretion of the Engineer-In-charge but ROUTINE TEST & TYPE TEST certificates shall have to be submitted as applicable for all the equipments supplied at site.

Prior to dispatch, all equipment's shall be adequately protected & insured for the whole period of transit, storage and erection against corrosion and incidental damages etc. from the effect of vermin, sunlight, rain, heat, humid climate and accidents etc.

24. Payment of Running bills

The running bills shall be submitted by the contractor as per the progress of work done at site. However, the following will be the basis of payment for the items claimed under running bills:

- a. Advance payment for mobilization charges against bank guarantee-
- b. Completion of the civil works 30%
- c. Completion of the HVAC works and wall panelling work- 30%
- d. Completion of the electrical works and installation of the lab benches -20%
- e. Final commissioning and demonstration 10%

After receipt of running bill at IITH, the contractor shall get the executed work and claimed quantities in bill checked and verified from the Engineer-In-charge or his authorized Engineer and after satisfactory verification of work executed at site, the payment to the contractor shall be released.

25.Defect Liability Period: The Defect liability period (DLP)/Warranty period of work done by the contractor is 24 months from the date of completion of work as certified by the Engineer-In-Charge.

The DLP shall be 24 months from the date of handing over the equipment after successful commissioning and handing over the same to IITH. If the contractor or his working people or servants shall break, deface, injure or destroy any part of equipment in which they may be working, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within the DLP as aforesaid arising out of defect or improper materials or workmanship, the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer In charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of DLP

ANNEXURES

Annexure-I

Form of Performance Security (Guarantee) Bank Guarantee Bond (Format – I)

In consideration of the offered to accept between	the terms andand	conditions	of the pro	posed agree (here	ement inafter
called "the work	said	Contracto	or(s)") pereinafter	for	the
agreement") having a (Rupees the contractor(s) for c conditions in the said a	greed to production	on of an irrevo	ocable Bank y) as a secu	Guarantee for its Guarantee fo	or Rs. e from
1. We,undertake to pay	to the Govern	nment an a	amount no	t exceeding	Rs.
2. We,undertake to pay the a		dicate the na	ime of the	Bank) do h	ereby
and payable under this Government stating th	_	out any demure	e, merely on	a demand fro	m the
the amount claimed as said contractor(s). Any		the recoveries	due or likely	y to be due fro	m the
such demand made o payable by the bank u		pe conclusive a	as regards th	ne amount du	e and
this Guarantee. Howe amount not exceeding		ınder this guaı	rantee shall	be restricted	to an
(Rupees	only)				
3. We, the said ban demanded notwithstar		ike to pay the	e Governme	ent any mon	ey so
dispute or disputes rais any court or Tribunal	sed by the contrac	ctor(s) in any su	uit or proceed	ding pending l	oefore
relating thereto, our lia	ability under this p	present being	absolute an	d unequivoca	I. The

under this bond shall be a valid discharge of our liability for payment thereunder and

the Contractor(s) shall have no claim against us for making such payment.

payment so made by us

4. We, (indicate the name of the Bank) further agree that the guarantee herein contained
shall remain in full force and effect during the period that would be taken for the performance of the said
agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in- Charge on behalf of the Government certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.
5. We, (indicate the name of the Bank) further agree with the Government that the
Government shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).
7. We, (indicate the name of the Bank) lastly undertake not to revoke this guarantee
except with the previous consent of the Government in writing.
8. This guarantee shall be valid up to

ANNEXURE-II

INDEMNITY BOND (VIOLATION OF LAWS, NORMS, ACCIDENTS, DAMAGES ETC)

(On Non-Judicial Stamp Paper of Rs.100/-only)

Name of the work: Setting up of labs for SATHI-CISCOM centre at the Research Centre Complex Building at IIT Hyderabad on turnkey basis.

KNOW all men by these presents that I/Weaddress) do hereby execute Indemnity Bond in favour of Ind (IIT) Hyderabad having their office at Kandi, Sangareddyand for the project	ian Institute of Technology 502284, Telangana, India
On this day of2024	
THIS DEED WITNESSETH AS FOLLOWS:	

I/We, (Name of Contractor) hereby do indemnify and save harmless IITH having their office at Kandi-502284, Sangareddy, Telangana, India from the following: -

- 1. Any third party claims, civil or criminal complaints/liabilities/material/life loss during site mishaps and other accidents such as snake bites etc or disputes and/or damages occurring or arising out of any mishaps at the site due to faulty work, negligence, faulty construction and/or for violating any law, rules and regulations in force, for the time being while executing/executed civil works by me/us.
- 2. Any damages, loss or expenses due to or resulting from any negligence or breach of duty on the part of me/us or any sub-Contractor/s if any, servants or agents.
- 3. Any claims by an employee of mine/ours or of sub-Contractors if any, under the workman compensation act and employers' Liability act, 1939 or any other law rules and regulations in force for the time being and any acts replacing and/or amending the same or any of the same as may be in force at the time and under any law in respect of injuries to persons or property arising out of and in the course of execution of the Contract work and/or arising out of and in the course of employment of any workman/employee.
- 4. Any act or omission of mine/ours or sub-Contractor/s if any, our/their servants or agent which may involve any loss, damage, liability, civil or criminal action.

IN WITNESS WHEREOF THE HAS SET HIS/THEIR HANDS ON THIS DAY OF SIGNED AND DELIVERED BY THE AFORESAID IN THE PRESENCE OF WITNESSES:

- 1.
- 2.

ANNEXURE-III

Proforma for Authorization certificate from OEM

REF.No
Dated
To,
The Director
Indian Institute of Technology (IIT) Hyderabad
Kandi-502284, Sangareddy, Telangana, India
Dear Sir,
We who are established and reputable manufacturers/Technology Providers of having factory/ factories at (address of factory) do hereby authorize M/s (Name and address of bidder) to submit a bid,
negotiate and receive the order from you against your Tender enquiry no for the work:
We ensure that we shall support/ facilitate the M/son regular basis with technology / product
updates for up-gradation / maintenance / repairing / servicing of the at IIT Hyderabad during the contract period of 04 months
plus the defect liability period of 36months (if awarded) as per the terms and conditions mentioned in this tender document.

We hereby extend our full guarantee for the services offered by the above firm.

Yours faithfully,

(Name of authorised signatory with signature)
(Name of manufacturer with stamp)
Note: This letter of authority should be on the <u>letter-head of the OEM</u> and should be signed by an authorised person. It should be enclosed by the Bidder with the tender documents.

ANNEXURE-IV ACCEPTANCE OF TENDER TERMS

(To be given on Company Letter Head)

Date:			
To The Director Indian Institute of Technology Hyderabad Kandi – 502 284.Telangana, India			
Sub: Acceptance of Terms & Conditions of Tender.			
Tender Reference No:			
Name of Tender / Work: -			
Dear Sir,			
1. I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender' from the web site(s) namely as per your advertisement, given in the above-mentioned website(s).			
2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents (including all documents like annexure(s), schedule(s), etc.,), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.			
3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.			
4. I / We hereby unconditionally accept the tender conditions of above-mentioned tender document(s) / corrigendum(s) in its totality / entirety.			

5. I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,
(Signature of the Bidder, with Official Seal)

FORM OF BANKERS" CERTIFICATE" FROM A SCHEDULED BANK

Го	
The Director	
ndian Institute of Technology Hyderabad	
Kandi – 502 284.Telangana, India	
This is to certify that to the best of our know Ms./Shri	ally noted address, a customer ood for any engagement up to
This certificate is issued without any guarantee or resor any of the officers.	sponsibility on the bank
	(Signature with seal of Branch Manager)

For the Bank NOTE: (1) In case of partnership firm, certificate should include names of all partners as recorded with the Bank.

2. The bankers certificate should be on letter head of the bank

ANNEXURE - V

Summary of BoQ:

SI.No	DESCRIPTION	TOTAL Lumpsum Amount
1	Civil BOQ	
2	HVAC works BOQ	
3	Panel works BOQ	
4	Lab Furniture BOQ	
5	Electrical BOQ	
6	Flooring BOQ	
7	IT BOQ	

Note: The quantities given in the respective BoQs are only indicative. Since the tender is for a turnkey solution, the bidder shall deliver the final product as per the detailed scope given.