

RefNo: ICTS/TIFR/RFQ/IT/04/2019-20

Date: 21/05/2019

**ENQUIRY****Subject: Enquiry for the Supply and Installation of Professional AV Devices (Video) for classrooms**

Please let us have your Quotation for the following:

| Sr. No. | Description  | Qty. | UOM |
|---------|--|------|-----|
| 1       | <b>Supply and Installation of Professional AV Devices (Video) for classrooms</b><br>(Details as mentioned below)<br><br><b>NOTE: For further details please contact, email: <a href="mailto:purchase@icts.res.in">purchase@icts.res.in</a></b> | 1    | JOB |

Approximate cost : Rs. 20.00 Lakhs  
Pre Bid meeting : Friday 07th June, 2019 at 14:30 hrs.  
Due date for submission : Thursday 13th June, 2019 till 15:00 hrs.  
Date of opening tender : Thursday 13th June, 2019 at 15:30 hrs.

**Important Instruction:** The bids shall be enclosed in an envelope and sealed duly marked “Tender for Supply and Installation of Supply and Installation of Professional AV Devices (Video) for classrooms at ICTS Campus,” Ref No. **ICTS/TIFR/RFQ/IT/04/2019-20** and addressed and to be mailed to “Administrative Officer” at the address given below. The bids are liable to be rejected if the sealed envelope is not addressed to “Administrative Officer” with Tender Ref No. and Item Description. Offers delivered in person shall be deposited in the Tender Box kept in the Office. If the bids are sent through courier or mail, it should reach by submission Date and Time and ICTS will not be responsible for any delay.

**Important Instruction for the bidders:-**

**Pre-Bid Meeting: For information / technical details / clarifications required by the bidders, a Pre-Bid meeting will be held on 07/06/2019 @ 14.30 hrs at ICTS and interested bidders are requested to attend the same.**

- All queries related to tender should be emailed to [purchase@icts.res.in](mailto:purchase@icts.res.in)
- Sealed tenders are invited under two bid system from reputed OEM (Original Equipment Manufacturer) / Registered and Licensed Vendors for Job Contract at International Centre for Theoretical Sciences, Tata Institute of Fundamental Research, Survey No. 151, Shivakote, Hesaraghatta Hobli, Bengaluru North - 560 089, India.
- The Technical and Price Bids shall be submitted simultaneously in two cover (sealed) system. The proposals shall be evaluated in two stages: (1) Technical and (2) Price. Technical evaluation will be carried out and price bids of those vendors who are technically qualified only shall be opened and evaluated. The Commercially Lowest Bidder shall be the first preferred Vendor for the Award of Order.
- **Pre bid meeting is scheduled on Friday 07th June 2019 at 2.30 PM at ICTS Campus (Survey No. 151, Shivakote, Hesaraghatta Hobli, Bengaluru - 560 089, India) followed by site visit**

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**Please read carefully - instruction for the bidders and Scope of Work.**

The prospective Vendors should note that high quality of service is the essence of this contract.

- A. Acceptance of Technical specifications, **Annexure- A** and terms and conditions. Tender document to be enclosed with Date, Signature and Seal in every Page.
- B. Complete Technical details should be provided for the Instrument offered (Specifications, Technical Parameters, Advantages, etc.,)
- C. MAF (Manufacturer's Authorization Form) Certificate
- D. Details of Warranty Services.
- E. Copies of the Purchase Orders for having supplied similar Instruments in India. **Annexure – B** – Schedule of Experience of last **5** years.
- F. Schedule of deviation from specifications / conditions – **Annexure C**.
- G. Any other information the bidder would like to provide with Date, Signature and Seal.
- H. **The tenders should be submitted in two sealed covers.**

- a. The **First sealed cover - COVER I** should be superscribed **“Technical Bid”** and should contain Annexures A, B and C duly accepted, signed by authorised signatory with seal
- b. **The cover shall also contain the following documents:**

- 1. Company profile including previous experience. Please attach copies of Work Orders, Completion Certificates, etc.
- 2. Complete tender document including **unpriced financial bid with proposed item make and model** duly sealed and signed.
- 3. MAF (Manufacturer's Authorization Form) Certificate
- 4. Solvency Certificate issued by your banker.
- 5. Copy of valid PAN number issued by the Income-Tax Authority, Registration Certificate of the firm /agency/Company and proof of 5 years' experience.
- 6. The copy of audited financial reports/IT returns of the bidder for the financial years 2017-18, 2016-17 and 2015-16 indicating the annual sales turnover required for eligibility criteria.
- 7. Duly filled technical bid with proper seal and signature of the authorized person (with name, designation & contact no.)
- 8. An authority letter issued by the competent authority authorizing the signatory to sign on behalf of the bidder.
- 9. Supplier must describe in detail the technical support they will be able to provide in Bangalore. Only those companies will be considered who have engineers based in Bangalore, who have been trained on the machines being quoted for, prior to the date of installation.
- 10. The bidder is to submit a CD/DVD containing all the technical specifications of the quoted equipment (to be submitted off-line, before the last date and time of submission)

- c. The **Second sealed cover - COVER II** superscribed 'Price Bid' should contain **Annexure D**.

THE ABOVE MENTIONED TWO COVERS i.e., COVER-I & COVER-II SHALL BE SEALED INDIVIDUALLY. THESE TWO COVERS SHALL BE AGAIN PUT INTO A SINGLE SEALED COVER superscribed **“Tender for Supply and Installation of Professional AV Devices (Audio) at ICTS Campus”**. This should be addressed to Administrative Officer, International Centre for Theoretical Sciences, Tata Institute of Fundamental Research, S No. 151, Shivakote, Hessarghatta, Bangalore – North – 560 089. **The bid should be submitted before 15.00 Hrs on 13/06/2019. The Technical bids will be opened on 13/06/2019 at 15.30 hours.**

On the date of tender opening (i.e. on 13/06/2019), the bids shall be opened in the presence of attending bidders. Since TIFR is a Deemed University and an Educational Institute, please consider us for the necessary educational discount if any.

**Due Date for submitting your offer is 13/06/2019 (15.00 hrs)**

### **I. Preamble:**

To augment the institute's information technology (IT) and Audio-Visual (AV) infrastructure we are floating this limited tender. This limited tender is for Supply and Installation of Professional AV Devices (Video) at ICTS campus, Shivakote, Bangalore – 560089.

### **II. Pre-qualification for bidder**

Mandatory requirements for a bidder to qualify as a participant in this tender:

- a) The bidder should have executed at least 2 projects using architecture and technologies similar to those being proposed in their quotation against this tender. In addition, the following condition should also be satisfied.
  1. At least one order of 80% of tender value or
  2. At least two orders of 60% of tender value or
  3. At least three orders of 40% of tender value

Purchase order copies of the same must be submitted with the technical bid. The OEM or partner should have successfully executed projects at premier Indian Defence organizations or premier Indian Academic and Research institutions like IISc, TIFR, IISER, IIT, JNCASR or institutions of equivalent stature.

- b) The bidder should organize a technical inspection of similar installations at their clients' site.
- c) The bidder should produce any related documents for inspection for technical evaluation of the bid.
- d) All warranty and support must be serviced directly by the OEM. ICTS requires that there be a SPOC from OEM who is responsible for all issues between ICTS and the OEM.
- e) The bidder should have average annual sales turnover of at least 25 lakhs for the last three financial years.
- f) 3 years' warranty is required for all equipment proposed in the quotation. Warranty for years 4 and 5 are to be submitted as a separate line item.
- g) All quotations submitted must follow the prescribed format for technical compliance as in document below. Failure to do so will result in the quotation being summarily rejected.
- h) Product offered should not have end-of-life (for sales) for next three years.

### **III. Scope of Work:**

#### **1. Scope of Contract**

- 1.1. The following annexures are part of the tender documents under reference:
  - a) Annexure – A – Scope of work
  - b) Annexure – B (1) – Schedule of Experience of last 5 years
  - c) Annexure – B (2) – Annual Turnover
  - d) Annexure – C – Schedule of Deviations from specifications / conditions
  - e) Annexure – D - COVER – II - Price Bid - Option 1 & Option 2

**The Tenderer shall fill in Annexures B, C & D completely and submit them along with their bids. All details and columns shall be filled, and if a particular column(s) in any annexure(s) does/do not apply, it may be indicated by saying why it is not filled (for e.g. 'no deviation', not applicable, not relevant, etc.) – leaving blank columns or a bare hyphenation will disqualify the bidders.**

- 1.2. Once the Purchase order is issued, the Vendor will receive instructions from an Officer designated for this purpose (Officer-in-charge) or his authorized nominee and the Vendor thereby undertakes to abide by his/her suggestions/instructions, etc. as regards services in this agreement.

- 1.3. Addition/alterations in scope of work: Any alteration or addition to the scope of work will be communicated to the Vendor and the Vendor shall carry them out. For any reduction / increase in the Scope of work, the increase/decrease in the rates shall be negotiated and finalised simultaneously.

## 2. Quality and Scope of Services

- 2.1. It is normally understood and agreed between both the parties that the Centre will not be responsible or be liable for any laws that are in force/that may come into force from time to time in respect of personnel engaged by the Vendor and the Vendor alone will be solely responsible for the terms and conditions of their services, safety, health, statutory requirement, etc.
- 2.2. The successful Vendor shall indemnify/deemed to have indemnified the Centre for all claims/losses arising out of this tender. The Vendor is deemed to have indemnified the Centre against any claim by any authority once the work order is awarded. In the event the Centre has to pay any individual, statutory body or any agency for reasons directly or indirectly attributable to this tender, the Vendor only shall pay such claim/damages and even if the Centre is called upon to pay, such damages/penalties and or cost shall be recovered from the Vendor's dues/amount payable or shall be paid by the Vendor on a demand from ICTS.
- 2.3. The Vendor shall follow all rules as may be existing or may be framed from time to time at ICTS on all aspects covering this tender. Material movement, entry/exit of personnel, identity card, safety, etc. shall be according to procedures existing in ICTS as amended from time to time.

## IV. Terms and conditions of the tender:

1. Quotations must be submitted giving complete details using enclosed tender papers.
2. **The rates quoted shall remain valid for a period of 180 days from the date of opening of Price Bids.**
3. Bidder may quote in USD for better price benefit to ICTS.
4. **Bids in sealed envelopes duly superscribed in bold with the Tender Title, reference No. and due date, addressed to the Administrative Officer, International Centre for Theoretical Sciences, Survey No. 151, Shivakote, Hesaraghatta Hobli, Bengaluru North - 560 089, India. shall be sent by post/courier so as to reach before the prescribed time.**
5. Bids containing erasures or alterations will not be considered, unless countersigned by the authorized signatory.
6. All rates and total amount should be written both in figures and in words and if there is any discrepancy between the two, the lowest amount will only be accepted.
7. Bids which do not comply with the above conditions will be rejected.
8. The Centre shall be under no obligation to accept the lowest or any tender received in response to this tender notice and shall be entitled to reject **any or all** tenders without assigning any reason whatsoever.
9. The Centre reserves the right to split the contract in parts and award them in pieces to the successful bidders or to delete the contract in parts after entering into the contract.
10. No questions or items in the Annexures shall be left blank or unanswered. Where you have no details or answers to be provided a **'No' or 'NIL' or 'Not Applicable'** statement shall be made as appropriate. Forms with blank columns or unsigned forms will be summarily rejected.
11. The Vendor chosen will have to deliver the equipment within 6 weeks of issuance of purchase order and commission them within 2 weeks from the date of delivery.
12. Tenders will be opened in the presence of attending bidders on **13/06/2019 at 15.30 hours**. In the event the due date is declared as holiday, the tender will be opened on the following working day.
13. If the item offered is to be imported, arrangements for import will be made by the bidder. Documents with regard to import duty exemption and customs clearance will be provided by the institute.
14. ICTS reserves the right to place order for part/reduced quantity than what is specified in the tender and also reserve the right to split the order to more than one supplier.
15. Any deviation/substitution in regard to the technical specification must be indicated in Annexure C of this tender document. Otherwise it shall be binding on the bidder to supply the items as specified in this tender specification.

16. Late and delayed tenders will not be considered. Therefore bidders shall ensure that the tender reaches the Purchaser on or before the due date and time stipulated for receipt of bids.

**TENDERS RECEIVED LATE OR AFTER THE DUE DATE WILL NOT BE CONSIDERED. ICTS RESERVES THE RIGHT TO ACCEPT, REJECT ANY OR ALL TENDERS WITHOUT ASSIGNING ANY REASONS THERE OF.**

17. The installation site will be ICTS campus, Shivakote, Bangalore-560089.

18. Individuals signing the bid form and other supporting documents must specify the capacity in which they sign, i.e

- a. Whether signing as a Sole Proprietor of the firm or his attorney.
- b. Whether signing as a partner of the firm or his attorney
- c. Whether signing for the firm as Agent.
- d. Whether signing as Director of a Limited Company.

**19. CATALOGUE/TECHNICAL LITERATURE**

All necessary catalogue/drawing literature/data and details of item/s as are considered to be essential for full and correct evaluation of the bid shall invariably accompany the bid.

**20. BID GUARANTEE / EARNEST MONEY DEPOSIT:-**

Bid Guarantee amount details are as below:-

| Sl. No. | Item Description   | BGA/EMD Amount |
|---------|--|----------------|
| 1.      | Supply and Installation of Professional AV Devices (Video) | Rs. 40,000/-   |

The EMD/BGA shall be submitted by a DD (for outstation firms) or Banker's cheque (in case of local firm) from a Commercial Bank/ Foreign Bank (First class Bank) along with the bid, drawn in favour of "International Centre for Theoretical Sciences, Bangalore". Alternatively, the EMD amount may be submitted by way of Bank Guarantee from a Nationalised/ Scheduled/ Commercial/ Foreign Bank (First class Bank) valid for 6 months (no other mode of payment will be accepted). The BGA amount will be forfeited if the successful bidder fails to accept the Letter of Intent/ Purchase order or withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender. The offers are liable to be rejected, at the discretion of the Centre, if they are not accompanied with EMD/BGA. No interest shall be payable by ICTS for BGA amount. The BGA shall be refunded to the unsuccessful bidders once the order is released on the successful bidder.

**The EMD may be forfeited:**

- a. If the bidder withdraws the bid during the period of bid validity specified in the tender.
- b. In case a successful bidder fails to furnish the Performance Bank Guarantee.
- c. If the bidder fails to furnish the acceptance in writing, within 7-days of award of contract/ order.

**21. AUTHORITY OF AGENTS**

In case where a bid is submitted by an Indian Agent on behalf of his foreign principal, such bid should be supported with a letter of Authority from the principal that the Indian Agent has been authorised to submit the bid on behalf of the principal. The indigenous manufacturers shall submit their bids directly.

**22. PRICE**

The price/s quoted shall be firm till the complete execution of the order. All details relating to price, price breakup, inland transportation, documentation, taxes and duties, levies, Road/AIR/Marine freight charges, delivery terms (ex-works/F.O.R/F.O.B/C.I.F.) mode of payment, mode of Dispatch, Insurance, Agency Commission, if any, should be clearly stated. The bidders must indicate (separately) the price in the following format:

- a) C.I.F. (cost of goods, packing & forwarding, documentation, freight, insurance, etc. all included). However, freight & insurance charges to be indicated separately.

**23. TAXES, DUTIES AND LEVIES**

Please specify all the taxes (State, Central, Turnover tax, Works Contract Tax, etc.) which are applicable. The duties and other levies, freight, insurance shall be stated clearly and separately. Also please mention whether the same is included in the price/s quoted.

**24. VALIDITY OF BIDS**

**The bids should be valid for a period of 180 days from the date of opening of the Price bids. Bids with shorter validity period are liable for rejection.**

**25. DELIVERY**

The tenderer should clearly mention the time required for supplying the item. The period of delivery will be counted (a) from the date of receipt of the order in case of Indian supplier and (b) from the date of opening of letter of credit/receipt of order (in the case of sight draft/advance draft) for foreign suppliers. The delivery date is the date by which the equipment should be delivered at ICTS, Shivakote.

**26. PACKING**

The item should be packed appropriately so that it can sustain transit hazards, multiple landing, warehousing, etc. during transit.

**27. PLACE OF DELIVERY**

In the case of items indigenously manufactured, ALL DELIVERIES shall be effected to the International Centre for Theoretical Sciences, Shivakote, Bangalore-560089, whereas the foreign suppliers shall effect delivery up to Bangalore Airport, India by AIR only unless otherwise specified.

**28. GUARANTEE/WARRANTY**

The item/s covered under this tender shall be subject to a guarantee for trouble free performance, workmanship, material etc., fulfilling the specifications mentioned in this tender for minimum 36/60 months from the date of commissioning (as per the ICTS order). If any defect is found in the material, workmanship or performance during the guarantee period the same may either be repaired/replaced by the supplier as the case may be free of charge. The guarantee period for replacement of parts or repair work shall be same as above. A guarantee certificate to this effect should be forwarded to us with your invoice. For order placed on foreign suppliers, the supplier shall specifically confirm that their Indian representatives, if any, will provide with after sales service and will attend to any repairs or technical problems that may arise.

**29. PERFORMANCE B/G**

The successful bidder shall have to execute a performance B/G in accordance with the guarantee/warranty for 10% value of the order. This B/G has to be executed on an appropriate value of stamp paper in terms of a bank guarantee drawn on any Nationalised Bank or first class Foreign Bank and shall remain valid till the completion of the Defect Liability period/warranty period, with **6 months** claim period.

**30. TAXES AND DUTIES**

The Centre shall deduct all taxes and duties, as applicable, from time to time from the bills payable.

**31. PAYMENT TERMS**

As per ICTS norms, **80%** of the payment shall be made through Sight Draft (documents through bank) and balance **20%** payable after installation, trial run and subject to acceptance by the group head through SAI and all other relevant documents, with Performance Bank Guarantee.

All claims shall cease as per the Limitation Act.

**32. CLARIFICATIONS**

After opening the bids, if it becomes necessary for the purchaser to seek clarifications from the bidders, the same will be sought from the bidders. In such an event, the bidders will furnish all technical information / clarifications to the purchaser to reach on or before the due date fixed for that purpose indicating the Purchaser's tender reference. If the technical clarifications sought do not reach on or before the date fixed, the bids shall be summarily rejected without any further notice.

**33. RISK CLAUSE**

Notwithstanding the other terms therein, the Centre at its option will be entitled to terminate the contract and to avail from elsewhere; at the risk and cost of contractor; either the whole of the contract or any part which the contractor has failed to perform within the time stipulated or if the same performance is not available, the best and the nearest available substitute thereof. The contractor shall be liable for any loss which the Centre may sustain by reason of such risk contract in addition to penalty.

**34. DISPUTE AND RESOLUTION**

Any dispute or differences between the parties that cannot be settled by mutual discussion at appropriate levels shall be referred to the sole arbitration of the Director, ICTS or his nominee and his decision in the matter shall be final and binding upon the parties to the dispute. The venue of arbitration proceedings shall be Bangalore. In respect of any matters pertaining to such arbitration, the courts of law in Bangalore will have exclusive jurisdiction.

**35. DEFINITION AND MEANINGS**

In constructing these conditions, specifications, etc. in the tender document or the Annexures/Appendices the following words shall mean herein assigned definitions except where the subject context is otherwise stated.

|                     |   |   |
|---------------------|---|---|
| PURCHASER           | : | Shall mean the International Centre for Theoretical Sciences  |
| BID/TENDER          | : | Shall mean the proposal/document that the BIDDER submits in the requested and specified form or otherwise along with Annexures, Appendices, etc.  |
| BIDDER/TENDERER     | : | Shall mean the firm/party who quotes against an enquiry.  |
| CONTRACTOR/SUPPLIER | : | Shall mean the party to whom a Work Order/Purchase Order is awarded to undertake all or a part of the work covered by this tender document as well as and amendment orders relating to this tender issued by the Purchaser and shall include his/their legal representative, assignee/s or successor/s. |
| CONTRACT            | : | Shall mean and include the articles of agreement, Declaration form, the general and special conditions, the Annexures, the Schedule of Quantities & rates and the specifications attached hereto and the drawings, if any.  |
| ORDER VALUE         | : | Shall mean total value of the Purchase Order/Work order issued against this tender item including taxes, levies, etc.   |

**36. TECHNICAL SPECIFICATIONS**

See Annexure – 'A'

**37.** For imported items, final price after totalling the prices of the individual items has to be mentioned with estimated freight, insurance, agency commission charges, etc. The price shall be FOR CIF ICTS, BANGALORE.

**38.** The quantity mentioned in the tender may be decreased/increased while ordering. However, the price quoted should be firm irrespective of change in the quantity.

**39. ACCEPTANCE OF TENDERS**

ICTS does not pledge itself to accept the lowest/ any tenders and reserves to itself the right to accept the whole or part of the tenders or a part of the quantity offered.

**40.** The firm may quote in Foreign Currency for direct import on CIF basis as well as in Rupees on FOR ICTS basis for local supply. Please indicate insurance, freight and other charges separately for direct import.

**41.** Your Service Engineer should be fully trained to install the equipment and capable of maintaining the equipment during / after the warranty period.

**42. LIQUIDATED DAMAGES:**

The successful bidder will have to agree that in case the item is not supplied within the agreed delivery schedule and after a grace period of seven days, then Liquidated Damages (not in terms of penalty) will be imposed automatically and be deducted from their bill at the rate of 0.5% per week subject to a maximum of 10% of the order value.

Since ICTS is a Public funded Research Organisation, registered under Government of India Notification No.51/96 – Customs and 10/97 – for Central Excise is applicable for the items listed in the notification.

**43. COMPLETENESS RESPONSIBILITY:**

Notwithstanding the scope of work, engineering, supply and services stated in bid document, any equipment or material, engineering or technical services which might not be even specifically mentioned under the scope of supply of the vendor and which are not expressly excluded there from but which – in view of the bidder – are necessary for the performance of the equipment in accordance with the specifications are treated to be included in the bid and has to be performed by bidder. The items which are over & above the scope of supply specified in the Schedule of Requirements may be marked as “Optional Items”.

TENDER SPECIFICATIONS

ANNEXURE – A - SCOPE OF WORK

Pre bid meeting scheduled on Friday 07th June 2019 at 2.30PM at ICTS Campus (Survey No. 151, Shivakote, Hesaraghatta, Bengaluru - 560 089, India.) followed by site visit

- Any additional components required to complete the solution should be included by SI in their proposal.
- All required cables/patch cord/connectors/ to complete the solution will be in the scope of SI.
- Video transmission over LAN should be CAT6A STP CABLE,
- Cat5e or lower version of cable/connector should not be used.
- Avoid proprietary based solutions, application, cables, connectors etc.,
- For all existing classroom device HDMI/video connection and required cable/Patch cable will be in the scope of SI.
- Bidder should configure/integrate proposed items with existing controller and touch panel as per ICTS requirement. Some of programming options are listed below:-

- Master Volume control
- Audio DSP individual line in/out gain control
- Audio DSP Audio Matrix control
- SIP Audio Controls of DM and DSP (Ex. Biamp : Tesiraforte AVB VT)
- SIP Audio call dialling and calling feature
- Individual Dante/AVB MIC on/off
- HDMI In/Out Matrix control
- AVOIP Device Matrix control
- VC Codec Operation Control
- VC Content sharing Control
- Single Button Recording ON/OFF
- Camera Control (pan/tilt/zoom-in-out/on/off etc.,)
- Projector control (on/off/source selection/settings etc.,
- Dedicated button(s) for each specific mode of operation at homepage,
- Exa-1: Video Conference mode: - It turn on the Display/Projector, Set the screen, Set Video matrix ,set the audio matrix, turn on dante mic and Speakers, appear VC calling page, Record button on side
- Exa-2: Meeting mode :- It turn on the Display/projector, set the audio matrix, turn on dante mic and Speakers,Record button on side
- Exa-3: Audio Bride :- SIP Calling control of DSP's(Tesiraforte ,DMPS\*\* ) , need to popup and provide dial and call control options, Set the audio matrix, turn on dante mic and Speakers,Record button on side and etc.,
- Exa-4: Audio Bridge over 3.5 Jack : DSP auto config to 3.5" TRRS connector (Audio IN/OUT), so mobile/laptop 3.5" jack(AHJ,CTIA,OMTP,..) communicate to system (Set the audio matrix, turn on dante mic and Speakers, Record button on side and etc.,)
- Exa-5: Soft VC Mode(Laptop/Rack-PC) : It turn on the Display, Set Video matrix ,set the audio matrix including USB, turn on dante mic and Speakers, Record button on side,..
- Exa-6: Presentation Lecture Recording mode : - It turn on the Display/Projector, Set the screen, Set Video matrix ,set the audio matrix, turn on lapel, hand, dante/AWB mics and Speakers, appear VC calling page and start recording, Record button on side, Dim the room light, Presentation enable/disable option etc.,
- Exa-7: Board Lecture Recording mode : - It turn off the Display/Projector, close the screen, Set the cammar, Set Video matrix ,set the audio matrix, turn on lapel, hand, dante/AWB mics and Speakers, appear VC calling page and start recording, Record button on side, Turn on board light, Presentation enable/disable option etc.,

**SERVICE LEVEL AGREEMENT:**

- In the event of a failure of any of the sub-systems or components of the proposed solution, the bidder has to ensure that the defects are rectified before end of the next working day.
- Failure to meet the above requirement will result in extension of the warranty services by 3 days for delay of each day during the warranty period.
- Therefore, the bidder along with the OEMs have to put systems and processes in place to address the above during the period of the contract.

**SCHEDULE OF EXPERIENCE OF LAST FIVE YEARS**

**ANNEXURE – B (1)**

Please furnish list of firms/offices where you have undertaken similar jobs (please use additional sheets, if necessary:)

| Sl. No.             | Name of the Company with full Address | Period |    | Contract Value (Rs.)<br>Contact person & phone Nos. |
|---------------------|---------------------------------------|--------|----|---|
|                     |                                       | From   | To |   |
|                     |                                       |        |    |   |
| Signature           |                                       |        |    |   |
| Name                |                                       |        |    |   |
| Designation         |                                       |        |    |   |
| Name of the company |                                       |        |    |   |
| Date                |                                       |        |    |   |
| Seal of the company |                                       |        |    |   |

**AUDITED ANNUAL TURNOVER**  
**ANNEXURE – B (2)**

| Sl.No. | Financial /Accounting Year | Profit (Rs.) | Loss (Rs.) | Annual Turnover (in Indian Rupees) |
|--------|----------------------------|--------------|------------|------------------------------------|
| 1.     | 2017-2018                  |              |            |                                    |
| 2.     | 2016-2017                  |              |            |                                    |
| 3.     | 2015-2016                  |              |            |                                    |

**AUTHORIZED SIGNATORY WITH SEAL**

**N.B.**

The right to suspend the NIQ/NIT process or part of the process, to accept or reject any or all NIQ/NITs at any stage of the process and/or to modify the process or any part thereof at any time without assigning any reasons thereto is reserved by ICTS-TIFR without any obligation or liability whatsoever.

**SCHEDULE OF DEVIATION FROM SPECIFICATIONS/CONDITIONS**  
**ANNEXURE – C**

All deviations from the specifications/conditions shall be filled in by the bidder in this schedule.

|  |
|--|
|  |
|--|

The bidder hereby certifies that the above mentioned are the only deviations from Technical Specifications / Commercial terms and conditions of this tender. (State NIL if no deviation is envisaged.)

Signature

Name

Designation

Name of the company

Date

Seal of the company

**ANNEXURE – D - COVER – II**  
**PRICE BID (Option 1)**

Please let us have your lowest Quote for the following:

| Sl. No | Item Description  | HSN/SAC Code | Qty   | Rate per unit Rs. | Amount Rs. |
|--------|---|--------------|-------|-------------------|------------|
| V1     | <p>Supply and installation of Digital Media matrix switcher with min 7 Inputs 4 Outputs with Integrated Control processor including ipad/android app license with the specification of the make Crestron (DMPS3- 4k-350-C) or equivalent</p> <ul style="list-style-type: none"> <li>• Should provides AV signal routing solution for classrooms.</li> <li>• Should provides Integrates the control system, matrix switcher, video scaler, streaming decoder, mic mixer, audio DSP, amplifier.</li> <li>• Affords substantial signal routing flexibility and high-performance signal processing without the need for separate components.</li> <li>• Should provides a complete 4K AV presentation control.</li> <li>• Simplified configuration and control without programming (Built-in AV Framework)</li> <li>• Matrix switcher: Min 7x4 matrix, Crestron QuickSwitch HD technology</li> <li>• Scalers (HDMI outputs): 4K video scalers with motion-adaptive deinterlacing, intelligent frame rate conversion, Deep Color support, 3D to 2D conversion, content-adaptive noise reduction, and widescreen format selection (zoom, stretch, maintain aspect-ratio or 1:1)</li> <li>• Input Type: HDMI w/Deep Color &amp; 4K (DVI &amp; Dual-Mode DisplayPort compatible) on DM 8G+ &amp; HDBaseT w/Deep Color.</li> <li>• Output Type: HDMI w/Deep Color &amp; 4K on Outputs 1 &amp; 2; DM 8G+ &amp; HDBaseT w/Deep Color, 3D, &amp; 4K on Outputs 3 &amp; 4</li> <li>• Ethernet: 10/100/1000 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, industry-standard TCP/IP stack, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), FIPS 140-2 compliant encryption, IEEE 802.1X, SNMP, BACnet™/IP [10], IPv4 or IPv6, Active Directory authentication, IIS v.6.0 Web Server, SMTP e-mail client, RSTP, Private Network Mode</li> <li>• Control Subne: 10/100/1000 Mbps Ethernet, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP server, DNS Server, port forwarding, Isolation Mode, IEEE 802.3at Type 1 compliant PoE PSE</li> <li>• Streaming: (Via Ethernet) 10/100 Mbps, DHCP, H.264 decoding, MJPEG decoding, HDCP 2.2, RTP, RTSP, SDP</li> <li>• USB:USB signal routing via select DM transmitters and receivers, or via USB-EXT-DM series extenders[9]; USB device port for computer console</li> <li>• RS-232: 2-way device control and monitoring up to 115.2k baud with hardware and software handshaking</li> <li>• IR/Serial: 1-way device control via infrared up to 1.2 MHz or serial TTL/RS-232 (0-5 Volts) up to 115.2k baud; supports CNXRMIRD IR Receiver [6]</li> <li>• DigitalMedia: DM 8G+, HDCP 2.2, EDID, CEC, PoDM+ [8], Ethernet</li> <li>• HDBaseT: HDCP 2.2, EDID, CEC, RS-232, PoE+ [8], Ethernet</li> <li>• HDMI: HDCP 2.2, EDID, CEC</li> <li>• IR ports: 2-pin 3.5 mm detachable terminal blocks, IR/Serial output ports, IR output up to 1.2 MHz, 1-way serial TTL/RS-232 (0-5 Volts) up to 115.2k baud</li> <li>• Relay ports: 8-pin 3.5 mm detachable terminal block; Comprises (4) normally open, isolated relays; Rated 1 Amp, 30 Volts AC/DC; MOV arc suppression across contacts</li> </ul> |              | 2 No. |                   |            |

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|    | <ul style="list-style-type: none"> <li>• Comm Ports: DB9 connectors-male; Bidirectional RS-232 ports, Up to 115.2k baud, hardware and software handshaking support</li> <li>• Should include minimum 3-years Comprehensive onsite OEM warranty</li> </ul>  |  |       |  |  |
| V2 | <p>Supply and installation of 10" Wired Colour touch panel with tabletop docking station (<b>Enclosure: Black</b>) with the specification of the make Crestron (<b>TSW-1060-NC-B-S</b> and <b>TSW-1060- TTK-B-S</b>) or equivalent</p> <ul style="list-style-type: none"> <li>• 10.1 inch (257 mm) diagonal Touch Screen without Camera, Microphone</li> <li>• Tabletop touch screen featuring a clean, contemporary appearance with edge-to-edge glass and advanced high-definition Smart Graphics. Features onboard web browsing, H.264 streaming video, and <b>PoE+ network power</b>. Includes native applications for room scheduling, Zoom Rooms conferencing control, and Sonos, Hall Sound System control.</li> <li>• Display Type: TFT active matrix color LCD</li> <li>• Aspect Ratio: 16:10 WXGA</li> <li>• Resolution: 1280 x 800 pixels</li> <li>• Brightness: 400 nits (cd/m<sup>2</sup>)</li> <li>• Contrast: 950:1</li> <li>• Color Depth: 24-bit, 16.7M colors</li> <li>• Illumination: Edgelit LED w/auto-brightness control</li> <li>• Viewing Angle: ±80° horizontal, ±80° vertical</li> <li>• Touch Screen: Projected capacitive, 5-point multi-touch capable</li> <li>• Hard Keys: Projected capacitive pushbuttons, backlit w/auto-brightness control, per-button show/hide (backlight enable/disable), pre-labeled with icons for "Power", "Home", "Lights", "Up", and "Down"</li> <li>• Color as per site requirement to maintain the aesthetic look</li> <li>• Should include minimum <b>3-years Comprehensive onsite OEM warranty</b></li> </ul>  |  | 2 No. |  |  |
| V3 | <p>Supply and installation of Digital media HDMI   VGA Transmitter with Face plates (<b>Enclosure: Black</b>) with the specification of the make Crestron (<b>DM-TX-201-C-2G-B-T</b>) or equivalent</p> <ul style="list-style-type: none"> <li>• Should be 2x1 auto-switching, auto-detecting multi-format digital/analog inputs</li> <li>• Should support the resolutions: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 852x480@60Hz, 854x480@60Hz, 1024x768@60Hz, 1024x852@60Hz, 1024x1024@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz (1080p24), 1920x1080@25Hz (1080p25), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1080@24Hz, 2048x1152@60Hz, plus any other resolution allowed by HDMI up to 165 MHz pixel clock</li> <li>• Should include high-speed LAN port for extension of Ethernet signal.</li> <li>• Alternative to RS-232 and other conventional control procedure, should be capable of supporting CEC for controlling third party AV Devices.</li> <li>• All signals are transported over a single CAT type cable, supporting distances up to 330 feet (100 m) when using any CAT6 cables.</li> <li>• Should function as a keyboard/mouse extender, allowing the connected computer (or other USB HID-compliant host) to be controlled by a mouse and/or keyboard located at a presentation lectern, conference table, or some other remote location.</li> <li>• Face plates color as per site Architecture look</li> <li>• Should include minimum <b>3-years Comprehensive onsite OEM warranty</b></li> </ul> |  | 2 No. |  |  |

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| V4 | <p>Supply and installation of Digital media HDMI Transmitter with the specification of the make Crestron(<b>DM-TX-201-C</b>) or equivalent</p> <ul style="list-style-type: none"> <li>● Should be 2x1 auto-switching, auto-detecting multi-format digital/analog inputs</li> <li>● Should support the following resolutions: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 852x480@60Hz, 854x480@60Hz, 1024x768@60Hz, 1024x852@60Hz, 1024x1024@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1365x1024@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz (1080p24), 1920x1080@25Hz (1080p25), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1080@24Hz, 2048x1152@60Hz, plus any other resolution allowed by HDMI up to 165 MHz pixel clock</li> <li>● Should give a local HDMI output as pass-through for Monitoring</li> <li>● Should include high-speed LAN port for extension of Ethernet signal.</li> <li>● Alternative to RS-232 and other conventional control procedure, should be capable of supporting CEC for controlling third party AV Devices.</li> <li>● All signals are transported over a single CAT 6 type cable, supporting distances up to 330 feet (100 m) when using any CAT6 cables.</li> <li>● Should functions as a keyboard/mouse extender, allowing the connected computer (or other USB HID-compliant host) to be controlled by a mouse and/or keyboard located at a presentation lectern, conference table, or some other remote location.</li> <li>● Should include minimum <b>3-years Comprehensive onsite OEM warranty</b></li> </ul> |  | 2 No. |  |  |
| V5 | <p>Supply and installation of Digital media HDMI receiver with the specification of the make Crestron (<b>DM-RMC-4KZ-100-C</b>) or equivalent</p> <ul style="list-style-type: none"> <li>● Video Input Signal Type: DM 8G+ &amp; HDBaseT w/HDR10, Deep Color, 3D, &amp; 4K60 4:4:4 support</li> <li>● Video Output Signal Type: HDMI w/HDR10, Deep Color, 3D, &amp; 4K60 4:4:4 support [2] (DVI compatible [3])</li> <li>● Video Copy Protection: HDCP 2.2</li> <li>● Progressive 4096x2160 DCI 4K, 3840x2160 4K UHD, 2560x1600 WQXGA, 1920x1080 HD 1080p</li> <li>● Interlaced: 1920x1080 HD 1080i</li> <li>● Audio Input:Signal Type: DM 8G+, HDBaseT</li> <li>● Audio Output:Signal Type: HDMI</li> <li>● Audio Formats: Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS,DTS ES,DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X,LPCM up to 8 channels</li> <li>● Should be HDBaseT Certified and can connect to HDBaseT certified equipment</li> <li>● Communication <ul style="list-style-type: none"> <li>○ DigitalMedia: DM 8G+, HDCP 2.2, EDID, CEC, PoDM, Ethernet</li> <li>○ HDBaseT: HDCP 2.2, EDID, CEC, RS-232, PoE, Ethernet</li> <li>○ HDMI: HDCP 2.2, EDID, CEC</li> </ul> </li> <li>○ Should include minimum <b>3-years Comprehensive onsite OEM warranty</b></li> </ul>   |  | 2 No. |  |  |
| V6 | <p>Supply and installation of VGA and HDMA Scaler with the specification of the make Kramer (<b>VP-426H2</b>) or equivalent</p> <ul style="list-style-type: none"> <li>● Resolution — 4K@60Hz (4:4:4).</li> <li>● Stereo audio connectors: On 3.5mm mini jacks (Input/Output)</li> <li>● Standards Compliance — HDMI 2.0, HDCP 2.2/1.4.</li> </ul>  |  | 2 No. |  |  |

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|    | <ul style="list-style-type: none"> <li>● EDID Handling — Reading and storage of acceptor's EDID.</li> <li>● Inputs — <b>VGA</b> (RGBHV), Component (YPrPr) &amp; <b>HDMI</b>.</li> <li>● Outputs — Simultaneous RGBHV and HDMI.</li> <li>● Input Auto – Scanning.</li> <li>● Constant Sync — Maintains sync on the output, even if input video signal is lost or interrupted.</li> <li>● Analog/Embedded Audio Support — For inputs and outputs 3.5” Jack port.</li> <li>● Built-in ProcAmp — For convenient signal adjustment.</li> <li>● On-Screen Display (OSD) — For easy setup and adjustment, accessible via the front-panel buttons.</li> <li>● Non-Volatile Memory — Retains last settings used.</li> <li>● Freeze Button.</li> <li>● Contact Closure — For remote switching of sources.</li> <li>● USB Port — For upgrading firmware.</li> <li>● Should include minimum <b>7-years Comprehensive onsite OEM warranty</b></li> </ul>   |  |       |  |  |
| V7 | <p>Supply and installation of HDMI 8X8 Matrix Switcher with the specification of the make Kramer (<b>VS-88UHDA</b>) or equivalent</p> <ul style="list-style-type: none"> <li>● Max. Data Rate — 8.91Gbps data rate (2.97Gbps per graphics channel).</li> <li>● Max. Resolution — Up to 4K@60Hz (4:2:0).</li> <li>● Independent Audio Matrix — With ARC support.</li> <li>● Audio Handling — Level &amp; balance support.</li> <li>● Kramer Step- In Over HDMI Technology.</li> <li>● HDMI, HDCP and DVI Compliance.</li> <li>● Selectable HDCP Off per Input.</li> <li>● Memory Locations — 16 presets for quick access to common configurations.</li> <li>● Advanced EDID Management per Input.</li> <li>● Active Source &amp; Acceptor Detection.</li> <li>● Automatic Input Selection — Based on priority selection or last connected input.</li> <li>● HDMI Support — Deep Color, 3D, ARC, up to 7.1 uncompressed audio channels.</li> <li>● reKlocking and Equalization Technology — Rebuilds the digital signal to travel longer distances.</li> <li>● Embedded Pattern Generator — With selectable patterns.</li> <li>● Lock Button — To prevent tampering.</li> <li>● Firmware Upgrade/Control — Ethernet or the RS-232 port.</li> <li>● Should include rack mount set</li> <li>● Should include minimum <b>7-years Comprehensive onsite OEM warranty</b></li> </ul> |  | 1 No. |  |  |
| I1 | <p>Installation, Labour, Cabling, Patch Cords, Connectors, Cables, Adaptors, accessories, Control System/touch Panel/Audio DSP Programming, Training and testing with 3 years of comprehensive onsite warranty and support for both Classrooms.</p> <ul style="list-style-type: none"> <li>○ Video and control cabling and supply for all room end device (including for institute provided device)</li> <li>○ All cable laying should be in HMS conduct/Industrial Flexible</li> <li>○ Klotz/Extron/Crestron/Crown/Neutrik/Kramer/Commscope are Preferred</li> <li>○ CAT 6 STP Cable: Commscope/Systemax Preferred,</li> <li>○ Video transmission over LAN should be CAT6A STP CABLE</li> <li>○ CAT 6 Patch Cord: Commscope GS8E-LBCPC3312-02</li> <li>○ CAT 6 Patch Cord: Light Blue Jacket</li> <li>○ HDMI Cable/Patch Cords: Kramer/Crestron make Preferred with minimum 10-years Comprehensive OEM warranty</li> <li>○ All Cable/Patch Cords should be company molded connectors (without any joints/adaptors between the devices)</li> </ul>   |  | 1 No  |  |  |

RefNo: ICTS/TIFR/RFQ/IT/04/2019-20

Date: 21/05/2019

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|    | <ul style="list-style-type: none"> <li>o Audio signal cable : Klotz make Preferred.</li> <li>o Audio Patch Cord at user side : Amazon basic Preferred</li> <li>o Other details refer ANNEXURE – A - SCOPE OF WORK</li> </ul> |  |  |  |  |
|    | <b>*Optional but mandatory to quote:</b>   |  |  |  |  |
| W1 | 4 year of comprehensive onsite warranty and support*   |  |  |  |  |
| W2 | 5 year of comprehensive onsite warranty and support*   |  |  |  |  |
|    | <b>Sub Total</b>   |  |  |  |  |
|    | <b>Add: GST</b>  |  |  |  |  |
|    | <b>Total Amount in Rupees<br/>(Rupees )</b>  |  |  |  |  |

Please enter Unit Price, Total Price and Grand Total in figures as well as words. Unit Price and Total Price may be entered below each item.

**For and on behalf of International Centre for Theoretical Sciences-TIFR**

**Authorized Signatory**

**ANNEXURE – D - COVER – II**  
**PRICE BID (Option 2)**

Please let us have your lowest Quote for the following:


| Sl. No | Item Description  | HSN/SAC Code | Qty    | Rate per unit Rs. | Amount Rs. |
|--------|---|--------------|--------|-------------------|------------|
| P1     | <p>AVOIP 4K60 4:2:0 HDCP 2.2 HDMI Video Encoder with below specification.</p> <ul style="list-style-type: none"> <li>o Should have min 1 HDMI connector at input with 4K@60Hz (4:2:0).</li> <li>o Preferred to have built in display and buttons to change the setting and chose streaming channels</li> <li>o Should have 1 unbalanced stereo audio connector 3.5mm, 1 RS232, 1 IR Tx &amp; 1IR Rx , 1USB type B connector.</li> <li>o Should support (RTSP) real-time 4K60 4:2:0 video/audio/RS-232/IR/USB over standard 1G network.</li> <li>o Should support HDCP 2.2.</li> <li>o Should have Audio Support — HDMI/line in, 7.1 PCM, Dolby True-HD, and DTS-HD Master audio.</li> <li>o Should support Scalable one to many/many to many/video wall/KVM-over IP media distribution</li> <li>o Should support video wall 1 to 256 screens.</li> <li>o Should support Built in scaling and cropping for flexible display of source content on the decoder output</li> <li>o Should have video encoding compression standard JPEG 2000 or better</li> <li>o Should have audio encoding compression standard (analog in/out) AAC-LC</li> <li>o Should support Power — PoE and external power supply</li> <li>o Preferred to have Reset button, up and down channel buttons, channel 7-segment or better display, status, Link and ON LEDs</li> <li>o Should be controllable via Web UI, API, command for third party control system support.</li> <li>o Should be CE and ISO 9001:2008 compliance</li> <li>o Extra component or equipment may be added to match the complete specs.</li> <li>o Should include minimum <b>3-years Comprehensive onsite OEM warranty</b></li> </ul> |              | 12 No. |                   |            |
| P2     | <p>AVOIP - 4K60 4:2:0 HDCP 2.2 HDMI Video Decoder with below specification.</p> <ul style="list-style-type: none"> <li>o Should have 1 HDMI connector at output with 4K@60Hz (4:2:0).</li> <li>o Preferred to have built in display and buttons to change the setting and chose streaming channels.</li> <li>o Should have 2 left and right unbalanced stereo audio on RCA connectors, 1 RS232, 1 IR Tx &amp; 1IR Rx, 2</li> <li>o USB type A connector, 1 Ethernet on an RJ-45 connector &amp; 1 RJ-45 connector for daisy-chain LAN.</li> <li>o Should support (RTSP) real-time 4K60 4:2:0 video/audio/RS-232/IR/USB over standard 1G network.</li> <li>o Should support HDCP 2.2.</li> <li>o Should have Audio Support — HDMI/line in, 7.1 PCM, Dolby True-HD, and DTS-HD Master audio.</li> <li>o Should support Scalable one to many/many to many/video wall/KVM-over IP media distribution</li> <li>o Should support video wall 1 to 256 screens.</li> <li>o Should support built in scaling and cropping for flexible display of source content on the decoder output</li> <li>o Should have video encoding compression standard JPEG 2000</li> <li>o Should have audio encoding compression standard (analog in/out) AAC-LC</li> </ul>  |              | 12 No. |                   |            |

|    |  |  |       |  |  |
|----|--|--|-------|--|--|
|    | <ul style="list-style-type: none"> <li>o Should support Power — PoE or external power supply</li> <li>o Preferred to have Reset button, up and down channel buttons, channel 7–segment display, status, Link and ON LEDs</li> <li>o Should be controllable via Web UI, API, command for third party control system support.</li> <li>o Should be CE and ISO 9001:2008 compliance</li> <li>o Extra component or equipment may be added to match the complete specs.</li> <li>o Should include minimum <b>3-years Comprehensive onsite OEM warranty</b></li> </ul>   |  |       |  |  |
| P3 | <p><b>Room Controller with Andriod /IOS app license:-</b></p> <ul style="list-style-type: none"> <li>o SITC of controller with Minimum 4 bidirectional RS232, 4 IR, 4 Relays and 4 GP/IO and 1 Ethernet port to control all the pro av devices (Approx 250 device), lightings, AC, curtains, Bord lightings with brightness control ..etc.,</li> <li>o Should have inbuilt IR sensor to learn IR commands</li> <li>o <u>The compatible relay controller to control the existing projector screen up down should be supplied as a package</u></li> <li>o Should have inbuilt processing power and internal storage to store and process the control program.</li> <li>o Should be compatible with any (IOS/Android) wireless or wired Touch screen of any size (Note: Required license should be bundle with product)</li> <li>o The Touch screen should have provision to be fixed on the Podium.</li> <li>o Multiple pages user interfaces should be prepared on the touch screen to support all the functionality and pre-sets.</li> <li>o <u>Should have additional ports if required can be added without hassle.</u></li> <li>o Should have the flexibility to add as many user interfaces as required.</li> <li>o Should have embedded webpage for control port settings.</li> <li>o Should have Status LED to check for Control / Connection status.</li> <li>o Scalable &amp; flexible control</li> <li>o Bidirectional RS–232 &amp; IR with learning capability</li> <li>o GPI/O &amp; relay control</li> <li>o Should able to control multiple rooms</li> <li>o Should able to control from multiple Touch-panel and apps.</li> <li>o Should include all license : for run and use the 100% of product features, layout design and implementation, operate all room device from any android and IOS devices, etc., (Ipad/tab will be provided by institute)</li> <li>o Extra component or equipment maybe added to match the complete sepcs.</li> <li>o Should include minimum <b>3-years Comprehensive onsite OEM warranty</b></li> </ul> |  | 2 No. |  |  |
| P4 | <p>Supply and installation of min 7"(10" Preferred) Wired Colour touch panel with table-top docking station (Enclosure : Black) with the below specification.</p> <ul style="list-style-type: none"> <li>o Minimum 7" (10" Preferred) IPS color screen.</li> <li>o Should have minimum 1280 x 800 resolution.</li> <li>o Single Ethernet cable for connectivity &amp; powering</li> <li>o Should have POE Ethernet port 100/1000Mbps LAN.</li> <li>o Secured with <b>no camera/mic &amp; wireless connections</b></li> <li>o Should have capacitive touch technology.</li> <li>o Should support Multitouch.</li> <li>o Should be H.264 or MJPEG streaming video capable.</li> <li>o Should be provided with table mount &amp; wall mount kit.</li> <li>o should be possible with Customized GUI using GUI Software.</li> <li>o should support native integration of enterprise management software.</li> <li>o Extra component or equipment may be added to match the complete specs.</li> <li>o Should include minimum <b>3-years Comprehensive onsite OEM warranty</b></li> </ul>  |  | 2 No. |  |  |
| P5 | <p>Supply and installation of VGA and HDMA Scaler with the specification of the make Kramer (<b>VP-426H2</b>) or equivalent</p> <ul style="list-style-type: none"> <li>● Resolution — 4K@60Hz (4:4:4).</li> <li>● Stereo audio connectors: On 3.5mm mini jacks (Input/Output)</li> </ul>   |  | 2 No. |  |  |

|    |  |  |       |  |  |
|----|--|--|-------|--|--|
|    | <ul style="list-style-type: none"> <li>● Standards Compliance — HDMI 2.0, HDCP 2.2/1.4.</li> <li>● EDID Handling — Reading and storage of acceptor's EDID.</li> <li>● Inputs — VGA (RGBHV), Component (YPrPr) &amp; <b>HDMI</b>.</li> <li>● Outputs — Simultaneous RGBHV and HDMI.</li> <li>● Input Auto – Scanning.</li> <li>● Constant Sync — Maintains sync on the output, even if input video signal is lost or interrupted.</li> <li>● Analog/Embedded Audio Support — For inputs and outputs 3.5” Jack port.</li> <li>● Built-in ProcAmp — For convenient signal adjustment.</li> <li>● On-Screen Display (OSD) — For easy setup and adjustment, accessible via the front-panel buttons.</li> <li>● Non-Volatile Memory — Retains last settings used.; Freeze Button.</li> <li>● Contact Closure — For remote switching of sources.</li> <li>● USB Port — For upgrading firmware.</li> <li>● Should include minimum <b>7-years Comprehensive onsite OEM warranty</b></li> </ul>  |  |       |  |  |
| II | <p>Installation, Labour, Cabling, Patch Cords, Connectors, Cables, Adaptors, accessories, Control System/touch Panel/Audio DSP Programming, Training and testing with 3 years of comprehensive onsite warranty and support for both Classrooms.</p> <ul style="list-style-type: none"> <li>○ Video and control cabling and supply for all room end device (including for institute provided device)</li> <li>○ All cable laying should be in HMS conduct/Industrial Flexible</li> <li>○ Klotz/Extron/Crestron/Crown/Neutrik/Kramer/Commscope are Preferred</li> <li>○ CAT 6 STP Cable: Commscope/Systemax Preferred,</li> <li>○ Video transmission over LAN should be CAT6A STP CABLE</li> <li>○ CAT 6 Patch Cord: Commscope GS8E-LBCPC3312-02</li> <li>○ CAT 6 Patch Cord: Light Blue Jacket</li> <li>○ HDMI Cable/Patch Cords: Kramer/Crestron make Preferred with minimum 10-years Comprehensive OEM warranty</li> <li>○ All Cable/Patch Cords should be company molded connectors (without any joints/adaptors between the devices)</li> <li>○ Audio signal cable : Klotz make Preferred.</li> <li>○ Audio Patch Cord at user side : Amazon basic Preferred</li> <li>○ Other details refer ANNEXURE – A - SCOPE OF WORK</li> </ul> |  | 1 Lot |  |  |
|    | <b>*Optional but mandatory to quote:</b>   |  |       |  |  |
| W1 | 4 year of comprehensive onsite warranty and support*   |  | 1 Lot |  |  |
| W2 | 5 year of comprehensive onsite warranty and support*   |  | 1 Lot |  |  |
|    | <b>Sub Total</b>   |  |       |  |  |
|    | <b>Add: GST</b>  |  |       |  |  |
|    | <b>Total Amount in Rupees<br/>(Rupees</b>  |  |       |  |  |
|    | )  |  |       |  |  |

Please enter Unit Price, Total Price and Grand Total in figures as well as words. Unit Price and Total Price may be entered below each item.

For and on behalf of International Centre for Theoretical Sciences-TIFR



Authorized Signatory