



F. No. 5-545/NAHEP/A.III

Dated: 9th January, 2023

NOTICE INVITING TENDER FOR
INVITING TENDER FOR
INTERACTIVE VIDEO CONFERENCING SYSTEM WITH PERIPHERALS
UNDER NAHEP PROJECT AT ICAR- NAARM

ICAR-NAARM is a premier publicly funded Training and Research Management Organization under ICAR, DARE, Ministry of Agriculture & Farmers Welfare, Government of India. The Director, ICAR-NAARM invites Tenders from the reputed/experienced Suppliers / Dealers for Interactive Video Conferencing System with Peripherals. The bidders are requested to submit the Tenders online on GeM Portal.

The details of Tender submission online is as follows:

Sl. No.	Description	Date	Time
1)	Tender Publishing Date	09.01.2023	1400 hrs.
2)	Bid Closing date	30.01.2023	1400 hrs.

The tender document consists of supply and installation of video conferencing board room. Tender document can be downloaded from the website of GeM Portal. **THE TENDER HAS TO BE SUBMITTED ONLINE ONLY.**

The Director, ICAR - NAARM reserves the right to reject any tender without assigning any reason thereof. A brief detail of tender is given in the following format. General terms and conditions are given in Schedule I.

GENERAL TERMS AND CONDITIONS:

1.	Online bids on GeM are invited for and on behalf of the Director, ICAR – NAARM, from eligible bidders for Supply, installation and testing of video conferencing system under NAHEP Project at ICAR-National Academy of Agricultural Research Management.
2.	All communications must be addressed to the Director, ICAR-NAARM, Rajendranagar, Hyderabad.
3.	Scope of supply / work: The detailed specification of the supply, installation and testing of video conferencing system is provided in SCHEDULE – II of this tender document.
4.	<p>Eligibility Criteria:</p> <ul style="list-style-type: none"> a. Filled Annexure - A b. Filled Details as per Annexure-B along with Complete tender document duly sealed and signed c. Bidder should have supplied, installed and operationalized one order from Government/PSUs of similar type (& capacity) of at least 80% value of the submitted quotation in last 3 years. Details of supplies made during the last 3 years shall be submitted in the specified Proforma along with completion certificate stating successful completion. Annexure C. d. Tender Form as per Annexure – D e. Annual Turnover minimum of Rs.50.00 lakhs/year in last three completed financial years to be provided in format as per Annexure – E duly certified by Chartered Accountant on his letterhead. f. Scanned Copy of Bid Security Declaration Form on Company's letter head, Annexure F g. Scanned copy of Registration Certificate of Firm/Establishment. h. Scanned copy PAN & GSTIN Registration. (all scanned and combined in one pdf) i. The firm should enclose copies of income tax returns for the last 3 years (Financial Year 2018-19, 2019-20, 2020-21)
5.	Rejection of tenders: Tenders not complying with any one of the above conditions, are liable to be rejected. No correspondence in this regard will be entertained.
6.	Rates: The lowest rates offered will be considered as L1.
7.	Security Deposit: The successful bidder has to furnish Performance Security Deposit @ 3% on the total amount quoted which will be refunded / returned only after satisfactory completion of the contractual obligation. The Security Deposit should be in the form of Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any commercial bank and on which no interest will be paid.
8.	Contract Period: The period should be included of warranty
9.	Delivery Schedule: Unless otherwise specified, the supply, installation and commissioning of video conferencing within 20 days of receipt of supply Order.
10.	Liquidated Damages: In case the supply is not made in the delivery period notified in supply order, liquidated damages at the rate of 0.5% of the total value of supply order will be deducted up to a maximum of 10% of the total value of order.
11.	If after finalization of the tender, the selected firm expresses its inability provide the Supply, installation and commissioning of video conferencing board room at the quoted price, thus failing in fulfilling the stipulated terms and conditions for award of the contract, then the Security Deposit amount is liable to be forfeited in total.

12.	Payment: The firm is required to submit the GST Bill in Triplicate along with the supply order. The bill will be processed for payment only after it has been certified by the concerned incharge stating that the supply, installation and testing has been done as per the medicines given in the supply order and completed in the Delivery Schedule notified in Point 9 above
13.	Taxes / Duties: GST as applicable will be paid
14.	Acceptance of tender: Director, ICAR-NAARM reserves the right to accept or reject any of the tenders either in part or in full without assigning any reason thereof.
15.	Jurisdiction: All disputes including court proceedings shall be settled within the Hyderabad jurisdiction only.
16.	No Exemption to startups has been given as it involves Supply, installation and commissioning of video conferencing board room.
17.	Supply: After awarding of supply order, the vendor is bound to Supply, installation and commissioning of video conferencing system with peripherals as per the discount quoted within 20 days else the supply order placed shall automatically become null and void.

Sr. Administrative Officer

SCOPE OF WORK / SUPPLY - Schedule II

S.No	Item Description	Offered Make & Model No	QTY	VENDOR COMPLIANCE		DEVIATION / REMARKS (if any)
				YES	NO	
1.	<p>Supply, Installation, Testing and Commissioning of Interactive Flat Panel With Wall Mount, OPS and Wi-Fi Dongle:</p> <p>Technology :TFT LCD with DLED Backlit; Display Size (diagonal) :75” or higher; Aspect Ratio :16:09; Resolution :3840 x 2160 4K Ultra HD; Static Contrast Ratio: 5000:1 (DCR) or higher; Brightness :350 nits or higher; Display Colour:1.07B colors or higher; Input Ports - HDMI x 3, VGA x 1, Audio x 1, CVBS (AV), RS 232 x 1, PC Slot : Slot In For PC Built-in x 1; Wi-Fi Compatible; Output Ports : Audio (Earphone out) x 1; SPIDF x 1; LAN Or more; LAN : RJ 45 x 1 or more; USB : 3.0 Type A x 3; 2.0 Type A x 3, 2.0 Type B (For Touch) x 2; Speakers : 10W x 2 and 15 W Subwoofer or higher; Touch-Type: Should be IR Recognition; Touch Resolution: 32767 x 32767 or higher; Touch Point : 20 Points or higher Writing : 10 Points or higher; Response Time: < 8ms or higher; Embedded Player CPU Inbuilt - Android Version: 8.0 or higher CPU: ARM Quad Core Cortex A53 1.2G Hz; Memory : 3GB or higher; Storage : 32GB eMMC, Networking : Giga Lan; Anti Scratch – Anti Glare with 7H scratch resistant and Anti Glare or higher It should have the option Menu in Hindi also. It should have built-in facility to convert instantly speech of the host to text. It should have the facility to convert the whole English text or part of text into Hindi or other language. Should have Built in Tool to allow participants to submit answers from their Smart Phones/ Tablets/PC using it answering/voting device. It should also allow the answering / voting from anywhere and any location. It should have various options for answering – True/False, Single Choice, Multiple Choice and it should have the option to submit the answer in writing. It should be</p>		1 No			

S.No	Item Description	Offered Make & Model No	QTY	VENDOR COMPLIANCE		DEVIATION / REMARKS (if any)
				YES	NO	
	<p>Certified to use Google for Education, Certified from Microsoft and should be bundled within the software. It should have Google, icon within the software itself for Android as well for PC mode. So it should be helpful in opening directly without minimizing or maximizing applications. It should allow each user to customized the Google as per their usage and should be saved as individual preference. Multiple user can sign in and customize as per their preference and style. The user should be able to sign in either with Log in Id and password or just by scanning the QR coder by user smart phone. It should have Youtube icon within the software to open it within the application. It should have Microsoft application built-in the software for Android and in the PC mode. Split Screen .Built-in facility to split the screen in 2, 4 or max.6 for simultaneous function / working on various application Annotation/Writing; To write on a Blank screen and on any application – PPT, Word, Excel, PDT, Web Browser, Video etc.; Wireless Content Sharing ; The Panel should allow user to share / mirror the content of Laptop/Desktop (Mac, Windows) and mobile devices (iOS, Android) wirelessly; Wireless Presentation should allow user to access their Laptop / Desktop through touch Panel; Video Conference : Support USB based PTZ cameras allowing Software based Video Conferencing; Built-in PC Slot : Should have slot for the built-in PC . It should have the feature of Recording the whole lecture with inputs from Audio, Camera capturing the Faculty, and whatever is done on the interactive flat panel- PPT, PDF, writing etc. and it should produce a single video file to view. Software: The required software and the IFP have to be from the single OEM. The Software should have developed and owned by the OEM. If not it will not be accepted. It</p>					

S.No	Item Description	Offered Make & Model No	QTY	VENDOR COMPLIANCE		DEVIATION / REMARKS (if any)
				YES	NO	
	should have certificate for BIS Certificate, TUV Certificate, ROHS. OPS:i5, 7th Gen.,4GB RAM, 128GB SSD, Windows 8/10					
2.	Supply, Installation, Testing and Commissioning of LED Display for Chairman : Size 22" , Resolution ; 1920 x 1080 , It should be offered with touch facility. Brightness 250cd/m2.; Static Contrast Ratio: 1000:1 (typ); Panel Type: TN Technology; Response Time: 5ms		1 No			
3.	Supply, Installation, Testing and Commissioning of PTZ Camera : Minimum 20X Optical Zoom; Iris: f=5.57~110mm ; F1.6 ~ F3.5 or better; Viewing Angle:3.3° (tele) – 54.7° Wide or wider; Sensor:1 /2.8inch or better CMOS sensor; Pixels:2.07 Mega Pixel or higher; Preset Number:255 or more; Pan Rotation:+ 170° Tilt Rotation :-30°~+90°; Pan Control Speed: 0.1~100°/second; Tilt Control Speed : 0.1~45°/second; Preset Speed: Pan: 100°/second or higher, Tilt 45°/second or higher; Supported SDIVideo Formats: 1080P60/50/30/25/59.94/29.97 ; 1080i60/50/59.94. 720P/50/ 30 /25 /59.94/29.97; Minimum illumination:0.5 Lux or higher; DNR:2D & 3D DNR; White Balance :Auto/Manual/One push 3000K / 3500K / 4000K / 4500K / 5000K / 5500K / 6000K / 6500K /7000K; Electronic Shutter : Auto/Manual; Focus :Auto/Manual/One Push; BLC:ON/Off; WDR : Off/Dynamic level adjustment; Video Adjustment: Brightness, Color, Contrast, Sharpness, B/W mode, Gamma curve, Saturation; SNR :>55 dB or better; Interface:: USB 3.0, DVi, LAN, RS232; Video Compression Format:H.264/H.265 ; Control Protocol: VISCA/PELCO-D/Pelco-P; Baud Rate : 11520 / 9600 / 4800 / 2400 ; Network Protocol: RTSP/RTMP/ ONVIF, GB/T28181;		1 No			

S.No	Item Description	Offered Make & Model No	QTY	VENDOR COMPLIANCE		DEVIATION / REMARKS (if any)
				YES	NO	
4.	Supply, Installation, Testing and Commissioning of Chairman Unit Microphone , Microphone should be Condenser type, Polar pattern should be Cardioid, with a frequency response of 125 Hz - 18Khz,S/N Ratio 68dB, Phantom power requirement 9-48VDC. Maximum Sound Pressure level should be 125db at 1KHz 1% T.H.D. with 3 pin XLR termination.		1 No			
5.	Supply, Installation, Testing and Commissioning of Delegate Unit microphone Microphone should be Condenser type, Polar pattern should be Hyper Cardioid, with a frequency response of 125 Hz - 18Khz,S/N Ratio 68dB, Phantom power requirement 9-48VDC. Maximum Sound Pressure level should be 125db at 1KHz 1% T.H.D. with 3 pin XLR termination.		9 Nos			
6.	Supply, Installation, Testing and Commissioning of Shock Mount: Low profile through table shock mount fitted with 3 pin female XLR input and 3 pin male XLR output.		10 Nos			
7.	Supply, Installation, Testing and Commissioning of Digital Signal processor: DSP ADI SHARC Processor 21489 (×1), Audio Format 24 bits, 48 kHz sampling rates (uncompressed), System Latency < 3 ms, Analog I/O Channels 12x8, Analog Input Gain 0, 10, 20, 30, 40, 43 dB, Analog Input Level +24 dBu, Analog Output Level +24 dBu, Frequency Response ±0.2 dB (20 Hz to 20 kHz). THD+N < 0.003% (1 kHz, +4 dBu), Common Mode Rejection Ratio 80 dB (60 Hz), SNR 110 dB, Analog Dynamic Range 113 dB, Analog Background Noise -89 dBu (A-weighted), Input Ports - 12 Analog Audio (Terminal Block), Output Port 08 Analog Audio (Terminal Block), Ethernet Port 1 LAN (RJ-45). USB Port 1 USB Audio (Type-A), Serial Port 1		1 No			

S.No	Item Description	Offered Make & Model No	QTY	VENDOR COMPLIANCE		DEVIATION / REMARKS (if any)
				YES	NO	
	RS-232 (Terminal Block), 1 RS-485 (Terminal Block). GPI/O Port - 8 Port GPI/O. Definable GUI for managing and configuring multiple units. Supports Apple iOS and MS Windows operating systems. Supports adaptive echo cancellation (AEC), adaptive feedback control (AFC), automatic gain control (AGC), automatic mixture control (AMC), automatic noise suppression (ANS). Each input supports 12-band parametric equalizer (PEQ), signal generator, compressor, expander, ducker, and 48 V phantom power. Each output supports 31-band graphic equalizer (GEQ), audio crossover, delayer, limiter. Up to 16 settings can be preset. Built-in USB sound card for recording and playing digital audio, as well as for Software base Video Conferencing. Configurator software tool for managing all audio operations.					
8.	Supply, Installation, Testing and Commissioning of Ceiling Speaker: Type: Two way Coaxial ceiling speakers.; Elements: 5" woofer + 0.5" TWT. ; Power taps (100 V line): 20 W / 10 W / 5 W / 2.5 W; Power taps (70 V line): 20 W / 10 W / 5 W / 2.5 W / 1.25 W ; Power taps (low impedance): 20 W at 8 ohm; Frequency response: 100 Hz - 20 kHz; Sensitivity (1W/1m): 88 dB; Max SPL: 101 dB; RAL colour code: RAL 9016;		6 Nos			
9.	Supply, Installation, Testing and Commissioning of Amplifier : Output Power (100V line) 2x 120W, Input sensitivity 1V ($\pm 0.1V$), Input Impedance 20kOhm (balanced) 10kOhm (unbalanced), Frequency response : 100 Hz - 15 kHz, Voltage gain (100V) : 40 dB, THD+N <0.1%, S/N rate >95 dB, Crosstalk >70dB; Damping factor >200		1 No			

S.No	Item Description	Offered Make & Model No	QTY	VENDOR COMPLIANCE		DEVIATION / REMARKS (if any)
				YES	NO	
10.	Supply, Installation, Testing and Commissioning of One Pair of Handheld Microphone		1 No			
11.	Supply, Installation, Testing and Commissioning of Rack : 12U with trolley		1 No			
12.	Supply, Installation, Testing and Commissioning of Standard cables and Connectors to run the solution successfully		Lot			
13.	Installation and Training		Lot			

CHECKLIST (To be uploaded with Technical Bid)

S.no	Document to be uploaded in Technical bid on GeM	Whether Uploaded (Yes/No)
1.	Filled Annexure – A	
2.	Filled Details as per Annexure-B along with Complete tender document duly sealed and signed	
2.	Proof of 2 contracts related to supply, installation and commissioning of video conferencing of board room in Government/Public/Private Sector Undertakings of value Rs 25 lakh or above during the last 2 financial years along with duly filled Annexure-C	
3.	Tender Form as per Annexure – D	
4.	Bid Security Declaration Form duly printed on Company's letter head Annexure F	
5.	Scanned copy of Registration Certificate of Firm/Establishment	
6.	Scanned copy PAN & GSTIN Registration. (all scanned and combined in one pdf)	
7.	The firm should enclose copies of income tax returns for the last 3 years (Financial Year 2018-19, 2019-20, 2020-21)	

COMMERCIAL DETAILS

(To be submitted on Firm's Letter head)

1.	Name and Address of Bidder	
2.	Telephone No. / Mobile No. / FAX No.	
3.	Email ID	
4.	Month and Year of Establishment	
5.	PAN and GSTIN Number	
6.	Bid Security Declaration Form Annexure F	
7.	Local Office Address in Hyderabad / Secunderabad	

SIGNATURE OF THE BIDDER & STAMP

Date:

Place:

RELEVANT WORK EXPERIENCE DETAILS

(To be submitted on Firm's Letter head)

Sr. No.	Name of the Deptt. Organization where Supply, installation and commissioning of VIDEO CONFERENCING SYSTEM WITH PERIPHERALS	Period	
		From	To
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			

AUTHORISED SIGNATORY OF THE FIRM WITH SEAL

Place:

Dated:

Note: While uploading this annexure in GeM bidder should make sure that work experience certificates are also uploaded along with this in one single pdf

TENDER FORM

(To be printed on company letter head)

Date: _____

To
The Director
ICAR-NAARM, Rajendranagar,
HYDERABAD – 500 030

Ref: Your Tender Notice Advt. No. _____ dated-----.

Dear Sir,

I/We hereby offer for your requirements detailed in the schedule hereto or such portion thereof as you may specify in the Acceptance of Tender at the discount percentage (%) given in the said schedule and agree to hold this offer for 90 days for acceptance. I/We shall be bound by a communication of Acceptance dispatched within the prescribed time and also execute agreement required in this regard.

2. I/We have understood the Instructions to Tenderers and General Conditions of Contract governing such contracts placed by Indian Council of Agricultural Research and its Research Institutes and the Special Conditions of Contract, and have thoroughly examined the details indicated in the Schedule to Tender thereof and am/are fully aware of the goods and/or services required and my/our offer to work/supply/provide the goods and/or services strictly is in accordance with the requirements.

3. D.D.No. _____ Dt. _____ for Rs. _____ (in words) Rupees
_____ only) drawn on (Bank) _____ is
enclosed towards Earnest Money Deposit

4. Relevant NSIC/MSME Certificate enclosed

Yours faithfully,

Signature: _____

Name: _____

Address: _____

(Company's seal)

TO WHOM IT MAY CONCERN

I have personally gone through the accounts of the following:

M/s _____

Address _____

Below is the turnover of the firm for last 3 completed Financial Years:

Financial Year	Turnover in Rupees
2019-20	
2020-21	
2021-22	

NAME, SIGNATURE AND SEAL OF CHARTERED ACCOUNTANT

- To be uploaded online in technical bids.
- The same should be filled on letter head of the Chartered Accountant.

[To be printed on Company letter head]

To
The Director
ICAR-NAARM
Rajendranagar
Hyderabad 500 030

Sir,

We, the undersigned, declare that: We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with your institute for the period of time of 2 years starting on date of closing of bids if we are in breach of our obligation(s) under the bid conditions, because we:

- (a) have withdrawn our Bid during the period of bid validity specified in the Letter of Bid; or
- (b) having been notified of the acceptance of our Bid by your institute during the period of bid validity,
 - (i) fail or refuse to execute the Contract, if required, or
 - (ii) fail or refuse to furnish the Performance Security as per tender conditions

We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder.

Signature of Authorized signatory with company seal

FINANCIAL BID FOR VIDEO CONFERENCING SYSTEM WITH PERIPHERALS UNDER NAHEP

The final price may be quoted in the price bid for all the items (S.No 1 to 13) as per the specifications mentioned below:

TECHNICAL SPECIFICATIONS						
S No	Item Description	Offered Make & Model No	QTY	VENDOR COMPLIANCE		DEVIATION/REMARKS (if any)
				YES	NO	
1	Supply, Installation, Testing and Commissioning of Interactive Flat Panel With Wall Mount, OPS and Wi-Fi Dongle: Technology :TFT LCD with DLED Backlit; Display Size (diagonal) :75" or higher; Aspect Ratio :16:09; Resolution :3840 x 2160 4K Ultra HD; Static Contrast Ratio: 5000:1 (DCR) or higher; Brightness :350 nits or higher; Display Colour:1.07B colors or higher; Input Ports - HDMI x 3, VGA x 1, Audio x 1, CVBS (AV), RS 232 x 1, PC Slot : Slot In For PC Built-in x 1; Wi-Fi Compatible; Output Ports : Audio (Earphone out) x 1; SPDIF x 1; LAN Or more; LAN : RJ 45 x 1 or more; USB : 3.0 Type A x 3; 2.0 Type A x 3, 2.0 Type B (For Touch) x 2; Speakers : 10W x 2 and 15 W Subwoofer or higher; Touch-Type: Should be IR Recognition; Touch Resolution: 32767 x 32767 or higher; Touch Point : 20 Points or higher Writing : 10 Points or higher; Response Time: < 8ms or higher; Embedded Player CPU Inbuilt - Android Version: 8.0 or higher CPU: ARM Quad Core Cortex A53 1.2GHz; Memory : 3GB or higher; Storage : 32GB eMMC, Networking : Giga Lan; Anti Scratch – Anti Glare with 7H scratch resistant and Anti Glare or higher It should have the option Menu in Hindi also. It should have built-in facility to convert instantly speech of the host to text. It should have the facility to convert the whole English text or part of text into Hindi or other language. Should have Built in Tool to allow participants to submit answers from their Smart Phones/ Tablets/PC using it answering/voting device. It should also allow the answering / voting from anywhere and any location. It should have various options for answering – True/False, Single Choice, Multiple Choice and it should have the option to submit the answer in writing. It should be Certified to use Google for Education, Certified from Microsoft and should be bundled within the software. It should have Google, icon within the software itself for Android as well for PC mode. So it should be helpful in opening directly without minimizing or maximizing applications. It should allow each user to customized the Google as per their usage and should be saved as individual preference. Multiple user can sign in and customize as per their preference and style. The user should be able to sign in either with Log in Id and password or just by scanning the QR coder by user smart phone. It should have Youtube icon within the software to open it within the application. It should have Microsoft application built-in the software for Android and in the PC mode. Split Screen :Built-in facility to split the screen in 2, 4 or max.6 for simultaneous function / working on various application Annotation/Writing: To write on a Blank screen and on any application – PPT, Word, Excel, PDT, Web Browser, Video etc.; Wireless Content Sharing ; The Panel should allow user to share / mirror the content of Laptop/Desktop (Mac, Windows) and mobile devices (iOS, Android) wirelessly; Wireless Presentation should allow user to access their Laptop / Desktop through touch Panel; Video Conference : Support USB based PTZ cameras allowing Software based Video Conferencing; Built-in PC Slot : Should have slot for the built-in PC. It should have the feature of Recording the whole lecture with inputs from Audio, Camera capturing the Faculty, and whatever is done on the interactive flat panel- PPT, PDF, writing etc. and it should produce a single video file to view. Software: The required software and the IFP have to be from the single OEM. The Software should have developed and owned by the OEM. If not it will not be accepted. It should have certificate for BIS Certificate, TUV Certificate, ROHS, OPS i5, 7th Gen, 4GB RAM, 128GB SSD, Windows 8/10		1			
2	Supply, Installation, Testing and Commissioning of LED Display for Chairman : Size 22" , Resolution ; 1920 x 1080 , It should be offered with touch facility. Brightness 250cd/m2, Static Contrast Ratio: 1000:1 (typ); Panel Type: TN Technology; Response Time: 5ms		1			
3	Supply, Installation, Testing and Commissioning of PTZ Camera : Minimum 20X Optical Zoom; Iris: F5.57~110mm ; F 1.6 ~ F3.5 or better; Viewing Angle:3.3° (tele) ~54.7° Wide or wider; Sensor: 1/2.8inch or better CMOS sensor; Pixels:2.07 Mega Pixel or higher; Preset Number:255 or more; Pan Rotation:+ 170° Tilt Rotation : -30°~+90°; Pan Control Speed: 0.1~100°/second; Tilt Control Speed : 0.1~45°/second; Preset Speed: Pan: 100°/second or higher, Tilt 45°/second or higher; Supported SDI/Video Formats: 1080P60/50/30/25/59.94/29.97 ; 1080I60/50/59.94, 720P/50/ 30 /25 /59.94/29.97; Minimum Illumination:0.5 Lux or higher; DNR:2D & 3D DNR; White Balance :Auto/Manual/One push 3000K / 3500K / 4000K / 4500K / 5000K / 5500K / 6000K / 6500K /7000K; Electronic Shutter : Auto/Manual; Focus :Auto/Manual/One Push; BLC:ON/Off; WDR : Off/Dynamic level adjustment; Video Adjustment: Brightness, Color, Contrast, Sharpness, BW mode, Gamma curve, Saturation; SNR >55 dB or better; Interface: USB 3.0, DVI, LAN, RS232; Video Compression Format:H.264/H.265 ; Control Protocol: VISCA/PELCO-D/Pelco-P; Baud Rate : 11520 / 9600 / 4800 / 2400 ; Network Protocol: RTSP/RTMP/ ONVIF, GB/T28181;		1			

	A	B	C	D	E	F	G	
9	4	Supply, Installation, Testing and Commissioning of Chairman Unit Microphone , Microphone should be Condenser type, Polar pattern should be Cardioid, with a frequency response of 125 Hz - 18KHz,S/N Ratio 68dB, Phantom power requirement 9-48VDC. Maximum Sound Pressure level should be 125db at 1KHz 1%		1				
10	5	Supply, Installation, Testing and Commissioning of Delegate Unit microphone Microphone should be Condenser type, Polar pattern should be Hyper Cardioid, with a frequency response of 125 Hz - 18KHz,S/N Ratio 68dB, Phantom power requirement 9-48VDC. Maximum Sound Pressure level should be 125db at 1KHz 1%		9				
11	6	Supply, Installation, Testing and Commissioning of Shock Mount: Low profile through table shock mount fitted with 3 pin female XLR input and 3 pin male XLR output.		10				
12	7	Supply, Installation, Testing and Commissioning of Digital Signal processor: DSP ADI SHARC Processor 21489 (x1), Audio Format 24 bits, 48 kHz sampling rates (uncompressed), System Latency < 3 ms, Analog I/O Channels 12x8, Analog Input Gain 0, 10, 20, 30, 40, 43 dB, Analog Input Level +24 dBu, Analog Output Level +24 dBu, Frequency Response ±0.2 dB (20 Hz to 20 kHz). THD+N < 0.003% (1 kHz, +4 dBu), Common Mode Rejection Ratio 80 dB (60 Hz), SNR 110 dB, Analog Dynamic Range 113 dB, Analog Background Noise -89 dBu (A-weighted), Input Ports - 12 Analog Audio (Terminal Block), Output Port 08 Analog Audio (Terminal Block), Ethernet Port 1 LAN (RJ-45). USB Port 1 USB Audio (Type-A), Serial Port 1 RS-232 (Terminal Block), 1 RS-485 (Terminal Block). GPIO Port - 8 Port GPIO. Definable GUI for managing and configuring multiple units. Supports Apple iOS and MS Windows operating systems. Supports adaptive echo cancellation (AEC), adaptive feedback control (AFC), automatic gain control (AGC), automatic mixture control (AMC), automatic noise suppression (ANS). Each input supports 12-band parametric equalizer (PEQ), signal generator, compressor, expander, ducker, and 48 V phantom power. Each output supports 31-band graphic equalizer (GEQ), audio crossover, delayer, limiter. Up to 16 settings can be preset. Built-in USB sound card for recording and playing digital audio, as well as for		1				
13	8	Supply, Installation, Testing and Commissioning of Ceiling Speaker: Type: Two way Coaxial ceiling speakers; Elements: 5" woofer + 0.5" TWT.; Power taps (100 V line): 20 W / 10 W / 5 W / 2.5 W; Power taps (70 V line): 20 W / 10 W / 5 W / 2.5 W / 1.25 W; Power taps (low impedance): 20 W at 8 ohm; Frequency response: 100 Hz - 20 kHz; Sensitivity (1W/1m): 88 dB; Max SPL: 101 dB; RAL colour code: RAL 9016;		6				
14	9	Supply, Installation, Testing and Commissioning of Amplifier : Output Power (100V line) 2x 120W, Input sensitivity 1V (±0.1V), Input Impedance 20kOhm (balanced) 10kOhm (unbalanced), Frequency response : 100 Hz - 15 kHz, Voltage gain (100V) : 40 dB, THD+N <0.1%, S/N rate >95 dB, Crosstalk >70dB; Damping factor		1				
15	10	Supply, Installation, Testing and Commissioning of One Pair of Handheld Microphone		1				
16	11	Supply, Installation, Testing and Commissioning of Rack : 12U with trolley		1				
17	12	Supply, Installation, Testing and Commissioning of Standard cables and Connectors to run the solution successfully		Lot				
18	13	Installation and Training		Lot				
20	GENERAL INSTRUCTIONS:							
21	1	Vendor must provide Technical compliance bid offer as per the following format only, without any ambiguities. As same will be send to Technical Committee for Technical scrutiny/evaluation. Partial / Incomplete bid shall be liable for rejection.						
22	2	In the following prescribed format, vendor should offer his comments line by line on the right hand side column. In case of complete compliance to Specification, vendor should indicate terms like "YES" but in case of any deviation, and vendor should mention "NO" and mention details of variation or alternative Offers with respect to the specification.						

5	Qualification of the Bidder
6	(a) Bidder should have supplied, installed and operationalized one order from Government/PSUs of similar type (& capacity) of at least 80% value of the submitted quotation in last 3 years. Details of supplies made during the last 3 years shall be submitted in the specified Proforma along with completion certificate stating successful completion.
7	(b) Supplies for any particular item in each quotation should be from one manufacturer only. Quotations offering supplies from different manufacturers for the same item in the quotation will be treated as non-responsive.
8	(c) Bidder needs to submit the Manufacturer Authorization Form (MAF) from respective OEM with Tender Number mentioned in it for PTZ Camera, Chairman & Delegate Unit Microphones, DSP and Ceiling Speakers and Amplifier authorizing the bidder to participate. The respective features and specification of the quoted items should be publicly available on website having videos/documents for verification. The bid evaluation committee if required may invite the bidders for live demonstration to verify the proposed specifications /features. Bids failing to fulfill technical evaluation and not able to showcase the features will be technically rejected.
9	(d) The Bidder should submit certificate of registration issued by the competent authority.