

Tender No.: IISER/PUR/2080/PYS/IT/24-25

तारीख/ Date: 20 Mar 2025

Index for Invitation for Tender (IFT) (E-Procurement mode only)

1. The Institute invites Two Cover Tenders from Class I and II local suppliers, as per DPIIT order No. P-45021/2/2017-PP (BE-II) dated 04 Jun 2020, for the following items through the eProcurement System of National Informatics Centre that enables the Tenderers to submit the bids online through Central Public Procurement Portal of Government of India (<https://eprocure.gov.in/eprocure/app>.)

क्रम सं./ Sl. No	विवरण/ Description	Qty
1.	Supply, Installation and commissioning of Audio-Visual Facility for six different rooms in Maths block IISER Tvm campus (refer Annexure 11 Technical Specifications)	As per annexure 11

2. Annexures enclosed: Bidders should follow the annexures before submission of bid:-

1.	Annexure 1	Instructions To Bidder for Online Bid Submission
2.	Annexure 2	Special conditions of tender
3.	Annexure 3	General Terms and conditions of Contract
4.	Annexure 4	Integrity Pact
5.	Annexure 5	Model bank guarantee format for EMD
6.	Annexure 6	Model bank guarantee format for performance security
7.	Annexure 7	Format for tender Acceptance Letter
8.	Annexure 8	Format for self-certification of local content
9.	Annexure 9	Format for declaration regarding non blacklisting
10.	Annexure 10	Format for declaration regarding land border
11.	Annexure 11	Technical specifications
12.	Annexure 12	Checklist of documents required to be uploaded in CPPP



Amar Sadath
20/3/25

3) All the correspondence in this regard should be done in favor of Assistant Registrar (Purchase & Stores), IISER Thiruvananthapuram referring the tender reference number. Email id – purchasestores@iisertvm.ac.in

4) Online Bid Submission: The documents to be uploaded in the e-procurement module, should be in two envelops / covers.

5) Failure to upload the documents as per checklist will lead to rejection of bids.

6) **ईएमडी/EMD: Rs. 2,00,000/- (Rupees Two lakhs only)** स्टेट बैंक संग्रह द्वारा भुगतान करना चाहिए - निविदा संख्या और कंपनी का नाम उल्लेख किया जाना चाहिए। उद्धरण के साथ लेनदेन पर्ची / प्रिंट आउट या ईएमडी मूल्य के बराबर 90 दिनों की वैधता में बैंक गारंटी या बोलीदाता के उपक्रम जमा करना चाहिए।/ should be paid through State Bank Collect- Tender No & Company Name must be mentioned in the Remarks column. (<https://www.onlinesbi.com/sbicollect/icollecthome.htm> (State Bank Collect- Accept-Term and Conditions- Proceed-Select State **Kerala**-Select Type of Institution-**Educational Institution**- Select - **IISER Thiruvananthapuram**- Select Payment Category- **Stores and Purchase**) Quotes should accompany a copy of Transaction slip /Print out **OR** Bank guarantee equivalent **OR** Insurance Surety Bond to the EMD value with validity 90 days (should reach before tender due dates). EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy.

7) Please quote only in Indian Rupees as per GFR 2017 amended Rule 161 (iv) and Public Procurement (Preference to make in India) order 2017, with your lowest rate and shortest delivery period as per the following terms. As per Govt of India, Ministry of Commerce and Industry, DPIIT order No. P-45021/2/2017-PP (BE-II) dated 16 Sep 2020 only Class I local Supplier (having minimum local content 50%) and Class II local supplier (having minimum local content 20% but less than 50%) are invited for this tender. Non-local supplier (having local content less than 20%) are not eligible to apply. Local Content means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties). Class I local supplier / Class-II local supplier are required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier' / 'Class-II local supplier', as the case may be. They shall also give details of the locations(s) at which the local value addition is made. Format for self-certification is given in **Annexure 8** of the tender document. Any non-compliance in this regard, the bid will not be considered in the category.



Anwar Sadath
20/5/25

8. As per Ministry of Finance, Department of Expenditure order No. F.No./6/18/2019-PPD dated 23 Jul 2020 any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Department of Promotion of Industry and Internal Trade (DPIIT). Format for certificate for the same is given in **Annexure 9** of the tender document. 'Bidder' for the purpose of this order (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process. Bidder from a country which shares a land boarded with India 'for the purpose of this order means:-

- i. An entity incorporated, established or registered in such a country; or
- ii. A subsidiary of an entity incorporated, established or registered in such a country; or
- iii. An entity substantially controlled through entities incorporated, established or registered in such a country; or
- iv. An entity whose beneficial owner is situated in such a country; or
- v. An Indian (or other) agent of such an entity; or
- vi. A natural person who is a citizen of such a country; or
- vii. A consortium or joint venture where any member of the consortium of joint venture falls under any of the above.

9.

<u>1st Envelope / Cover (Technical Bid)</u>		
Sl No	Contents	Format
1.	Compliance sheet as per specifications	PDF
2.	Detailed brochures, data sheets, catalogues etc. supporting the compliance of specifications	PDF
3.	Clientele list and details of TWO major installations in India	PDF
4.	Any other document as mentioned in the specifications or essential as per bidder	PDF
5.	All commercial terms and conditions of the bid (except price)	PDF
6.	Tender Acceptance Letter, & EMD, Declaration as per Annexure 8,9,10 and Checklist	PDF
<u>2nd Envelope / Cover (Price Bid)</u>		
1.	Price bid: item-wise prices for the items mentioned in the Technical Bid (clearly mentioning the break Tax/ Duty / other charges etc.)	Excel (.xls)

10. Note: Please note being an Institute under Ministry of Education, Govt of India, the Institute will not entertain any type of advance payment for the equipment, AMC or any other services.



Anwar Sadath
20/8/25

11. Detailed Specifications: Please refer Annexure 11.

12. Integrity pact (IP) is deemed as a part of the contract and the parties concerned are bound by its provisions. IP would be implemented through a panel of Independent External Monitors (IEMs): The details of IEMs are given below.

1. Shri. E.K. Bharat Bhushan, IAS (Retd.), Email: bbhushan55@gmail.com
2. Commodore Shri Rakesh Anand (Retd), Email: ansem_2000@yahoo.com

Any violation of IP would entail disqualification of the bidders and exclusion from future business dealings, as per the existing provision of GFR 2017 etc. as may be applicable to IISERTVM.

Anmar Sadath
20/3/25

Assistant Registrar (Purchase & Stores)

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Invitation for Tender (E-Procurement mode only)

1	Work / Item Description	Supply, Installation and commissioning of Audio-Visual Facility for six different rooms in Maths block IISER Tvm campus (refer Annexure 11 Technical Specifications)
2	Quantity Required	As per the Annexure 11
3	Tender Type	Open
4	Tender Reference No	IISER/PUR/2080/PYS/IT/24-25
5	Number of covers (1/2/3/4)	2 (Technical and Financial)
6	Date of Issue/Publishing	20 Mar 2025
7	Document Download/Sale Start Date	20 Mar 2025 (1500 Hrs)
8	Document Download/Sale End Date	14 Apr 2025 (0900 Hrs)
9	Clarification End Date	01 Apr 2025 (1500 Hrs)
10	Last Date and Time for Uploading of Bids	14 Apr 2025 (1500 Hrs)
11	Date and Time of Opening of Technical Bids	15 Apr 2025 (1530Hrs)
12	Date of Opening of Price Bid	will be intimated later
13	Tender Fee (INR)	Nil
14	EMD Amount (INR)	Rs.2,00,000/- (Rupees Two lakhs only)
15	Detailed Specifications	As per annexure 11

1. Please note being an Institute under Ministry of Education, Govt of India, the Institute will not entertain any type of advance payment for the equipment, AMC or any other services.



Anwar Zaidi
20/3/25

Assistant Registrar (Purchase & Stores)

ANNEXUE: 1
Instructions for Online Bid Submission

- 1) 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.
- 2) 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 Enrollment" 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 / email 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.
Note: 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 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) 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



- 6) 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.
- 7) 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.
- 8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 9) 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.
- 10) 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.

- 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.



Annexure: 2

SPECIAL CONDITIONS OF CONTRACT

1.1. ELIGIBLE BIDDERS.

1.1.1 This Invitation for Bids is open to all suppliers.

1.1.2 Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids.

1.2. COST OF BIDDING

1.2.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and "the Purchaser", will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

1.3. FRAUD AND CORRUPTION:

1.3.1 The purchaser requires that the bidders/suppliers and contractors observe the highest standard of ethics during the procurement and execution of such contracts.

1.3.2 The purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question;

The Bidding Documents

1.4. COST OF BIDDING DOCUMENTS

1.4.1 Interested eligible bidders may download the document from our Website.

1.5. CONTENT OF BIDDING DOCUMENTS

1.5.1 The goods required, bidding procedures and contract terms are prescribed in the bidding documents which should be read in conjunction.

1.5.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. **Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.**

1.6. CLARIFICATION OF BIDDING DOCUMENTS

1.6.1 A prospective Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing via fax/email. The Purchaser will respond in writing to any request for clarification, provided that such request is received not later than ten (10) days prior to the deadline for submission of bids. The Purchaser shall forward copies of its response to all those who have acquired the Bidding Documents directly from it, including a description of the inquiry but without identifying its source. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under clause relating to amendment of Bidding documents and Clause relating to Deadline for Submission of Bids. The clarifications and amendments issued would also be hosted on the website of the purchaser for the benefit of the other prospective bidders.

1.7. AMENDMENT OF BIDDING DOCUMENTS

1.7.1 At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment.

1.7.2 All prospective bidders who have received the bidding documents will be notified of the amendment in writing or by e-mail and will be binding on them. The same would also be hosted on the website of the purchaser and all prospective bidders are expected to surf the website before submitting their bids to take cognizance of the amendments.

1.7.3 In order to allow prospective bidders reasonable time to take the amendment into account, while in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids and host the changes on the website of the purchaser.

1.7.4 In case of any amendment to the bid, it will be done at least 7 days before due date and will be published in website. Bidders are required to keep this in view before submission. Normally extension of due date will not be entertained. However in special cases if due date is extended, it will be notified under the same tender notice before 3 days of due date.

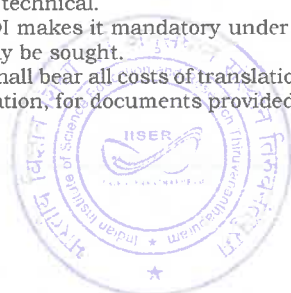
PREPARATION OF BIDS

1.8. LANGUAGE OF BID

1.8.1 The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in English language only especially when the details are technical.

However of GOI makes it mandatory under Rajbhasha Abhniyam in that case views of Rajbhasha unit of IISER-TVM may be sought.

1.8.2 The Supplier shall bear all costs of translation, if any, to the English language and all risks of the accuracy of such translation, for documents provided by the Supplier.



- 1.9. DOCUMENTS COMPRISING THE BID**
- 1.9.1 The bid prepared by the Bidder shall include:
- Bidder Information
 - Bid security declaration as specified in the Invitation to Bids.
 - Service support details
 - Deviation Statement if any.
 - Performance Statement.
 - Manufacturer's Authorization.
 - Documentary evidence establishing that the bidder is eligible to bid and is qualified to perform the contract if its bid is accepted.
 - Bid form.
 - Documents establishing goods eligibility and conformity to bidding documents.
 - Applicable Price Schedule Form.
 - DGS&D Registration certificate in case the items under procurement falls under the restricted category of the current export-import policy of the Govt. of India.
- 1.10. BID FORM AND PRICE SCHEDULE**
- 1.10.1 The bidder shall complete the Bid with the appropriate price schedule.
- 1.11. BID PRICES**
- 1.11.1 The Bidder shall indicate on the appropriate price schedule, the unit prices and total bid prices of the goods it proposes to supply under the contract.
- 1.11.2 Prices indicated on the price-schedule form shall be entered separately in the following manner:
- (A) FOR GOODS MANUFACTURED WITHIN INDIA**
- The price of the goods quoted Ex-works including taxes already paid.
 - VAT and other taxes like excise duty etc [shall be shown extra] which will be payable on the goods if the contract is awarded.
- The charges for inland transportation, insurance and other local services required for delivering the goods at the desired destination as specified in the price schedule.
 - The installation, commissioning and training charges including any incidental services, if any.
- (B) FOR GOODS MANUFACTURED ABROAD**
- Bidders are required to show break-up of Ex-works [which should include packing and handling charges], FOB/FCA and CIF/CIP price in the quotation. IISERTVM has a mechanism for consolidation and customs clearance. The consolidators will be nominated for this purpose at the time of awarding the contract if desires so.**
- The price of the goods, quoted on FCA (named place of delivery abroad) or FOB (named port of shipment), as specified in the price schedule.
 - The charges for insurance and transportation of the goods to the port/place of destination.
 - The agency commission charges should be shown, if any.**
 - The installation, commissioning and training charges including any incidental services, if any
- The terms FOB, FCA, CIF, CIP etc shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce, Paris.**
- 1.11.3 Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offer shall be rejected as incomplete.
- 1.11.4 The price quoted shall remain fixed during the contract period and shall not vary on any account
- 1.11.5 All lots and items must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced their prices shall be assumed to be included in the prices of other items. Lots or items not listed in the Price Schedule shall be assumed to be not included in the bid.
- 1.11.6 **Taxws & Duties: At actuals. The purchases made by the purchaser for scientific purpose are exempt from Custom Duty under notification 51/96.**
- 1.12. BID CURRENCIES**
- 1.12.1 Prices shall be quoted in Indian Rupees for offers received for supply within India and in freely convertible foreign currency in case of offers received for supply from foreign countries.
- 1.13. DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATIONS**
- 1.13.1 The bidder shall furnish, as part of its bid, documents establishing the bidders' eligibility to bid and its qualification to perform the contract if its bid is accepted.
- 1.13.2 The documentary evidence of the bidders qualification to perform the contract if the bid is accepted shall establish to the purchasers satisfaction that;
- The bidder meets the qualification criteria listed in bidding documents, if any.
 - Bidder that doesn't manufacture the goods it offers to supply shall submit to Manufacturers' Authorization Form (MAF) to demonstrate that it has been duly authorized by the manufacturer of the goods to quote and/or supply the goods.
 - In case a bidder not doing business within India, it shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India equipped and able to carry out the supply, maintenance, repair obligations etc. during the warranty and post warranty period or ensure a mechanism at place for carrying out the supply, maintenance, repair obligations etc. during the warranty and post-warranty period.
- 1.13.3 Conditional tenders shall not be accepted
- 1.14. DOCUMENTS ESTABLISHING GOODS' ELIGIBILITY AND CONFORMITY TO BIDDING DOCUMENTS**



- 1.14.1 To establish the goods' eligibility, the documentary evidence of the goods and services eligibility shall consist of a statement on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment.
- 1.14.2 To establish the conformity of the goods and services to the specifications and schedule of requirements of the bidding document, the documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings and data, and shall consist of:
 (a) A detailed description of the essential technical and performance characteristics of the goods;
 (b) A list giving full particulars, including available sources and current prices, of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods during the warranty period following commencement of the use of the goods by the Purchaser in the Priced bid; and
 (c) An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- 1.14.3 For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standards for workmanship, material and equipment, designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute these in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.
- 1.15. BID SECURITY**
- 1.15.1 The Bidder shall furnish, as part of its bid, a bid security (BS) for an amount as specified in the Invitation for Bids. In the case of foreign bidders, the BS shall be submitted either by the principal or by the Indian agent and in the case of indigenous bidders; the BS shall be submitted by the manufacturer or their specifically authorized dealer/bidder.
- 1.15.2 The bid security shall be in Indian Rupees for offers received for supply within India and denominated in the currency of the bid or in any freely convertible foreign exchange in the case of offers received for supplies from foreign countries in equivalent Indian Rupees. The bid security shall be in one of the following forms at the bidders' option:
 (a) A bank guarantee issued by a Nationalized/Scheduled bank/Foreign Bank operating in India in the form provided in the bidding documents and valid for 45 days beyond the validity of the bid. In case a bidder desires to submit a BG issued from a foreign bank, then the same should be confirmed by a Nationalized/Scheduled Indian bank; or
 (b) Fixed Deposit receipt pledged in favour of the IISER-TVM.
 (c) A Banker's cheque or demand draft in favour of IISERTVM issued by any Nationalised/Scheduled Indian bank.
- 1.15.3 The bid security shall be payable promptly upon written demand by the purchaser in case the conditions listed in the ITB clause 15.11 are invoked.
- 1.15.4 The bid security should be submitted in its original form. Copies shall not be accepted.
- 1.15.5 While Bid security (EMD) is a requirement, the Director IISER-TVM may grant exemption of Bid security to some specific parties having sound credentials and are of national/international repute.
- 1.15.6 The bid security of unsuccessful bidder will be discharged /returned as promptly as possible positively within a period of 15 days after the expiration of the period of bid validity or placement of order whichever is later, without any interest.
- 1.15.7 The successful Bidder's bid security will be discharged upon the Bidder furnishing the performance security, without any interest. Alternatively, the BS could also be adjusted against PS, if it is paid through DD/BC.
- 1.15.8 **The firms registered with DGS&D, NSIC if any, are exempted from payment of bid security (BS) provided such registration includes the item they are offering which are manufactured by them and not for selling products manufactured by other companies.**
- 1.15.9 In case a bidder intimates at the time of tender opening in writing that the bid security is kept inside the financial bid, then in such cases, the technical bid of the party would be accepted provisionally till opening of the financial bids with which the party has attached the bid security.
- 1.15.10 The bid security may be forfeited:
 (a) If a Bidder withdraws or amends or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
 (b) **In case of a successful Bidder, if the Bidder fails to furnish order acceptance within 15 days of the order or fails to sign the contract and/or fails to furnish Performance Security within 21 days from the date of contract/ order.**
- 1.16. PERIOD OF VALIDITY OF BIDS**
- 1.16.1 Bids shall remain valid for minimum of 90 days after the date of bid opening prescribed by the Purchaser. **A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.**
- 1.16.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by cable, telex, fax or e-mail). The bid security provided shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.
- 1.16.3 Bid evaluation will be based on the bid prices without taking into consideration the above corrections.
- 1.17. CONFIDENTIALITY**



- 1.17.1 Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until publication of the Contract Award.
- 1.17.2 Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the bids or contract award decisions may result in the rejection of its Bid.
- 1.18. CLARIFICATION OF BIDS**
- 1.18.1 To assist in the examination, evaluation, comparison and post qualification of the bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. However, no negotiation shall be held except with the lowest bidder, at the discretion of the purchaser. Any clarification submitted by a bidder in respect to its bid which is not in response to a request by the purchaser shall not be considered.
- 1.19. CONVERSION TO SINGLE CURRENCY**
- 1.19.1 To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to Indian Rupees at the selling exchange rate established by any bank in India on the date of bid opening in the case of single part bidding and the rates prevalent on the date of opening of the Priced bids in the case of two-part bidding. For this purpose, exchange rate notified in www.xe.com or www.rbi.org or any other website could also be used by the purchaser.
- 1.20. CONTACTING THE PURCHASER**
- 1.20.1 Subject to ITB Clause 1.24, no Bidder shall contact the Purchaser on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.
- 1.20.2 Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid.
- 1.21. POST QUALIFICATION**
- 1.21.1 In the absence of pre-qualification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB Clause 13.
- 1.21.2 The determination will take into account the eligibility criteria listed in the bidding documents and will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Purchaser deems necessary and appropriate.
- 1.21.3 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid.
- 1.22. PURCHASER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS**
- 1.22.1 The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders.
- 1.23. WARRANTY**
- 1.23.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 1.23.2 The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- 1.23.3 Unless otherwise specified, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- 1.23.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof.
- 1.23.5 The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects. Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 1.23.6 If having been notified, the Supplier fails to remedy the defect within the reasonable period of time; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- 1.23.7 Goods requiring warranty replacements must be replaced on free of cost basis to the purchaser.
- 1.23.8 **Performance Guarantee:**
The successful bidder is required to submit a performance Guarantee of 3% of Purchase Order value valid during warranty period, plus two months grace period.
- 1.24. PENALTY CLAUSE**
- 1.24.1 Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in contract of the delivered price of the delayed Goods or unperformed Services or contract value for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in contract. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC. Clause on Termination for Default. The SCC shall also indicate the basis for ascertaining the value on which the penalty shall be applicable



- 1.25 INSURANCE**
- 1.25.1 Should the purchaser elect to buy on CIF/CIP basis, the Goods supplied under the Contract shall be fully insured in Indian Rupees against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in contract.
- 1.25.2 Where delivery of the goods is required by the purchaser on CIF or CIP basis the supplier shall arrange and pay for Cargo Insurance, naming the purchaser as beneficiary and initiate & pursue claims till settlement, on the event of any loss or damage.
- 1.25.3 Where delivery is on FOB or FCA basis, insurance would be the responsibility of the purchaser.
- 1.25.4 With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder/Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.
- 1.26 TRANSPORTATION**
- 1.26.1 Where the Supplier is required under the Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price.
- 1.26.2 Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 1.26.3 In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.
- 1.27 PACKING**
- Should be as per standards prescribed for international trade and movement of the goods.
- 1.38 STANDARDS**
- The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications and Schedule of Requirements, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.
- 1.39 PERFORMANCE SECURITY**
- 1.39.1 Within 21 days of receipt of the notification of award/PO, the Supplier shall furnish performance security of 3% of Contract/ Purchase Order value in the amount specified in the Contract, valid till 60 days beyond the completion of contractual obligations.
- 1.39.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 1.39.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries.
- 1.39.4 In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the manufacturer or their authorized dealer/bidder.
- 1.39.5 The Performance security shall be in one of the following forms:
- (a) A Bank guarantee or stand-by Letter of Credit issued by a Nationalized/Scheduled bank located in India or a bank located abroad in the form provided in the bidding documents. Or,
 - (b) A Banker's cheque or Account Payee demand draft in favour of the purchaser. Or,
 - (c) A Fixed Deposit Receipt pledged in favour of the Purchaser.
- 1.40 DELIVERY SCHEDULE :** Delivery schedule should be specified clearly
- 1.41 PAYMENT TERMS**
- For Indigenous supplies payment will be made within 30 days from the date of supply, installation & commissioning and on submission of Performance Bank Guarantee for 3% of Purchase Order value which should be valid during warranty period. However the advance payment to the vendors is not encouraged.**



Annexure 3

GENERAL TERMS & CONDITIONS OF THE CONTRACT

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2.1 DEFINITIONS

2.1.1 The following words and expressions shall have the meanings hereby assigned to them:

- a) "Contract" means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- b) "Contract Documents" means the documents listed in the Contract Agreement, including any amendments thereto.
- c) "Contract Price" means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- d) "Day" means calendar day.
- e) "Completion" means the fulfilment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- f) "GCC" means the General Conditions of Contract.
- g) "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
- h) "Related Services" means the services incidental to the supply of the goods, such as transportation, insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
- i) "SCC" means the Special Conditions of Contract.
- j) "Subcontractor" means any natural person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
- k) "Supplier" means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
- l) Indian Institute of Science Education and Research, Thiruvananthapuram (IISER-TVM) means a society registered under the Travancore Cochin Literary Scientific and Charitable Societies' Registration Act, 1995 (12 of 1955) on 20.02.2008 at Kerala at no. T.3+2/08.
- m) "The final destination," where applicable, means the place named in the SCC.

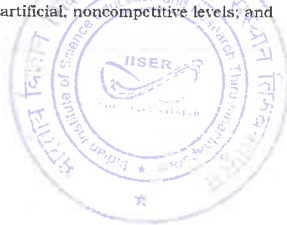
2.2 CONTRACT DOCUMENTS

2.2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

2.3 FRAUD AND CORRUPTION

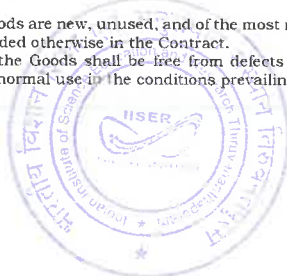
2.3.1 The purchaser requires that bidders, suppliers, contractors and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy,

- a) The terms set forth below are defined as follows:
 - i) "Corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
 - ii) "Fraudulent practice" means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;
 - iii) "Collusive practice" means a scheme or arrangement between two or more bidders, with or without the knowledge of the Borrower, designed to establish bid prices at artificial, noncompetitive levels; and



- iv) "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
- b) the purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question;
- 2.4 JOINT VENTURE, CONSORTIUM OR ASSOCIATION**
- 2.4.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfilment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.
- 2.5 SCOPE OF SUPPLY**
- 2.5.1 The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.
- 2.6 SUPPLIERS' RESPONSIBILITIES**
- 2.6.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Scope of Supply Clause of the GCC, and the Delivery and Completion Schedule, as per GCC Clause relating to delivery and document.
- 2.7 CONTRACT PRICE**
- 2.7.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.
- 2.8 COPYRIGHT**
- 2.8.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.
- 2.9 APPLICATION**
- 2.9.1 These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.
- 2.10 STANDARDS**
- 2.10.1 The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications and Schedule of Requirements, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.
- 2.11 USE OF CONTRACT DOCUMENTS AND INFORMATION**
- 2.11.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information, furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract.
- 2.11.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated above except for purposes of performing the Contract.
- 2.11.3 Any document, other than the Contract itself, enumerated above shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.
- 2.12 PATENT INDEMNITY**
- 2.12.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 12.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:
- (a) the installation of the Goods by the Supplier or the use of the Goods in India; and
- (b) the sale in any country of the products produced by the Goods.
- 2.12.2 If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claims.
- 2.13 PERFORMANCE SECURITY**
- 2.13.1 Within 21 days of receipt of the notification of award/PO, the Supplier shall furnish performance security in the amount specified in SCC, valid till 60 days after the warranty period. Alternatively, the PS may also be submitted at the time of release of final payment in cases where part payment is made against delivery & part on installation. The PS, where applicable, shall be submitted in advance for orders where full payment is to be made on Letter of Credit (LC) or on delivery. In this case, submission of PS at the time of negotiation of documents through Bank would be stipulated as a condition in the LC and the PS should be kept valid till such time the PS is submitted.
- 2.13.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 2.13.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries.
- 2.13.4 In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the manufacturer or their authorized dealer/bidder.
- 2.13.5 The Performance security shall be in one of the following forms:
- (d) A Bank guarantee or stand-by Letter of Credit issued by a Nationalized/Scheduled bank located in India or a bank located abroad in the form provided in the bidding documents. Or,
- (e) A Banker's cheque or Account Payee demand draft in favour of the purchaser. Or,
- (f) A Fixed Deposit Receipt pledged in favour of the Purchaser.

- 2.13.6 The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.
- 2.13.7 In the event of any contract amendment, the supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the performance security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.
- 2.13.8 The order confirmation should be received within 15 days from the date of notification of award. However, the Purchaser has the powers to extend the time frame for submission of order confirmation and submission of Performance Security (PS). Even after extension of time, if the order confirmation /PS are not received, the contract shall be cancelled and limited tenders irrespective of the value would be invited from the responding firms after forfeiting the bid security of the defaulting firm, where applicable provided there is no change in specifications. In such cases the defaulting firm would not be considered again for re-tendering in the particular case.
- 2.14. INSPECTIONS AND TESTS**
- 2.14.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the SCC or as discussed and agreed to during the course of finalization of contract.
- 2.14.2 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. The Technical Specifications and SCC shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes
- 2.14.3 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at the point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data - shall be furnished to the inspectors at no charge to the Purchaser.
- 2.14.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection
- 2.14.5 Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.
- 2.14.6 The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at final destination shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.
- 2.14.7 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 2.14.8 With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder/Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.
- 2.15. PACKING**
- 2.15.1 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 take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- 2.15.2 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, if any, specified in SCC and in any subsequent instructions ordered by the Purchaser
- 2.16. DELIVERY AND DOCUMENTS**
- 2.16.1 Delivery of the Goods and completion and related services shall be made by the Supplier in accordance with the terms specified by the Purchaser in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 2.16.2 The terms FOB, FCA, CIF, CIP etc shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce, Paris.
- 2.16.3 The mode of transportation shall be as specified in SCC
- 2.17. INSURANCE**
- 2.17.1 Should the purchaser elect to buy on CIF/CIP basis, the Goods supplied under the Contract shall be fully insured in Indian Rupees against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.
- 2.17.2 Where delivery of the goods is required by the purchaser on CIF or CIP basis the supplier shall arrange and pay for Cargo Insurance, naming the purchaser as beneficiary and initiate & pursue claims till settlement, on the event of any loss or damage.
- 2.17.3 Where delivery is on FOB or FCA basis, insurance would be the responsibility of the purchaser.
- 2.17.4 With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder/Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.
- 2.18. TRANSPORTATION**
- 2.18.1 Where the Supplier is required under the Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price.
- 2.18.2 Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 2.18.3 In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.
- 2.19. INCIDENTAL SERVICES**
- 2.19.1 The supplier may be required to provide any or all of the services, if any, specified in SCC
- 2.20. SPARE PARTS**
- 2.20.1 The Supplier shall be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:
- Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
 - In the event of termination of production of the spare parts:
 - Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
 - Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.
- 2.21. WARRANTY**
- 2.21.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 2.21.2 The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.



- 2.21.3 Unless otherwise specified in the SCC, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- 2.21.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof.
- 2.21.5 The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 2.21.6 Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 2.21.7 If having been notified, the Supplier fails to remedy the defect within the reasonable period of time; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- 2.21.7 Goods requiring warranty replacements must be replaced on free of cost basis to the purchaser.
- 2.22 TERMS OF PAYMENT**
- 2.22.1 The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.
- 2.22.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to Delivery and document Clause of the GCC and upon fulfillment of other obligations stipulated in the contract.
- 2.22.3 Payments shall be made promptly by the Purchaser but in no case later than thirty (30) days after submission of the invoice or claim by the Supplier.
- 2.22.4 Payment shall be made in currency as indicated in the contract.
- 2.23. CHANGE ORDERS AND CONTRACT AMENDMENTS.**
- 2.23.1 The Purchaser may at any time, by written order given to the Supplier pursuant to Clause on Notices of the GCC make changes within the general scope of the Contract in any one or more of the following:
- Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
 - The method of shipping or packing;
 - The place of delivery; and/or
 - The Services to be provided by the Supplier.
 - The delivery schedule.
- 2.23.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within fifteen (15) days from the date of the Supplier's receipt of the Purchaser's change order.
- 2.23.3 No variation or modification in the terms of the contract shall be made except by written amendment signed by the parties.
- 2.24. ASSIGNMENT**
- 2.24.1 The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.
- 2.25. SUBCONTRACTS**
- 2.25.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or duties or obligation under the Contract.
- 2.26. EXTENSION OF TIME.**
- 2.26.1 Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser.
- 2.26.2 If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 2.26.3 Except as provided under the Force Majeure clause of the GCC, a delay by the Supplier in performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause of the GCC unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.
- 2.27. PENALTY CLAUSE**
- 2.27.1 Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services or contract value for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC. Clause on Termination for Default. The SCC shall also indicate the basis for ascertaining the value on which the penalty shall be applicable
- 2.28. TERMINATION FOR DEFAULT**
- 2.28.1 The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part
- If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause on Extension of Time; or
 - If the Supplier fails to perform any other obligation(s) under the Contract.
 - If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent or collusive or coercive practices as defined in GCC Clause on Fraud or Corruption in competing for or in executing the Contract.
- 2.28.2 In the event the purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:
- The Performance Security is to be forfeited;
 - The purchaser may procure, upon such terms and in such manner as it deems appropriate, stores similar to those undelivered, and the supplier shall be liable for all available actions against it in terms of the contract.
 - However, the supplier shall continue to perform the contract to the extent not terminated.
- 2.29. FORCE MAJEURE**
- 2.29.1 Notwithstanding the provisions of GCC Clauses relating to extension of time, penalty and Termination for Default the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 2.29.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 2.29.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 2.29.4 If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of force majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.
- 2.30. TERMINATION FOR INSOLVENCY**
- 2.30.1 The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.
- 2.31. TERMINATION FOR CONVENIENCE**
- 2.31.1 The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- 2.31.2 The Goods those are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
- To have any portion completed and delivered at the Contract terms and prices; and/or
 - To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.
- 2.32. SETTLEMENT OF DISPUTES**
- 2.32.1 The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.



- 2.32.2 If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.
- 2.32.3 The dispute settlement mechanism/arbitration proceedings shall be concluded as under:
- In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Chairman, Board of Governors of IISER TVM and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
 - In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration In accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.
- 2.32.4 The venue of the arbitration shall be the place from where the purchase order or contract is issued.
- 2.32.5 Notwithstanding any reference to arbitration herein,
- the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
 - the Purchaser shall pay the Supplier any monies due the Supplier.
- 2.33 GOVERNING LANGUAGE**
- 2.33.1 The contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.
- 2.34 APPLICABLE LAW**
- 2.34.1 The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in SCC.
- 2.35 NOTICES**
- 2.35.1 Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, telex, FAX, e-mail or and confirmed in writing to the other party's address specified in the SCC.
- 2.35.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.
- 2.36 TAXES AND DUTIES**
- 2.36.1 For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.
- 2.36.2 For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture/production.
- 2.36.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.
- 2.37 RIGHT TO USE DEFECTIVE GOODS**
- 2.37.1 If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.
- 2.38 PROTECTION AGAINST DAMAGE**
- 2.38.1 The system shall not be prone to damage during power failures and trip outs.
- The normal voltage and frequency conditions available at site as under:
- Voltage 230 volts – Single phase / 415 V 3 phase (+_ 10%)
 - Frequency 50 Hz.
- 2.39. SITE PREPARATION AND INSTALLATION**
- The Purchaser is solely responsible for the construction of the equipment sites in compliance with the technical and environmental specifications defined by the Supplier. The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site preparation, if any, needed for installation, of the goods at the purchasers' site immediately after notification of award/contract.



Amur Sadath
20/3/25
ASSISTANT REGISTRAR
[PURCHASE & STORES]
IISERTVM

ANNEXURE: 4
INTEGRITY PACT
Between

Indian Institute of Science Education and Research Thiruvananthapuram, Maruthamala P.O, Vithura, Trivandrum -695551, India hereinafter referred to as **"The Principal,"** and

hereinafter referred to as **"The Bidder/ Contractor."**

Preamble

The Principal intends to award contract/s for _____, under laid down organisational procedures, The Principal values full compliance with all relevant laws of the land, rules, regulations, economical use of resources, and fairness / transparency in its relations with its Bidder(s) and / or Contractor(s).

To achieve these goals, the Principal shall appoint Independent External Monitors (IEMs) who shall monitor the tender process and the execution of the contract for compliance with the abovementioned principles.

Section 1 – Commitments of the Principal

1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles: -

a. No employee of the Principal, personally or through family members, shall in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

b. The Principal shall treat all Bidder(s) with equity and reason during the tender process. The Principal shall, in particular, before and during the tender process, provide to all Bidder(s) the same information and shall not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in the tender process or the contract execution.

c. The Principal shall exclude from the process all known persons having conflict of interest.

2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal shall inform the Chief Vigilance Officer and in addition shall initiate disciplinary proceedings.

Section 2 – Commitments of the Bidder(s)/ Contractor(s)

1) The Bidder(s)/ Contractor(s) commits themselves to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commits themselves to observe the following principles during participation in the tender process and the contract execution.

a. The Bidder(s)/ Contractor(s) shall not, directly or through any other person or firm, offer, promise, or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which they are not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or the execution of the contract.

b. The Bidder(s)/ Contractor(s) shall not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal, in violation of the Competition Act, 2002 (as amended from time to time). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the tender process.

c. The Bidder(s)/ Contractor(s) shall not commit any offence under the relevant IPC/PC Act; further, the Bidder(s)/ Contractor(s) shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals, and business details, including information contained or transmitted electronically.

d. The Bidder(s)/Contractors(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the Bidder(s)/Contractors(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details, as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers," shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines, all the payments made to the Indian agent/representative must be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is placed on Annex hereto.



- e. The Bidder(s)/ Contractor(s) shall, when presenting their bid, disclose any and all payments made, is committed to, or intends to make to agents, brokers, or any other intermediaries in connection with the award of the contract.
- f. Bidder(s) /Contractor(s) who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision.
- 2) The Bidder(s)/ Contractor(s) shall not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 - Disqualification from the tender process and exclusion from future contracts

If the Bidder(s)/Contractor(s), before award or during execution, has committed a transgression through a violation of Section 2, above or in any other form such as to put their reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per laid down procedure to debar the Bidder(s)/Contractor(s) from participating in the future procurement processes of the Government of India.

Section 4 – Compensation for Damages

- 1) If the Principal has disqualified the Bidder(s) from the tender process before the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 – Previous transgression

- 1) The Bidder declares that no previous transgressions occurred in the last three years with any other Company in any country conforming to the anti-corruption approach or with any Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 2) If the Bidder makes an incorrect statement on this subject, the Principal shall act like para 2) of Section 4 above.

Section 6 – Equal treatment of all Bidders / Contractors / Subcontractors

In the case of Sub-contracting, the Principal Contractor shall take responsibility for adopting the Integrity Pact by the Sub-contractor.

- a. The Principal shall enter into agreements with identical conditions as this one with all Bidders and Contractors.
- b. The Principal shall disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidder(s) / Contractor(s) / Subcontractor(s)

If the Principal obtains knowledge of the conduct of a Bidder, Contractor, or Subcontractor, or of an employee or a representative or an allied firm of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal shall inform the same to the Chief Vigilance Officer.

Section 8 – Independent External Monitor

- 1) The Principal shall appoint competent and credible Independent External Monitor(s) for this Pact after approval by the Central Vigilance Commission. The task of the Monitor is to review, independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 2) The Monitor is not subject to instructions by the parties' representatives and performs their functions neutrally and independently. The Monitor would have access to all Contract documents whenever required. It shall be obligatory for them to treat the information and documents of the Bidders/Contractors as confidential. They report to the Management of the Principal.
- 3) The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction, all Project documentation of the Principal, including that provided by the Contractor. Upon their request and demonstration of a valid interest, the Contractor shall also grant the Monitor unrestricted and unconditional access to their project documentation. The same applies to Subcontractors.
- 4) The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/ Sub-contractor(s) with confidentiality. The Monitor has also signed declarations on 'Non-Disclosure of Confidential Information' and 'Absence of Conflict of Interest.' In case of any conflict of interest arising later, the IEM shall inform the Management of the Principal and recuse themselves from that case



5) The Principal shall provide the Monitor with sufficient information about all meetings among the parties related to the Project, provided such meetings could impact the contractual relations between the Principal and the Contractor. The parties offer the Monitor the option to participate in such meetings.

6) As soon as the Monitor notices, or believes to notice, a violation of this agreement, they shall inform the Management of the Principal and request the Management to discontinue or take corrective action or other relevant action. The Monitor can, in this regard, submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action, or tolerate action.

7) The Monitor shall submit a written report to the Management of the Principal, within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.

8) If the Monitor has reported to the Management of the Principal a substantiated suspicion of an offence under the relevant IPC/ PC Act, and the Management of the Principal has not, within the reasonable time, taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.

9) The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidders, 6 months after the contract has been awarded. Any violation of the same would entail disqualifying the bidders and exclusion from future business dealings.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this Pact as specified above, unless it is discharged / determined by the Management of the Principal.

Section 10 – Other provisions

1) This agreement is subject to Indian Law. The place of performance and jurisdiction is the place from where the Tender/ Contract is issued.

2) Changes, supplements, and termination notices must be submitted in writing. Side agreements have not been made.

3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties shall strive to come to an agreement according to their original intentions.

5) Issues like Warranty / Guarantee, etc., shall be outside the purview of IEMs.

6) In the event of any contradiction between the Integrity Pact and its Annex, the Clause in the Integrity Pact shall prevail.

(For & On behalf of the Principal)
(Office Seal)

Place -----

Witness 1: _____

(Name & Address)

(For and on behalf of Bidder/ Contractor)
(Office Seal)

Date -----

Witness 1: _____

(Name & Address)



Annexure 5

MODEL BANK GUARANTEE FORMAT FOR FURNISHING BID SECURITY (BS)

Whereas (hereinafter called the "tenderer")
has submitted their offer dated.....for the supply of.....
..... (hereinafter called the
"tender") against the Purchaser's tender enquiry No.....
.....KNOW ALL MEN by these presents that WE.....
.....of having our registered office at.....
.....are bound unto (hereinafter called the "Purchaser") in
the sum of for which
payment will and truly to be made to the said Purchaser, the Bank binds itself, its
successors and assigns by these presents. Sealed with the Common Seal of the
said Bank this..... day of20.....

THE CONDITIONS OF THIS OBLIGATION ARE:

- 1) If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- 2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:-
 - a) If the tenderer fails to furnish the performance security for the due performance of the contract.
 - b) Fails or refuses to accept/execute the contract.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the purchaser (IISER-TVM) having to substantiate its demand, provided that in its demand the purchaser will note that the amount claimed by it is due to it owing the occurrence of one or both the two conditions, specifying the occurred condition or conditions. This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the bank not later than the above date.

Signature of the authorized officer of the bank

Name and designation of the officer

Seal, name and address of the Bank and address of the Branch.

Note : Bank Guarantee should be addressed to the Director, IISER Tvm, Maruthamala PO Vithura, Thiruvananthapuram, Kerala -695551



Annexure 6

SPECIMEN

**PERFORMANCE SECURITY FORM
MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY**

To,

WHEREAS
(name and address of the supplier) (hereinafter called "the supplier") has undertaken, in pursuance of contract no. dated to supply (.....description of goods and services) (herein after called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract.

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of (amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the day of, 20.....

(Signature of the authorized officer of the Bank)

.....
Name and designation of the officer

.....
Seal, name & address of the Bank and address of the Branch

Note : Bank Guarantee should be addressed to the Director, IISER Tvm, Maruthamala PO Vithura, Thiruvananthapuram, Kerala -695551



Annexure 7

TENDER ACCEPTANCE LETTER (To be given on Company Letter Head)

To,

Date:

The Director, Indian Institute of Science Education and Research – Thiruvananthapuram,
Maruthamala P.O, Vithura, Thiruvananthapuram, Kerala -695551, 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/Work' 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 from Page No. _____ to _____ (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/ organization 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 do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.
6. 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/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, 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.
7. I / We declare the following information provided are correct to the best of my knowledge:

1.	Name and Address of the bidder	
2.	Manufacturer / Dealer / Agent	
3.	Contact Person	
4.	Phone	
5.	Email	
6.	Mobile Number	
7.	GST No	
8.	PAN No	
9.	UTR No / DU No (in case of online transfer of Tender Fee) (if any)	
10.	UTR No / DU No (in case of online transfer of EMD)	
11.	Warranty, if any	
12.	Delivery period	
13.	Payment terms	
14.	PO to be placed in favour of	
15.	Local content category(Class I/II/III)	

Yours Faithfully,

(Signature of the Bidder, with Official Seal)



Annexure 8

(ON COMPANY LETTER HEAD)

Declaration of Local Content

(In case the procurement value is less than or equal to Rs. 10 Crores declaration to be given in Bidder's/Company's letter head and if more than Rs. 10 Crores declaration to be issued from the statutory auditor or cost auditor of the company (in case of companies from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies)

To,
The Director,
Indian Institute of Science Education and Research Thiruvananthapuram,
Maruthamala P.O., Vithura, Thiruvananthapuram, Kerala, India – 695551

Subject: Declaration of local content and compliance of Public Procurement (Preference to Make in India) Order 2017 and its amendments regarding.

Sl No	Name of the goods/service/works	Category of the supplier (Class I / II / III)	Local Content (%)	Location at which value addition is made	Country of Origin	Comply to the above referred rule (Yes / No)
1						
2						
3						

- "Local Content" means the amount of value added in India which shall, be the total value of the item being offered (excluding net domestic indirect taxes) minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.
- False declarations will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions permissible under law.

Date:

Place:

Signature with Date and Stamp of the Bidder



Annexure _9

CERTIFICATE
(ON COMPANY LETTER HEAD)

I hereby certify that we M/s

_____ (name and address of the firm) is neither blacklisted by any Central/ State Government / Public Undertaking/ Institute nor is any criminal case registered / pending against the firm or its owner / partners anywhere in India.

I also certify that the above information is true and correct in every aspect and in any case at a later date it is found that any details provided above are incorrect, any contract given to the above firm may be summarily terminated and the firm blacklisted.

Date:

Place:

Signature with Date and Stamp of the Bidder



Annexure 10

(ON COMPANY LETTER HEAD)

CERTIFICATE BY THE BIDDER (FOR TENDERS)
(ON COMPANY LETTER HEAD)

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I certify that this bidder is not from such a company or, / if from such a country, has been registered with the Competent Authority (copy of the Registration Certificate enclosed). I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered.

Date:

Place:

Signature with Date and Stamp of the Bidder



Annexure 11

Technical Specification and Additional T&C for this tender

Annexure A: Required items for Classroom

Sr.No	Item Description	Specification	Approved Makes	UoM	Qty
Display System					
1	133" Diagonal Tab tensioned Motorised screen	Motorised Screen 133", 16:10 aspect ratio, Tab tensioned screen, with IR/RS 232 support, with remote and Low voltage contact control	Milan, Draper, Liberty	Piece	1
2	6200 Lumens brightness projector	Light Source: Laser Diode/Phosphor, Panel, :Transparent 3LCD panel, 0.64" Resolution WUXGA(1920 x 1200) or better, Brightness: 6200 lumens or higher, Light source life in Normal mode:20,000 hours or better, Contrast Ratio (Dynamic):3,000,000:1 or higher Lens Driving: Manual, Lens (Standard) :1.6x Zoom ;Throw Ratio: 1.09~1.77:1 Lens Shift (Manual) V:±44~0% , H:±/-20% (from the center of the screen) 6 point image correction: Required, HDMI CEC: Required 4K Signal Input support: Yes (Up to 4K/30p), Startup Logo function: Required, Auto Input signal search: Required Quick start and Quick Off: Yes, Digital Input Terminal :HDMI x 2 (Should support 4K@30Hz & HDCP Compatible, HDMI CEC), HD Base - T IN X 1 Other Inputs: Audio IN X 2, Audio Out x 1, USB X 1 Control Inputs - RS232 X 1, LAN(RJ45), Power Consumption :Not more than 320W in Normal mode	Panasonic/Epson/Barco	Piece	1
3	Ceiling mount for projector	Ceiling Mount for projector with height and tilt adjustment, weight load of 10Kg.	nt/Btech/Chief	Piece	1
4	24" Interactive table top monitor on podium	24" Pen and LCD panel touch Display with adjustable display stand of minimum 15 degree to 70 degrees, minimum 2500 lpi coordinate resolution, 1920 x 1080 pixels native resolution, 2048 pressure levels, 1000:1 contrast ratio, Colour depth: 16.7 million, DVI-I input, pen with eraser, pen holder, attachment, pen tether, QSG, IPI, DVI-D cable, DVI-I to VGA Cable, USB cable, AC adapter, power cable	Wacom/ AHA/ Elmo	Piece	1
5	PC on podium with USB C /I5 processor/	Micro form factor PC i5 14 gen, 20threads,16GB DDR5 RAM, Storage 1TB, HDMI, Display output supported USB Type C port and power supply. Driver pack should be available under OEM site. All components and accessories should be 100% factory integrated. Warranty of desktop should be listed in OEM support site. Online support registration based on product serial number should be offered by OEM	As per specification	Piece	1
Video & Switching system					
6	Cable cubby with two universal power sockets and pass through holes for USB C and HDMI connectivity	Cable cubby with 2no.s universal power socket, 2no.s USB -A charging, with pass thru provision for HDMI/USB C cables	Nt/Kramer/Extron	Piece	1

Aman Sadath
20/3/25

Annexure A: Required items for Classroom

Sr.No	Item Description	Specification	Approved Makes	UoM	Qty
7	4x3 USB-C/HDMI Switcher with receiver	<p>The switcher shall support HDMI 2.0 signal formats. It should have two HDMI 2.0 along with USB 2.0 USB type B port and one full featured USB-C 3.1 Gen 1 input ports, and one Cat transmitter output port for HDMI2.0 & USB2.0 and one analog audio output port. It should support USB-C input connectivity for 4K Video, Audio, Data, and Power over a single USB-C connection. It should support charging via USB-C up to 100W. The switcher should provide independent switching of input signals. The switcher shall support the following signal formats: 7.1 HDMI embedded audio, Dolby TrueHD, and DTS-HD Master Audio 7.1 formats. The switcher shall be USB 2.0, and USB 1.1 compliant. The switcher shall be HDCP 2.2 compliant. Supports the HDMI content with HDCP encryption. The switcher supports video content and all standard resolutions and frequencies such as specified under HDMI up to 4K UHD 60Hz RGB 4:4:4. The switcher shall provide adjustable volume on the analog output port. The switcher shall support EDID management for customizable EDID tables. The switcher should be able to store a minimum of 100 EDID resolutions. The switcher shall provide the ability to import and export EDID and preset files from/to a PC. PC software shall provide custom EDID creation. The switcher shall provide a bi-directional RS-232, Ethernet, and GPIO port for control. The switcher shall have multiple Ethernet network configurations fitting various corporations network topologies and IT security standards.</p> <p>It should support SSH, SSL, and HTTPS for IT security. It should have an Occupancy sensor connection (with a 24V power supply) The switcher shall support multiple USB 2.0 (Type A) connectivity for any type of USB device (Camera, speakerphone, touch monitor, USB-HID devices, etc....)</p> <p>The switcher shall have a Separate USB 2.0 Host switching layer for multiple USB hosts and USB devices. It should have a Smart & noiseless cooling system (less than 30dBA noise level.)</p> <p>The receiver should be able to receive 4K UHD 60Hz RGB 4:4:4 up to 100 meters or better. The Receiver shall support multiple USB 2.0 (Type A) connectivity for any type of USB device (Camera, speakerphone, touch monitor, USB-HID devices, etc....)</p> <p>The Receiver shall provide a bi-directional RS-232, Ethernet, and OCS port for control.</p>	Lightware/Extron/Kramer	Piece	1
8	20x PTZ camera for audience with mount	<p>Camera Should have Minimum 20 X optical zoom & 16X Digital Zoom, Pan :±170° Tilt: +90° / -30° ,1/2.7 inch High quality CMOS sensor, should have 1920x1080@60fps</p> <p>Camera Should have minimum 59.5 degrees field of view, auto focus, Auto & Manual white balance</p> <p>Interfaces: USB 3.0, HDMI, IP, SDI, Line in, IP and RS232 interfaces</p> <p>should support 255 Presets from IR Remote & RS 232 control Interface</p> <p>PTZ Management software should be from the same OEM, Should support Live Video Preview</p> <p>Camera Should support firmware upgrade through PTZ Management software</p> <p>Should support Built in RTMP & RTSP based Live streaming</p> <p>Camera should have BIS, CE,FCC & RoHS compliance certificates.</p> <p>OEM should have ISO 9001:2015 & 14001:2015 certification</p> <p>OEM Should have Warranty Portal in the website to check the Product warranty status.</p> <p>OEM Should have a dedicated Toll Free Number for technical support. Including wall mount</p>	A&T/ Panasonic/ Sony/	Piece	1



Annexure A: Required items for Classroom

Sr. No	Item Description	Specification	Approved Makes	UoM	Qty
9	20 x zoom presenter tracking camera	Presenter & Preset Tracking camera with Minimum 20 X optical zoom & 12X Digital Zoom Resolution should have 1920x1080@60fps, 1/2.7 inch High quality CMOS sensor, 59.5" field of view, Pan ±170° Tilt: +90° / -30° Auto & Manual white balance, Focal length should have f=5.2 - 98.0mm Interface :USB 3.0, HDMI, IP, SDI, Line in, IP and RS232 interfaces with NDI feature Camera should support 255 Presets from IR Remote & RS 232 control Interface. Tracking setting should be done in IR remote and in PTZ management software. Should support Minimum 4 Zones for preset tracking. Preset tracking mode should support automatic switch over from one preset to others. Presenter tracking should support tracking of presenter where ever they move. Should support Tilt motion on presenter mode. Should support Built in RTMP & RTSP based Live streaming Camera should have BIS, CE, FCC & RoHS compliance certificates. OEM should have ISO 9001:2015 & 14001:2015 certification. OEM Should have a dedicated Toll Free Number for technical support. With ceiling Mount	A&T/Panasonic/Sony/	Piece	1
10	Camera mixer	Supply, Installation, testing & Commissioning of Dual USB + HDMI Input Video Mixer with USB3.0 + HDMI Capture Output with Should have minimum of 2x USB Video (Camera) Inputs (minimum of USB 2.0). Should have minimum of 1x HDMI Video Camera / Content Input All USB & HDMI Inputs Should support 1080p on each camera / Content input. Should have parallel HDMI & USB3.0 Output x 1 number each should support 1080 P resolution. Should have a mixer output directly into a single USB 3.0 interface. Should support PTZ control of Camera connected in Input over output USB 3.0 directly. Should be able to select all 3 inputs in individual layout mode or able to Select Picture-In-Picture, Picture by Picture & 1 Big Picture (covering more than 70%) along with another video input. Should also be able to toggle Inputs while in Layouts both from Front panel & also Control Interface. Should have Audio Input usable for Microphone / Content & mixed with Video & provided mixing on to Video Output on USB / HDMI. Should also have Audio Output for HDMI audio de-embedding. Should have Control interface: LAN, RS-232, USB which gives flexibility to control from 3rd party control systems. Should have front keypad for selection of layout. Should have HDMI output for preview along with Parallel selection of Layout. Should have a Line level stereo audio support. Should also have minimum of 2 x USB 3.0 expansion ports that can be accepting any USB accessories like Microphone or Speaker or Audio DSP & should be able to provide mixing of Video & Audio on Single USB3.0 Output that can be given to UC Codec application Device. Should be compatible with Windows, Mac OS X and Linux with no need of any Drivers & no need of major Setup. Individual Input, Picture-in-Picture & Picture-by-Picture Layouts selection options.	Inogeni/DataVideo/Blackmagic	Piece	1
11	USB Camera and device extender set	USB2.0 Extender Set support Upto 100m/330ft. Should be a high-speed USB 2.0 connections of up to 100 m/330 ft. over a single CAT 5e/6/7 cable. Should support USB speed of USB 2.0: up to 480 Mbps & USB 1.1: up to 12 Mbps. Should have 1x USB Type B receptacle on Host side Should have 1x USB Type A receptacle on Device side Should have 1x RJ45 link connector Should comes with a Power supply and should have power provisions in both the Host & Device side Should works with all major operating systems, including Windows, macOS, and Linux. Should provide plug-and-play convenience with no software drivers required.	Inogeni/Liberty AV/Icron	Piece	2
Audio system					



Annexure A: Required items for Classroom

Sr.No	Item Description	Specification	Approved Makes	UoM	Qty
12	18" Gooseneck mic on podium	Supply of 450mm Gooseneck microphone with a programmable microphone button (Toggle on/ off, PTM, PTT, and permanent on) and a bi-colour LED ring for status indication. 450mm length, condenser capsule with cardioid pickup pattern, Frequency response: 50 Hz - 20 kHz, Maximum sound pressure level: 130 dB SPL, Connectivity: XLR 3M. It should have TTL-logic output for camera control feature.	Sennheiser/AKG/Shure	Piece	1
13	Wireless Lapel mic system	Supply of Digital Wireless UHF lapel microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100 meter transmission range. It should have omnidirectional pick-up pattern, Sound pressure level (SPL) : 130 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through ios / Android applications via bluetooth. It should have 12 hours of operation life and more.	Sennheiser/AKG/Shure	Piece	1
14	Handheld wireless microphone system	Supply of Digital Wireless UHF handheld microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine-tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have a minimum 100 meter transmission range. It should have a Cardioid pick-up pattern, Sound pressure level (SPL) : 150 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through ios / Android applications via bluetooth. It should have 12 hours of operation life and more.	Sennheiser/AKG/Shure	Piece	2
15	Wireless Charging Set	Supply of Charging set with USB charger and 2 rechargeable battery packs for handheld and backpack transmitter. It should charge 100% battery power in max. 3 hours charging time. Maximum operating time of 12 hours. Stackable and charging is through USB-C.	Sennheiser/AKG/Shure	Piece	1
16	Digital Signal Processor	Supply of Digital Audio Processor with minimum 8 input & 8 Output , Built-in bi-directional USB Audio Interface for soft codec conferencing solution supports recording & play. DSP audio processing, built-in automatic mixing console, Ducker dodger, optional feedback elimination, echo elimination, noise elimination module. Input Per Channel: Preamplifier, signal generator, expander, compressor, 10-band parametric equalization. Output Per channel: 31-band graphic equalizer, delay, crossover, limiter. Built-in automatic camera tracking function. SAMPLING RATE 48KHz, Phantom Power 48V, Frequency Response 20Hz -20 KHz	Symmetrix/Earthpot /Bose professional	Piece	1
17	Wall speakers 60 watts	Supply of 2 way column speaker with minimum 8 x 3" LF & Min 1, 1 inch HF , Frequency response 140 Hz to 18 kHz (-3 dB) or better direct mode, Frequency range 110 Hz to 20 kHz (-10 dB) or better direct mode, Program power 150 W or better, Support Both low impedance (4 Ohm) and high voltage (100V) connectivity, with wall mount	Sonodyne / Tannoy /Bose Professional	Piece	4
18	Amplifier	Supply of Class D multichannel amplifier with minimum Quad channel 250W. Support USB and RS232 control and a mini DSP featuring volume control, mute, compressor/limiter, filter and input channel selection. OUTPUT MODE: 4 Ohm-70V-100V, FREQUENCY RESPONSE 100Hz - 16kHz, Programmable via PC UI application, USB and RS232 control.	Labgruppen /Sonodyne /Bose Professional	Piece	1
Control System					



Annexure A: Required items for Classroom

Sr.No	Item Description	Specification	Approved Makes	UoM	Qty
19	Controller Button panel	<p>The Button Panel shall have Integrated keypad with 11 backlit, programmable buttons with rotary knob.</p> <p>The Programmable buttons shall be able to work according to the actual functions as momentary, toggle or radio (group function) buttons. With programmable back light effect / patterns like pulsating, blinking fast.</p> <p>The Button Panel shall have a Programmable Rotary Knob which can be customized for multiple options like Volume/Screen/Brightness Control or Room Lights Dimming features.</p> <p>It should support Power over Ethernet (PoE) via Ethernet port (IEEE802.3af) with network time protocol.</p> <p>The Button Panel should have two Ethernet connectivity ports with PoE reception, bi-directional RS-232 control port with GPIO port with three connections for control</p> <p>It should support a real time automated scheduling of multiple control actions.</p> <p>A graphical user interface (GUI) must be provided for management of conditions and actions, without having to do any programming.</p>	Lightware,Extron,Creston	Piece	1
20	10 Port PoE network switch	Network switch with 10 Nos 1 G port and 2nos SFP port, PoE Ports 8 Nos, 125W POE Budget, Should Support : Dante, Q-SYS, AES67 and AVB audio, IGMP snooping (v1, v2 and v3),Jumbo frame support.12 K	Netgear, Cisco, Juniper, HP	Piece	1
Bulk & Patch Cable - On Actuals					
21	HDMI (M) to HDMI (M), 6 ft (2m)	HDMI 2.0 cable, Supports UHD resolutions up to 4096x2160@60Hz with 24K gold plated connectors, Length 2 mts	Lindy/Liberty AV AV/Extron	Piece	10
22	HDMI (M) to HDMI (M), 15 ft (5m)	HDMI 2.0 cable, Supports UHD resolutions up to 4096x2160@60Hz with 24K gold plated connectors, Length 5 mts	Lindy/Liberty AV AV/Extron	Piece	3
23	HDMI to DVI Cable 6ft	HDMI- DVI cable , 1920x1200@60Hz , 2mts length, Conductor Material: Tinned Copper	Lindy/Liberty AV AV/Extron	Piece	1
24	HDMI (M) to HDMI (M), (10m)	HDMI 2.0 cable, Supported Bandwidth: 18Gbps Maximum Resolution: 4096x2160@60Hz,Cable length 10 mts	Lindy/Liberty AV AV/Extron	Piece	1
25	USB 3.2 USB-C(M) to USB-C(M), 6 ft	USB 3.2 Gen Type C cable, Supported Bandwidth: 20Gbps Maximum Resolution: 4K 4096x2160@60Hz;Max. Power: 100W	Lindy/Liberty AV AV/Extron	Piece	3
26	USB 2.0 A (M) to B (M) Cable, 6ft	USB 2.0 Type A Male to type B male cable ,5ft length	Lindy/Liberty AV AV/Extron	Piece	9
27	USB 3.0 A (M) to B (M) Cable, 6ft	USB 3.2 Type A Male to type B USB 3.2 male cable ,6ft length, Supported Bandwidth: 5Gbps	Lindy/Liberty AV AV/Extron	Piece	9
28	USB 3.0 A (M) to A (M) Cable, 6ft	USB 3.2 Gen 1 Type A to A cable. Supported Bandwidth: 5Gbps	Lindy/Liberty AV AV/Extron	Piece	4
29	Speaker Cable	2 Conductor 14AWG (42x30) Tinned Copper, PVC Insulation, PVC Outer Jacket, 600 V (CL3), 90°C temperature, bend radius 3.6 in (91 mm)	Belden/Proel/Extron	Meters	120
30	Microphone Cable	Supply of 2 conductor Microphone cable, CM-Rated, 1-24 AWG stranded high-conductivity bare copper pair with PVC insulation,	Belden/Proel/Extron	Meters	80
31	Audio Stereo / Control Cable	Audio / Control Cable, 2 pair, 22 AWG stranded, tinned copper conductors, polypropylene insulation, twisted pairs, individually shielded with 24 AWG stranded tinned copper drain wire and PVC jacket	Belden/Proel/Extron	Meters	50

Amar Sada
20/9/25

Annexure A: Required items for Classroom

Sr.No	Item Description	Specification	Approved Makes	UoM	Qty
32	STP Cable	SITC of Category 6 STP Solid cable Conductor: 23 AWG (0.583 ±0.007mm), Multi-cores (Solid), Conductor Metal: Bare Copper Insulation Material: HD-PE OD: 1.12 ±0.05mm Average Thickness: 0.26 mm Outside-Tape Metal: MYLAR Overlap Rate: 25% Drain Wire: 24 AWG(0.500 ±0.007mm) Jacket hardness: 45P (90A ± 2A, Shore)	Belden/Proel/Extron	Meters	120
Mounting & Accessories					
33	Conduits for AV cables	PVC medium grade conduits for the AV cabling as per site condition	Balco/Precision/TOMS	Meters	300
34	Writing Board (Magnetic)	Green ceramic board size: 4Ft X 17.33Ft Scratch resistant green ceramic surface. Double sided curved anodised aluminium frame. Metal chroma bracket for flush fitment. Integrated duster holder	Kores/Alkesign/Godrej	Piece	1
35	Custom Podium	Custom podium with Wooden Top with provision to install Gooseneck Microphone, tablet monitor, cable cubby and space to store AV equipment with cooling lower. Final drawing shall be approved by end customer as per site condition	Custom	Piece	1
Installation & Programming					
36	Cabling and termination charges	Cabling and termination charges	Custom	Job	2
37	Installation, Commissioning, User Training, Charges	Installation, Commissioning, User Training, Charges	Custom	Job	2

Anwar Sadath
20/11/25



Annexure B: Required items for Seminar Hall

Sr.No	Item Description	Specification	Aproved Makes	UoM	Qty
Display System					
1	85" or better 4k UHD Interactive Display	Touch interactive display with Screen Size:85" or better ,Panel Technology:IPS,Native Resolution 3840 x 2160, Brightness :390nit(w/o Glass, typ),Contrast Ratio 1,200:1Haze:28% Input ports :HDMI IN: 3 (HDCP 2.2),RGB IN -1, Audio IN-1,RS232 IN -1 Output Ports Audio Out -1,HDMI Out -1,USB port :USB3.0-4nos,USB2.0 -1no,USB Type-C-1no, Touch USB -2nos, Built in Touch type IR ,Air Gap Between LCD Module & Glass Zero bonding Protection Glass Thickness:3T (Anti-Glare),Processor :Quad Core A55 or better, Multi touch point :Max 40 points (Windows), Embedded OS, Bluetooth 5.0, Built in Standard OS :Android 11 , Panel System on Chip, Internal Memory (32GB ROM or better, 4GB RAM or better), Wi-Fi support Screen share: Miracast, Airplay, Built in Audio Power:15Wx2 or better, With 5 year warranty	LG/Samsung/Panasonic	Piece	1
2	85" or better 4k UHD Display	Display 85 inch or better,4K resolution, Panel technology : IPS, brightness :500 nits, Dynamic contrast ratio: 1000000:1, Color depth :10 bit,Operation Hours: 24/7, connectivity HDMI 3 Nos or more, DP 1 Nos, Audio input Output : HDMI and Audio port. Embedded CMS, Wake on LAN, Should support Landscape/ Portrait mode, Conformal coating for dust and humidity protection, Inbuilt graphics supported GPU Arm Mali T820 MP2(650 Mhz) or better	LG/Samsung/Panasonic	Piece	1
3	Heavy duty Push pull wall mount	Heavy Duty display mount with push pull feature, weight load of 80 Kg or more	nt/Btech/Chief	Piece	2
4	PC on podium with USB C /i5 processor/	Micro form factor PC i5 14 gen, 20threads,16GB DDR5 RAM, Storage 1TB, HDMI, Display output supported USB Type C port and power supply. Driver pack should be available under OEM site. All components and accessories should be 100% factory integrated. Warranty of desktop should be listed in OEM support site. Online support registration based on product serial number should be offered by OEM	As per specification	Piece	1
Video & Switching system					
5	Cable cubby with two universal power sockets and pass through holes for USB C and HDMI connectivity	Cable cubby with 2Nos universal power socket, 2Nos USB -A charging, with pass thru provision for HDMI/USB C cables	Nt/Kramer/Extron	Piece	1



Amrinder Singh
20/3/25

Annexure B: Required items for Seminar Hall

Sr.No	Item Description	Specification	Aproved Makes	UoM	Qty
6	4x3 USB-C/HDMI Switcher with receiver	<p>The switcher shall support HDMI 2.0 signal formats. It should have two HDMI 2.0 along with USB 2.0 USB type B port and one full featured USB-C 3.1 Gen 1 input ports, and one Cat transmitter output port for HDMI2.0 and one analog audio output port. It should support USB-C input connectivity for 4K Video, Audio, Data, and Power over a single USB-C connection. It should support charging via USB-C up to 100W. The switcher should provide independent switching of input signals. The switcher shall support the following signal formats: 7.1 HDMI embedded audio, Dolby TrueHD, and DTS-HD Master Audio 7.1 formats. The switcher shall be USB 2.0, and USB 1.1 compliant. The switcher shall be HDCP 2.2 compliant. Supports the HDMI content with HDCP encryption. The switcher supports video content and all standard resolutions and frequencies such as specified under HDMI up to 4K UHD 60Hz RGB 4:4:4. The switcher shall provide adjustable volume on the analog output port. The switcher shall support EDID management for customizable EDID tables. The switcher should be able to store a minimum of 100 EDID resolutions. The switcher shall provide the ability to import and export EDID and preset files from/to a PC. PC software shall provide custom EDID creation. The switcher shall provide a bi-directional RS-232, Ethernet, and GPIO port for control. The switcher shall have multiple Ethernet network configurations fitting various corporations network topologies and IT security standards. It should support SSH, SSL, and HTTPS for IT security. It should have an Occupancy sensor connection (with a 24V power supply) The switcher shall support multiple USB 2.0 (Type A) connectivity for any type of USB device (Camera, speakerphone, touch monitor, USB-HID devices, etc....). The switcher shall have a Separate USB 2.0 Host switching layer for multiple USB hosts and USB devices. It should have a Smart & noiseless cooling system (less than 30dBA noise level). The receiver should be able to receive 4K UHD 60Hz RGB 4:4:4 up to 100 meters or better. The Receiver shall support multiple USB 2.0 (Type A) connectivity for any type of USB device (Camera, speakerphone, touch monitor, USB-HID devices, etc....). The Receiver shall provide a bi-directional RS-232, Ethernet, and OCS port for control.</p>	Lightware/Extron/Kramer	Piece	1
7	20x PTZ camera for audience with mount	<p>Camera Should have Minimum 20 X optical zoom & 16X Digital Zoom, Pan :±170° Tilt: +90° / -30°, 1/2.7 inch High quality CMOS sensor, should have 1920x1080@60fps Camera Should have minimum 59.5 degrees field of view, auto focus, Auto & Manual white balance. Interfaces: USB 3.0, HDMI, IP, SDI, Line in, IP and RS232 interfaces should support 255 Presets from IR Remote & RS 232 control Interface PTZ Management software should be from the same OEM, Should support Live Video Preview Camera Should support firmware upgradation through PTZ Management software Should support Built in RTMP & RTSP based Live streaming Camera should have BIS, CE, FCC & RoHS compliance certificates. OEM should have ISO 9001:2015 & 14001:2015 certification OEM Should have Warranty Portal in the website to check the Product warranty status. OEM Should have a dedicated Toll Free Number for technical support. Including wall mount</p>	A&T/ Panasonic/ Sony/	Piece	1



Amrta Bhatnagar
20/3/25

Annexure B: Required items for Seminar Hall

Sr.No	Item Description	Specification	Aproved Makes	UoM	Qty
8	20 x zoom presenter tracking camera	<p>Presenter & Preset Tracking camera with Minimum 20 X optical zoom & 12X Digital Zoom. Resolution should have 1920x1080@60fps, 1/2.7 inch High quality CMOS sensor, 59.5" field of view, Pan :±170° Tilt: +90° / -30° Auto & Manual white balance, Focal length should have f=5.2 - 98.0mm Interface :USB 3.0, HDMI, IP, SDI, Line in, IP and RS232 interfaces with NDI feature.</p> <p>Camera should support 255 Presets from IR Remote & RS 232 control Interface. Tracking setting should be done in IR remote and in PTZ management software. Should support Minimum 4 Zones for preset tracking. Preset tracking mode should support automatic switch over from one preset to others. Presenter tracking should support tracking of presenter where ever they move. Should support Tilt motion on presenter mode. Should support Built in RTMP & RTSP based Live streaming Camera should have BIS, CE,FCC & RoHS compliance certificates. OEM should have ISO 9001:2015 & 14001:2015 certification. OEM Should have a dedicated Toll Free Number for technical support. With ceiling Mount</p>	A&T/Panasonic/Sony/	Piece	1
9	Camera mixer	<p>Supply, Installation, testing & Commissioning of Dual USB + HDMI Input Video Mixer with USB3.0 + HDMI Capture Output with Should have minimum of 2x USB Video (Camera) Inputs (minimum of USB 2.0). Should have minimum of 1x HDMI Video Camera / Content Input All USB & HDMI Inputs Should support 1080p on each camera / Content input. Should have parallel HDMI & USB3.0 Output x 1 number each should support 1080 P resolution. Should have a mixer output directly into a single USB 3.0 interface. Should support PTZ control of Camera connected in Input over output USB 3.0 directly.</p> <p>Should be able to select all 3 inputs in individual layout mode or able to Select Picture-In-Picture, Picture by Picture & 1 Big Picture (covering more than 70%) along with another video input. Should also be able to toggle Inputs while in Layouts both from Front panel & also Control Interface.</p> <p>Should have Audio Input usable for Microphone / Content & mixed with Video & provided mixing on to Video Output on USB / HDMI. Should also have Audio Output for HDMI audio de-embedding. Should have Control interface: LAN, RS-232, USB which gives flexibility to control from 3rd party control systems. Should have front keypad for selection of layout. Should have HDMI output for preview along with Parallel selection of Layout. Should have a Line level stereo audio support. Should also have minimum of 2 x USB 3.0 expansion ports that can be accepting any USB accessories like Microphone or Speaker or Audio DSP & should be able to provide mixing of Video & Audio on Single USB3.0 Output that can be given to UC Codec application Device. Should be compatible with Windows, Mac OS X and Linux with no need of any Drivers & no need of major Setup. Individual Input, Picture-in-Picture & Picture-by-Picture Layouts selection options.</p>	Inogeni/DataVideo/Blackmagic	Piece	1
10	USB Camera and device extender set	<p>USB2.0 Extender Set support Upto 100m/330ft Should be a high-speed USB 2.0 connections of up to 100 m/330 ft. over a single CAT 5e/6/7 cable. Should support USB speed of USB 2.0: up to 480 Mbps & USB 1.1: up to 12 Mbps. Should have 1x USB Type B receptacle on Host side Should have 1x USB Type A receptacle on Device side Should have 1x RJ45 link connector Should comes with a Power supply and should have power provisions in both the Host & Device side Should works with all major operating systems, including Windows, macOS, and Linux. Should provide plug-and-play convenience with no software drivers required.</p>	Inogeni/Liberty AV/Icron	Piece	3
Audio system					



Amrutha
20/5/25

Annexure B: Required items for Seminar Hall

Sr.No	Item Description	Specification	Aproved Makes	UoM	Qty
11	18" Gooseneck mic on podium	Supply of 450mm Gooseneck microphone with a programmable microphone button (Toggle on/off, PTM, PTT, and permanent on) and a bi-color LED ring for status indication. 450mm length, condenser capsule with cardioid pickup pattern, Frequency response: 50 Hz - 20 kHz, Maximum sound pressure level: 130 dB SPL, Connectivity: XLR 3M. It should have TTL-logic output for camera control feature.	Sennheiser/AKG/Shure	Piece	1
12	Wireless Lapel mic system	Supply of Digital Wireless UHF lapel microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100 meter transmission range. It should have omnidirectional pick-up pattern, Sound pressure level (SPL) : 130 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through ios / Android applications via bluetooth. It should have 12 hours of operation life and more.	Sennheiser/AKG/Shure	Piece	1
13	Handheld wireless microphone system	Supply of Digital Wireless UHF handheld microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine-tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have a minimum 100 meter transmission range. It should have a Cardioid pick-up pattern, Sound pressure level (SPL) : 150 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through ios / Android applications via bluetooth. It should have 12 hours of operation life and more.	Sennheiser/AKG/Shure	Piece	2
14	Wireless Charging Set	Supply of Charging set with USB charger and 2 rechargeable battery packs for handheld and bodypack transmitter. It should charge 100% battery power in max. 3 hours charging time. Maximum operating time of 12 hours. Stackable and charging is through USB-C.	Sennheiser/AKG/Shure	Piece	1
15	Digital Signal Processor	Supply of Digital Audio Processor with minimum 8 input & 8 Output. Built-in bi-directional USB Audio Interface for soft codec conferencing solution supports recording & play. DSP audio processing, built-in automatic mixing console, Ducker dodger, optional feedback elimination, echo elimination, noise elimination module. Input Per Channel: Preamplifier, signal generator, expander, compressor, 10-band parametric equalization. Output Per channel: 31-band graphic equalizer, delay, crossover, limiter. Built-in automatic camera tracking function. SAMPLING RATE 48KHz, Phantom Power 48V, Frequency Response 20Hz - 20 KHz	Symmetrix/Erthpot /Bose professional	Piece	1
16	Wall speakers 60 watts	Supply of 2 way column speaker with minimum 8 x 3" LF & Min 1, 1 inch HF, Frequency response 140 Hz to 18 kHz (-3 dB) or better direct mode, Frequency range 110 Hz to 20 kHz (-10 dB) or better direct mode, Program power 150 W or better, Support Both low impedance (4 Ohm) and high voltage (100V) connectivity. with wall mount	Sonodyne / Tannoy /Bose Professional	Piece	4
17	Amplifier	Supply of Class D multi channel amplifier with minimum Quad channel 250W. Support USB and RS232 control and a mini DSP featuring volume control, mute, compressor/limiter, filter and input channel selection. OUTPUT MODE 4 Ohm-70V-100V, FREQUENCY RESPONSE 100Hz - 16kHz, Programmable via PC UI application, USB and RS232 control.	Labgroupen /Sonodyne /Bose Professional	Piece	1
Control System					

Amrinder Singh
20/3/25

Annexure B: Required items for Seminar Hall

Sr.No	Item Description	Specification	Aproved Makes	UoM	Qty
18	Controller Button panel	The Button Panel shall have integrated keypad with 11 backlit, programmable buttons with rotary knob. The Programmable buttons shall be able to work according to the actual functions as momentary, toggle or radio (group function) buttons. With programmable back light effect / patterns like pulsating, blinking fast. The Button Panel shall have a Programmable Rotary Knob which can be customized for multiple options like Volume/Screen/Brightness Control or Room Lights Dimming features. It should support Power over Ethernet (PoE) via Ethernet port (IEEE802.3af) with network time protocol. The Button Panel should have two Ethernet connectivity ports with PoE reception, bi-directional RS-232 control port with GPIO port with three connections for control. It should support a real time automated scheduling of multiple control actions. A graphical user interface (GUI) must be provided for management of conditions and actions, without having to do any programming.	Lightware,Extron,Crestron	Piece	1
19	10 Port PoE network switch	Network switch with 10 Nos 1 G port and 2Nos SFP port, PoE Ports 8 Nos, 125W POE Budget, Should Support : Dante, Q-SYS, AES67 and AVB audio, IGMP snooping (v1, v2 and v3),Jumbo frame support :12 K	Netgear, Cisco, Juniper, HP	Piece	1
Bulk & Patch Cable - On Actuals					
20	HDMI (M) to HDMI (M), 6 ft (2m)	HDMI 2.0 cable, Supports UHD resolutions up to 4096x2160@60Hz with 24K gold plated connectors , Length 2 mts	Lindy/Liberty AV AV/Extron	Piece	10
21	HDMI (M) to HDMI (M), 15 ft (5m)	HDMI 2.0 cable, Supports UHD resolutions up to 4096x2160@60Hz with 24K gold plated connectors , Length 5 mts	Lindy/Liberty AV AV/Extron	Piece	3
22	HDMI to DVI Cable 6ft	HDMI- DVI cable , 1920x1200@60Hz , 2mts length, Conductor Material: Tinned Copper	Lindy/Liberty AV AV/Extron	Piece	1
23	HDMI (M) to HDMI (M), (15m)	HDMI 2.0 cable, Supported Bandwidth: 18Gbps, Conductor Gauge: 26AWG Maximum Resolution: 4096x2160@60Hz,Cable length 15 mts	Lindy/Liberty AV AV/Extron	Piece	1
24	USB 3.2 USB-C(M) to USB-C(M), 6 ft	USB 3.2 Gen Type C cable, Supported Bandwidth: 20Gbps Maximum Resolution: 4K 4096x2160@60Hz;Max. Power: 100W	Lindy/Liberty AV AV/Extron	Piece	3
25	USB 2.0 A (M) to B (M) Cable, 6ft	USB 2.0 Type A Male to type B male cable ,6ft length	Lindy/Liberty AV AV/Extron	Piece	9
26	USB 3.0 A (M) to B (M) Cable, 6ft	USB 3.2 Type A Male to type B USB 3.2 male cable ,6ft length, Supported Bandwidth: 5Gbps	Lindy/Liberty AV AV/Extron	Piece	9
27	USB 3.0 A (M) to A (M) Cable, 6ft	USB 3.2 Gen 1 Type A to A cable, Supported Bandwidth: 5Gbps	Lindy/Liberty AV AV/Extron	Piece	4
28	Speaker Cable	2 Conductor 14AWG (42x30) Tinned Copper, PVC Insulation, PVC Outer Jacket, 600 V (CL3), 90°C temperature, bend radius 3.6 in (91 mm)	Belden/Proel/Extron	Meters	120
29	Microphone Cable	Supply of 2 conductor Microphone cable, CM-Rated, 1-24 AWG stranded high-conductivity bare copper pair with PVC insulation,	Belden/Proel/Extron	Meters	80
30	Audio Stereo / Control Cable	Audio / Control Cable, 2 pair, 22 AWG stranded, tinned copper conductors, polypropylene insulation, twisted pairs, individually shielded with 24 AWG stranded tinned copper drain wire and PVC jacket	Belden/Proel/Extron	Meters	50

Aman Jadhav
20/3/25



Annexure B: Required items for Seminar Hall

Sr.No	Item Description	Specification	Aproved Makes	UoM	Qty
31	STP Cable	SITC of Category 6 STP Solid cable Conductor: 23 AWG(0.583 ±0.007mm), Multi-cores (Solid), Conductor Metal: Bare Copper Insulation Material: HD-PE OD: 1.12 ±0.05mm Average Thickness: 0.26 mm Outside-Tape Metal: MYLAR Overlap Rate: 25% Drain Wire: 24 AWG(0.500 ±0.007mm) Jacket hardness: 45P (90A ± 2A, Shore)	Belden/Proel/Extron	Meters	120
Mounting & Accessories					
32	Conduits for AV cables	PVC medium grade conduits for the AV cabling as per site condition	Balco/Precision/TOMS	Meters	300
33	Horizontal Sliding writing board	Horizontal sliding board size: 7200x 1200 mm with wooden pelmet 18mm thick pre laminated particle board, Frame structure with Silver anodised sliding tracks, With Green ceramic writing board surface, Horizontal movement in 1st and 2nd track manually on steel bearings. Provision to fix display within it.	Kores/Alkesign/Godrej	Piece	1
34	Custom Podium	Custom podium with with Wooden Top with provision to install Gooseneck Microphone, tablet monitor, cable cubby and space to store AV equipment with cooling louver. Final drawing shall be approved by end customer as per site condition	Custom	Piece	1
Installation & Programming					
35	Cabling and termination charges	Cabling and termination charges	Custom	Job	1
36	Installation, Commissioning, User Training, Charges	Installation, Commissioning, User Training, Charges	Custom	Job	1

Aman Sodath
20/12/25



Annexure C: Required items for Computer Lab

Sr.No	Item Description	Spec	Approved make	UoM	Qty
Display System					
1	133" Diagonal Motorised screen	Motorised Screen 133", 16:10 aspect ratio, with IR/RS 232 support, with remote and Low voltage contact control	Milan, Draper, Liberty	Piece	1
2	6200 Lumens brightness projector	Light Source: Laser Diode/Phosphor, Panel, :Transparent 3LCD panel, 0.64" Resolution WUXGA(1920 x 1200) or better, Brightness: 6,200 lumens or higher, Light source life in Normal mode:20,000 hours or better, Contrast Ratio (Dynamic):3,000,000:1 or higher Lens Driving: Manual, Lens (Standard) :1.6x Zoom ;Throw Ratio: 1.09~1.77:1 Lens Shift (Manual) Y:±4~0%, H:±7~20% (from the center of the screen) 6 point image correction: Required, HDMI CEC: Required 4K Signal Input support: Yes (Up to 4K/30p), Startup Logo function: Required, Auto Input signal serach: Required Quick start and Quick Off: Yes, Digital Input Terminal :HDMI x 2 (Should support 4K@30Hz & HDCP Compatible, HDMI CEC), HD Base - T IN X 1 Other Inputs: Audio IN X 2, Audio Out x 1, USB X 1 Control Inputs - RS232 X 1, LAN(RJ45), Power Consumption :Not more than 320W in Normal mode	Panasonic/Epson/Barco	Piece	1
3	Ceiling mount for projector	Ceiling Mount for projector with height and tilt adjustment, weight load of 10Kg.	nt/Btech/Chief	Piece	1
4	24" Interactive table top monitor on podium	24" Pen and LCD panel touch Display with adjustable display stand of minimum 15 degree to 70 degree, minimum 2500 lpi coordinate resolution, 1920 x 1080 pixels native resolution, 2048 pressure levels, 1000:1 contrast ratio, Colour depth: 16.7 million, DVI-I input, pen with eraser, pen holder, attachment, pen tether, QSG, IPI, DVI-D cable, DVI-I to VGA Cable, USB cable, AC adapter, power cable	Wacom/ AHA/ Elmo	Piece	1
5	PC on podium with USB C /I5 processor/	Micro form factor PC i5 14 gen, 20threads,16GB DDR5 RAM, Storage 1TB, HDMI, Display output supported USB Type C port and power supply. Driver pack should be available under OEM site. All components and accessories should be 100% factory integrated. Warranty of desktop should be listed in OEM support site. Online support registration based on product serial number should be offered by OEM	As per specification	Piece	1
6	55" 4k UHD Displays	Display with Screen Size:55" diagonal Aspect Ratio:16:9 Resolution:3840*2160(4K UHD),Brightness:500cd/m2,Operating grade:24/7 operation Wireless display function Should be compatible with Windows, Android. IOS and Mac without any external devices. Shall have Speaker:10W*2	LG/Panasonic/Samsung	Piece	2
7	Heavy duty Display wall mount with tilt for 55" displays	Heavy duty tiltable ceiling mount for the display of 39" to 65" with load 65Kg+	Nt/Btech/Chief	Piece	2
Video & Switching system					
8	Cable cubby with two universal power sockets and pass through holes for USB C and HDMI connectivity	Cable cubby with 2Nos universal power socket, 2Nos USB -A charging, with pass thru provision for HDMI/USB C cables	Nt/Extron/Kramer	Piece	1

Aman Sachdev
20/3/25

Annexure C: Required items for Computer Lab

Sr.No	Item Description	Spec	Approved make	UoM	Qty
9	4x2 USB-C/HDMI Switcher	The switcher shall support HDMI 2.0 signal formats with two input HDMI 2.0 (HDCP 2.2 compliant)along with two USB 3.1 USB type B port (3.1 Gen 1, USB 2.0, USB 1.1 compliant.)& two full-featured USB-C 3.1 Gen 1 input ports and two HDMI 2.0 output port. USB-C input connectivity for 4K Video, Audio, Data, and charging via USB-C up to 100W. Provide independent switching of the four input signals and balanced analogue audio output port for stereo audio de-embedding audio signal formats: 7.1 HDMI embedded audio, Dolby TrueHD, and DTS-HD Master Audio 7.1 formats. Standard resolutions and frequencies as specified under HDMI up to 4K UHD @60Hz: RGB 4:4:4. The switcher should be able to store a minimum of 100 EDID resolutions with bi-directional RS-232, Ethernet and GPIO port for control. It should support SSH, SSL, and HTTPS for IT security. It should have an Occupancy sensor connection (with a 24V power supply) The switcher shall support multiple USB 3.1 Gen 1 (Type A) connectivity for any type of USB devices (Camera, speakerphone, touch monitor, USB-HID devices etc.....). The switcher shall have a Separate USB 3.1 Host switching layer for multiple USB hosts and USB devices.	Lightware/Extron/Kramer	Piece	1
10	4 Output Distribution amplifier with extenders	The system shall have minimum 1 HDMI input with HDMI loop thru and minimum 4 twisted pair output and separate audio de embedder. The system shall be controlled via RS 232/IR/LAN. The system shall provide minimum 4 twisted pair HDMI receivers. This HDMI receivers shall be remotely powered. Receiver range minimum 100 mts with resolution supporting 4k/2K @ 60Hz.System shall support advanced EDID management. The above functionality can be achieved with multiple boxes from same approved brand	Lightware/Liberty AV/Extron/Kramer/	Piece	1
11	20x PTZ camera for audience with mount	Camera Should have Minimum 20 X optical zoom & 16X Digital Zoom, Pan :±170° Tilt: +90° / -30° , 1/2.7 inch High quality CMOS sensor, should have 1920x1080@60fps. Camera Should have minimum 59.5 degrees field of view, auto focus, Auto & Manual white balance Interfaces: USB 3.0, HDMI, IP, SDI, Line in, IP and RS232 interfaces should support 255 Presets from IR Remote & RS 232 control Interface. PTZ Management software should be from the same OEM, Should support Live Video Preview Camera Should support firmware upgrade through PTZ Management software. Should support Built in RTMP & RTSP based Live streaming. Camera should have BIS, CE,FCC & RoHS compliance certificates. OEM should have ISO 9001:2015 & 14001:2015 certification OEM Should have Warranty Portal in the website to check the Product warranty status. OEM Should have a dedicated Toll Free Number for technical support. Including wall mount	A&T/Panasonic/Sony/	Piece	1



Annexure C: Required items for Computer Lab

Sr.No	Item Description	Spec	Approved make	UoM	Qty
12	20 x zoom presenter tracking camera	<p>Presenter & Preset Tracking camera with Minimum 20 X optical zoom & 12X Digital Zoom</p> <p>Resolution should have 1920x1080@60fps, 1/2.7 inch High quality CMOS sensor, 59.5° field of view, Pan: ±170° Tilt: +90° / -30° Auto & Manual white balance, Focal length should have f=5.2 - 98.0mm Interface: USB 3.0, HDMI, IP, SDI, Line in, IP and RS232 interfaces with NDI feature Camera should support 255 Presets from IR Remote & RS 232 control Interface</p> <p>Tracking setting should be done in IR remote and in PTZ management software Should support Minimum 4 Zones for preset tracking. Preset tracking mode should support automatic switch over from one preset to others. Presenter tracking should support tracking of presenter where ever they move. Should support Tilt motion on presenter mode. Should support Built in RTMP & RTSP based Live streaming Camera should have BIS, CE, FCC & RoHS compliance certificates. OEM should have ISO 9001:2015 & 14001:2015 certification. OEM Should have a dedicated Toll Free Number for technical support. With ceiling Mount</p>	A&T/ Panasonic/ Sony/	Piece	1
13	Camera mixer	<p>Supply, Installation, testing & Commissioning of Dual USB + HDMI Input Video Mixer with USB3.0 + HDMI Capture Output with Should have minimum of 2x USB Video (Camera) Inputs (minimum of USB 2.0), Should have minimum of 1x HDMI Video Camera / Content Input All USB & HDMI Inputs Should support 1080p on each camera / Content input. Should have parallel HDMI & USB3.0 Output x 1 number each should support 1080 P resolution. Should have a mixer output directly into a single USB 3.0 interface. Should support PTZ control of Camera connected in Input over output USB 3.0 directly. Should be able to select all 3 inputs in individual layout mode or able to Select Picture-In-Picture; Picture by Picture & 1 Big Picture (covering more than 70%) along with another video input. Should also be able to toggle Inputs while in Layouts both from Front panel & also Control Interface. Should have Audio Input usable for Microphone / Content & mixed with Video & provided mixing on to Video Output on USB / HDMI. Should also have Audio Output for HDMI audio de-embedding. Should have Control interface: LAN, RS-232, USB which gives flexibility to control from 3rd party control systems. Should have front keypad for selection of layout. Should have HDMI output for preview along with Parallel selection of Layout. Should have a Line level stereo audio support. Should also have minimum of 2 x USB 3.0 expansion ports that can be accepting any USB accessories like Microphone or Speaker or Audio DSP & should be able to provide mixing of Video & Audio on Single USB3.0 Output that can be given to UC Codec application Device. Should be compatible with Windows, Mac OS X and Linux with no need of any Drivers & no need of major Setup. Individual Input, Picture-in-Picture & Picture-by-Picture Layouts selection options.</p>	Inogeni/DataVideo/Blackmagic	Piece	1



Annexure C: Required items for Computer Lab

Sr.No	Item Description	Spec	Approved make	UoM	Qty
14	USB Camera and device extender set	USB2.0 Extender Set support Upto 100m/330ft Should be a high-speed USB 2.0 connections of up to 100 m/330 ft. over a single CAT 5e/6/7 cable. Should support USB speed of USB 2.0: up to 480 Mbps & USB 1.1: up to 12 Mbps. Should have 1x USB Type B receptacle on Host side Should have 1x USB Type A receptacle on Device side Should have 1x RJ45 link connector Should come with a Power supply and should have power provisions in both the Host & Device side Should work with all major operating systems, including Windows, macOS, and Linux. Should provide plug-and-play convenience with no software drivers required.	Inogeni/Liberty AV/Icron	Piece	2
Audio system					
15	18" Gooseneck mic on podium	Supply of 450mm Gooseneck microphone with a programmable microphone button (Toggle on/ off, PTM, PTT, and permanent on) and a bi-color LED ring for status indication. 450mm length, condenser capsule with cardioid pickup pattern, Frequency response: 50 Hz - 20 kHz, Maximum sound pressure level: 130 dB SPL, Connectivity: XLR 3M: it should have TTL-logic output for camera control feature.	Sennheiser/AKG/Shure	Piece	1
16	Wireless Lapel mic system	Supply of Digital Wireless UHF lapel microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100 meter transmission range. It should have omni-directional pick-up pattern, Sound pressure level (SPL) : 130 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through ios / Android applications via bluetooth. It should have 12 hours of operation life and more.	Sennheiser/AKG/Shure	Piece	1
17	Handheld wireless microphone system	Supply of Digital Wireless UHF handheld microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine-tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have a minimum 100 meter transmission range. It should have a Cardioid pick-up pattern, Sound pressure level (SPL) : 150 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through ios / Android applications via bluetooth. It should have 12 hours of operation life and more.	Sennheiser/AKG/Shure	Piece	1
18	Wireless Charging Set	Supply of Charging set with USB charger and 2 rechargeable battery packs for handheld and bodypack transmitter. It should charge 100% battery power in max. 3 hours charging time. Maximum operating time of 12 hours. Stackable and charging is through USB-C.	Sennheiser/AKG/Shure	Piece	1
19	Digital Signal Processor	Supply of Digital Audio Processor with minimum 8 input & 8 Output , Built-in bi-directional USB Audio Interface for soft codec conferencing solution supports recording & play. DSP audio processing, built-in automatic mixing console, Ducker dodger, optional feedback elimination, echo elimination, noise elimination module. Input Per Channel: Preamplifier, signal generator, expander, compressor, 10-band parametric equalization. Output Per channel: 31-band graphic equalizer, delay, crossover, limiter. Built-in automatic camera tracking function. SAMPLING RATE 48KHz, Phantom Power 48V, Frequency Response 20Hz -20 KHz	Symmetrix/Erthpot /Bose professional	Piece	1

Anwar Sadath
20/3/25

Annexure C: Required items for Computer Lab

Sr.No	Item Description	Spec	Approved make	UoM	Qty
20	Wall speakers	Supply of 2 way column speaker with minimum 8 x 3 inch or better, LF & Min 8, 1 inch or better HF, Frequency response 180 Hz to 20 kHz (+/-3 dB), Frequency range 140 Hz to 25 kHz (-10 dB), Continuous power handling 200 W, Support Both low impedance (4 Ohm) and high voltage (100V) connectivity. With mounts as per site conditions	Sonodyne / Tannoy /Bose Professional	Piece	4
21	Amplifier	Supply of 4 channel, Class AB / Class D amplifier that delivers 600 watt / channel at 4 Ohm, , Signal to noise ratio (20Hz to 20kHz) 105dB, Frequency response 20Hz to 20kHz, ±0.5dB, Damping factor 280	Labgroupen /Sonodyne /Bose Professional	Piece	1
Control System					
22	Controller Button panel	The Button Panel shall have Integrated keypad with 11 backlit, programmable buttons with rotary knob. The Programmable buttons shall be able to work according to the actual functions as momentary, toggle or radio (group function) buttons. With programmable back light effect / patterns like pulsating, blinking fast. The Button Panel shall have a Programmable Rotary Knob which can be customized for multiple options like Volume/Screen/Brightness Control or Room Lights Dimming features. It should support Power over Ethernet (PoE) via Ethernet port (IEEE802.3af) with network time protocol. The Button Panel should have two Ethernet connectivity ports with PoE reception, bi-directional RS-232 control port, with GPIO port with three connections for control It should support a real time automated scheduling of multiple control actions. A graphical user interface (GUI) must be provided for management of conditions and actions, without having to do any programming.	Lightware,Extron,Crestron	Piece	1
23	10 Port PoE network switch	Network switch with 10 Nos 1 G port and 2Nos SFP port, PoE Ports 8 Nos, 125W POE Budget, Should Support : Dante, Q-SYS, AES67 and AVB audio, IGMP snooping (v1, v2 and v3),Jumbo frame support :12 K	Netgear, Cisco, Juniper, HP	Piece	1
Bulk & Patch Cable - On Actuals					
24	HDMI (M) to HDMI (M), 6 ft (2m)	HDMI 2.0 cable ,Supports UHD resolutions up to 4096x2160@60Hz with 24K gold plated connectors , Length 2 mts	Lindy/Liberty AV AV/Extron	Piece	10
25	HDMI (M) to HDMI (M), 15 ft (5m)	HDMI 2.0 cable ,Supports UHD resolutions up to 4096x2160@60Hz with 24K gold plated connectors , Length 5 mts	Lindy/Liberty AV AV/Extron	Piece	3
26	HDMI to DVI Cable 6ft	HDMI- DVI cable , 1920x1200@60Hz , 2mts length, Conductor Material: Tinned Copper	Lindy/Liberty AV AV/Extron	Piece	1
27	USB 3.2 USB-C(M) to USB-C(M), 6 ft	USB 3.2 Gen Type C cable, Supported Bandwidth: 20Gbps Maximum Resolution: 4K 4096x2160@60Hz;Max. Power: 100W, Cable length 2 mts	Lindy/Liberty AV AV/Extron	Piece	3
28	USB 2.0 A (M) to B (M) Cable, 6ft	USB 2.0 Type A Male to type B male cable ,6ft length	Lindy/Liberty AV AV/Extron	Piece	9
29	USB 3.0 A (M) to A (M) Cable, 6ft	USB 3.2 Gen 1 Type A to A cable,Supported Bandwidth: 5Gbps	Lindy/Liberty AV AV/Extron	Piece	9
30	USB 3.0 A (M) to A (M) Cable, 6ft	USB 3.2 Gen 1 Type A to A cable,Supported Bandwidth: 5Gbps	Lindy/Liberty AV AV/Extron	Piece	8

Ammon Badoeth
20/5/25

Annexure C: Required items for Computer Lab

Sr.No	Item Description	Spec	Approved make	UoM	Qty
31	Speaker Cable	2 Conductor 14AWG (42x30) Tinned Copper, PVC Insulation, PVC Outer Jacket, 600 V (CL3), 90°C temperature, bend radius 3.6 in (91 mm)	Belden/Proel/Extron	Meters	100
32	Microphone Cable	Supply of 2 conductor Microphone cable, CM-Rated, 1-24 AWG stranded high-conductivity bare copper pair with PVC insulation,	Belden/Proel/Extron	Meters	80
33	Audio Stereo / Control Cable	Audio / Control Cable, 2 pair, 22 AWG stranded, tinned copper conductors, polypropylene insulation, twisted pairs, individually shielded with 24 AWG stranded tinned copper drain wire and PVC jacket	Belden/Proel/Extron	Meters	50
34	STP Cable	SITC of Category 6 STP Solid cable Conductor: 23 AWG(0.583 ±0.007mm), Multi-cores (Solid), Conductor Metal: Bare Copper Insulation Material: HD-PE OD: 1.12 ±0.05mm Average Thickness: 0.26 mm Outside-Tape Metal: MYLAR Overlap Rate: 25% Drain Wire: 24 AWG(0.500 ±0.007mm) Jacket hardness: 45P (90A ± 2A, Shore)	Belden/Proel/Extron	Meters	120
35	Conduits for AV cables	PVC medium grade conduits for the AV cabling as per site condition	Balco/Precision/TOMS	Meters	170
36	Writing Board (Magnetic)	Green ceramic board size : 4ft X 10.33ft Scratch resistant green ceramic surface. Double sided curved anodised aluminium frame. Metal chroma bracket for flush fitment. Integrated duster holder	Kores/Alkosisgn/Godrej	Piece	1
37	Custom Podium with Wooden Top with provision to install Gooseneck Microphone, tablet monitor, and space to store AV equipment.	Custom podium with provision for placing Tablet monitor, gooseneck mic, AV devices with necessary louver for air ventilation.	Custom	Piece	1
Installation & Programming					
38	Cabling and termination charges	Cabling and termination charges	Custom	Job	1
39	Installation, Commissioning, User Training, Charges	Installation, Commissioning, User Training, Charges	Custom	Job	1



Amrinder Singh
20/12/2023

Annexure D: Required items for Conference Room (2 Nos)

Sr.No	Item Description	Spec	Approved Make	UoM	Qty
Display System					
1	123" diagonal, motorized Screen	Motorised Screen 123, 16:10 aspect ratio, with IR Support, with remote and Low voltage control	Milan, Draper, Liberty	Piece	2
2	4200 Lumens brightness projector with WUXGA (1920 x 1200) Resolution	Light Source: Laser Diode/Phosphor, Panel: Transparent 3LCD panel, 0.64" Resolution WUXGA(1920 x 1200) or better, Brightness: 4,200 lumens or higher, Light source life in Normal mode:20,000 hours or better, Contrast Ratio (Dynamic):3,000,000:1 or higher, Lens Driving: Manual, Lens (Standard):1.2x Zoom or better, Throw Ratio: 1.36-1.64:1, Lens Shift (Maxnual) V:-/-25%, H:-/-35% (from the center of the screen), 6 point image correction: Required, HDMI CEC: Required 4K Signal Input support: Yes (Up to 4K/30p), Startup Logo function: Required, Auto Input signal search: Required, Auto screen image rotation: required, Quick start and Quick Off: Yes, Digital Input Terminal :HDMI x 2 (Should support 4K@30Hz & HDCP Compatible, HDMI CEC), Other Inputs: Audio IN X 2, Audio Out x 1, USB X 1 Control Inputs - RS232 X 1, LAN(RJ45), Power Consumption :Not more than 240W in Normal mode	Panasonic/Epson/Barco	Piece	2
3	Ceiling mount for projector	Ceiling Mount for projector with height and tilt adjustment, weight load of 10Kg.	nt/Btech/Chief	Piece	2
4	PC with USB C /i5 processor/	Micro form factor PC i5 14 gen, 20threads,16GB DDR5 RAM, Storage 1TB, HDMI, Display output supported USB Type C port and power supply, Driver pack should be available under OEM site. All components and accessories should be 100% factory integrated. Warranty of desktop should be listed in OEM support site. Online support registration based on product serial number should be offered by OEM	As per specification	Piece	2
Video & Switching system					
5	Cable cubby with two universal power sockets and pass through holes for USB C and HDMI connectivity	Cable cubby with 2Nos universal power socket, 2Nos USB -A charging, with pass thru provision for HDMI/USB C cables	Nt/Extron/Kramer	Piece	4
6	4x3 USB-C/HDMI Switcher	The switcher shall support HDMI 2.0 signal formats. It should have two HDMI 2.0 along with USB 2.0 USB type B port and one full featured USB-C 3.1 Gen 1 input ports, and one Cat transmitter output port for HDMI2.0 & USB2.0 and one analog audio output port. It should support USB-C input connectivity for 4K Video, Audio, Data, and Power over a single USB-C connection. It should support charging via USB-C up to 100W. The switcher should provide independent switching of input signals. The switcher shall support the following signal formats: 7.1 HDMI embedded audio, Dolby TrueHD, and DTS-HD Master Audio 7.1 formats. The switcher shall be USB 2.0, and USB 1.1 compliant. The switcher shall be HDCP 2.2 compliant. Supports the HDMI content with HDCP encryption. The switcher supports video content and all standard resolutions and frequencies such as specified under HDMI up to 4K UHD 60Hz RGB 4:4:4. The switcher shall provide adjustable volume on the analog output port. The switcher shall support EDID management for customizable EDID tables. The switcher should be able to store a minimum of 100 EDID resolutions. The switcher shall provide the ability to import and export EDID and preset files from/to a PC. PC software shall provide custom EDID creation. The switcher shall provide a bi-directional RS-232, Ethernet, and GPIO port for control. The switcher shall have multiple Ethernet network configurations fitting various corporations network topologies and IT	Lightware/Extron/Kramer	Piece	2



Amman Sadeh
20/3/25

Annexure D: Required items for Conference Room (2 Nos)

Sr.No	Item Description	Spec	Approved Make	UoM	Qty
		security standards. It should support SSH, SSL, and HTTPS for IT security. It should have an Occupancy sensor connection (with a 24V power supply). The switcher shall support multiple USB 2.0 (Type A) connectivity for any type of USB device (Camera, speakerphone, touch monitor, USB-HID devices, etc....). The switcher shall have a Separate USB 2.0 Host switching layer for multiple USB hosts and USB devices. It should have a Smart & noiseless cooling system (less than 30dBA noise level). The receiver should be able to receive 4K UHD 60Hz RGB 4:4:4 up to 100 meters or better. The Receiver shall support multiple USB 2.0 (Type A) connectivity for any type of USB device (Camera, speakerphone, touch monitor, USB-HID devices, etc....). The Receiver shall provide a bi-directional RS-232, Ethernet, and OCS port for control.			
7	4K PTZ camera 12 X Camera with auto framing	Camera Resolution should support 3840x2160@30fps, should have 1/2.7 inch High quality 8MP CMOS sensor. Minimum 12 X optical zoom Should have minimum 72 or above of Horizontal field of view, Pan :±170° Tilt: +90° / -30°, auto focus facility, Auto & Manual white balance Interface: USB 3.0 Type C, HDMI, IP, Line in and RS232 interfaces (4K 30fps through USB3.0 & HDMI) Support 255 Presets from IR Remote & RS 232 control interface with AI Auto framing, AI Tracking & Gesture control. Camera should be Turn ON from USB Type C cable to connect PC without any power connection. PTZ Management software Should support Live Video Preview with firmware upgradation. Should support Built in RTMP & RTSP based Live streaming. Camera should have BIS, CE,FCC & RoHS compliance certificates.	A&T/ Panasonic/ Sony/	Piece	2
8	Speakerphone	Speakerphone should support wireless & Wired connectivity with bluetooth V5.3 or more. First Speakerphone should support wireless Dongle based connectivity and other speakerphones should connect through USB cable as cascade concept. Speakerphone sound output level should be 90dB or more with frequency response should be 100Hz - 20KHz and SNR value should be >80dB. Speakerphone should have 8 Built in Microphones to cover entire 360 Degree, Mic pickup range should be 5m or more radius coverage. Microphone frequency should be 100Hz to 16KHz. Speakerphone should have 8W Speaker. Speakerphone should support AI noise reduction, AI echo cancellation, and AI Automatic Gain Control (AGC) for powerful noise reduction, speakerphone should works with AI algorithm. Speakerphone should have Buttons for Answer/End Call, Microphone, Volume+ Volume-, Bluetooth. Maximum 8 Speakerphones should be able to connect to through USB Type C Cable to USB Type C cable as cascade method. OEM should have ISO 9001:2015 & 14001:2015 certification	A&T/ Poly/Plantronics	Piece	4
9	USB Camera and device extender set	USB2.0 Extender Set support Upto 100m/330ft Should be a high-speed USB 2.0 connections of up to 100 m/330 ft. over a single CAT 5e/6/7 cable. Should support USB speed of USB 2.0: up to 480 Mbps & USB 1.1: up to 12 Mbps, Should have 1x USB Type B receptacle on Host side Should have 1x USB Type A receptacle on Device side Should have 1x RJ45 link connector Should comes with a Power supply and should have power provisions in both the Host & Device side Should works with all major operating systems, including Windows, macOS, and Linux. Should provide plug-and-play convenience with no software drivers required.	Inogeni/Liberty AV/Icron	Piece	2

Amman Sadath
20/8/25



Control System				
10	Controller Button panel	<p>The Button Panel shall have Integrated keypad with 11 backlit, programmable buttons with rotary knob. The Programmable buttons shall be able to work according to the actual functions as momentary, toggle or radio (group function) buttons. With programmable back light effect / patterns like pulsating, blinking fast. The Button Panel shall have a Programmable Rotary Knob which can be customized for multiple options like Volume/Screen/Brightness Control or Room Lights Dimming features. It should support Power over Ethernet (PoE) via Ethernet port (IEEE802.3af) with network time protocol.</p> <p>The Button Panel should have two Ethernet connectivity ports with PoE reception, bi-directional RS-232 control port, with GPIO port with three connections for control. It should support a real time automated scheduling of multiple control actions. A graphical user interface (GUI) must be provided for management of conditions and actions, without having to do any programming.</p>	Lightware, Extron, Creston	Piece 2
11	10 Port PoE network switch	Network switch with 10 Nos 1 G port and 2Nos SFP port, PoE Ports 8 Nos, 125W POE Budget, Should Support : Dante, Q-SYS, AES67 and AVB audio	Netgear, Cisco, Juniper, HP	Piece 2
Bulk & Patch Cable - On Actuals				
12	HDMI (M) to HDMI (M), 6 ft (2m)	HDMI 2.0 cable, Supports UHD resolutions up to 4096 x 2160@60Hz with 24K gold plated connectors, Length 2 mts	Lindy/Liberty AV AV/Extron	Piece 4
13	HDMI (M) to HDMI (M), 15 ft (5m)	HDMI 2.0 cable, Supports UHD resolutions up to 4096 x 2160@60Hz with 24K gold plated connectors, Length 5 mts	Lindy/Liberty AV AV/Extron	Piece 6
14	USB 3.2 USB-C(M) to USB-C(M), 15 ft	USB 3.2 Gen Type C cable, Supported Bandwidth: 20Gbps Maximum Resolution: 4K 4096x2160@60Hz; Max. Power: 100W, Cable length 5mts	Lindy/Liberty AV AV/Extron	Piece 4
15	USB 3.2 USB-C(M) to USB-C(M), 6 ft	USB 3.2 Gen Type C cable, Supported Bandwidth: 20Gbps Maximum Resolution: 4K 4096x2160@60Hz; Max. Power: 100W, Cable length 2 mts	Lindy/Liberty AV AV/Extron	Piece 6
16	Audio Stereo / Control Cable	Audio / Control Cable, 2 pair, 22 AWG stranded, tinned copper conductors, polypropylene insulation, twisted pairs, individually shielded with 24 AWG stranded tinned copper drain wire and PVC jacket	Belden/Proel/Extron	Meters 60
17	STP Cable	SITC of Category 6 STP Solid cable Conductor: 23 AWG(0.583 ±0.007mm), Multi-cores (Solid), Conductor Metal: Bare Copper Insulation Material: HD-PE OD: 1.12 ±0.05mm Average Thickness: 0.26 mm Outside-Tape Metal: MYLAR Overlap Rate: 25% Drain Wire: 24 AWG(0.500 ±0.007mm) Jacket hardness: 45P (90A ± 2A, Shore)	Belden/Proel/Extron	Meters 60
18	Conduits for AV cables	PVC medium grade conduits for the AV cabling as per site condition	Balco/Precision/TOMS	Meters 100

Amor Sadath
20/3/25



19	Conference table 18 Seater	Conference table 18 seater capacity dimension of 6000mm Length x 1500mm width x 740mm Ht +/-3mm with work top made of 25mm thick pre laminated twin board of E1-P2 Grade and approved shade confirm to IS-12823 :1990, Edge banded with 2 mm thick PVC lipping- Access panel with soft closing hinges. Under structure :consist of mixture of 18mm, 25mm pre laminated twin board of E1-E2 approved shade confirm to IS-12823 :1990, Edge banded with 2 mm thick PVC lipping, Anodized aluminium alloy 63400- WP profile is added at bottom edges for improving the aesthetics. Product should be knock down construction. Wire management for Audio visual provisions with bottom cabinet with door is provided for Audio video equipment storage and cable routing, cut out provision below access flap at four location for HDMI, USB cable and electrical provisions	Godrej/Steelcase/Herman Miller	Piece	2
20	Writing Board (Magnetic)	Green ceramic board size: 4ft X 11ft Scratch resistant green ceramic surface. Double sided curved anodised aluminium frame. Metal chroma bracket for flush fitment. Integrated duster holder	Kores/Alkosisgn/Godrej	Piece	2
Installation & Programming					
21	Cabling and termination charges	Cabling and termination charges	Custom	Job	2
22	Installation, Commissioning , User Training, Charges	Installation, Commissioning, User Training, Charges	Custom	Job	1



Annexure E: Required items for Common Area

Sr.No	Item Description	Spec	Approved Make	UoM	Qty
Display System					
1	4200 Lumens brightness projector with WUXGA (1920 x 1200) Resolution	Light Source: Laser Diode/Phosphor, Panel, :Transparent 3LCD panel, 0.64" Resolution WUXGA(1920 x 1200) or better, Brightness: 4,200 lumens or higher, Light source life in Normal mode:20,000 hours or better, Contrast Ratio (Dynamic):3,000,000:1 or Higher. Lens Driving: Manual, Lens (Standard) :1.2x Zoom or better ;Throw Ratio: 1.36-1.64:1. Lens Shift (Manual) V-/+25%, H-/+35% (from the center of the screen). 6 point image correction: Required, HDMI CEC: Required 4K Signal Input support:Yes (Up to 4K/30p), Startup Logo function: Required, Auto Input signal search: Required, Auto screen image rotation: required. Quick start and Quick Off: Yes, Digital Input Terminal :HDMI x 2 (Should support 4K@30Hz & HDCP Compatible, HDMI CEC), Other Inputs: Audio IN X 2, Audio Out x 1, USB X 1 Control Inputs - RS232 X 1, LAN(RJ45), Power Consumption :Not more than 240W in Normal mode	Panasonic/Epson/Barco	Piece	1
2	Ceiling mount for projector	Ceiling Mount for projector with height and tilt adjustment, weight load of 10kg.	nt/Btech/Chief	Piece	1
Video & Switching system					
3	HDMI wall plate extender set	HDMI extender set with Transmitter in wall plate form factor with HDMI female connector and USB 2.0 type B female connector supports resolution to 3840 x 2160 @ 60Hz, HDCP 2.2 compliant. This HDMI receivers shall be remotely powered. Receiver with range of 40 meters supports resolution 4K@60Hz. With analog audio output port with Stereo connector. Should have RS 232 port. Receiver shall support multiple USB 2.0 (Type A) connectivity for any type of USB device (Camera, speakerphone, USB-HID devices, etc....)	Lightware/Liberty AV /Extron/Kramer	Piece	1
4	Writing Board (Magnetic)	Green ceramic board size : 4ft X 11ft Scratch resistant green ceramic surface. Double sided curved anodised aluminium frame. Metal chroma bracket for flush fitment. Integrated duster holder	Kores/Alkosisign/Godrej	Piece	2
Bulk & Patch Cable - On Actuals					
5	HDMI (M) to HDMI (M), 6 ft (2m)	HDMI 2.0 cable, Supports UHD resolutions up to 4096x2160@60Hz with 24K gold plated connectors, Length 2 mts	Lindy/Liberty AV AV/Extron	Piece	2
6	HDMI (M) to HDMI (M), 15 ft (5m)	HDMI 2.0 cable, Supports UHD resolutions up to 4096x2160@60Hz with 24K gold plated connectors, Length 5 mts	Lindy/Liberty AV AV/Extron	Piece	1
7	STP Cable	SITC of Category 6 STP Solid cable Conductor: 23 AWG (0.583 ±0.007mm), Multi-cores (Solid), Conductor Metal: Bare Copper Insulation Material: HD-PE OD: 1.12 ±0.05mm Average Thickness: 0.26 mm Outside-Tape Metal: MYLAR Overlap Rate: 25% Drain Wire: 24 AWG (0.500 ±0.007mm) Jacket hardness: 45P (90A ± 2A, Shore)	Belden/Proel/Extron	Meters	40
8	Conduits for AV cables	PVC medium grade conduits for the AV cabling as per site condition	Balco/Precision/TOMS	Meters	20
Installation & Programming					
9	Cabling and termination charges	Cabling and termination charges	Custom	Job	1
10	Installation, Commissioning, User Training, Charges	Installation, Commissioning, User Training, Charges	Custom	Job	1

Aman Dada
20/9/25

ADDITIONAL TERMS AND CONDITIONS

1. The party shall have a fully functional registered office in Kerala for the past 3 years. Registration certificate to be attached.
2. Scope: The Bidder capable of supplying complete items in the BOQ list only need to quote. Splitting up of Bid items not possible. Bidder's offer is liable to be rejected if they don't quote all products mentioned in Bill of Quantity.
3. Bidders shall have CTS (Certified Technology Specialist) certified engineers for AV system installation in Kerala. Certificate copy to be attached.
4. The bidder shall preferably have any of the ISO Certificate, ISO 45001 : 2018 (OHS) , ISO 9001 : 2015 (QMS) , ISO 14001 : 2015 (EMS).
5. The bidder shall provide Manufacturers Authorization with OEM details such as name, designation, address, e-mail Id and Phone No. required to be furnished along with the bid. This has to be submitted in the given format along with Technical bid for Projector, Display, Audio& Video Switchers, Audio Mixers, Microphone, and Camera System.
6. The bidder should provide the Service Escalation Matrix with office set up and Warehouse details in Kerala. Registration Certificate to be submitted as documentary evidence.
7. Bidder should upload Specification/ Catalogues of quoted products.
8. Availability of Service Centre: Bidder/OEM must have a Functional Service Centre in Kerala in case of carry-in warranty. The Bidder/ OEM Should have their dedicated dealer and service network in Trivandrum which will help in quick rectification Service Complaints. The service centre should be equipped with necessary stores for the spares and standby machines. The details and address of the premises to be provided. This will ensure quick and assured after sales service.
9. Unpriced Bill of Material with line item wise Make and Model to be submitted along with Technical compliance.
10. PO Copies of similar work done in the past 4 Years. Out of that 1 PO should be in the past 2 Years. Bidder should have one purchase order worth 50 lakhs in in any Government Department or Government institutions or reputed private institutions. Documentary proof of Purchase / work order to be enclosed with performance certificate from the Government Department OR Government institutions or Reputed private institution.
11. The bidder should have a trained manpower based at Kerala.
12. Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC, Corrigendum if any and based on the technical committee decision.
13. The party shall provide any additional quantity of items listed in BOQ in the same rate as agreed in the purchase order.
14. Project should be completed within 3 months after purchase order is released. In case of failure to comply with the bid will be summerly rejected.
15. Annexures A, B, C, D & E lists the required items with specification. Vendor is required to fill and submit Annexures G, H, I, J and K without which the offer is liable to be rejected.
16. The price bid should indicate price for each line item as given in Annexures A, B, C, D & E.

Amer Sadath
20/3/25



17. The system integrator to produce shop drawings based on the site conditions. The shop drawings to be shared with the clients for approvals.
18. The shop drawings to include all AV design related contents which includes equipment location and placement as per site conditions, cable/conduit routing, electrical sockets and LAN provision, cable connectivity drawings, heat maps for audio system, etc.
19. The system integrator shall share the details with respect to makes and model numbers considered for each line item along with their TDS for review and approval from clients and AV consultants.
20. The system integrator shall include the changes/modifications (if any) in the shop drawings based on client review and the same shall be re-submitted for approval.
21. Any changes/modifications (if any) in the design due to site constraints shall be brought into clients notice by the system integrator and approvals shall be taken from concerned stakeholders.
22. The system integrator to co-ordinate with relevant teams for any design related clarifications.
23. All the above points to be taken into consideration before the start of execution at site level.
24. The system integrator to co-ordinate with IT team for any dependencies.
25. The cable quantities indicated in the BoQ are estimated. System integrator to verify the cable quantities, lengths, etc based on the site conditions and shall quote/charge accordingly (as per nos or running metres).
26. Bidder must have at least 3 years of experience in Supply Installation, testing & commissioning of Audio video in lecture / seminar hall, similar works as mentioned in the tender from the last date of the tender submission date.
27. Statutory documents/ registration to be enclosed PAN, GST etc.
28. The Audio Video System Integrator must have cumulative financial turnover of min Rs. 1 Cr in the last 3 financial year and shall have not incurred any losses in any of the financial years. A self-certification may be provided with documentary proof.
29. Warranty: Minimum 3 years from the date of Installation, commissioning and performance test check for all the components mentioned in the BOQ. The bidder shall provide a declaration in this regard.
30. Training to be provided to Institute personal at free of cost
31. Declaration to be provided mentioning the repair / replacement would be made within 5 working days from the date of report of issue.
32. Optional: AMC: Minimum 3 years from the completion of warranty period
33. Payment: Main Unit: (i) 90% against delivery and (ii) 10% after A) Installation, B) performance test check report, C) submission of bank guarantee 3% covering the warranty period + 3 months
34. Site Visit: The prospective bidder may visit the site for inspection at their own expense with prior approval of the Institute.

Anwar Sadath
20/9/25



Annexure G: Offered items for Classroom

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
Display System					
1	133" Diagonal Tab tensioned Motorised screen			Piece	
2	6200 Lumens brightness projector			Piece	
3	Ceiling mount for projector			Piece	
4	24" Interactive table top monitor on podium			Piece	
5	PC on podium with USB C /i5 processor/			Piece	
Video & Switching system					
6	Cable cubby with two universal power sockets and pass through holes for USB C and HDMI connectivity			Piece	
7	4x3 USB-C/HDMI Switcher with receiver			Piece	
8	20x PTZ camera for audience with mount			Piece	
9	20 x zoom presenter tracking camera			Piece	



Aman Singh
20/3/25

Annexure G: Offered items for Classroom

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
10	Camera mixer			Piece	
11	USB Camera and device extender set			Piece	
Audio system					
12	18" Gooseneck mic on podium			Piece	
13	Wireless Lapel mic system			Piece	
14	Handheld wireless microphone system			Piece	
15	Wireless Charging Set			Piece	
16	Digital Signal Processor			Piece	
17	Wall speakers 60 watts			Piece	
18	Amplifier			Piece	
Control System					
19	Controller Button panel			Piece	

Amman Sadath
20/3/25

Annexure G: Offered items for Classroom

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
20	10 Port PoE network switch			Piece	
Bulk & Patch Cable - On Actuals					
21	HDMI (M) to HDMI (M), 6 ft (2m)			Piece	
22	HDMI (M) to HDMI (M), 15 ft (5m)			Piece	
23	HDMI to DVI Cable 6ft			Piece	
24	HDMI (M) to HDMI (M), (10m)			Piece	
25	USB 3.2 USB-C(M) to USB-C(M), 6 ft			Piece	
26	USB 2.0 A (M) to B (M) Cable, 6ft			Piece	
27	USB 3.0 A (M) to B (M) Cable, 6ft			Piece	
28	USB 3.0 A (M) to A (M) Cable, 6ft			Piece	
29	Speaker Cable			Meters	



Amresh Kumar Singh
22/12/25

Annexure G: Offered items for Classroom

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
30	Microphone Cable			Meters	
31	Audio Stereo / Control Cable			Meters	
32	STP Cable			Meters	
Mounting & Accessories					
33	Conduits for AV cables			Meters	
34	Writing Board (Magnetic)			Piece	
35	Custom Podium			Piece	

Anwar Badath
20/3/25



Annexure H: Offered items for Seminar Hall

Sr.No	Item Description	Offered Make	Model No./Part No	UoM	Qty
Display System					
1	85" or better 4k UHD Interactive Display			Piece	
2	85" or better 4k UHD Display			Piece	
3	Heavy duty Push pull wall mount			Piece	
4	PC on podium with USB C /I5 processor/			Piece	
Video & Switching system					
5	Cable cubby with two universal power sockets and pass through holes for USB C and HDMI connectivity			Piece	
6	4x3 USB-C/HDMI Switcher with receiver			Piece	
7	20x PTZ camera for audience with mount			Piece	
8	20 x zoom presenter tracking camera			Piece	
9	Camera mixer			Piece	



Amor Sadath
20/3/25

Annexure H: Offered items for Seminar Hall

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
10	USB Camera and device extender set			Piece	
Audio system					
11	18" Gooseneck mic on podium			Piece	
12	Wireless Lapel mic system			Piece	
13	Handheld wireless microphone system			Piece	
14	Wireless Charging Set			Piece	
15	Digital Signal Processor			Piece	
16	Wall speakers 60 watts			Piece	
17	Amplifier			Piece	
Control System					
18	Controller Button panel			Piece	



Amresh Singh
20/12/15

Annexure H: Offered items for Seminar Hall

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
19	10 Port PoE network switch			Piece	
Bulk & Patch Cable - On Actuals					
20	HDMI (M) to HDMI (M), 6 ft (2m)			Piece	
21	HDMI (M) to HDMI (M), 15 ft (5m)			Piece	
22	HDMI to DVI Cable 6ft			Piece	
23	HDMI (M) to HDMI (M), (15m)			Piece	
24	USB 3.2 USB-C(M) to USB-C(M), 6 ft			Piece	
25	USB 2.0 A (M) to B (M) Cable, 6ft			Piece	
26	USB 3.0 A (M) to B (M) Cable, 6ft			Piece	
27	USB 3.0 A (M) to A (M) Cable, 6ft			Piece	
28	Speaker Cable			Meters	



Amritha Sathish
20/3/25

Annexure H: Offered items for Seminar Hall

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
29	Microphone Cable			Meters	
30	Audio Stereo / Control Cable			Meters	
31	STP Cable				
Mounting & Accessories					
32	Conduits for AV cables			Meters	
33	Horizontal Sliding writing board			Piece	
34	Custom Podium			Piece	

Amman Soodh
20/11/25



Annexure I: Offered items for Computer Lab

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
Display System					
1	133" Diagonal Motorised screen			Piece	
2	6200 Lumens brightness projector			Piece	
3	Ceiling mount for projector			Piece	
4	24" Interactive table top monitor on podium			Piece	
5	PC on podium with USB C /I5 processor/			Piece	
6	55" 4k UHD Displays			Piece	
7	Heavy duty Display wall mount with tilt for 55" displays			Piece	
Video & Switching system					
8	Cable cubby with two universal power sockets and pass through holes for USB C and HDMI connectivity			Piece	
9	4x2 USB-C/HDMI Switcher			Piece	
10	4 Output Distribution amplifier with extenders			Piece	



Amber Singh
5/13/25

Annexure I: Offered items for Computer Lab

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
11	20x PTZ camera for audience with mount			Piece	
12	20 x zoom presenter tracking camera			Piece	
13	Camera mixer			Piece	
14	USB Camera and device extender set			Piece	
Audio system					
15	18" Gooseneck mic on podium			Piece	
16	Wireless Lapel mic system			Piece	
17	Handheld wireless microphone system			Piece	
18	Wireless Charging Set			Piece	
19	Digital Signal Processor			Piece	
20	Wall speakers			Piece	



Amrasi Sabharwal
20/3/25

Annexure I: Offered items for Computer Lab

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
21	Amplifier			Piece	
Control System					
22	Controller Button panel			Piece	
23	10 Port PoE network switch			Piece	
Bulk & Patch Cable - On Actuals					
24	HDMI (M) to HDMI (M), 6 ft (2m)			Piece	
25	HDMI (M) to HDMI (M), 15 ft (5m)			Piece	
26	HDMI to DVI Cable 6ft			Piece	
27	USB 3.2 USB-C(M) to USB-C(M), 6 ft			Piece	
28	USB 2.0 A (M) to B (M) Cable, 6ft			Piece	
29	USB 3.0 A (M) to A (M) Cable, 6ft			Piece	
30	USB 3.0 A (M) to A (M) Cable, 6ft			Piece	



Aman Sadath
20/3/25

Annexure I: Offered items for Computer Lab

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
31	Speaker Cable			Meters	
32	Microphone Cable			Meters	
33	Audio Stereo / Control Cable			Meters	
34	STP Cable			Meters	
35	Conduits for AV cables			Meters	
36	Writing Board (Magnetic)			Piece	
37	Custom Podium with Wooden Top with provision to install Gooseneck Microphone, tablet monitor, and space to store AV equipment.			Piece	



Amara Gadhokh
20/08/23

Annexure J: Offered items for Conference Room (2 Nos)

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
Display System					
1	123" diagonal, motorized Screen			Piece	
2	4200 Lumens brightness projector with WUXGA (1920 x 1200) Resolution			Piece	
3	Ceiling mount for projector			Piece	
4	PC with USB C /I5 processor/			Piece	
Video & Switching system					
5	Cable cubby with two universal power sockets and pass through holes for USB C and HDMI connectivity			Piece	
6	4x3 USB-C/HDMI Switcher			Piece	
7	4K PTZ camera 12 X Camera with auto framing			Piece	
8	Speakerphone			Piece	
9	USB Camera and device extender set			Piece	
Control System					
10	Controller Button panel			Piece	



Amrta Singh
20/12/23

Annexure J: Offered items for Conference Room (2 Nos)

Sr.No	Item Description	Offered Make	Model No/Part No	UoM	Qty
11	10 Port PoE network switch			Piece	
Bulk & Patch Cable - On Actuals					
12	HDMI (M) to HDMI (M), 6 ft (2m)			Piece	
13	HDMI (M) to HDMI (M), 15 ft (5m)			Piece	
14	USB 3.2 USB-C(M) to USB-C(M), 15 ft			Piece	
15	USB 3.2 USB-C(M) to USB-C(M), 6 ft			Piece	
16	Audio Stereo / Control Cable			Meters	
17	STP Cable			Meters	
18	Conduits for AV cables			Meters	
19	Conference table 18 Seater			Piece	
20	Writing Board (Magnetic)			Piece	



Answer Submits

Annexure K: Offered items for Common Area

Sr.N	Item Description	Offered Make	Model No/Part No	UoM	Qty
Display System					
1	4200 Lumens brightness projector with WUXGA (1920 x 1200) Resolution			Piece	
2	Ceiling mount for projector			Piece	
Video & Switching system					
3	HDMI wall plate extender set			Piece	
4	Writing Board (Magnetic)			Piece	
Bulk & Patch Cable - On Actuals					
5	HDMI (M) to HDMI (M), 6 ft (2m)			Piece	
6	HDMI (M) to HDMI (M), 15 ft (5m)			Piece	
7	STP Cable			Meters	
8	Conduits for AV cables			Meters	

Amrith Sadath
20/3/25

CHECK LIST OF DOCUMENT REQUIRED

<u>Ser</u>	<u>List of documents required</u>	<u>Yes / No</u>
1.	EMD Details	
2.	Brochure/ Catalogue/ Datasheet	
3.	Technical Compliance statement with tender specifications	
4.	BoQ	
5.	Statutory Registration Certificates	
6.	Previous purchase orders (if any)	
7.	Tender document duly signed on all pages along with bidders seal.	
8.	Integrity pact as per annexure 4 duly signed	
9.	Tender Acceptance Letter as per annexure 7	
10	Self-certification regarding local content as per Annexure 8	
11	Declaration for non-blacklisted firm as per Annexure 9	
12	Declaration of border sharing as per Annexure 10	
13	Other documents pertaining to technical aspects	
14	Any other document as provided in technical specifications	

