# TENDER NATIONAL HEALTH SYSTEMS RESOURCE CENTRE



## **SUMMARY OF TENDER**

Name of Work	Supply, Installation, Testing and Commissioning of Audio/Visual setup in Conference Hall at NHSRC, NIHFW Campus, Munirka, New Delhi -110067
Notice Inviting Tender	02-10.18
Date of issue of tender	From 02.10.18 to 16.10.18 till 17:00 Hrs, can be
documents.	downloaded from the website of NHSRC.
	www.nhsrcindia.org
Date of submission of	The sealed Tender so as to reach this office on or
Tender	before 17-10-2018 latest by 1500 hrs
Date of Pre-Bid Meeting	On 10-10-2018 at 1530 hrs in presence of party who
	may be present.
Date of Opening of Tender	On 17-10-2018 at 1530 hrs in presence of party who
	may be present.
Estimate cost	Rs. 14,12,408.00
EMD	Rs. (Refundable) - Rupees Thirty Thousand only.
Performance Guarantee	5% of Contract Amount
Tender Cost	Rs.1000.00 (Non-Refundable) Rupees One
	Thousand only.
Completion time	One Month
Envelope-1	EMD & Tender Cost
Envelope-2	Pre qualifications Documents with Tender
	Document
Envelope-3	Financial Bid Only

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:-01-10-2018

Name of the work: Supply, Installation, Testing and Commissioning of Audio/Visual setup in Conference Hall at NHSRC, NIHFW 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, NIHFW 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 1700 HRS on **16.10.18**.

**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**. Charted 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 <u>www.nhsrcindia.org</u>. 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 prequalification 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 work '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, statuary 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, NIHFW Campus, Baba Gangnath Marg, Munirka New Delhi-110067 up

to **1500 hours on or before 17.10.2018**. The tenders received shall be opened on **same day at 1530 Hrs** in the presence of tenderers who may be present. The submission of tender shall be as under:

13.1 **Sealed Envelope No.1-supersrcibed"EMD &Tender cost**" consisting of demand draft for Tender cost (Non-refundable) and Earnest money deposit (Refundable) of subject work. It should be superscripted 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, NIHFW 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, NIHFW 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 maternal misrepresentation or has given any maternally 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, not withstanding anything to the contrary contained therein be liable to be terminated along with forfeiter 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 te	nder - <b>Rs.14, 12,408.00</b>
(b) Earnest money (2% of the estimated o	cost) - Rs.30, 000.00
(c) Security deposit	- as per NIT
3(ii) Schedule of rates applicable:	Market Rate
1 Time allowed for execution of work	20 days (To be reckoned

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, NIHFW 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, NIHFW 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)/Contract(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**

 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.
 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 intensions.

**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:

Dated :

# Specifications:

	1	Audio/Visual in Conference Hall with Acce	ssories	
S.No	ITEM/ FEATURES	Specifications in detail	Make	Provided By
		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 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		
	Video Conferenci ng System	It should transmit both people and content simultaneously to the far end location at 1080p @30 fps and/or 1080p60 FPS	1 LOT/Avay a/ Cisco/Poly com	Department
		support OPUS,G.711, , G.722, G.722.1, AAC LC/AAC-LD or better		
1		It should support 20kHz bandwidth with crystal clear audio		
T		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		

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

## VIDEO SYSTEM & ACCESORIES

	ITEM/ FEATURES	Specifications in detail	
2	Projector	TECHNOLOGYProjection System 3LCD Technology, RGBliquid crystal shutterLCD Panel 0.76 inch with D10IMAGEColor Light Output 5,500 lumen- 3,800lumen (economy) Inaccordance with IDMS15.4White Light Output 5,500 lumen - 3,800lumen (economy) Inaccordance with ISO 21118:2012Resolution WUXGA, 1920 x 1200, 16:10 orbetterContrast Ratio 15,000 : 1Lamp 300 W, 5,000 h durability, 10,000 hdurability (economy mode)Keystone Correction Auto vertical: ± 30 °,Auto horizontal ± 20 °	Department

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)	
High Definition Full HDAspect Ratio 16:10Light source LampColour Processing 10 Bits <b>OPTICAL</b> Projection Ratio 1.38 - 2.28:1Zoom Digital, Factor: 1 - 1.6Image Size 50 inches - 300 inchesProjection Distance Wide 1.5 m ( 50 inch	
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	
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	
Colour Processing 10 Bits OPTICAL 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	
OPTICAL 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	
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	
Zoom Digital, Factor: 1 - 1.6 Image Size 50 inches - 300 inches Projection Distance Wide 1.5 m ( 50 inch	
Image Size 50 inches - 300 inches Projection Distance Wide 1.5 m ( 50 inch	
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	
CONNECTIVITY	
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)	
ADVANCED FEATURES	
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,	

4	Interactive Display 85/86'	Display • Diagonal Size: 85/86" • Type: 60Hz E-LED BLU • Resolution: 3840*2160 (4K UHD) • Pixel Pitch (mm): 0.143x0.429mm	1	Department
	ITEM/ FEATURES	Specifications in detail		
		9) IR Sensor		
l		8) 15-Ch Radio Frequency Remote		
l		7) 2-CH Infrared Remote		
l	Lift	6) Wall Switch		
3	Projector	5) Motor/Power Control	1No	Department
I		4) Projector Spider Bracket		
I		3) False Ceiling Support		
I		2) Threaded Rods		
	FEATURES	1) Projector lift		
	ITEM/	Specifications in detail		
		Min. Loudspeaker 16 W		
		Economy: 29 dB (A)		
		Max. Noise Level Normal: 39 dB (A) -		
		Max. Product weight 4.7 kg		
		(Width x Depth x Height)		
		mm		
		Max. Product dimensions 377 x 291 x 110		
		(economy), 0.5 W (standby)		
		Min. Energy Use 425 W, 323 W		
		GENERAL		
		sRGB, DICOM SIM		
		Dynamic, Photo, Presentation,		
		Video Colour Modes Blackboard,		
		LAN capable, iProjection App		
		Screen-Function, Wireless		
		Mirroring, Slide show, Split-		
		for Chromebook, Quick Corner, Screen		
		Free, iProjection App		
		audio/video interface, Network administration, OSD copy function, PC		
		Long lamp life, MHL		
		Instant on/off, JPEG Viewer,		
		image, Gesture Presenter, Home Screen,		
		Screen Fit, Freeze		
		Document Camera Compatible,		
		Document Camera Compatible		

<ul> <li>Brightness(Typ.): 500 nit</li> </ul>
Contrast Ratio: 4000:1
<ul> <li>Viewing Angle(H/V): 178/178</li> </ul>
<ul> <li>Response Time (G-to-G): 8ms (Typ)</li> </ul>
<ul> <li>Display Colors: 16.7M(True Display)</li> </ul>
1.07B(Ditherd 10bit)
Color Gamut: 72%
• Haze: 25%
• Dynamic C/R: Mega
<ul> <li>H-Scanning Frequency: 30 ~ 81kHZ</li> </ul>
<ul> <li>V-Scanning Frequency: 48 ~ 75HZ</li> </ul>
Maximum Pixel Frequency: 594MHz
Sound
<ul> <li>Speaker Type: Built in Speaker(10W +</li> </ul>
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: B\$222C(in/out) BIAE
• External Control: RS232C(in/out), RJ45
• External Sensor: IR
Feature
Key Features: UHD LFD Display     Special Features: H/W : Temperature
<ul> <li>Special Features: H/W : Temperature Sensor, Pivot Display,</li> </ul>
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

FEATURES       Specifications in detail <ul> <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 (6-to-G): 8ms (Typ)</li> <li>Display Colors: 16.7M(True Display)</li> <li>1.07B(Ditherd 10bit)</li> <li>Color Gamu: 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> <li>Sound</li> <li>Speaker Type: Built in Speaker(10W + 10W)</li> <li>Input</li> <li>RGB: DVI-I(D-Sub Common), Display</li> <li>Port 1.2 (2) -&gt; Support UHD</li> <li>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> <li>Output</li> <li>Audio: Stereo mini Jack</li> <li>External Centrol: RS232C(in/out), RI45</li> <li>External Centrol: RS232C(in/out), RI45</li> <li>External Sensor: IR</li> <li>Feature</li> <li>Key Features: UHD LED Display</li> </ul>		ITEM/	<ul> <li>Power Supply: AC 100 - 240 V~ (+/- 10%), 50/60 Hz</li> <li>Operation</li> <li>Recommended Usage Hours: 24/7</li> <li>Operating Temperature: 0.0 C ~ 40.0 C</li> </ul>		
5       Display 55         5       Display 55         10000       Pixel Pitch (mm): 0.143x0.429mm         • Brightness(Typ.): 500 nit         • Contrast Ratio: 4000:1         • Viewing Angle(H/V): 178/178         • Response Time (6-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: 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 Sensor: IR         Feature         • Key Features: UHD LED Display		-	Specifications in detail		
Sensor,Pivot Display, Clock Battery(168hrs Clock Keeping)	5		<ul> <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)</li> <li>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> <li>Sound</li> <li>Speaker Type: Built in Speaker(10W + 10W)</li> <li>Input</li> <li>RGB: DVI-I(D-Sub Common), Display</li> <li>Port 1.2 (2) -&gt; Support UHD</li> <li>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> <li>Output</li> <li>Audio: Stereo mini Jack</li> <li>External Control: RS232C(in/out), RJ45</li> <li>External Sensor: IR</li> <li>Feature</li> <li>Key Features: UHD LED Display</li> <li>Special Features: H/W : Temperature</li> <li>Sensor,Pivot Display, Clock</li> </ul>	2 No.	Department

8	Wireless presentati on Gateway	1280x800@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x1200@60Hz, 1920x1080@60Hz (1080p60), 1920x1200@60Hz and 1920x1080@30Hz (1080i30)	2 No. / Draper/ Elitescree n/ Dalite	Department
	FEATURES	It should support common output resolutions like 1280x720@60Hz,		
	ITEM/	Specifications in detail		
7	123 inch diagonal motorized screen	Case dimensions 3-3/4" high x 3-1/4" deep (10 cm x 8 cm). Maximum image width up to 96" (244 cm) wide, depending on surface selection. Image area framed in black on all four sides, 12" (30 cm) extra drop standard. No wiring necessary, includes 10' (305 cm) power cord and in-line switch. 220V operated motor.	2 nos./ Custom/ chief	Department
	ITEM/ FEATURES	Specifications in detail		
6	Profession al wall mount	Swivel mount of standard make and quality	1 No./ SAMSUNG / PANASONI C/ LG	Department
	ITEM/ FEATURES	Specifications in detail		
		DHCP with RJ45 MDC, Hot key option, Plug&Play (Initial Setting) Power • Type: Internal • Power Supply: AC 100 - 240 V~ (+/- 10 %), 50/60 Hz Operation • Recommended Usage Hours: 24/7 • Operating Temperature: 0.0 C ~ 40.0 C • Humidity: 10.0 % ~ 80.0 %		
		, Built in Speaker(10W 2ch) S/W : FHD 4 PBP Support (2/3/4 PBP), Auto Source Switching & Recovery,LFD Home UI, Button Lock,		

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

10	Handled microphon e	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
	ITEM/ FEATURES	Specifications in detail		
11	Controller	<ul> <li>SITC of digital wireless controller unit complete with the following features:</li> <li>1) Triple Band with frequency range 2.4/5.2/5.8 Ghz or better</li> <li>2) 4 Channel Out.</li> <li>3) 128 Bit Encrypted</li> <li>4) 16 bit uncompressed audio transmission</li> <li>5) System range 30mtr and can be increased through external</li> <li>Antenna System.</li> <li>6) Camera Tracking through RS 232 Port</li> <li>7) 2 Nos of Antenna Port</li> <li>8) Software management system and operated through</li> <li>IPAD/Android Devices/PC.</li> </ul>	1no./Revo lab, clearone, beyerdyna mic	Selected Agency
	ITEM/ FEATURES	Specifications in detail		
12	DSP mixer	Should be able to deliver exceptional pro audio performance with faster, easier implementation and High-performance adaptive AEC on each analog input Should have atleast twelve balanced microphone/line-level audio inputs with 66 dB gain range,	1 nos. Revolab, clearone, beyerdyna mic	Selected Agency

Should have Input L maximum & Input Ir	
: 10k Ohms balance	and POTS (RJ11
wired interface)	
supporting DTMF &	Caller ID, SIP (via
Ethernet) supporting	5
SIP server mode. It s	hould also have US
2.0 device port for	
to be used as a USB	Audio device.
Should support +48	Volts DC, 12 mA,
software enabled/d	sabled
per channel Phanto	n power
Should have atleast	eight
balanced/unbalance	d line-level audio
outputs; with outpu	t levels: +24 dBu
maximum & Output	
Impedance: 150 Oh	
Should have a dynar	nic range : 110 dB,
Hz to 22 kHz, 0 dB	
gain	
Should have a -85 d	3, 1 kHz, +4 dBu in
channel to channel	
;-75 dB, 1 kHz, -50 d	Bu input, channel t
channel Crosstalk	
support	
Should have a dedic	
Mbps, auto-switchir	-
auto-negotiating, a	
full/half duplex, TCP	/IP,
UDP/IP	
, CIP, DHCP, SSL, SSH	, SFTP (SSH File
Transfer Protocol)	
ethernet port.	
Should have front pa	anei LEDS Indicating
operating power	
supplied from AC lin	ie power and statu
indicators for its	
operation	
modes	
Should support real	time configuration
and adjustment	
Should be able to w	ork offline or live
Ethernet or USB	,
Should be able to w	ork as a standalone

		of Control System with rapid		
		programming support		
		Should elimate complicated UI		
		Programming when using with a		
		Control system for Touch screen,		
		IPAD/Android App for		
		adjusting		
		audio levels		
	ITEM/ FEATURES	Specifications in detail		
		SITC of 2-Channel 800W Power Amplifier		
		Class D/TD		
		Max output power per channel : 400 W @ 4/8 Ohms and 70 V	1no. Crestron,	Selected
13	Amplifier	THD 20 Hz - 20 kHz at 1 W : <0.1%	AMX,	Agency
		Signal to Noise Ratio : >110 dBA	Extron	
		Frequency Response : 20 Hz - 20 kHz		
		Energy Star Rated		
	ITEM/	Creations in datail		
	FEATURES	Specifications in detail		
	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	10 no. Musictribe	Selected
14		Nominal Impedance: 4 to 8 ohms.	wusictribe	
14	Speaker	Frequency Response: 110 Hz to 18 kHz.	, powersoft	Agency
		Maximum SPL 109dB peak or better	, Bose	
		Sensitivity 87dB or better	, bose	
		90° conical or better Dispersion		
		Transformer taps at 70V/100V :		
		15W/7.5W/3.75W		
	Contr	ol System for AV Setup along with all requir	ed accessorie	5
	ITEM/ FEATURES	Specifications in detail		
		It should have at least 8x IR, 8x GPIO, 8x		
		30 Volts Relays,		
		1x RJ-45, 1x USB, 1xSD/SDHC Card Slot	1 nos.	
45	Control	supporting up to 32	Musictribe , Bose,	
15		Processor GB		Selected
	Processor			
	Processor	, 1x RS-232/422/485, 2x RS-232	Martin	Agency
	Processor		Martin Audio	

	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, 802.1 x 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.	3 no. Crestron/ AMX/Extr on	Selected Agency
	ITEM/ FEATURES	Specifications in detail		
17	8 channel switching relay	It should also support SNMP Active Directory authentication, IIS v.6.0 Web Server, SMTP e-mail client for complete network Integration. Should be a DIN-rail, addressable 8- channel lighting control module with dry-contact relay output for switching of non- dimmable lighting and fans Should have 8 channels of power switching to support 220-240 Volt applications Should have Isolated Class 1 SPST relay switch circuits Should handle 10 Amps incandescent, 5 Amps fluorescent, 16 Amps resistive, 0.5 HP @ 240 Volts AC (per channel); Should have Maximum Wire Size: 12 AWG (2.5 mm <sup>2</sup> ) Should have slave bus port to be powered by the master bus or external power supply and support bidirectional communication Should have sensing input for external low-voltage contact	1 nos. Crestron, AMX, Extron	Selected Agency

		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		
	ITEM/ FEATURES	Specifications in detail		
	FLATORLS	Touch Panel Application downloadable	1no.	
	Software License	from play store / App store	Crestron,	Selected
18			AMX,	Agency
		for Automation	Extron	, Berred
	ITEM/	Specifications in detail		
	FEATURES			
		Table Dock for iPod Air <sup>®</sup> 2 & iPod Pro <sup>®</sup>		
		9.7, Black with Includes Apple		
		12W USB Power Adapter and 3.28 ft (1 m)	1no.	
	I pad table	12W USB Power Adapter and 3.28 ft (1 m) Lightning <sup>®</sup> to USB cable. It should be able	1no. Crestron,	Selected
19	l pad table mount	12W USB Power Adapter and 3.28 ft (1 m) Lightning <sup>®</sup> to USB cable. It should be able to give 2.4 Amps (12 Watts) @ 100-240	_	Selected Agency
19		12W USB Power Adapter and 3.28 ft (1 m) Lightning <sup>®</sup> to USB cable. It should be able to give 2.4 Amps (12 Watts) @ 100-240 Volts AC, 50/60 Hz;	Crestron,	
19		12W USB Power Adapter and 3.28 ft (1 m) Lightning <sup>®</sup> 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	Crestron, AMX,	
19		12W USB Power Adapter and 3.28 ft (1 m) Lightning <sup>®</sup> 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	Crestron, AMX,	
19	mount	12W USB Power Adapter and 3.28 ft (1 m) Lightning <sup>®</sup> 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	Crestron, AMX,	
19		12W USB Power Adapter and 3.28 ft (1 m) Lightning <sup>®</sup> 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	Crestron, AMX,	
19	mount ITEM/	12W USB Power Adapter and 3.28 ft (1 m) Lightning <sup>®</sup> 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.	Crestron, AMX,	
19	mount ITEM/	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. Specifications in detail	Crestron, AMX,	
19	mount ITEM/	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>Specifications in detail</b> Retina display	Crestron, AMX,	
	mount ITEM/ FEATURES	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>Specifications in detail</b> Retina display 9.7-inch (diagonal) LED-backlit Multi-	Crestron, AMX, Extron	
20	mount ITEM/	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>Specifications in detail</b> Retina display 9.7-inch (diagonal) LED-backlit Multi- Touch display with IPS	Crestron, AMX, Extron	Agency
	mount ITEM/ FEATURES	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>Specifications in detail</b> Retina display 9.7-inch (diagonal) LED-backlit Multi- Touch display with IPS technology	Crestron, AMX, Extron 1no. Crestron,	Agency
	mount ITEM/ FEATURES	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>Specifications in detail</b> Retina display 9.7-inch (diagonal) LED-backlit Multi- Touch display with IPS technology 2048x1536-pixel resolution at 264 pip	Crestron, AMX, Extron Ino. Crestron, AMX,	Agency

1	I	Wi-Fi (802.11a/b/g/n/ac); dual band		I
		(2.4GHz and 5GHz); HT80		
		with MIMO		
		Bluetooth 4.2 technology		
	ITEM/			
	FEATURES	Specifications in detail		
		WIRELESS RADIO SPECIFICATIONS		
		AP type: Indoor, dual radio, 5-GHz		
		802.11ac and 2.4-GHz •		
		802.11n 2x2:2		
		Software-configurable dual radio supports		
		5 GHz (Radio 0) •		
		and 2.4 GHz (Radio 1)		
		2x2 MIMO with two spatial streams and		
		up to 867 Mbps •		
		wireless data rate		
		Support for up to 256 associated client		
		devices per radio, •		
		and up to 16 BSSIDs per radio		
		Supported frequency bands (country-		
		specific •		
		restrictions apply):		
		- 2.4000 GHz to 2.4835 GHz		
		- 5.150 to 5.250 GHz	1 No-	
		- 5.250 to 5.350 GHz	Aruba,	
21	Wi-Fi	- 5.470 to 5.725 GHz	Cisco,	Department
		- 5.725 to 5.850 GHz	Miraki	
		Available channels: Dependent on		
		configured •		
		regulatory domain		
		Dynamic frequency selection (DFS)		
		optimizes the use of •		
		available RF spectrum		
		Supported radio technologies: •		
		- 802.11b: Direct-sequence spread-		
		spectrum (DSSS)		
		- 802.11a/g/n/ac: Orthogonal frequency-		
		division		
		multiplexing (OFDM)		
		Supported modulation types: •		
		- 802.11b: BPSK, QPSK, CCK		
		- 802.11a/g/n/ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM		
		Transmit power: Configurable in		
		increments of 0.5 dBm •		
				27

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

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

Sch	edule-A							
SN	DESCRIPTION	MAKE	M OD EL	UNIT	QT Y	UNIT RATE	AMOUNT	Remarks
2	Projector Ceiling Mount Kit	RD Plast / Logic / Btech		Nos.	1			To Be Quoted By Vendor
5	Professional heavy duty Swivel Mount	Custom		Nos.	1			To Be Quoted By Vendor
11	Crestron HD Scaling Auto-Switcher & Extender 300	Crestron		Nos.	1			To Be Quoted By Vendor
12	Camera shelf metal wall mount-Black	RD Plast / Logic / Btech		Nos.	1			To Be Quoted By Vendor
3	Avia™ 12x8 DSP Matrix Mixer w/USB Audio, AEC, & Audio Conferencing Interface	Crestron / AMX / Extron		Nos.	1			To Be Quoted By Vendor
4	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
5	ceiling speaker	Tannoy /Bose / Martin Audio		Nos.	10			To Be Quoted By Vendor
1	3-Series Control System®	Crestron / AMX / Extron		Nos.	1			To Be Quoted By Vendor
2	Digital Media™ 4K60 4:4:4 HDR Network AV Encoder/Decoder	Crestron / AMX / Extron		Nos.	6			To Be Quoted By Vendor
3	DIN Rail High-Voltage Switch, 8 channels of power switching	Crestron / AMX / Extron		Nos.	1			To Be Quoted By Vendor
4	Touch Panel Application software License	Crestron / AMX / Extron		Nos.	1			To Be Quoted By Vendor

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

Schedule-B

SN	DESCRIPTION	МАКЕ	M OD EL	UNIT	QT Y	UNIT RATE	AMOUNT	Mode of Procurement
1	AirMedia <sup>®</sup> Presentation Gateway	Crestron / AMX / Extron		Nos.	2			
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			To be provided by Department
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	Not to k	e Quoted	
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
19	WUXGA 3000Lm Projector	Epson / Christie / Barco/ Acer		Nos.	1		Department
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		
Not		All term and conditions mention	ed in t	the tend	er doc	ument is accepted	
NOL	e-	The L1 shall be decided based or	n total	amount	quote	d	
						Signature and Seal of the Fir	m