

**TENDER**  
**NATIONAL HEALTH SYSTEMS RESOURCE CENTRE**



**SUMMARY OF TENDER**

<b>Name of Work</b>	<b>Supply, Installation, Testing and Commissioning of Audio/Visual setup in Conference Hall at NHSRC, NIHFV Campus, Munirka, New Delhi -110067</b>
<b>Notice Inviting Tender</b>	<b>01-11-18</b>
<b>Date of issue of tender documents.</b>	<b>From 01.11.18 to 14.11.18 till 1500 Hrs, can be downloaded from the website of NHSRC. <a href="http://www.nhsrccindia.org">www.nhsrccindia.org</a></b>
<b>Last Date of submission of Tender</b>	<b>The sealed Tender so as to reach this office on or before 15-11-2018 latest by 1530 hrs</b>
<b>Date of Pre-Bid Meeting</b>	<b>On 12-11-2018 at 1600 hrs in presence of party who may be present.</b>
<b>Date of Opening of Bid</b>	<b>On 15-11-2018 at 1600 hrs in presence of party who may be present.</b>
<b>Estimate cost</b>	<b>Rs. 14,12,408.00</b>
<b>EMD</b>	<b>Rs. (Refundable) - Rupees Thirty Thousand only.</b>
<b>Performance Guarantee</b>	<b>5% of Contract Amount</b>
<b>Tender Cost</b>	<b>Rs.1000.00 (Non-Refundable) Rupees One Thousand only.</b>
<b>Completion time</b>	<b>One Month</b>
<b>Envelope-1</b>	<b>EMD &amp; Tender Cost</b>
<b>Envelope-2</b>	<b>Pre qualifications Documents with Tender Document</b>
<b>Envelope-3</b>	<b>Financial Bid Only</b>

**Dr.Uddipan Dutta**  
**Principal Administrative Officer (NHSRC)**



**NATIONAL HEALTH SYSTEMS RESOURCE CENTRE  
NOTICE INVITING TENDER**

**Ref:-MIS/09-10/PR-FA/IT Maintenance/PF**

**Dated:-01-11-2018**

**Name of the work: Supply, Installation, Testing and Commissioning of Audio/Visual setup in Conference Hall at NHSRC, NIHFV Campus, Munirka, New Delhi -110067**

Sealed Tenders are invited on behalf of **National Health Systems Resource Centre, New Delhi for Supply, Installation, Testing and Commissioning of Audio/Visual setup in Conference Hall at NHSRC, NIHFV Campus, Munirka, New Delhi -110067.**

The work is estimated to cost **Rs. 14, 12,408.00** this estimate, however, is given merely as a rough guide.

1. The tender shall be submitted in prescribed form.

2. The works are to be completed in **Twenty Days** from the 2nd day after the day on which the department issues the written order to commence the work or from the date of handing over the site, whichever is later.

3. The tender shall be available to download from NHSRC website till 1500 HRS on **14.11.18.**

**4.1** The Contractor/agency should have satisfactory completed the works as mentioned below during the last Three years ending last day of the month previous to the one in which tenders are invited as follows: **The Contractor shall enclose work order with Bill of quantity and Performance certificate for same.**

a) Three similar works of SITC of Audio/Visual setup and each costing not less than 40% of the estimated cost.

OR

b) Two similar works of SITC of Audio/Visual setup and each costing not less than 60% of the estimated cost.

OR

c) One similar works of SITC of Audio/Visual setup and each costing not less than 80% of the estimated cost

**“Similar work shall mean works of “Audio/Visual setup”.**

4.2. A tenderer shall enclose a copy of valid PAN Card.

4.3. Proof of registration with GST.

4.4. Chartered Accountant Certificate of Turnover for last three years ending March 2018  
The turnover should not be less than Rs.1 crore in each year.

4.5. History & structure of firm, name of director/partners/proprietor/with  
Technical staff.

4.6. All the above certified documents shall be submitted by the firm duly signed and  
stamped by Notary Public/gazetted officer and self attested with seal of the company  
and original shall be duly produced for verification as required.

4.7 An affidavit duly notarized on stamp paper of Rs.100/- non-judicial stating that "In case  
of any ambiguity found in the documents submitted (Listed out) at any stage, we shall be  
entirely responsible and liable for any action as deemed fit under the Law"

5. The tender document can be down loaded from our website [www.nhsrcindia.org](http://www.nhsrcindia.org). In  
such case Bidder should fulfil prequalification criteria as per para "4.1 to 4.7" and submit  
the documents in a sealed envelopes super scribed **Envelop No.2-Technical Bid** for pre-  
qualification for "**Supply, Installation, Testing and Commissioning of Audio/Visual  
setup in Conference Hall at NHSRC, NIHFW Campus, Munirka, New Delhi -110067**".

a) Envelope II marked as Technical bid shall contain all the **pre-qualification documents  
along with tender documents** downloaded from the web site duly signed and stamped  
as mark of acceptance of all terms and conditions. Any deviation from terms and  
conditions shall be notified separately.

b) If all the required documents are not complete as per **Para 4 above, Envelope III  
containing financial bid will not be opened.**

6. a) In case tender documents downloaded from the web site, the tenderers should  
enclosed tender cost (**Rs 1000.00 (Rupee One Thousand only)**) in form of banker's  
cheque / demand draft in a separate sealed envelope. Super scribed **ENVELOPE-1**  
for the work of "**Supply, Installation, Testing and Commissioning of Audio/Visual setup in  
Conference Hall at NHSRC, NIHFW Campus, Munirka, New Delhi -110067**".

b). The tender shall be accompanied by earnest money of **Rs.30,000.00 (Rupee Thirty  
Thousand only)** through a Bank Draft/Banker's Cheque issued in favour of **National  
Health Systems Resource Centre, Payable at New Delhi** from State Bank of India or a  
Nationalized Bank or any Scheduled Bank. Tenders without the earnest money and  
Tender cost if any will be summarily rejected

7. Copies of other drawings and documents pertaining to the works signed for the  
purpose of identification by the accepting authority of his accredited represent  
representatives and samples of materials to be arranged by the Contractor will be open

for inspection by tenderers at the NHSRC office, New Delhi during working hours between the dates mentioned.

8. Tenderer are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tender to the nature of the ground and sub-soil, the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to the risk, contingencies and other circumstances which may influence or effect their tender. A tenderer shall be deemed to have full knowledge of the site, whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed.

9. Submission of a tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of the conditions and rates at which stores, tools, plant etc. will be issued to him by the NHSRC and local conditions and other factors bearing on the execution of the work.

10. A tenderer shall quote in figures as well as in words for rate(s) tendered. The amount for each item should be worked out and requisites total given. Special care shall be taken to write rates in figures as well as words and the amounts in figures only in such a way that interpolation is not possible. The total amount shall be written both in figures and in words. In case of figures, the words 'Rs' should be written before the figure of rupees and the word 'Paisa' after the decimal figures e.g. Rs. 2.15 P and in case of words 'Rupees' should be precede and the word 'Paisa' should be written at the end. Unless the rate is in whole rupees followed by the word 'only' it should invariably be up to two places of decimal.

11. (a) All rates shall be quoted on the financial bid form and shall include material, labour, transportation all taxes & duties , supervision, tools, plants, wastage, sundries, scaffolding as required mobilization, demobilization, transportation etc. and nothing extra shall be payable on this account. **However shall not include the GST, which will be paid on actual billing.**

(b) GST or any other tax on materials/ labour in respect of this contract shall be payable by the Contractor and the NHSRC will not entertain any claim whatever in this respect.

(c) As per law of land, statutory deduction like income tax / work contract tax etc shall be made from the Contractor's bill as applicable.

12. In case of item rate tenders, only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted will be rejected.

13. Tender complete in all respect shall be put in the Tender Box placed at Security Gate at NHSRC, NIHFWS Campus, Baba Gangnath Marg, Munirka New Delhi-110067 up

to **1530 hours on or before 15.11.2018**.The tenders received shall be opened on **same day at 1600 Hrs** in the presence of tenderers who may be present. The submission of tender shall be as under:

13.1 **Sealed Envelope No.1-superscribed"EMD &Tender cost"** consisting of demand draft for Tender cost (Non-refundable) and Earnest money deposit (Refundable) of subject work. It should be superscribed Envelop-1.alongwith name of work-Tender cost & EMD.

13.2 **Sealed Envelop No.2-superscribed "Technical bid"** along with name of work shall contain complete Tender documents and pre-qualification documents as required as listed **4.1 to 4.7** each page duly signed and stamped.

13.3 **A separate sealed envelope No.3 should contain only Financial Bid** each page duly signed and stamped with prices in the manner specified in this NIT. The envelop shall be super scribed as Envelop-3-Financial bid for **"Supply, Installation, Testing and Commissioning of Audio/Visual setup in Conference Hall at NHSRC, NIHFV Campus, Munirka, New Delhi -110067"**.

14. All the three sealed envelopes should be put in separate sealed cover super scribed as Tender document for the work of **"Supply, Installation, Testing and Commissioning of Audio/Visual setup in Conference Hall at NHSRC, NIHFV Campus, Munirka, New Delhi -110067**.

#### 15. SECURITY DEPOSIT

(i) The security deposit shall be collected by deductions from the running bills of the Contractor at the rate mentioned below and the earnest money deposited at the time of submission of tender, shall be treated as part of the security deposit. The security deposit can also be accepted in the form of Government Securities, Fixed Deposit Receipts etc.

(ii) A sum @ 5% of the gross amount of the bill shall be deducted from each running bill of the Contractor, till the sum along with the sum already deposited as earnest money amounts to security deposit @ 5% of the tendered amount of the work. Such deductions shall be made unless the Contractor has deposited the amount of security at the rate mentioned in cash or Government securities or Fixed Deposit Receipts. This is in addition to the performance guarantee that the Contractor is required to deposit as per tender. Income tax/work contract tax & other statutory deductions etc shall be made at source as per the prevalent laws of the Govt. of India

17. NHSRC will return the earnest money, where applicable to every unsuccessful tenderer.

18. NHSRC reserve to themselves the right of accepting the whole or any part of the tender and tenderer shall be bound to perform the same at his quoted rates.

19. The validity of the tender(s) shall be up to **90 (Ninety) days** from the date of opening of tender(s).

20. The use of whitener/ eraser in this tender is prohibited. If any correction becomes necessary, the same should be done by SCORING OFF originally written rates/figures etc. and then rewriting should be done under initials of person filling the tender.

21. An undertaking by the agency shall be given to the effect that “they will engage staff and labour of good moral character only at site and will ensure watch and ward and discipline of his employees”. Suitable action will be taken against the agency if any deviation is noticed on this account.

23. The contractor whose bid is accepted will be required to furnish performance guarantee of **5% (Five Percent)** of the awarded amount within the **7 days** after award of work. This guarantee shall be in the form of Banker's cheque/ Demand Draft/ Pay order/ Bank Guarantee/ FDR of any Scheduled Bank or the State Bank of India in accordance with the prescribed form in the favor of National Health Systems Resource Centre. In case the contractor fails to deposit the said performance guarantee within **7 days** after award of work, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. In such situation NHSRC reserve the right to approach L2 of this tender to undertake the work at minimum rates quoted by L1. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee. **The performance guarantee shall be kept till satisfactory handing over of site to NHSRC.**

24. In case it is found during evolution or at any time before signing of contract or after its execution and during the period of subsistence there of that one or more of the eligibility conditions have not been met by the applicant, or the applicant has made material misrepresentation or has given any materially incorrect or false information, the applicant shall be disqualified forthwith, if not, yet appointed as the Contractor/supplier and if the applicant has already been issued the LOA or has entered into the contract, as the case may be, the same shall, notwithstanding anything to the contrary contained therein be liable to be terminated along with forfeiture of earnest money deposit (EMD)/ performance security by a communication in writing By the NHSRC to the applicant without the corporation being liable in any matter whatsoever to the applicant and without prejudice to any other right or remedy with the NHSRC may have under the bidding documents the contract or under applicable law.

For & On Behalf of the National Health Systems Resource Centre

**Dr. Uddipan Dutta**  
**Principle Administrative Officer**  
**NHSRC**

## Schedule 'F'

Reference to General Conditions of Contract (To be signed by the Contractor(s) at the time of signing the agreement)

1(a) Accepting Authority National Health Systems Resource Centre

1(i) Market Rate - percentage addition

To cover profit, overheads and supervision - 15%

2. (a) Estimated cost of the Works put to tender - **Rs.14, 12,408.00**

(b) Earnest money (2% of the estimated cost) - Rs.30, 000.00

(c) Security deposit - as per NIT

3(ii) Schedule of rates applicable: Market Rate

4. Time allowed for execution of work **20 days** (To be reckoned from the SEVENTH Day after the date of work order or handing over of Site)

5. Compensation for delay: Compensation for Delay: 1% (one per cent) of the contract amount subject to a maximum of Rs. 50,000/- PER WEEK or a part thereof for first 4 weeks of delay for subsequent delay. The Compensation should be 2% (Two Percent) of the contact amount subject to maximum Rs. 1.00 lac per week or a part there of. The total compensation for delay shall further be subject to an overall maximum or 10% (Ten per cent) of the contract amount as awarded. The decision of the competent officer of the Accepting Authority shall be final and binding.

6. Defects liability Period (Warranty-Including all spare parts) - **One YEAR from** the date of Commissioning.

**Integrity Pact**

**To be signed by the bidder and same signatory competent / authorized to sign the relevant contract on behalf of NHSRC.**

**INTEGRITY AGREEMENT**

This Integrity Agreement is made at ..... on this ..... day of ..... 20.....

**BETWEEN**

**NHSRC, NIHFWS Campus Munirka, New Delhi-110067**

‘**Principal/Owner**’, which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

**AND**

.....

(Name and Address of the Individual/firm/Company)

through ..... (Hereinafter referred to as the

(Details of duly authorized signatory)

“**Bidder/Contractor**” and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

**Preamble**

WHEREAS the Principal / Owner has floated the Tender. (hereinafter referred to as “**Tender/Bid**”) and intends to award, under laid down organizational procedure, contract for **Supply, Installation, Testing and Commissioning of Audio/Visual setup in Conference Hall at NHSRC, NIHFWS Campus, Munirka, New Delhi -110067**. Herein after referred to as the “**Contract**”.

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as “**Integrity Pact**” or “**Pact**”), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

**Article 1: Commitment of the Principal/Owner**

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

(a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the 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/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the

Contract execution.

(c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

**Article 2: Commitment of the Bidder(s)/Contractor(s)**

1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of **fraud or corruption or Coercion or Collusion** of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

2) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.

b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. 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 cartelize in the bidding process.

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

d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender

for the same item.

e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice **means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.**

5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

### **Article 3: Consequences of Breach**

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

**1) Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the Contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.**

**2) Forfeiture of EMD/Performance Guarantee/Security Deposit:** If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.

**3) Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

### **Article 4: Previous Transgression**

1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/

holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.

3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

**Article 5: Equal Treatment of all Bidders/Contractors/SubContractors**

1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subContractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its SubContractors/ sub-vendors.

2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.

3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

**Article 6- Duration of the Pact**

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

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

**Article 7- Other Provisions**

1) This Pact is subject to Indian Law, place of performance and jurisdiction is the **Head quarters of the Division** of the Principal/Owner, who has floated the Tender.

2) Changes and supplements need to be made in writing. Side agreements have not been made.

3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.

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

5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this **Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.**

**Article 8- LEGAL AND PRIOR RIGHTS**

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the

provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....  
(For and on behalf of Principal/Owner)

.....  
(For and on behalf of Bidder/Contractor)

WITNESSES:

1. ....  
(signature, name and address)

2. ....  
(signature, name and address)

Place:

Dated :

**Specifications:**

<b>Audio/Visual in Conference Hall with Accessories</b>				
<b>S.No</b>	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>	<b>Make</b>	<b>Provided By</b>
1	Video Conferencing System	Full HD 1080p camera, codec, Microphone Array, cables, and remote control. support H.323, , H.263, H.264 AVC/SVC,H.264 High Profile or better SIP standards for communications	1 <b>LOT/Avaya a/ Cisco/Poly com</b>	Department
		It should support 1080p 60fps, 1080p 30 fps, 720p 60 fps and 720p 30fps , 480p30/4CIF or better		
		content sharing using standard based H.239 and BFCP over SIP		
		content resolution at HD 1080p @ 30fps and 1080p60 fps		
		It should transmit both people and content simultaneously to the far end location at 1080p @30 fps and/or 1080p60 FPS		
		support OPUS,G.711, , G.722, G.722.1, AAC LC/AAC-LD or better		
		It should support 20kHz bandwidth with crystal clear audio		
		Automatic Gain Control and Automatic Noise Suppression		
		1 x HD input for connecting main HD camera		
		1 x HDMI/DVI input for connecting PC/Laptop to share HD content		
		1 x Microphone Input(Support for minimum 3 mics)		
		1 x 3.5mm stereo line-in		
		1 x HDMI output for connecting main monitor		
		1 x HDMI output for connecting second monitor from day one		
		1 x 3.5 mm stereo line-out		
		2 x 10/100/1000 LAN port		
		2 x USB 2.0 for software upgrade or connecting external devices		
It should support 1080p60fps with minimum 12x optical zoom				

	<p>It should support PAN Range of +/90° and above and Tilt of 10 +/- or +/- 25</p> <p>H.323 and SIP bandwidth up to 6 Mbps point to point call</p> <p>IPv4 and IPv6 support from day one</p> <p>Auto Gatekeeper Discovery</p> <p>IP Precedence, H.460 NAT Traversal</p> <p>H.323 based Packet Lost Recovery</p> <p>Media Encryption (H.323, SIP): AES-128, Authenticated access to admin menus, web interface and telnet API</p> <p>Endpoint password policy configuration should be offered</p> <p>H224/H.281, H.323 Annex Q, H.225, H.245, H.241,H.239, H.243, H.460</p> <p>Auto sensing power supply. 230V @ 50Hz</p> <p>Endpoint should support local recording on codec via USB/HDD/DVR</p> <p>It should support 10+ presets</p> <p>Endpoint should support internal multipoint of 1+8 HD 1080p through software license in future</p>	
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**VIDEO SYSTEM & ACCESORIES**

	ITEM/ FEATURES	Specifications in detail		
2	Projector	<b>TECHNOLOGY</b>		<b>Department</b>
		Projection System 3LCD Technology, RGB liquid crystal shutter		
		LCD Panel 0.76 inch with D10		
		<b>IMAGE</b>		
		Color Light Output 5,500 lumen- 3,800 lumen (economy) In		
		accordance with IDMS15.4		
		White Light Output 5,500 lumen - 3,800 lumen (economy) In		
		accordance with ISO 21118:2012		
		Resolution WUXGA, 1920 x 1200, 16:10 or better		
		Contrast Ratio 15,000 : 1		
		Lamp 300 W, 5,000 h durability, 10,000 h durability (economy mode)		
		Keystone Correction Auto vertical: ± 30 °, Auto horizontal ± 20 °		

	Colour Reproduction Upto 1.07 billion colours	
	High Definition Full HD	
	Aspect Ratio 16:10	
	Light source Lamp	
	Colour Processing 10 Bits	
	<b>OPTICAL</b>	
	Projection Ratio 1.38 - 2.28:1	
	Zoom Digital, Factor: 1 - 1.6	
	Image Size 50 inches - 300 inches	
	Projection Distance Wide 1.5 m ( 50 inch screen)	
	Projection Distance Tele 9 m ( 300 inch screen)	
	Projection Lens F Number 1.5 - 2	
	Focal Distance 23 mm - 38.4 mm	
	Focus Manual	
	Offset 10 : 1	
	<b>CONNECTIVITY</b>	
	USB Display Function 3 in 1: Image / Mouse / Sound	
	Interfaces USB 2.0 Type A, USB 2.0 Type B, RS-232C, Ethernet	
	interface (100 Base-TX /	
	10 Base-T),	
	Gigabit ethernet interface, Wireless LAN IEEE 802.11b/g/n,	
	VGA in (2x), VGA out, HDMI in (2x),	
	Composite in, RGB in (2x), RGB out, HDBaseT, Miracast, MHL,	
	Stereo mini jack audio out,	
	Stereo mini jack audio in (2x), Wireless LAN b/g/n (2.4GHz)	
	<b>ADVANCED FEATURES</b>	
	Security Kensington lock, Control panel lock, Password lock, Padlock,	
	Security cable hole,	
	Wireless	
	LAN unit lock, Wireless LAN security, Password protection	
	Features AV Mute Slide, Automatic input selection, Automatic	
	keystone correction, Built-in speaker,	

		CEC compatible, Direct Power on/off, Document Camera Compatible,		
		Screen Fit, Freeze		
		image, Gesture Presenter, Home Screen, Instant on/off, JPEG Viewer,		
		Long lamp life, MHL		
		audio/video interface, Network administration, OSD copy function, PC		
		Free, iProjection App		
		for Chromebook, Quick Corner, Screen Mirroring, Slide show, Split-		
		Screen-Function, Wireless		
		LAN capable, iProjection App		
		Video Colour Modes Blackboard, Dynamic, Photo, Presentation,		
		sRGB, DICOM SIM		
		<b>GENERAL</b>		
		Min. Energy Use 425 W, 323 W (economy), 0.5 W (standby)		
		Max. Product dimensions 377 x 291 x 110 mm		
		(Width x Depth x Height)		
		Max. Product weight 4.7 kg		
		Max. Noise Level Normal: 39 dB (A) - Economy: 29 dB (A)		
		Min. Loudspeaker 16 W		
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
3	Projector Lift	1) Projector lift	<b>1No</b>	<b>Department</b>
		2) Threaded Rods		
		3) False Ceiling Support		
		4) Projector Spider Bracket		
		5) Motor/Power Control		
		6) Wall Switch		
		7) 2-CH Infrared Remote		
		8) 15-Ch Radio Frequency Remote		
		9) IR Sensor		
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
4	Interactive Display 85/86'	Display <ul style="list-style-type: none"> <li>• Diagonal Size: 85/86"</li> <li>• Type: 60Hz E-LED BLU</li> <li>• Resolution: 3840*2160 (4K UHD)</li> <li>• Pixel Pitch (mm): 0.143x0.429mm</li> </ul>	<b>1</b>	<b>Department</b>

- Brightness(Typ.): 500 nit
  - Contrast Ratio: 4000:1
  - Viewing Angle(H/V): 178/178
  - Response Time (G-to-G): 8ms (Typ)
  - Display Colors: 16.7M(True Display)  
1.07B(Ditherd 10bit)
  - Color Gamut: 72%
  - Haze: 25%
  - Dynamic C/R: Mega
  - H-Scanning Frequency: 30 ~ 81kHz
  - V-Scanning Frequency: 48 ~ 75Hz
  - Maximum Pixel Frequency: 594MHz
- Sound
- Speaker Type: Built in Speaker(10W + 10W)
- Input
- RGB: DVI-I(D-Sub Common), Display Port 1.2 (2) -> Support UHD 60hz
  - Video: HDMI 1.4 (4)
  - HDCP: HDCP1.4 (-> support UHD 30hz)
- Audio: Stereo mini Jack, RGB, DVI, HDMI
- USB: USB (S/W update only)
- Output
- Audio: Stereo mini Jack
  - External Control: RS232C(in/out), RJ45
  - External Sensor: IR
- Feature
- Key Features: UHD LFD Display
  - Special Features: H/W : Temperature Sensor,Pivot Display, Clock Battery(168hrs Clock Keeping), Built in Speaker(10W 2ch)  
S/W : FHD 4 PBP Support (2/3/4 PBP), Auto Source Switching & Recovery,LFD Home UI, Button Lock, DHCP with RJ45 MDC, Hot key option, Plug&Play (Initial Setting)
- Power
- Type: Internal

		<ul style="list-style-type: none"> <li>• Power Supply: AC 100 - 240 V~ (+/- 10 %), 50/60 Hz</li> </ul> <p>Operation</p> <ul style="list-style-type: none"> <li>• Recommended Usage Hours: 24/7</li> <li>• Operating Temperature: 0.0 C ~ 40.0 C</li> </ul>		
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
5	Display 55	<ul style="list-style-type: none"> <li>• Diagonal Size: 55"</li> <li>• Type: 60Hz E-LED BLU</li> <li>• Resolution: 3840*2160 (4K UHD)</li> <li>• Pixel Pitch (mm): 0.143x0.429mm</li> <li>• Brightness(Typ.): 500 nit</li> <li>• Contrast Ratio: 4000:1</li> <li>• Viewing Angle(H/V): 178/178</li> <li>• Response Time (G-to-G): 8ms (Typ)</li> <li>• Display Colors: 16.7M(True Display) 1.07B(Ditherd 10bit)</li> <li>• Color Gamut: 72%</li> <li>• Haze: 25%</li> <li>• Dynamic C/R: Mega</li> <li>• H-Scanning Frequency: 30 ~ 81kHz</li> <li>• V-Scanning Frequency: 48 ~ 75HZ</li> <li>• Maximum Pixel Frequency: 594MHz</li> </ul> <p>Sound</p> <ul style="list-style-type: none"> <li>• Speaker Type: Built in Speaker(10W + 10W)</li> </ul> <p>Input</p> <ul style="list-style-type: none"> <li>• RGB: DVI-I(D-Sub Common), Display Port 1.2 (2) -&gt; Support UHD 60hz</li> <li>• Video: HDMI 1.4 (4)</li> <li>• HDCP: HDCP1.4 (-&gt; support UHD 30hz)</li> <li>• Audio: Stereo mini Jack, RGB, DVI, HDMI</li> <li>• USB: USB (S/W update only)</li> </ul> <p>Output</p> <ul style="list-style-type: none"> <li>• Audio: Stereo mini Jack</li> <li>• External Control: RS232C(in/out), RJ45</li> <li>• External Sensor: IR</li> </ul> <p>Feature</p> <ul style="list-style-type: none"> <li>• Key Features: UHD LED Display</li> <li>• Special Features: H/W : Temperature Sensor,Pivot Display, Clock</li> </ul> <p>Battery(168hrs Clock Keeping)</p>	<b>2 No.</b>	<b>Department</b>

		<p>, Built in Speaker(10W 2ch) S/W : FHD 4 PBP Support (2/3/4 PBP),</p> <p>Auto Source Switching &amp;</p> <p>Recovery,LFD Home UI, Button Lock, DHCP with RJ45 MDC, Hot key option, Plug&amp;Play</p> <p>(Initial Setting)</p> <p>Power</p> <ul style="list-style-type: none"> <li>• Type: Internal</li> <li>• Power Supply: AC 100 - 240 V~ (+/- 10 %), 50/60 Hz</li> </ul> <p>Operation</p> <ul style="list-style-type: none"> <li>• Recommended Usage Hours: 24/7</li> <li>• Operating Temperature: 0.0 C ~ 40.0 C</li> <li>• Humidity: 10.0 % ~ 80.0 %</li> </ul>		
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
6	Professional wall mount	Swivel mount of standard make and quality	<b>1 No./ SAMSUNG / PANASONIC/ LG</b>	<b>Department</b>
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
7	123 inch diagonal motorized screen	<p>Case dimensions 3-3/4" high x 3-1/4" deep (10 cm x 8 cm).</p> <p>Maximum image width up to 96" (244 cm) wide, depending on surface selection.</p> <p>Image area framed in black on all four sides, 12" (30 cm) extra drop standard.</p> <p>No wiring necessary, includes 10' (305 cm) power cord and in-line switch. 220V operated motor.</p>	<b>2 nos./ Custom/ chief</b>	<b>Department</b>
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
8	Wireless presentation Gateway	<p>It should support common output resolutions like 1280x720@60Hz,</p> <p>1280x800@60Hz,</p> <p>1280x1024@60Hz, 1360x768@60Hz, 1400x1050@60Hz,</p> <p>1440x900@60Hz, 1600x1200@60Hz,</p> <p>1920x1080@60Hz (1080p60), 1920x1200@60Hz and</p> <p>1920x1080@30Hz (1080i30)</p>	<b>2 No. / Draper/ Elitescreen/ Dalite</b>	<b>Department</b>

		<p>It should support PC OS like Windows XP, Windows Vista™, Windows 7, Windows 8, Windows 10 and both the mobile OS Android and Apple IOS</p> <p>It should also support OS X versions from 10.5 to 10.11 and above</p> <p>It should provide a feature of quadview when 4 wireless users from different platforms like Windows, OS X, Android and IOS can simultaneously share their content wirelessly to any of the quadrants.</p> <p>It should support at least 30 users connected to the device for presentation and at least 40 users connected to the device for remote viewing of the shared presentation.</p> <p>It should have at least one 15Pin VGA with 3.5 mm Audio Port, one HDMI and one RJ-45 port for Ethernet</p>		
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
9	HDMI D/A	<p>It should have 1 HDMI Input and 1 HDMI Output (separate distribution amplifier can be given if it is not built)</p> <p>It should have Optical and SPDIF audio inputs with audio out in SPDIF and 2x RCA.</p> <p>It should allow versatile configuration of EDID and HDCP key handling</p>	<b>2 No./ Crestron / AMX / Extron</b>	<b>Department</b>
<b>AUDIO SYSTEM &amp; ACCESSORIES</b>				
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		

10	Handled microphone	SITC of wireless handheld microphone with True diversity receiver (UHF), 12 Channel Pre-set or better, Display on Transmitter and Receiver, RF Power output 50mW or Better, Polar Pattern :- Cardioid, Carrier frequency range 500MHz to 865MHz, Frequency response 20Hz to 20Khz, Mute Button on Transmitter, Battery Operation time Minimum 8hr, Should have Charging Contact in Transmitter, Receiver dynamic range 80 dB (A-weighted) Or better, switching bandwidth Minimum 30 MHz Or better.	1 No./ Crestron / AMX / Extron	Selected Agency
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
11	Controller	<p>SITC of digital wireless controller unit complete with the following features:</p> <p>1) Triple Band with frequency range 2.4/5.2/5.8 Ghz or better</p> <p>2) 4 Channel Out.</p> <p>3) 128 Bit Encrypted</p> <p>4) 16 bit uncompressed audio transmission</p> <p>5) System range 30mtr and can be increased through external Antenna System.</p> <p>6) Camera Tracking through RS 232 Port</p> <p>7) 2 Nos of Antenna Port</p> <p>8) Software management system and operated through IPAD/Android Devices/PC.</p>	1no./Revolab, clearone, beyerdynamic	Selected Agency
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
12	DSP mixer	<p>Should be able to deliver exceptional pro audio performance with faster, easier implementation and High-performance</p> <p>adaptive AEC on each analog input</p> <p>Should have at least twelve balanced microphone/line-level</p> <p>audio inputs with 66 dB gain range,</p>	1 nos. Revolab, clearone, beyerdynamic	Selected Agency

	Should have Input Level: +24 dBu maximum & Input Impedance	
	: 10k Ohms balanced and POTS (RJ11 wired interface)	
	supporting DTMF & Caller ID, SIP (via Ethernet) supporting	
	SIP server mode. It should also have USB 2.0 device port for	
	to be used as a USB Audio device.	
	Should support +48 Volts DC, 12 mA, software enabled/disabled	
	per channel Phantom power	
	Should have atleast eight balanced/unbalanced line-level audio	
	outputs; with output levels: +24 dBu maximum & Output	
	Impedance: 150 Ohms Balanced	
	Should have a dynamic range : 110 dB, 22 Hz to 22 kHz, 0 dB	
	gain	
	Should have a -85 dB, 1 kHz, +4 dBu input, channel to channel	
	; -75 dB, 1 kHz, -50 dBu input, channel to channel Crosstalk	
	support	
	Should have a dedicated 10/100/1000 Mbps, auto-switching,	
	auto-negotiating, auto-discovery, full/half duplex, TCP/IP,	
	UDP/IP	
	, CIP, DHCP, SSL, SSH, SFTP (SSH File Transfer Protocol)	
	ethernet port.	
	Should have front panel LEDs indicating operating power	
	supplied from AC line power and status indicators for its	
	operation	
	modes	
	Should support real time configuration and adjustment	
	Should be able to work offline or live Ethernet or USB	
	Should be able to work as a standalone or native integration	

		of Control System with rapid programming support		
		Should eliminate complicated UI Programming when using with a		
		Control system for Touch screen, IPAD/Android App for		
		adjusting		
		audio levels		
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
13	Amplifier	SITC of 2-Channel 800W Power Amplifier Class D/TD Max output power per channel : 400 W @ 4/8 Ohms and 70 V THD 20 Hz - 20 kHz at 1 W : <0.1% Signal to Noise Ratio : >110 dBA Frequency Response : 20 Hz - 20 kHz Energy Star Rated	<b>1 no. Crestron, AMX, Extron</b>	<b>Selected Agency</b>
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
14	Speaker	SITC of Ceiling Speaker 4" (100 mm) Full Range. Components LF 4" , 0.75" HF or better Coaxial Rated Output 40W RMS or better Nominal Impedance: 4 to 8 ohms. Frequency Response: 110 Hz to 18 kHz. Maximum SPL 109dB peak or better Sensitivity 87dB or better 90° conical or better Dispersion Transformer taps at 70V/100V : 15W/7.5W/3.75W	<b>10 no. Musictribe , powersoft , Bose</b>	<b>Selected Agency</b>
<b>Control System for AV Setup along with all required accessories</b>				
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
15	Control Processor	It should have at least 8x IR, 8x GPIO, 8x 30 Volts Relays, 1x RJ-45, 1x USB, 1xSD/SDHC Card Slot supporting up to 32 GB , 1x RS-232/422/485, 2x RS-232 supporting up to 115.2k baud rate,	<b>1 nos. Musictribe , Bose, Martin Audio</b>	<b>Selected Agency</b>

		<p>Along with in-built web-server for running custom GUI for control and Management with Program uploading, It should also have one dedicated USB port for easy configuration and program Management from a PC.</p> <p>It should provide feature of using any of the 8x IR ports as 1-way RS-232 port for device control supporting up to 115.2k baud rate</p> <p>It should have at least 512MB RAM and 4 GB In-built storage For programs. It should also support storage-expansion as USB mass storage devices up to 1 TB</p> <p>It should have an architecture which provides multi-threading and multi-tasking for faster control of the connected devices</p> <p>It should have an option to communicate with a centralized server for management and monitoring of the devices connected to it over RS-232/422/485 and IP</p> <p>It should support essential network security features as SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), FIPS 140-2 compliant encryption, IEEE 802.1X</p> <p>It should also support SNMP Active Directory authentication, IIS v.6.0 Web Server, SMTP e-mail client for complete network Integration.</p>		

	ITEM/ FEATURES	Specifications in detail		
16	AV Encoder/ Decoder	Supply, Installation, Testing and Commissioning of HDBaseT/ IP based HDMI Transmitter with 4K@60 4:4:4 HDR resolutions with HDCP2.2 compliance on at least CAT-5e and better cable complete with standard accessories and Network security features like AES Encryption, 802.1x supports and Active directory integration. It should have at least 2x Gigabit RJ-45 ports and 2x HDMI Inputs and 1x local HDMI Output. It should be able to transmute USB 2.0. It should support Audio Embedding.	<b>3 no. Crestron/ AMX/Extron</b>	<b>Selected Agency</b>
	ITEM/ FEATURES	Specifications in detail		
17	8 channel switching relay	<p>It should also support SNMP Active Directory authentication,</p> <p>IIS v.6.0 Web Server, SMTP e-mail client for complete network</p> <p>Integration.</p> <p>Should be a DIN-rail, addressable 8-channel lighting control</p> <p>module with dry-contact relay output for switching of non-</p> <p>dimnable lighting and fans</p> <p>Should have 8 channels of power switching to support 220-240</p> <p>Volt applications</p> <p>Should have Isolated Class 1 SPST relay switch circuits</p> <p>Should handle 10 Amps incandescent, 5 Amps fluorescent, 16</p> <p>Amps resistive, 0.5</p> <p>HP @ 240 Volts AC (per channel);</p> <p>Should have Maximum Wire Size: 12 AWG (2.5 mm<sup>2</sup>)</p> <p>Should have slave bus port to be powered by the master bus or</p> <p>external power supply and support bidirectional communication</p> <p>Should have sensing input for external low-voltage contact</p>	<b>1 nos. Crestron, AMX, Extron</b>	<b>Selected Agency</b>

		closure as a control override trigger; Minimum Closure Rating: 10mA (per module) at 24 Volts Should have control and status indicator LEDs Should have miniature pushbuttons for status indication and local control of each channel Should have recessed miniature pushbutton to reset internal processor Should be UL94 V-0 rated, 35mm DIN EN 60715 rail mount , DIN 43880 form factor for enclosures with 45mm front panel cut out		
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
18	Software License	Touch Panel Application downloadable from play store / App store for Automation	<b>1no. Crestron, AMX, Extron</b>	<b>Selected Agency</b>
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
19	I pad table mount	Table Dock for iPod Air® 2 & iPod Pro® 9.7, Black with Includes Apple 12W USB Power Adapter and 3.28 ft (1 m) Lightning® to USB cable. It should be able to give 2.4 Amps (12 Watts) @ 100-240 Volts AC, 50/60 Hz; It should be from the same OEM as the control processor to maintain quality, compatibility and experience.	<b>1no. Crestron, AMX, Extron</b>	<b>Selected Agency</b>
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
20	I Pod	Retina display 9.7-inch (diagonal) LED-backlit Multi-Touch display with IPS technology 2048x1536-pixel resolution at 264 pip Fingerprint-resistant oleo phobic coating Supports Apple Pencil Wi-Fi model	<b>1no. Crestron, AMX, Extron</b>	<b>Selected Agency</b>

		Wi-Fi (802.11a/b/g/n/ac); dual band (2.4GHz and 5GHz); HT80		
		with MIMO		
		Bluetooth 4.2 technology		
	<b>ITEM/ FEATURES</b>	<b>Specifications in detail</b>		
21	Wi-Fi	<p>WIRELESS RADIO SPECIFICATIONS</p> <p>AP type: Indoor, dual radio, 5-GHz 802.11ac and 2.4-GHz •</p> <p>802.11n 2x2:2</p> <p>Software-configurable dual radio supports 5 GHz (Radio 0) •</p> <p>and 2.4 GHz (Radio 1)</p> <p>2x2 MIMO with two spatial streams and up to 867 Mbps •</p> <p>wireless data rate</p> <p>Support for up to 256 associated client devices per radio, •</p> <p>and up to 16 BSSIDs per radio</p> <p>Supported frequency bands (country-specific •</p> <p>restrictions apply):</p> <p>- 2.4000 GHz to 2.4835 GHz</p> <p>- 5.150 to 5.250 GHz</p> <p>- 5.250 to 5.350 GHz</p> <p>- 5.470 to 5.725 GHz</p> <p>- 5.725 to 5.850 GHz</p> <p>Available channels: Dependent on configured •</p> <p>regulatory domain</p> <p>Dynamic frequency selection (DFS) optimizes the use of •</p> <p>available RF spectrum</p> <p>Supported radio technologies: •</p> <p>- 802.11b: Direct-sequence spread-spectrum (DSSS)</p> <p>- 802.11a/g/n/ac: Orthogonal frequency-division multiplexing (OFDM)</p> <p>Supported modulation types: •</p> <p>- 802.11b: BPSK, QPSK, CCK</p> <p>- 802.11a/g/n/ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM</p> <p>Transmit power: Configurable in increments of 0.5 dBm •</p>	1 No-Aruba, Cisco, Miraki	Department

		<p>Maximum (aggregate, conducted total) transmit power •</p> <p>(limited by local regulatory requirements):</p> <p>- 2.4-GHz band: +21 dam (18 dam per chain)</p> <p>- 5-GHz band: +21 dam (18 dam per chain)</p> <p>Advanced Cellular Coexistence (ACC) minimizes •</p> <p>interference from cellular networks</p> <p>Maximum ratio combining (MRC) for improved •</p> <p>receiver performance</p> <p>Cyclic delay/shift diversity (CDD/CSD) for improved •</p> <p>downlink RF performance</p> <p>Short guard interval for 20-MHz, 40-MHz and •</p> <p>80-MHz channels</p> <p>Space-time block coding (STBC) for increased range and •</p> <p>improved reception</p> <p>Low-density parity check (LDPC) for high-efficiency error •</p> <p>correction and increased throughput</p> <p>Transmit beam forming (TxBF) for increased reliability in •</p> <p>signal delivery</p>		
	<b>ITEM/FEATURES</b>	<b>Specifications in detail</b>		
22	PoE managed switch	10 Ports Gigabit PoE Managed switch	<b>1no. Aruba, Cisco, Miraki</b>	<b>Department</b>

**ENVELOPE-3**

**FINANCIAL BID**

**Name of The Work-****Supply, Installation, Testing and Commissioning of Audio/Visual setup in Conference Hall at NHSRC, NIHFW Campus, Munirka, New Delhi -110067****Schedule-A**

SN	DESCRIPTION	MAKE	MODEL	UNIT	QTY	UNIT RATE	AMOUNT	Remarks
1	Projector Ceiling Mount Kit	RD Plast / Logic / Btech		Nos.	1			To Be Quoted By Vendor
2	Professional heavy duty Swivel Mount	Custom		Nos.	1			To Be Quoted By Vendor
3	Crestron HD Scaling Auto-Switcher & Extender 300	Crestron		Nos.	1			To Be Quoted By Vendor
4	Camera shelf metal wall mount-Black	RD Plast / Logic / Btech		Nos.	1			To Be Quoted By Vendor
5	Avia™ 12x8 DSP Matrix Mixer w/USB Audio, AEC, & Audio Conferencing Interface	Crestron / AMX / Extron		Nos.	1			To Be Quoted By Vendor
6	Multi-Channel channel power amplifier, High power density-Up to 2x400W at 2/4/8 ohms @ 70V in 1U	Labgruppen / Powersoft / Bose		Nos.	1			To Be Quoted By Vendor
7	ceiling speaker	Tannoy /Bose / Martin Audio		Nos.	10			To Be Quoted By Vendor
8	3-Series Control System®	Crestron / AMX / Extron		Nos.	1			To Be Quoted By Vendor
9	Digital Media™ 4K60 4:4:4 HDR Network AV Encoder/Decoder	Crestron / AMX / Extron		Nos.	6			To Be Quoted By Vendor
10	DIN Rail High-Voltage Switch, 8 channels of power switching	Crestron / AMX / Extron		Nos.	1			To Be Quoted By Vendor
11	Touch Panel Application software License	Crestron / AMX / Extron		Nos.	1			To Be Quoted By Vendor

12	iPanel® Table Dock for iPad Air® 2 & iPad Pro® 9.7	Crestron / AMX / Extron		Nos.	1			To Be Quoted By Vendor
13	HDMI AV Plate	Kramer / Crestron / Extron		Nos.	1			To Be Quoted By Vendor
14	HDMI (M) to HDMI (M) Cable with Ethernet	Kramer / Crestron / Extron		Nos.	8			To Be Quoted By Vendor
15	HDMI (M) to HDMI (M) Cable with Ethernet	Kramer / Crestron / Extron		Nos.	3			To Be Quoted By Vendor
16	HDMI (M) to HDMI (M) Cable with Ethernet	Kramer / Crestron / Extron		Nos.	1			To Be Quoted By Vendor
17	Cat6 STP Cable	Kramer / Crestron / Belden		Mts	250			To Be Quoted By Vendor
18	Audio cable	Kramer / Crestron / Extron		Mts.	70			To Be Quoted By Vendor
19	Speaker Cable	Kramer / Crestron / Extron		Mts.	190			To Be Quoted By Vendor
20	AV rack 27U with Accessories	Valrack / APW / Rittal		Nos.	1			To Be Quoted By Vendor
21	Installation & Project Management Charges for all Item mentioned in Schedule-A and Schedule-B	Service		Job	1			To Be Quoted By Vendor
<b>Total</b>								
<b>Total Amount in Words</b>								

**Schedule-B**

SN	DESCRIPTION	MAKE	MODEL	UNIT	QTY	UNIT RATE	AMOUNT	Mode of Procurement
1	AirMedia® Presentation Gateway	Crestron / AMX / Extron		Nos.	2	Not to be Quoted		To be provided by Department
2	SCOPIA XT5000 CODEC ONLY	Avaya / Cisco / Polycom		Nos.	1			
3	SCOPIA XT5000 BASE LIC:DS /E	Avaya / Cisco / Polycom		Nos.	1			
4	SCOPIA XT PREMIUM MICROPHONE POD	Avaya / Cisco / Polycom		Nos.	1			
5	SCOPIA XT ADV CAMERA	Avaya / Cisco / Polycom		Nos.	1			
6	POWER CORD INDIA	Avaya / Cisco / Polycom		Nos.	1			
7	MICROPHONE POD 6M CABLE	Avaya / Cisco / Polycom		Nos.	1			
8	SIMPLIFIED REMOTE CONTROL	Avaya / Cisco / Polycom		Nos.	1			
9	COMMUNICATIONS SOLUTION	Avaya / Cisco / Polycom		Nos.	1			
10	SUPPORT ADVANTAGE MEETING EXCHANGE MODEL	Avaya / Cisco / Polycom		Nos.	1			
11	MAINTENANCE COMPREHENSIVE SUPPORT MODEL	Avaya / Cisco / Polycom		Nos.	1			
12	SA ESSENTIAL+UA SCOPIA XT5000 CODEC ONLY 1YPP	Avaya / Cisco / Polycom		Nos.	1			
13	SA ESSENTIAL+UA SCOPIA XT PREMIUM MICROPHONE POD 1YPP	Avaya / Cisco / Polycom		Nos.	1			
14	SA ESSENTIAL+UA SCOPIA XT DLX CAMERA 1YPP	Avaya / Cisco / Polycom		Nos.	1			
15	WUXGA 5500Lm Projector	Epson / Christie / Barco/ Acer		Nos.	1	Not to be Quoted		
16	85/86 Inch Interactive Display	Samsung/ Panasonic / LG		Nos.	1			
17	55 Inch LED Display	Samsung /Panasonic / LG		Nos.	2			

18	123" diagonal (16 :10 Aspect ratio) Motorized projector screen	Draper / Elitescreen / Dalite		Nos.	1	To be provided by Department
19	WUXGA 3000Lm Projector	Epson / Christie / Barco/ Acer		Nos.	1	
20	Projector Ceiling Mount Kit	RD Plast / Logic / Btech		Nos.	1	
21	Draper 94" diagonal (16 :10 Aspect ratio) Motorized projector screen	Draper / Elitescreen / Dalite		Nos.	1	
22	Handheld Wireless Microphone	Revolab , Clearone , Beyerdynamic		Nos.	4	
23	Collar Wireless Microphone	Revolab , Clearone , Beyerdynamic		Nos.	2	
24	Apple iPad Tablet (9.7 inch, 32GB, Wi-Fi), Space Grey	Apple		Nos.	1	
25	Wi-Fi Access Point	Aruba / Cisco Meraki		Nos.	1	
26	SG350-10PP 10-port Gigabit PoE+ Managed Switch	Cisco / HPE / Extreme		Nos.	1	
Note-		All term and conditions mentioned in the tender document is accepted				
		The L1 shall be decided based on total amount quoted				
						Signature and Seal of the Firm