



**Maharashtra
Tenders**

eProcurement System Government of Maharashtra

Tender Details

Date : 23-Aug-2025 12:28 PM

Print

Basic Details

Organisation Chain	Director of Technical Education Department Mumbai Veermata Jijabai Technological Institute Mumbai		
Tender Reference Number	VJTI/STR/IT Infra/2025/61		
Tender ID	2025_DTEDM_1212857_1	Withdrawal Allowed	Yes
Tender Type	Open Tender	Form of contract	Item Wise
Tender Category	Goods	No. of Covers	2
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	No
Payment Mode	Online	Is Multi Currency Allowed For BOQ	No
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No

Payment Instruments

Online Bankers	S.No	Bank Name
	1	SBI Bank

Cover Details, No. Of Covers - 2

Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.pdf	Tender Document
2	Finance	.xls	BOQ

Tender Fee Details, [Total Fee in ₹ * - 22,920]

Tender Fee in ₹	22,420		
Processing Fee in ₹	500		
Fee Payable To	Nil	Fee Payable At	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in ₹	1,90,000	EMD Exemption Allowed	Yes
EMD Fee Type	fixed	EMD Percentage	NA
EMD Payable To	Nil	EMD Payable At	Nil

[Click to view modification history](#)

Work /Item(s)

Title	Supply,Installation and Commissioning of Audio-Visual System for Auditorium at VJTI				
Work Description	Supply,Installation and Commissioning of Audio-Visual System for Auditorium at VJTI				
Pre Qualification Details	Please refer Tender documents.				
Independent External Monitor/Remarks	NA				
Show Tender Value in Public Domain	No				
Tender Value in ₹	88,50,000	Product Category	Electronics Equipment	Sub category	NA
Contract Type	Tender	Bid Validity(Days)	90	Period Of Work(Days)	30
Location	Auditorium,VJTI,Matunga	Pincode	400019	Pre Bid Meeting Place	CCF -1 Lab IT Infra
Pre Bid Meeting Address	CCF -1 Lab IT Infra	Pre Bid Meeting Date	03-Sep-2025 11:30 AM	Bid Opening Place	STORES,VJTI,Matunga,Mumbai
Should Allow NDA Tender	No	Allow Preferential Bidder	No		

Critical Dates

Publish Date	23-Aug-2025 12:35 PM	Bid Opening Date	16-Sep-2025 03:00 PM
Document Download / Sale Start Date	23-Aug-2025 12:35 PM	Document Download / Sale End Date	15-Sep-2025 03:00 PM
Clarification Start Date	NA	Clarification End Date	NA
Bid Submission Start Date	23-Aug-2025 12:35 PM	Bid Submission End Date	15-Sep-2025 03:00 PM

Tender Documents

NIT Document					
	S.No	Document Name	Description	Document Size (in KB)	
	1	Tendernotice_1.pdf	Tender Document	12671.38	
Work Item Documents					
	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	BOQ	BOQ_2096168.xls	BOQ	382.50

Bid Openers List

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1.	wsrathod@me.vjti.ac.in	WALMIK RATHOD	WALMIK SADASHIV RATHOD
2.	symhaske@ci.vjti.ac.in	SUMEDH MHASKE	SUMEDH YAMAJI MHASKE
3.	accountsofficer@vjti.ac.in	AADITI NIVATKAR	AADITI SUNIL NIVATKAR
4.	rnawale@el.vjti.ac.in	RAVAL AWALE	RAVAL NARAYANRAO AWALE

Tender Properties

Auto Tendering Process allowed	No	Show Technical bid status	Yes
Show Finance bid status	Yes	Stage to disclose Bid Details in Public Domain	Technical Bid Opening
BoQ Comparative Chart model	Normal	BoQ Compative chart decimal places	3
BoQ Comparative Chart Rank Type	L	Form Based BoQ	No

Tender Inviting Authority

Name	Registrar,VJTI,Matunga,Mumbai
Address	Registrar,VJTI,Matunga,Mumbai

Tender Creator Details

Created By	RAVAL AWALE
Designation	registrar
Created Date	23-Aug-2025 12:23 PM



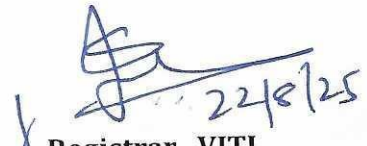
Veermata Jijabai Technological Institute
(Autonomous Institute of Govt. of Maharashtra)
H R Mahajani Marg, Matunga, Mumbai – 400019

E-Tender Reference No: - VJTI/IT-Infra/2025/Tender/05

Name of the Work: - "Supply, Installation and Commissioning Of Audio-Visual System For Auditorium At Veermata Jijabai Technological Institute"


Head of Department

(Associate Dean IT- Infrastructure Department)


Registrar, VJTI

(STANDARD BID DOCUMENT)

WEBSITES: 1. <https://mahatenders.gov.in/nicgep/app>

2. www.vjti.ac.in/tenders

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SECTION - 1

E-TENDER NOTICE

e-Tender Notice

E-Tender Reference No: - VJTI/IT-Infra/2025/Tender/05

SUBJECT: - Supply, Installation, testing and Commissioning (SITC) of Audio-Visual System for Auditorium At Veermata Jijabai technological Institute.

- i) The detailed tender documents are available for download from the e-tendering website <https://mahatenders.gov.in>. Bidders are required to download the tender, fill in all necessary details, and upload duly signed scanned copies of the documents as per instructions.

E-Tendering Process

- I. The application form can be download from NICs' portal (<https://mahatender.gov.in>)
- II. The forms of tender documents are available on the e-Tendering website <https://mahatender.gov.in>. The aspiring Applicants will have to download Tender form, from the website mentioned above. The bidder has to fill in an online format and upload information regarding Tender online. Also, the bidder has to download the tender application from the website, fill it and upload the scanned copy of duly filled form, along with required documents.
- III. For purchasing the Tender documents, the bidders will have to get registered with e-tender portal (<https://mahatenders.gov.in>) for the e-tendering process and obtain login credentials to participate in the online Tender process. The details of the same are available on <https://mahatender.gov.in>. For registration, enrolment for digital signature certificate and user manual, please refer to respective links provided in e-tendering tab on <https://mahatender.gov.in>

ii)

Name and Location of Work	Supply, Installation, Testing, and Commissioning of Audio-Visual System for Auditorium. Veermata Jijabai Technological Institute H R Mahajani Marg, Matunga, Mumbai - 400019
Site Survey Period	22 nd - August 2025 to 3 rd September 2025
Pre-Bid Meeting Date & Time	3 rd September 2025 (11:30 AM, Ground Floor, CCF-1, IT-Infrastructure Department, VJTI)
Last Date for Bid Submission	As per portal schedule
Opening of Technical Bids	As per portal schedule
Opening of Financial Bids	To be notified to qualified bidders

Two-packet Bid System: -

- I. Tender documents are invited in two packet bid system for the above work
 - a. Packet '1': Prequalification of the vendors (Technical Bid)
 - b. Packet '2': Bill of Quantities (Financial Bid)
- II. The bidders are requested to submit the tender documents in two packet bid system only i.e. Technical Bid in attachment of packet '1' & Financial Bid in attachment of packet '2'.
- III. Bidders should note that the Technical Bid (i.e. Packet '1') will be opened first, and the Financial Bid (i.e. packet '2') will be opened only for qualified bidders.

Tender Fees & EMD


- I. Tender fee is ₹ 19000 + GST 18% (₹ 3420) = ₹ 22,420/- is to be paid online.
- II. EMD for the tender is ₹ 1,90,000/- (INR One Lakh Ninety Thousand Only) and to be paid online.

Right to Reject

The Director, VJTI, reserves the right to accept or reject any or all tenders without assigning any reason.

The date and time for submission and opening the bids are as shown in the Header Data. If there are any changes in the dates the same will be displayed on the NIC Portal (<https://mahatenders.gov.in>)

The Applicants interested in the above referred work may contact the Head of Department (IT Infra) at the following address on any working day during office hours.


Associate Dean
Department of IT-Infrastructure
Email- assoc_dean_itinfra@vjti.ac.in
Ground Floor, CCF-I,
VJTI, H. R. Mahajani Marg,
Mumbai - 400019.
Phone Number: - 022-24198111

SECTION - 2

INSTRUCTIONS TO BIDDERS

SECTION-2
INSTRUCTION TO BIDDERS

1. Eligibility Criteria:

- Bidders must meet the eligibility criteria outlined in **Section 4**. Non-compliant bids will be rejected.
- Financial Bids of only technically qualified bidders will be opened.

2. Bid Submission:

- Submit bids online via <https://mahatenders.gov.in> in the two-packet system:
 - **Packet 1 (Technical Bid):** Upload scanned, certified copies of required documents (listed below).
 - **Packet 2 (Financial Bid):** Complete the financial proposal online, ensuring all entries are digitally signed.
- VJTI will reject bids that do not include tender fee or EMD.

3. Technical Bid (Packet 1) Requirements:

- Valid Firm Registration Certificates (PF and ESIC).
- GST Registration Certificate.
- Partnership Deed (for partnership firms) or Incorporation Certificate and MOA/AOA (for companies).
- Income Tax Returns for the last three financial years (2022-23, 2023-24, 2024-25).
- Screenshot of tender fee payment (₹ 22,420/-).
- Screenshot of EMD payment (₹ 1,90,000/-).
- Site visit acknowledgment issued by VJTI.
- Email ID along with bidder's name and contact details superscripted on Packet 1 for communication.
- **Note:** If documents are missing, VJTI will notify the bidder via email, and compliance must be provided within **three working days**, or the bid will be rejected.

4. Financial Bid (Packet 2):

- Submit the financial bid online, including the total bid price (inclusive of all costs except GST).
- Financial Bids will be opened only for technically qualified bidders, with the

date communicated separately.

5. Bid Validity:

- Bids must remain valid for 90 days from the bid submission deadline. Shorter validity periods will result in rejection.

6. Site Visit and Pre-Bid Meeting:

- Bidders must conduct a site visit between **22th August 2025** and **3rd September 2025** to understand site conditions.
- The Pre-Bid Meeting is scheduled for **3rd September 2025** at 11:30 AM at CCF-I, IT-Infra Department, VJTI.
- The same authorized representative (with experience in similar projects) must attend both the site visit and pre-bid meeting. Upload the site visit acknowledgment in Packet 1.
- Failure to conduct a site visit will result in bid rejection.

7. Pricing:

- Quote prices in INR, inclusive of all charges (e.g., installation, freight, training) except GST, which must be specified separately.
- In case of discrepancies between unit and total prices, the unit price prevails. If there is a discrepancy between figures and words, the lower amount applies.

8. Security Deposit:

- The successful bidder must submit a **5% security deposit of the contract value, valid for 38 months**.
- VJTI may forfeit the security deposit or EMD for non-compliance or misleading information.

9. Bid Evaluation:

- **Technical Evaluation:** Assess compliance with **Section-4** specifications and eligibility criteria.
- **Financial Evaluation:** Evaluate the total bid price (inclusive of all taxes and charges) of technically qualified bidders.
- The contract will be awarded to the bidder with the lowest evaluated total bid price, subject to technical compliance.

10. No Canvassing:

- Any canvassing by bidders will result in bid rejection.

SECTION - 3
TERMS AND CONDITION OF CONTRACT

SECTION 3
TERMS & CONDITIONS OF CONTRACT

SR. NO.	TERMS & CONDITIONS
1.	Bidders must conduct a site survey between 22 th August 2025 and 3 rd September 2025 and submit recommendations on system architecture in the Technical Bid.
2.	<ul style="list-style-type: none"> • Supply, install, test, and commission the Audio-Visual System at the VJTI auditorium as per Section 4 specifications. • Deliver and maintain all equipment, including necessary licenses registered in the name of VJTI, Matunga, Mumbai.
3.	<p>Warranty:</p> <ol style="list-style-type: none"> <ul style="list-style-type: none"> ○ Duration: 3 years from the date of successful installation. ○ Scope: Comprehensive maintenance, including labour, spare parts, system software updates, and OS patching for all supplied hardware and peripherals. ○ Manufacturer's Warranty: The bidder must ensure the validity of the manufacturer's warranty for all equipment, covering defects in design, materials, or workmanship. ○ Third-Party Components: Warranty remains valid unless third-party hardware installed by VJTI damages the supplied equipment. Timeline: <ul style="list-style-type: none"> ○ Complete supply, installation, testing, and commissioning within 30 days from the purchase order date. Delays may incur penalties as per the SLA. Maintenance: <ul style="list-style-type: none"> ○ The bidder must provide routine and breakdown maintenance during the warranty period, resolving issues within 48 hours of a complaint. ○ Complaints must be lodged via authorized VJTI email or portal. Unauthorized requests (e.g., password resets) must be reported as security breaches to VJTI immediately. Payment Terms: <ul style="list-style-type: none"> ○ Advance Payment: 30% of the contract value upon delivery of goods, subject to verification. ○ Final Payment: 70% within 30 days of satisfactory installation, testing, commissioning, and submission of a performance certificate signed by VJTI representatives. ○ Security Deposit: 5% of the contract value, valid for 38 months, subject to forfeiture for non-compliance. ○ All payments are subject to applicable tax deductions. Training and Documentation: <ul style="list-style-type: none"> ○ Provide 2 days of on-site training for at least 5 VJTI staff members on system operation, management, and troubleshooting within 15 days of commissioning. ○ Supply detailed user manuals, technical documentation, and system architecture diagrams in hard and soft copies at handover. Post-Warranty Support: <ul style="list-style-type: none"> ○ The bidder may propose an Annual Maintenance Contract (AMC) for post-warranty support, with indicative pricing included in the Financial Bid.
4.	<p>GST and Taxes:</p> <ul style="list-style-type: none"> • Quote prices exclusive of GST, which must be specified separately.

	<ul style="list-style-type: none"> • Pass on the benefit of Input Tax Credit or exemptions to VJTI through equivalent price reductions.
5.	Confidentiality: <ul style="list-style-type: none"> • Bidders must maintain confidentiality of all VJTI data and use it solely for this contract.
6.	Force Majeure: <ul style="list-style-type: none"> • Neither party is liable for failure to perform due to events beyond reasonable control (e.g., natural disasters, war, government restrictions).
7.	Dispute Resolution: <ol style="list-style-type: none"> a. Disputes will be resolved through arbitration under the Indian Arbitration and Conciliation Act, 1996. b. Jurisdiction: Courts in Mumbai.
8.	Right to Amend: <ol style="list-style-type: none"> a. VJTI reserves the right to amend terms and conditions before contract award.
9.	Project Handover: <ul style="list-style-type: none"> • Submit the following at completion: <ul style="list-style-type: none"> ○ Installation and Testing Reports. ○ Warranty Certificates. ○ Training Completion Certificates. ○ User Manuals and System Documentation. • Final acceptance requires VJTI's written sign-off.
10.	Cybersecurity: <ul style="list-style-type: none"> • Ensure all IP-based equipment (e.g., cameras, AV-IP encoders) complies with ISO 27001 standards, including encryption, secure firmware updates, and password protection.

SECTION - 4
TECHNICAL SPECIFICATIONS & ESSENTIAL CONDITIONS TO BE FULFILLED

TECHNICAL SPECIFICATIONS & ESSENTIAL CONDITIONS TO BE FULFILLED

Bidders should clearly mention the offered product in the Bidder's Specifications column and attach the catalog/data sheet of the product. If the Bidder cannot comply with the particulars mentioned or wishes to provide higher specifications, the same should be mentioned clearly in Bidder's Specifications column. **If the Bidder's specification column is blank, it will be treated as an incomplete offer.**

A. VIDEO EQUIPMENTS REQUIRED FOR THE AUDITORIUM:

Sr. No.	High-Definition P1.5 COB Active LED Video Wall Solution Specifications, QTY- 001, Proposed Make: - AET/Samsung/Barco/Absen/Unilumen	
1.A		
1.1	Pixel Pitch	1.56
1.2	Pixel Matrix (px)	3072 x 1728
1.3	Display Dimension (mm)	15.75 x 8.85 ft
1.4	Cabinet Resolution (px)	384 x 216
1.5	Cabinet Dimension (mm)	600 x 337.5
1.6	LED Type/ Encapsulation	COB or better
1.7	Scan Rate	48
1.8	Bezel Width	Nearly Zero
1.9	Pixel Density (per sqm)	409,600 or better
1.10	Weight per cabinet (kg)	≤ 5kg
1.11	Aspect Ratio of Cabinet	16:9 for each cabinet
1.12	Color Temperature.	3000 to 10000K adjustable
1.13	Grey Scale /processing depth.	16 Bit
1.14	Service Method.	Front
1.15	Refresh Rate.	3840 Hz or Higher
1.16	No of Modules /Tile and per cabinet	8
1.17	Sizes of individual video walls	27"
1.18	Display Design for easy installation	Interlocking
1.19	Brightness	600 nits or better
1.20	Contrast Ratio	20000:1 or higher
1.21	HDR Support	Yes
1.22	Viewing Angle (Horizontal).	≥170 deg or higher
1.23	Viewing Angle (Vertical).	≥170 deg or higher
1.24	LED Lifetime.	100,000 Hours or better
1.25	Maximum Power Consumption per sqm	≤320 W
1.26	Average Power Consumption per sqm	≤105 W
1.27	Drive mode	constant current drive
1.28	Input Voltage	AC 100 -240V, 50 Hz
1.29	Ingress protection (IP)	IP 50 Modules Surface Only
1.30	Planeness /Evenness.	< 0.2mm
1.31	Color Resolution	68 billion or more colors
1.32	Material.	Die Casting Aluminum
1.33	Brightness & Color Calibration	Available
1.34	Operating Temp/Humidity	-10°C - 40°C / 10% - 90% RH
1.35	Certificates	BIS, ISO-9001:2015, CE, MII, Rohs

CONTROLLER		
1.36	Support Multiple Input card	Yes
1.37	HDR Support	Yes
1.38	Loading capacity	20.8 million Pixels
1.39	Inputs	1xHDMI, 1XDP or better
1.40	Output	16xRJ45, 4xOptical Out or more
1.41	Layers	32 or more
1.42	Input Voltage	AC 100 -240V, 50 Hz
1.43	Operating Temp/Humidity	0°C - 45°C / 10% - 80% RH, Non-Condensing

Sr. No.	Wall Mounting Structure for P1.5 COB LED Video Wall, QTY- 01, Proposed Make: - Custom	
2.1	Compatibility	Should be suitable for P1.5 COB LED Video Wall with dimensions approx. 15.74' x 8.85'
2.2	Load Capacity	Should be capable of supporting the weight of the full LED wall structure
2.3	Mounting Type	Wall-mounted

Sr. No.	Ultra HD PTZ Camera with Precision Zoom and Broad Field of View, QTY- 001, Proposed Make: - Lumens/Canon/Vaddio	
3.1	Tracking Features	Supports Voice and Speaker Tracking
3.2	Video Resolution	4K @ 60fps
3.3	Optical Zoom	Minimum 12X Optical Zoom
3.4	Digital Zoom	8X Digital Zoom
3.5	Field of View (FoV)	Minimum 81 Degrees
3.6	Voice Tracking Range	Up to minimum 8 meters
3.7	Auto Framing	Automatic Auto Framing when two individuals speak simultaneously
3.8	Speaker Tracking Modes	Stage Tracking, Partition Tracking, and Presenter tracking, Everywhere Tracking,
3.9	Panning Range	+170° to -170°
3.10	Tilting Range	-30° to +90°
3.11	Video Outputs	Simultaneous output via HDMI, USB 3.0, and IP
3.12	Control Interface	RS232/IP
3.13	Streaming	Supports multiple video streams with Picture-in-Picture (PIP)
3.14	Power	Should support PoE+
3.15	Virtual USB Driver	Should be Supported
3.16	Centralized Management	Camera should be controlled and managed through centralized software on network
3.17	Certifications	Should be BIS, CE, FCC & RoHS Certified with Test Lab Reports

Sr. No.	AI-Enabled 4K PTZ Camera with Precision Tracking and Wide Coverage	
4	QTY- 002, Proposed Make: - Lumens/Canon/Vaddio	
4.1	Camera Type	Dual Camera System: 1x PTZ Camera (Presenter Tracking) + 1x Fixed Lens Panoramic Camera
4.2	Image Quality	Should give True 4K @ 60fps
4.3	Optical Zoom (PTZ)	Minimum 30x Optical Zoom
4.4	Digital Zoom	Minimum 8x Digital Zoom
4.5	Pan Range (PTZ)	More than +150° to -150°
4.6	Tilt Range (PTZ)	-30° to +90°
4.7	Field of View (PTZ)	Minimum 58°
4.8	Field of View (Panoramic)	Minimum 85°
4.9	Video Output Interfaces	HDMI, 3G-SDI, USB 3.0, IP Streaming (Simultaneous Output)
4.10	Audio Input	1x Audio Input
4.11	Control Interfaces	Should have RS232 and IP-based Control
4.12	Streaming Features	Supports Multiple Video Streams with Picture-in-Picture (PIP)
4.13	Tracking Features	Everywhere Tracking, Partition Tracking, Auto Framing,
4.14	Power	Should Support PoE+ (Power over Ethernet Plus)
4.15	Driver Support	Should be Supported
4.16	Software Compatibility	Should be controlled and managed via centralized software over network
4.17	Certifications	Should be BIS, CE, FCC, RoHS, Clickshare Compatible

Sr. No.	Custom Camera Mounts for Precision and Stability,	
5	QTY- 02, Proposed Make: - Custom	
5.1	Design	Should be Precision-engineered for secure and stable mounting with fine-tuned adjustment mechanisms
5.2	Adjustability	Should allow full tilt, pan, and rotation adjustability for optimal camera positioning

Sr. No.	AI-Box1 Processor: Optimized Video Switching and Camera Management	
6	(Capture-Vision System 4-Channel Recorder and Streaming Media Processor) QTY- 01, Proposed Make: - Lumens/Canon/Vaddio	
6.1	Functionality	Processor should be capable of connecting minimum 8x Ceiling Tiles with 4x IP-based PTZ Cameras
6.2	Output	Quad view output and Auto Switching
6.3	Output Ports	USB-C and HDMI Output
6.4	Certifications	BIS, CE, FCC & RoHS Certified with Test Lab Reports

Sr. No.	65" UHD Commercial Display for Visual Reinforcement	
7	QTY- 02, Proposed Make: - Viewsonic/Sony/Samsung/LG	
7.1	Screen Size	65 inches
7.2	Display Technology	IPS type panel with Direct LED backlight
7.3	Native Resolution	3840 x 2160 (Ultra HD)
7.4	Aspect Ratio	16:09
7.5	Brightness	Not less than 700 cd/m ²
7.6	Native Contrast Ratio	Not less than 1200:1
7.7	Response Time (G to G)	Not more than 8 milliseconds
7.8	Viewing Angle (Horizontal & Vertical)	Not less than 178 degrees both horizontally and vertically
7.9	Screen Orientation	Should support portrait, landscape, and tilt mode
7.10	Haze	Not less than 47 percent
7.11	Speaker Output	Inbuilt speakers with not less than 10W + 10W output
7.12	Operating System	Android 10 or higher from the same OEM as the display
7.13	HDMI Ports	Not less than 4
7.14	USB Ports	Not less than 2
7.15	LAN Port (RJ45)	Minimum 1 port
7.16	External Control Interface	RS232C input required
7.17	Wi-Fi	Built-in wireless capability
7.18	Web Browser	Should support access through app store or similar
7.19	Media Player	Built-in media playback capability
7.20	Internal Storage	Not less than 32 GB
7.21	Signage Software	Inbuilt signage application; should support installation via USB
7.22	Duty Cycle	24x7 continuous operation
7.23	Mounting Options	Should support both wall mount and table mount
7.24	Typical Power Consumption	Not more than 229 watts
7.25	Operating Temperature Range	Between 0 to 40 degrees Celsius
7.26	Accessories Supplied	AC power cord, wall mount bracket, remote control, user manual
7.27	OEM Warranty	Minimum 3 years on-site support from OEM
7.28	Sound Enhancement	Should support Dolby Atmos and DTS
7.29	Picture Enhancement	Should include upscaling or clarity enhancement engine like 4K X-Reality PRO
7.30	Color Technology	Wide color gamut not less than 92 percent
7.31	Picture Processor	High-performance 4K HDR processor (e.g., X1 equivalent)
7.32	Power Management Features	Support for scheduled power, wake on signal, remote IP access, and IP control
7.33	Motion Enhancer	Should support motion enhancement feature equivalent to Motion flow XR 200

Sr. No.	Heavy Duty Mount for Adjustable Display Angling	
8	QTY- 02, Proposed Make: - Lumi/ Chief/ B-Tech/Play-AV	
8.1	Heavy Duty Swivel Mount for Display Angling	Yes

Sr. No.	Professional 43" Stage Confidence Displays	
9	QTY- 02, Proposed Make: - Viewsonic/Sony/Samsung/LG	
9.1	Screen Size (inch)	43
9.2	Backlit Technology	Direct LED Backlit
9.3	PQ Engine	X1 4K HDR Processor
9.4	Viewing Angle (Minimum) (Horizontal:	178/178- H/V
9.5	Panel Type	IPS
9.6	Native Resolution (Pixels)	3840 x2160 (UHD)
9.7	Aspect Ratio	16:9
9.8	Brightness	440 nits
9.9	Color gamut (DCI-P3)	92%
9.10	Native Contrast Ratio	1200:1
9.11	Response Time (G to G)	8
9.12	Viewing Angle (Minimum) (Horizontal:	178:178
9.13	Operating System	Android 10 (Upgradable)
9.14	Orientation	Portrait and Landscape & Tilt
9.15	Haze	1%
9.16	Speaker	Inbuilt 10 w + 10 w
9.17	HDCP	HDCP 2.3
9.18	HDMI	4
9.19	USB Port	2
9.20	HDMI CEC	Yes
9.21	Analogue Audio input	1
9.22	Composite video input	1
9.23	Digital audio output	1
9.24	LAN RJ45 (Required)	1
9.25	External control	RS232C(in)
9.26	Built-In Storage	16-GB
9.27	Duty Cycle	24x7
9.28	Mounting arrangement	Wall and Table Mount
9.29	Power consumption Typical[W/h]	103 W

Sr. No.	Mobile Confidence Monitor Support Stand	
10	QTY- 02, Proposed Make: - Custom	
10.1	Should be equipped with smooth-rolling for effortless movement from one place to another	Yes

B. AUDIO EQUIPMENTS REQUIRED FOR THE AUDITORIUM:

Sr. No.	High-Performance Wireless Microphone System for Multi-Channel Use	
1	QTY- 02, Proposed Make: - Erthpot/Shure/AudioTechnica/Sennheiser	
1.1	System Type	Dual channel wireless handheld microphone system
1.2	Technology	Built-in automatic frequency selection or equivalent
1.3	Frequency Band	UHF operating mode with frequency ranges from 522 MHz to 930 MHz or higher
1.4	Operating Bandwidth	Minimum 134 MHz or higher
1.5	Anti-Interference	Noise suppression with intelligent squelch circuit or equivalent to block unwanted RF interference
1.6	Microphone Frequency Response	45 Hz to 18000 Hz or wider
1.7	Signal to Noise Ratio	Less than 104 dB or better
1.8	RF Output Power	Selectable, minimum 10 or 40 milliwatt or better
1.9	Simultaneous System Usage	Minimum 24 sets operable concurrently using multiple frequency groups in a single venue
1.10	Microphone Build	Rugged die-cast metal body construction
1.11	Microphone Type	Dynamic microphone capsule or equivalent
1.12	Included Accessories	All standard accessories required for installation and operation, such as receiver, antennas, power adapter, mic holders, cables, etc.

Sr. No.	Unidirectional Lavalier Wireless Audio Transmission System	
2	QTY- 01, Proposed Make: - Erthpot/Shure/AudioTechnica/Sennheiser	
2.1	System Type	Single channel wireless lavalier microphone system
2.2	Technology	Integrated automatic frequency selection or equivalent
2.3	Frequency Band	UHF operation within range 522 MHz to 930 MHz or better
2.4	Operating Bandwidth	Minimum 134 MHz or better
2.5	Interference Rejection	Advanced noise control with squelch mechanism to block stray RF signals or equivalent
2.6	Microphone Frequency Response	45 Hz to 18000 Hz or better
2.7	Signal to Noise Ratio	Less than 104 dB or better
2.8	RF Output Power	10 or 40 milliwatt selectable or better
2.9	Simultaneous System Operation	At least 24 units usable at the same venue using different frequency groups
2.10	Microphone Construction	Bodypack and receiver must be of die-cast metal housing
2.11	Microphone Type	Lavalier microphone with unidirectional capsule or better
2.12	Accessories	To include all standard accessories such as bodypack transmitter, receiver unit, mounting kit, clip, windscreen, antennas, power adapters, and cables as required

Sr. No.	Push-to-Talk Gooseneck Mic with LED Indication,	
3	QTY- 001, Proposed Make: - Erthpot/Shure/AudioTechnica/Sennheiser	
3.1	Microphone Type	Gooseneck condenser microphone with desktop base
3.2	Microphone Length	18 inches
3.3	Polar Pattern	Cardioid
3.4	Frequency Response	30 Hz to 18000 Hz
3.5	Open Circuit Sensitivity	Minus 57 dB

3.6	Maximum Sound Pressure Level	115 dB at 1 kilohertz
3.7	Dynamic Range	82 dB at 1 kilohertz at maximum SPL
3.8	Signal to Noise Ratio	61 dB at 1 kilohertz at 1 Pascal
3.9	Operating Voltage	11 to 52 Volt DC
3.10	Mounting Base	Supplied with desktop base
3.11	Mute Control	Touch-operated mute switch with LED indication
3.12	Switching Functionality	Push-to-talk and push-to-lock selectable

Sr. No. 4	Multi-Channel Active Antenna Splitter QTY- 01, Proposed Make: - Erthpot/Shure/AudioTechnica/Sennheiser	
4.1	Function	Active antenna splitter with diversity antenna distribution for multiple receivers
4.2	Frequency Range	470 MHz to 900 MHz
4.3	Output Gain	0 dB \pm 3 dB (A typical)
4.4	Input/Output Impedance	50 Ohms (A typical)
4.5	RF Signal Output Gain	3 dB to compensate for insertion loss
4.6	Internal Power Supplies	Four internal power supplies capable of delivering 12V/800mA to connected receivers

Sr. No. 5	Directional Antenna with Amplifier and Low Noise for Reliable Signal Transmission QTY- 02, Proposed Make: - Erthpot/Shure/AudioTechnica/Sennheiser	
5.1	Antenna Type	Active wideband directional antenna with built-in RF amplifier
5.2	Signal Gain	Up to 13 dB to compensate for long cable runs
5.3	Antenna Receptor Type	Midrib and side vein receptors for enhanced polarization
5.4	Antenna Polarization	Cardioid
5.5	Antenna Gain	6.5 dB or greater
5.6	Antenna Standing Wave Ratio	Less than 2
5.7	Amplifier Frequency Range	480 MHz to 950 MHz
5.8	Amplifier Gain	5 dB to 13 dB
5.9	Amplifier Noise	Low noise level of 0.45 dB or better
5.10	Build Material	Lightweight metal structure for indoor/outdoor usage

Sr. No. 6	AV Antenna Support Bracket QTY- 02, Proposed Make: Erthpot/Shure/AudioTechnica/Sennheiser	
6.1	Multi-purpose mounting bracket suitable for directional or omni antennas	Yes

Sr. No. 7	AV Coaxial Signal Cable with BNC Connectors QTY- 02, Proposed Make: - Shure/AudioTechnica/Sennheiser/Belden/Krammer	
7.1	Cable Type	Low-loss coaxial cable with pre-terminated BNC male connectors on both ends
7.2	Impedance	50 Ohm nominal
7.3	Length	20 meters

Sr. No.	12" Active Loudspeaker with Yoke Mount	
8	QTY- 02, Proposed Make: - QSC/Renkuz Heinz /Meyer sound/Bose /Yamaha	
8.1	Speaker Type	Multi-purpose, Two-way Active Loudspeaker
8.2	Power output	2000W or Higher
8.3	Transducer	LF: 12-inch Cone driver & HF: 1.4-inch Compression driver or better
8.4	Amplifier Module	Class D Amplifier Module or better
8.5	Frequency Response	50Hz - 20kHz or better
8.6	Frequency Range	45Hz - 20kHz or better
8.7	Coverage Angle	75° Axisymmetric or better
8.8	Rated Maximum SPL	Peak: 132 dB or more; Continuous: 126 dB or more
8.9	Control Options	Power; 3 x Level; Level Rotary encoder(push); 2 x selection buttons
8.10	Connectors	2 x locking XLR/F 0.25" combo (Mic/Line Input and Hi-Z/Line Input); 1 x 3.5 mm TRS (Stereo Input); 2 x XLR/M (Loop-thru Output) 1 x XLR/M (Mix Output); 1 x locking IEC power connector
8.11	AC Power Input	Universal power supply 100 – 240 VAC, 50 – 60 Hz
8.12	Mounting and Suspension	2 x M10 Threaded Insert
8.13	Enclosure type	ABS / High-impact ABS, Black Coloured with powder coated steel grille
8.14	Yoke Mount	OEM Supplied Powder coated steel yoke for mounting the Loudspeaker should be included
8.15	Certification	BIS (if available)/ CE/ UL/ FCC

Sr. No.	10" Active Loudspeaker with yoke mount	
9	QTY – 02, Proposed Make: - QSC/Renkuz Heinz /Meyer sound/Bose /Yamaha	
9.1	Speaker Type	Multi-purpose, Two-way Active Loudspeaker
9.2	Power output	2000W or Higher
9.3	Transducer	LF: 10-inch Cone driver & HF: 1.4-inch Compression driver or better
9.4	Amplifier Module	Class D Amplifier Module or better
9.5	Frequency Response	60Hz - 20kHz or better
9.6	Frequency Range	50Hz - 20kHz or better
9.7	Coverage Angle	90° Axisymmetric or better
9.8	Rated Maximum SPL	Peak: 130 dB or more; Continuous: 124 dB or more
9.9	Control Options	Power; 3 x Level; Level Rotary encoder(push); 2 x selection buttons
9.10	Connectors	2 x locking XLR/F 0.25" combo (Mic/Line Input and Hi-Z/Line Input); 1 x 3.5 mm TRS (Stereo Input); 2 x XLR/M (Loop-thru Output) 1 x XLR/M (Mix Output); 1 x locking IEC power connector
9.11	AC Power Input	Universal power supply 100 – 240 VAC, 50 – 60 Hz
9.12	Mounting and Suspension	2 x M10 Threaded Insert
9.13	Enclosure type	ABS / High-impact ABS, Black Coloured with powder coated steel grille
9.14	Yoke Mount	OEM Supplied Powder coated steel yoke for mounting the Loudspeaker should be included
9.15	Certification	BIS (if available)/ CE/ UL/ FCC

Sr. No.	18" Active Subwoofer	
10	QTY – 002, Proposed Make: - QSC/Renkuz Heinz /Meyer sound/Bose /Yamaha	
10.1	Subwoofer Type	Multi-purpose, Active Band pass Subwoofer
10.2	Configuration	Direct Radiating Subwoofer or better
10.3	Power output	3600W or Higher
10.4	Transducer	LF: 18-inch Cone driver or better
10.5	Amplifier Module	Class D Amplifier Module or better
10.6	Frequency Response	41Hz - 98kHz or better
10.7	Frequency Range	35Hz - 111kHz or better
10.8	Radiation	Omni-directional or cardioid radiation modes or better
10.9	Rated Maximum SPL	Peak: 136 dB or more
10.10	Control Options	Power; Gain Control; Rotary encoder; 2 x selection buttons
10.11	Connectors	2 x locking XLR/F 0.25" combo; 2 x XLR/M (Loop-thru Output); 1 x locking IEC power connector
10.12	AC Power Input	Universal power supply 100 – 240 VAC, 50 – 60 Hz
10.13	Mounting and Suspension	OEM Supplied Heavy Duty Casters accessories should be included
10.14	Enclosure type	Birch Plywood or better
10.15	Cooling	Low-noise, variable speed fan or better
10.16	Certification	BIS (if available)/ CE/ UL/ FCC

Sr. No.	12" Active Stage Monitor	
11	QTY – 002, Proposed Make: - QSC/Renkuz Heinz /Meyer sound/Bose /Yamaha	
11.1	Speaker Type	Multi-purpose, Two-way Active Loudspeaker
11.2	Power output	1000W or Higher
11.3	Transducer	LF: 12-inch Cone driver & HF: 1.4-inch Compression driver or better
11.4	Amplifier Module	Class D Amplifier Module or better
11.5	Frequency Response	50Hz - 20kHz or better
11.6	Frequency Range	50Hz - 20kHz or better
11.7	Coverage Angle	75° Axisymmetric or better
11.8	Rated Maximum SPL	Peak: 126 dB or more
11.9	Control Options	Power; 2 x Gain; Mic Boost Push Switch; 6-way Contour Selection Switch
11.10	Connectors	2 x locking XLR/F 0.25" combo (Line Input and Mic/Line Input); 1 x 3.5 mm TRS (Stereo Input); 1 x XLR/M (Mix Output); 1 x IEC power connector
11.11	AC Power Input	Universal power supply 100 – 240 VAC, 50 – 60 Hz
11.12	Mounting and Suspension	2 x M8 Threaded Insert
11.13	Enclosure type	Polypropylene, Black Coloured with powder coated steel grille
11.14	Certification	BIS (if available)/ CE/ UL/ FCC

Sr. No.	4.5" Surface Mount Speakers,	
12	QTY – 002, Proposed Make: - QSC/Renkuz Heinz /Meyer sound/Bose /Yamaha	
12.1	Speaker Type	Two-way Speaker
12.2	Power output (RMS)	16W or Higher
12.3	Transducer	LF: 4.5" woofer with 1" Voice Coil & HF: 1" Dome tweeter with 1" Voice Coil or better

12.4	Impedance	08 ohms or better
12.5	Sensitivity	85 dB or Higher
12.6	Frequency range	70 Hz - 20 kHz or better
12.7	Coverage Angle	130° conical or better
12.8	Rated Maximum SPL	Peak: 103 dB or more; Continuous: 97 dB or more
12.9	Transformer Tapping's	70V/100V: 16W, 8W, 4W, 2W, 1W & 8Ω bypass or better
12.10	Ingress Protection	Minimum IP-44 or better
12.11	Accessories	OEM Supplied Yoke mount system should be included
12.12	Enclosure type	ABS / Aluminium/ High-impact ABS, Black Coloured with powder coated steel grille
12.13	Certification	BIS (if available)/ CE/ UL/ FCC

Sr. No.	2 Channel Amplifier	
13	QTY - 01, Proposed Make: - QSC / Bose / Meyer Sound	
13.1	Technology	Class-D
13.2	Number of channels	Minimum 2 Channels or higher
13.3	Output Power	60W/Channel @8Ω/4Ω or better
13.4	Output Power (Bridge Mode)	200W/Channel @8Ω/4Ω; 250W/Channel @70V/100V
13.5	Frequency response	20 Hz - 20 kHz or better
13.6	Signal to Noise Ratio	>100 dB or better
13.7	Input Impedance	>10 kΩ or better
13.8	Input Sensitivity	1.23 Vrms or better
13.9	Operating Voltage	230 V AC, Single Phase
13.10	Other Features	ENERGY STAR rated Fan less Amplifier with Convection Cooling
13.11	Rack mount	Included rack mount ears, mounting brackets
13.12	Enclosure type	Metal/steel
13.13	Certification	BIS (if available)/ CE/ UL/ FCC with ENERGY STAR Rating

Sr. No.	Digital Signal Processor	
14	QTY - 01, Proposed Make: - QSC / Symetrix / Biamp	
14.1	Scope	Supply, Installation, Testing & Commissioning of Digital Signal Processor.
14.2	Input/Outputs	Minimum 12 Mic/Line Input Ports & 12 Line Output Ports with 1 Soft VC system connectivity over 2-way USB.
14.3	AEC Channels (200ms)	Minimum of 16 or more assignable & routable AEC channels
14.4	Network Audio Channels	Minimum 8x8 Dante channels and support for up to 32x32 Network audio channels via Dante or AES67.
14.5	USB Connectivity	1 x USB/USB-C for single cable connectivity for AV USB Bridging - emulating webcam video and AEC speakerphone audio driver for Software based Video Conferencing
14.6	POTS / SIP	POTS / SIP Softphone integration for Audio conferencing and 16x16 USB Audio channels via USB-B ports supporting AV USB Bridging for software or web-based conferencing applications.
14.7	UC Platform Certification	Minimum MS Teams, Zoom & Google Meet or better
14.8	VoIP softphone instances	Minimum 4 or more
14.9	Network Services	Should support VoIP, SNMP, LLDP, LDAP and WAN Media streaming etc.

14.10	Input Frequency Response	20 Hz to 20 kHz or better
14.11	Input Dynamic Range	>105 dB or better
14.12	A/D-D/A converters & Sampling Rate	Minimum 24 bit & 48 kHz Sample rate or better
14.13	Redundancy Option	Should have redundancy for continuous network uptime for audio with Dual Ethernet ports
14.14	Control Ports	Ethernet & RS232 ports for Third party device control.
14.15	System configuration and control	Should support via Ethernet
14.16	Certification	BIS (if available)/ CE/ UL/ FCC and RoHS compliant

Sr. No.	Digital Matrix Mixer, (Audio Mixer)	
15	QTY – 001, Proposed Make: - QSC/ Allen-Heath / Yamaha	
15.1	Total Inputs	Minimum 22 or better
15.2	Inputs	16 (12 XLR, 4 XLR combo), 2 Stereo (1/4" TRS), Stereo USB / MP3 playback, 1 Talkback (XLR)
15.3	Input EQ processing	4-band Parametric EQ with Hi/Low Shelving option, variable 24 dB/octave HPF and LPF
15.4	Outputs	12 (2 Main L/R XLR, 6 Aux XLR, 2 Aux Stereo TRS); 2 TRS (In-Ear Monitor), 1 Stereo TRS(Cue), 1 Stereo TRS(Monitor)
15.5	Output EQ processing	1/3 octave GEQ, 6-band Parametric EQ, Variable High and Low-Pass Filters with 8-band Anti-Feedback Filters
15.6	Digital Connections	Minimum 2 x USB A connectors or better
15.7	Recording / Playback	Minimum 22 x 22 tracks direct to hard drive or better
15.8	DCA Groups	Minimum 8 (with Mutes) or better
15.8	Effects	Minimum 4 simultaneous, professional effects engines including Reverb, Echo, Delay, Chorus, Pitch Shift or better
15.9	Pre-sets Memory	Yes
15.10	MP3 Playback from USB	Yes
15.11	Display	Minimum 7" diagonal colour TFT, capacitive touch sensing
15.12	Channel Output/Source Monitoring	AFL, PFL
15.13	Sample Rates	44.1 / 48 kHz
15.14	DSP	32-Bit Floating Point
15.15	THD	<0.005%,
15.16	Frequency Response	20 Hz to 20 kHz \pm 0.5 dB
15.17	Analog Dynamic Range	105 dB
15.18	Crosstalk	-80 dB
15.19	SNR	-94 dB
15.20	Max Inputs Level	+16 dBu (Mic/Line inputs, XLR), +26 dBu (Mic/Line inputs, TRS), +22 dBu (Stereo inputs)
15.21	Max Outputs level	+22 dBu (all line-level outputs)
15.22	Phantom Power	48v, all mic inputs
15.23	Included Accessories	USB Wi-Fi adaptor, oft carrying case, power supply
15.24	External Control Application	iOS/Android Control Application via Wi-Fi
15.25	Protective Case/Cover	Should have protective case/cover safeguard against accidental physical damage.
15.26	Certification	BIS (if available)/ CE/ FCC (Class B)/ RoHS

C. SWITCHING AND CONTROL EQUIPMENTS REQUIRED FOR THE AUDITORIUM:

Sr. No. 1	Laptop Interface Wall Module - HDMI, QTY- 001, Proposed Make: - Supremus / Logic / Chief /Krammer	
1.1	HDMI Wall Plate for Presentation Input	Wall-mountable plate with single HDMI port; suitable for in-wall or surface mounting; includes rear cable pigtail or keystone insert as required; 4K compatible

Sr. No. 2	Ultra HD 4K AV-over-IP Encoder with 4:4:4 Chroma, QTY- 002, Proposed Make: - Crestron / Extron / Lightware / Krammer	
2.1	Should be a Compact, surface-mountable form factor	Yes
2.2	Should have capacity of encoding minimum 4K60Hz, 4:4:4 color sampling video over standard 1 Gigabit / 10 Gigabit Ethernet	Yes
2.3	Should have copper 1 Gigabit / 10 Gigabit Ethernet connectivity	Yes
2.4	Should have minimum 1xHDMI Input supporting 3840x2160 4K 60 4:4:4 resolution or better	Yes
2.5	Should have HDR (High Dynamic Range) video support HDR/ HDR10/ HDR10+ or better	Yes
2.6	Should support Dante/AES67 Audio Embedding and De-Embedding	Yes
2.7	Should have onboard/external minimum 1xRS-232 and 1xIR control ports or external control port expander should be supplied.	Yes
2.8	Should have configurable bitrates option from minimum 200 to 950 Mbps or better	Yes
2.9	Should support end-to-end latency of less than 1.5 frame or better	Yes
2.10	Should be minimum HDCP 2.2 compliant or better	Yes
2.11	Should be Common Criteria/ JITC/ NIAP Certified product	Yes
2.12	Should Support RTSP, SDP, IGMPv2, IGMPv3, SMPTE 2022 or better	Yes
2.13	Should Support 100/1000 Mbps Ethernet port, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1xX, SNMP, IPv4 or IPv6, Active Directory service authentication or better	Yes

2.14	AVoIP control management hardware/software if any required should be supplied for each room where AVoIP boxes are deployed	Yes
2.15	Should be capable of Powering via a local power pack or a PoE+ compliant Ethernet switch.	Yes
2.16	Should be supplied with power adapter	Yes
2.17	Should be BIS certified	Yes
2.18	Depending on 1 Gigabit / 10 Gigabit Ethernet AVoIP unit supplied, respective Network switch, patch panel, Cat cables and accessories should be supplied.	Yes
2.19	The Control processor, Central management unit, Encoder/decoder/Trans receiver should be from the same OEM to avoid interop issues.	Yes

Sr. No.	Ultra HD 4K AV-over-IP Decoder with 4:4:4 Chroma, QTY- 006, Proposed Make: - Crestron / Extron / Lightware /Krammer	
3.1	Should be a Compact, surface-mountable form factor	Yes
3.2	Should have capacity of decoding minimum 4K60Hz, 4:4:4 color sampling video over standard 1 Gigabit / 10, Gigabit Ethernet	Yes
3.3	Should have copper 1 Gigabit / 10 Gigabit Ethernet connectivity	Yes
3.4	Should have minimum 1xHDMI output supporting 3840x2160 4K 60 4:4:4 resolution or better	Yes
3.5	Should have HDR (High Dynamic Range) video support HDR/ HDR10/ HDR10+ or better	Yes
3.6	Should support Dante/AES67 Audio Embedding and De-Embedding	Yes
3.7	Should have onboard/external minimum 1xRS-232 and 1xIR control ports or external control port expander should be supplied.	Yes
3.8	Should have configurable bitrates option from minimum 200 to 950 Mbps or better	Yes
3.9	Should support end-to-end latency of less than 1.5 frame or better	Yes
3.10	Should be minimum HDCP 2.2 compliant or better	Yes
3.11	Should be Common Criteria/ JITC/ NIAP Certified product	Yes
3.12	Should Support RTSP, SDP, IGMPv2, IGMPv3, SMPTE 2022 or better	Yes

3.13	Should Support 100/1000 Mbps Ethernet port, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1xX, SNMP, IPv4 or IPv6, Active Directory service authentication or better	Yes
3.14	AVoIP control management hardware/software if any required should be supplied for each room where AvolP boxes are deployed	Yes
3.15	Should be capable of Powering via a local power pack or a PoE+ compliant Ethernet switch.	Yes
3.16	Should be supplied with power adapter	Yes
3.17	Should be BIS certified	Yes
3.18	Depending on 1 Gigabit / 10 Gigabit Ethernet AVoIP unit supplied, respective Network switch, patch panel, Cat cables and accessories should be supplied.	Yes
3.19	The Control processor, Central management unit, Encoder/decoder/Trans receiver should be from the same OEM to avoid interop issues.	Yes

Sr. No.	AV-over-IP and Control Network Core Switch, (AV-Line Managed Switch)	
4	QTY- 01, Proposed Make: - Netgear / Cisco / Juniper / Arista	
4.1	Port Configuration	<ul style="list-style-type: none"> - 24 x 1Gbps PoE+ ports (480W PoE Budget) - 2 x 1Gbps Base-T ports - 4 x 10Gbps SFP+ ports - 1 x 1Gbps OOB management port - Console access via RJ45 & Mini-USB - Managed Switch
4.2	AV Integration Ready	<ul style="list-style-type: none"> - Support for Dante, Q-SYS, AES67, and AVB profiles - IEEE 1588 PTPv2 & Transparent Clock - Auto-Trunk & Auto-LAG configuration - Pre-configured for AV-over-IP traffic
4.3	Security Features	<ul style="list-style-type: none"> - 802.1X, MAB, Captive Portal authentication - DoS attack mitigation - DHCP Snooping - IP Source Guard - Malicious code detection
4.4	L3 & L2 Routing	<ul style="list-style-type: none"> - RIPv1/v2, PIM-SM, SSM multicast routing - Policy-Based Routing - 128 IP interfaces - GVRP, MVRP, MMRP support

Sr. No. 5	Smart Centralized Controller for AV Equipment Management, QTY- 01, Proposed Make: - Crestron /Extron / Lightware	
5.1	Should have onboard IR/serial, COM, I/O, relay, 4wire Bi-directional communication bus network, and high-speed gigabit Ethernet control ports	Yes
5.2	Should support iPhone, iPad, and Android device control app	Yes
5.3	Should support multiple simultaneously running programs to be loaded in the processor to facilitate different rooms or program types	Yes
5.4	Should have onboard Native BACnet network/IP support or an external BACnet interface should be supplied.	Yes
5.5	Should Support computer-based panel and web-based control or an 10" touch panel with all accessories should be supplied.	Yes
5.6	Should have onboard minimum of 2xRS-232, 1xRS-232/422/485, 8xRelay, 8xIR/one-way serial, 8xI/O ports, 1xRJ45 or an external control port expander should be provided to match the minimum requirement.	Yes
5.7	Should have a 4wire bi-directional communication bus to facilitate communication with other devices of the same OEM	Yes
5.8	Should have minimum onboard 2GB of SDRAM and 8GB Flash or more	Yes
5.9	Should support USB mass storage of minimum 1TB or more	Yes
5.10	Should have onboard power minimum of 24Watts for powering up the Keypad or similar connected devices, or and external Power supply should be supplied.	Yes
5.11	Should Support SNMP V3 remote IT management support	Yes
5.12	Should be IPV6 Ready	Yes
5.13	Should support Cloud service provisioning and management to maintain and monitor the system from a centralized location	Yes
5.14	Should have Rack ears or additional mounting accessories should be supplied.	Yes
5.15	Should be supplied with power adapter	Yes
5.16	Should be BIS certified	Yes
5.17	Should be CE, IC, FCC Part 15 Class B digital device compliant	Yes

Sr. No. 6	Wireless AV Control Interface Unit, QTY- 001, Proposed Make: - Apple	
6.1	Wireless Touch Interface for Control System	Portable wireless touchscreen device compatible with the control system platform; minimum 10-inch display; multi-touch support; Wi-Fi enabled; capable of running control system interface app

Sr. No. 7	Wall-Mounted Charging Dock for Wireless Touch Interface, QTY- 01, Proposed Make: - iPort	
7.1	Inputs	Molex - M
7.2	Outputs	USB-C
7.3	Interfaces	Dock & PRO Station
7.4	Input Voltage	5.3VDC/3A; 9VDC/2.2A
7.5	Output Voltage	5.3VDC/3A; 9VDC/3A
7.6	Finish Type	Textured
7.7	Port Type	USB-C
7.8	Min Operating Temperature	32 F (0.0 C)
7.9	Max Operating Temperature	95 F (34.97 C)
7.10	Operating Humidity	5% to 95%
7.11	Lockable	Yes
7.12	Antimicrobial	Yes
7.13	Product Dimensions	7.4 in x 0.87 in x 10.24 in (187.96 mm x 22.1 mm x 260.1 mm)
7.14	Product Weight	0.8 lbs (0.36 kg)
7.15	Certifications	FCC PART 15B Class B, AS/NZS 60950 AS/NZS CISPR22, EN 55032:2015+A11:2020, BS EN 55035:2017+A11:2020, AS/NZS CISPR 32 EMC, EN 55024:2010 Immunity, EN 55022:204

Sr. No. 8	Wall-Mounted Button Panel for AV System Operation, QTY- 001, Proposed Make: - Crestron /Extron / Lightware	
8.1	Should have minimum of Five configurable buttons arranged in one column	Yes
8.2	Should have engravable and Field-Replaceable Button Caps	Yes
8.3	Should have built-in ambient light sensor	Yes
8.4	Should support One RGB LED backlight per button to illuminate the button engraving	Yes
8.5	Should Support adjustable brightness and RGB color mixing to allow any color or pure white	Yes
8.6	Should support settings for button feedback and day/night modes; adjustable blink feedback	Yes
8.7	Should have 2x Input ports to connect any device that provide DC logic or 0-10VDC contact closure or an external input port should be supplied.	Yes

8.8	Should be able to connect multiple keypad; All buttons in a multi-gang arrangement should align to form one continuous control surface.	Yes
8.9	Should be able to communicate with the Central control system	Yes
8.10	Should be supplied with all the necessary accessories and faceplate.	Yes
8.11	Should be able to install multiple keypads in a single communication bus and controlled by a single control system.	Yes
8.12	Should be IC, FCC Part 15 Class B digital device compliant	Yes

D. CABLING AND INSTALLATION REQUIRED FOR AUDITORIUM:

Sr. No. 1	Bulk AV Cables, Connectors, and Accessories Specifications, QTY- LOT, Proposed Make: - Supremus/ Kramer/ Crestron / Belden	
1.1	Should include Audio/Video Cables (include HDMI, VGA, Audio, etc.)	Yes
1.2	Should include Twisted pair cable for AV or control signals (Cat5, Cat6 cables)	Yes
1.3	Should include Professional-grade connectors for balanced/unbalanced signals	Yes
1.4	Should include Standard connectors for video signal interface	Yes
1.5	Should include Identification labels for cables and connectors	Yes
1.6	Should include short interconnects between devices and interfaces	Yes

Glossary of Technical Terms

- **NDI (Network Device Interface):** Protocol for video/audio transmission over IP networks.
- **DMT™ (Directivity Matched Transition):** OEM's proprietary Loudspeaker Coverage Technology.
- **AEC (Acoustic Echo Cancellation):** Technology to eliminate echo in audio conferencing systems.
- **HDBaseT:** Standard for transmitting AV signals over CATx cables.
- **PoE+ (Power over Ethernet Plus):** IEEE 802.3at standard for powering devices via Ethernet.

Detailed Scope of Work

The Audio-Visual System will be installed in the VJTI auditorium (approximate dimensions: 15.74' ft x 8.85 ft, seating capacity: 300) to support lectures, seminars, performances, and hybrid events (live streaming and video conferencing). The system must integrate with existing network infrastructure (Gigabit Ethernet) and comply with safety (BIS, UL) and environmental (RoHS) standards. Key requirements include:

- High-resolution video wall for presentations and visuals.
- Professional audio system for clear sound reproduction.
- Centralized control system for seamless operation of AV equipment.
- IP-based cameras for recording and streaming.
- Compatibility with Microsoft Teams/Google meet/ Webx/Zoom for hybrid events.
- The minor civil works (e.g., wall reinforcement, mounting brackets, surface finishing) necessary for the equipment installation shall be carried out by the successful bidder at no additional cost. VJTI maintenance department will guide the vendor (L1-bidder) for completing this civil work.

Service Level Agreement (SLA)

This Service Level Agreement outlines the performance standards and associated penalties agreed upon for the services rendered. The key parameters are as follows:

1. Response Time

- **Requirement:** Response must be provided within **4 hours** of lodging a complaint.
- **Channel:** Complaints must be submitted via the authorized **VJTI email**.

2. Resolution Time

- **Critical Issues** (e.g., system downtime): Must be resolved within **24 hours**.
- **Non-Critical Issues:** Must be resolved within **48 hours**.

3. Uptime Guarantee

- **Service Availability:** Minimum **99.5% uptime per month** is required.

4. Penalties for Non-Performance

- **Service Delays:** ₹100 per affected **device/system per day** beyond the resolution time, deducted from the **security deposit**.
- **Delayed Delivery of Goods/Equipment:** ₹100 per **day of delay** beyond the stipulated delivery deadline.

OEM CRITERIA

SR. NO	GENERAL CONDITIONS - TO PREQUALIFY ALL THE OEMS SHOULD SATISFY THE ELIGIBILITY CRITERIA MENTIONED BELOW.	SUPPORTING DOCUMENT REQUIRED
1	Compliance Check / {Certificate of Compliance / Declaration of Conformity / Conformance Letter}	<p>The OEM shall provide a Compliance Certificate on its official letterhead, duly signed and sealed by an authorized representative. The certificate must reference the relevant bid/tender number and explicitly confirm that all supplied equipment fully conforms to the specifications, standards, and requirements outlined in the tender documents.</p> <p>This certificate will serve as formal assurance that the delivered products meet the agreed-upon technical and quality criteria.</p>
2	"The OEM must have a minimum of 10 years of continuous experience in the manufacturing of equipment similar in nature, scope, and technology to those specified in this tender. The experience must specifically relate to the categories of Audio-Visual (A.V.) systems and related components being procured."	Incorporation Certificate or equivalent.
3	"The OEM must provide a product support and availability roadmap confirming that the supplied products will remain under official support and will not be classified as end-of-sale or end-of-support for a minimum of 5 years from the date of delivery."	Signed letter from OEM confirming product lifecycle.
4	OEM must comply with BIS, UL, or CE standards for all equipment mentioned in this tender.	Certification documents.

Bidder Criteria

Sr. No.	General Conditions - To Prequalify all the OEMs should satisfy the Eligibility Criteria mentioned below.	Supporting Document Required
1	MAF or OEM Certification is mandatory and should be specific to Bid Number and Bid Date. No general MAF will be accepted. Wherever Authorized Distributors/service providers are submitting the bid, Authorization Form /Certificate with OEM/Original Service Provider details such as name, designation, address, e-mail Id and Phone No. required to be furnished along with the bid	Attach ink signed/Digitally signed MAF from OEM
2	Certified balance sheet and Profit and Loss statement for last three financial years.	Audited reports and CA certificate
3	Documentary proof of GST registration.	GST Certificate
4	Bidder should be profit making organization from consecutively past 3 FYs.	Audit Reports
5	The Bidder must have positive net-worth in last 3 financial years	Audited reports and CA certificate
6	The Bidder must have an average Annual turnover not less than ₹ 1 Crores/-	Audited reports and CA certificate
7	The bidder shall be at least 15 Years established company.	Incorporation / Firm Registration Certificate. / MSME Certificate
8	The bidder must have successfully completed at least one (1) similar single order with a contract value not less than ₹1 Crore within the last three (3) years.	The bidder shall submit a Work Completion Certificate issued by the client, clearly specifying the contract value and confirming the successful completion of the work.
9	<p>Bidder company should be a registered member of AVIXA with at least 2 CTS Certified staff employed.</p> <ul style="list-style-type: none"> • AVIXA (Audio-visual and Integrated Experience Association) is a globally recognized A.V. industry body. • Requiring AVIXA membership ensures the bidder is aligned with international standards and industry best practices.) • CTS (Certified Technology Specialist) is a professional certification by AVIXA, signifying verified knowledge in A.V. systems design, integration, and operation. • Requiring at least 2 CTS-certified staff ensures that the bidder has technically qualified personnel on their team, capable of handling complex A.V. installations and support. 	Bidder should submit CTS Certificate and membership proof.

10	Malicious Code Certificate	Should be on OEM Letter Head having bid number mentioned with seal & sign of OEM
11	Escalation matrix	With Bid Number mentioned on OEM Letterhead with seal and sign of OEM
12	The solution should have service warranty for period of 3 years and bidder should be responsible for SITC, support, warranty and after sales service for the items during the warranty period	Warranty certificate from OEM With Bid Number mentioned on OEM Letterhead with seal and sign of OEM.
13	ISO certifications from Bidder	9001-2015 and 27001-2022.
14	It is mandatory for all prospective bidders to undertake a site visit before submitting their bids. The purpose of the site visit is to provide the bidders with a comprehensive understanding of the site requirements and the conditions that may affect the execution of the work. Failure to undertake a site visit will result in the automatic rejection of the submitted bid.	Bidder must upload a visit report along with a bid document having seal and sign of buyer.
15	Support Center: The bidder must operate a 24/7 support center in Mumbai/Navi Mumbai, accepting complaints via email, unified portal, or telephone.	Address Proof such as Electricity Bill of office having address mentioned, Property Tax pay receipt from municipal corporation, etc.
16	Non-Blacklisting Declaration.	Should be on bidder Letter Head having bid number mentioned with seal & sign of bidder.
17	Datasheet of all quoted products should be attached with tender documents.	Products Literature/Datasheet
18	OEM must have supplied similar Audio-Visual (A.V.) systems to at least 3 educational or government institutions in India.	The bidder shall submit a Work Completion Certificate issued by the client, confirming the successful completion of the work.

Additional Requirements

1. **Product Lifecycle:** Products must have a minimum 5-year support roadmap and must not be end-of-life during the contract period.
2. **Replacement:** In case of system failure, replace defective components with same or higher specifications within 24 hours of complaint lodging.
3. **Environmental/Safety Standards:** All equipment must comply with RoHS, BIS, UL, or CE standards.
4. **Cybersecurity:** IP-based equipment must support ISO 27001-compliant security features (e.g., encryption, secure updates).

SECTION 5
FINANCIAL BID

- Quote prices in INR, inclusive of all costs (supply, installation, testing, commissioning, training, documentation, maintenance during warranty) except GST, which must be specified separately.
- Clearly indicate any additional charges/taxes.

Sr. No.	Item	Total Bid Price in ₹
1	Supply, Installation and Commissioning of Audio-Visual System for Auditorium At Veermata Jijabai technological Institute	
2	GST	
3	Other charges/taxes (if any) Please Provide Details	
	Total bid price in figure	
	Total bid price in words	

Sr.No	Item	Description
1.	Contact Person	
2.	Business Address	
3.	Tel No.	
4.	Mobile No.	
5.	Fax No.	
6.	E-mail	

- This offer shall be valid for 60 calendar days from the last date of submission of tender.
- Evaluation will be done on the basis of Total Bid Price (including all Taxes).
- We accept all terms & conditions of the contract.

Place:

Date:

Signature of Vendor with seal

Documents Submission Checklist:

Sr. No.	Requirement	Complied (Yes/No)	Document Reference
1	Firm Registration Certificates (PF, ESIC)		
2	GST Registration Certificate		
3	Partnership Deed/Incorporation Certificate		
4	Income Tax Returns (2022-23, 2023-24, 2024-25)		
5	Tender Fee Receipt (₹22,420/-)		
6	EMD Receipt (₹1,90,000/-)		
7	Site Visit Acknowledgment		
8	MAF from OEM		
9	Audited Financial Statements (Last 3 F.Yrs.)		
10	AVIXA Membership and CTS Certificates		
11	Malicious Code Certificate		
12	Compliance Certificate		
13	Escalation Matrix		
14	Warranty Certificate		
15	ISO 9001:2015 and 27001:2022 Certificates		
16	Non-Blacklisting Declaration		
17	Product Datasheets		

Project Timeline:

Milestone	Timeline
Site Survey	22 nd August 2025 – 3 rd <i>September 2025</i>
Pre-Bid Meeting	<i>3rd September 2025</i>
Bid Submission Deadline	As per portal schedule
Technical Bid Opening	As per portal schedule
Financial Bid Opening	To be notified
Delivery of Equipment	Within 30 days of purchase order
Installation and Commissioning	Within 30 days of purchase order
Training	Within 15 days of commissioning
Handover and Sign-Off	Within 45 days of purchase order

Declarations

1. **Non-Blacklisting Declaration:** On bidder's letterhead, confirming the bidder is not blacklisted by any government entity.
2. **Malicious Code Certificate:** On OEM letterhead, confirming equipment is free of malicious code.
3. **Compliance Certificate:** On OEM letterhead, confirming compliance with tender specifications.
4. **Warranty Certificate:** On OEM letterhead, confirming 3-year warranty.

Annexure - [I]

Site Visit Acknowledgment Form

(To be printed on bidder's letterhead and submitted along with the tender documents)

This is to certify that the below-mentioned authorized representative(s) of the prospective bidder has/have visited the site of the Auditorium at Veermata Jijabai Technological Institute (VJTI), Matunga, Mumbai, as part of the tender requirement for:

Name of the Work: Supply, Installation, Testing and Commissioning (SITC) of Audio-Visual System for Auditorium

Tender Ref No: VJTI/IT-Infra/2025/Tender/05

The site visit was conducted between the allowed period from 22nd August 2025 to 3rd September 2025.

Particulars	Details
Name of Bidder Organization	
Address of Bidder	
Name of Authorized Representative	
Designation	
Mobile Number	
Email ID	
Date of Site Visit	

We confirm that we have examined the site conditions and existing infrastructure and understood the scope of work. We shall not raise any claims on account of lack of understanding of site conditions.

Authorized Signatory of Bidder:

Name: _____

Designation: _____

Signature with Seal: _____

Date: _____

Acknowledged by VJTI Representative:

Name: _____

Designation: _____

Signature with Official Seal: _____

Date: _____

Compliance Certificate

[OEM's Company Letterhead]

Compliance Certificate

Date: [Insert Date]

Bid/Tender No.: [Insert Bid/Tender Number]

To,

[Buyer's Name & Address]

[Project/Tender Reference]

Subject: Compliance Certificate for Supplied Equipment

Dear Sir/Madam,

This is to certify that the equipment supplied by **[OEM Company Name]** under the above-mentioned bid/tender number fully complies with the technical specifications, standards, and requirements specified in the tender documents issued by **[Buyer's Organization Name]**.

Below are the details of the supplied products along with their specifications:

Sr. No.	Product Name/Model	Specification Parameter	Value/Description
1			
2			
3			
...			

We confirm that all supplied products meet the quality and performance criteria as per the tender, with no substitutions or deviations.

Should you require any further information or clarification, please feel free to contact us.

Thank you.

Sincerely,

[Authorized Signatory Name]

[Designation]

[OEM Company Name]

[Seal & Signature]

Signature Not Verified

Digitally signed by RAVAL NARAYANRAO
AWALE

Date: 2025.08.23 12:45:25 IST

Location: Maharashtra MH