



अग्रमत्तेन वेद्व्यम्

COTTON UNIVERSITY

Tender for

Supply, Installation, Testing and Commissioning
(SITC) of the Audio Visual and Video conferencing
System in the conference room of the MCB building
of Cotton University

Price Bid

NIT No: 01 of 2020-2021 Dtd. 01.06.2020

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PRICE BID SUMMARY

Part	Work	Amount (Rs)
A	Aud o visual system	
B	Video conferencing system	
C	Live Streaming and Recording	
Total (A + B + C)		
Rebate, if any -----%		
Total after rebate		

Total in word.....

Date:

Signature of the bidder

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Note: In the rebate column, the bidder may give rebate, if he intends to. Otherwise amount in rebate column shall be shown as "nil".

PRICE BID

Bill of quantities

Sl no	Item description	Unit	Qty	Rate in figure	Rate in words	Amount
A. Audio visual system						
1	Supply, Installation, Testing and Commissioning of On-table Boundary Layer Microphone With Programmable Microphone Button (PTT, PTM, toggle ON/OFF, permanent on) and A Bi-color LED ring for status indication: Frequency Response Of 40 Hz - 20 kHz or better: Max: sound pressure level 140 dB or better Dynamic range 111 dB (A) or better Sensitivity 10 mV/Pa or better	Nos	17			
2	Supply, Installation, Testing and Commissioning of Advanced Digital Audio Processor with Configurable DSP, Audio Networking and Acoustic Echo Cancellation: 8 Channels of wide band Acoustic Echo Cancellation (AEC) for telephone and video conferencing or better 6 electronically balanced low impedance line level outputs or better Dynamic Range > 105 dB A-weighted 20 Hz – 20 kHz or better Frequency Response 20 Hz to 20 kHz (+0.3 dB/-0.1 dB) or better	Nos	2			
3	Supply, Installation, Testing and Commissioning of Remote Control for Volume and Source Selection	No	1			
4	Supplying installation, testing, programming and commissioning of Audio equipment, Compact Full Range 6" Ceiling Speaker:	Nos	8			

	40w to 60 W RMS Power or better UL1480, UL2043 certified or better Frequency Response (+/-3 dB) 80 Hz - 17 kHz or better Frequency Range (-10 dB) 70 Hz - 19 kHz or better Sensitivity (SPL / 1 W @ 1 m) 87 dB SPL or better 90 degrees conical Coverage or better Nominal Impedance 6 / 8 ohms or better Maximum SPL 103 dB Average or better Transformer Taps 70 V: 2.5 W, 5 W, 10 W, 20 W, 40 W 100 V: 5 W, 10 W, 20 W, 40 W or better				
5	Supplying installation, testing, programming and commissioning of Professional 300-Watt Amplifier: Power 4 x 75 Watts into 4 Ohms; 4 x 50 Watts into 8 Ohms or 4 x 100 W @ 4-8 Ω or better Light Weight 4-Channel Power or better Frequency Response 20 Hz – 20 kHz or better Input sensitivity 0dBu or 4 / 12 dBu Signal-to-noise 100dB	Nos	2		
6	Supply and Installation of Professional 8-Channel 3- Bus Mic/Line Zone Mixer with Remote Control and Link Ports: Inputs 1-6: Euroblock Connector, Balanced, Impedance: 5 kOhms Balanced, 2.5 kOhms Unbalanced, Maximum Input Level: +12 dBu (with Pad), Maximum Gain: 40 dB Pad: -20 dB, Crosstalk: -63 dB @ 1 kHz, Common Mode Rejection Ratio: (CMRR) 70 dB @ 1 kHz, 22 Hz to 22 kHz; Outputs Out: L/Out R/Aux, Type: Euroblock Connector, Balanced, Impedance: 120 Ohms Balanced, 60 Ohms Unbalanced, Max Gain: 18 dB, Max Gain: (Input / Output) 58 dB (without Pad), Maximum Output	No	1		

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	Level: +21 dBu, Crosstalk (Output / Output): -63 dB @ 1 kHz, Noise (All Level Controls Down): -105 dBu, A-Weighted				
7	Supplying installation, testing, programming and commissioning of Audio equipment VOCAL SET Sensitivity < 30 at 52 dB(A)rms S/N or better Input sensitivity 1.5 mV / Pa, Line / Mic level 20 dB, switchable or better Receivers AF frequency response Receiver: 50 to 16,000 Hz (-3 dB) or better	Nos	2		
8	Supplying installation, testing, programming and commissioning of Audio equipment LAVALIER SET: Receivers AF frequency response 50 to 16,000 Hz (-3 dB) or better Microphone Sensitivity < 3 pV at 52 dB(A)rms S/N or better Input sensitivity 1.5 mV / Pa or better	No	1		
9	Supplying installation, testing, programming and commissioning of 4500 lumens, WUXGA LCD Laser Projector: Resolution: 1920 x 1200 pixels or better Technology: Laser or better LCD Panel size (mm) 16 mm (0.64 inch) diagonal (16:10 aspect ratio) Display Method Transparent (x 3, R/G/B) or better Pixels 2,304,000 (1920 x 1200) x 3, total of 6,912,000 pixels or better Lens 1.6 x Manual zoom (throw ratio 1.09-1.77 :1), F = 1.60-2.12, f = 15.30-24.64 mm or better Screen size (diagonal) (mm):- 0.76 - 7.62 m (30-300 in), 16:10 aspect ratio or better	No	1		
10	Supplying installation, testing, programming and	No	1		

	commissioning of Wireless Presenter: Operating system Windows 7, 8, 10 and above macOS X 10.9 and above Chromebook OS 74 and above Android 4.1 and above iOS 9 and above Native industry standard support Apple AirPlay Video Output 1 x HDMI 1 x VGA or better Frame rate up to 30 fps or better Output resolution up to 1080p or better Connected users up to 64 or better					
11	Supply and Installation of 8X5 Feet Form at Motorized Projection Screen with Remote control	No	1			
12	Supply and Installation of Projector Ceiling Mount Kit	No	1			
13	Supply, Installation, Testing and Commissioning of of PopUp Box: Easy Access To Connectors Durable Pneumatic Movement and Mechanical Latching Mechanism One Female 15pin HD Connector or better 3.5mm Mini Stereo Audio Jack or better Two CAT R145 Network/Data/Phone Connectors or better Two Unswitched AC Outputs, One HDMI or better	Nos	5			
14	Supply, Installation, Testing and Commissioning of 8-Port HDMI Switch: Video Input: Interfaces 8 x HDMI Type A Female (Black) or better Impedance 100 Ohm or better Max. Distance 1.8 m or better Video Output: Interfaces 1 x HDMI Type A Female (Black) or better	No	1			

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	<p>Impedance 100 Ohm or better</p> <p>Video: Max. Data Rate 6.75 Gbps (2.25 Gbps Per Lane) 14 or better</p> <p>Max. Pixel Clock 225 MHz or better Compliance HDMI (3D, Deep Color) , HDCP Compatible , Consumer Electronics Control (CEC) or better,</p> <p>Max. Resolution Up to 1080p or better</p> <p>Max. Distance Up to 15 m or better</p> <p>Audio Input 8 x HDMI Type A Female (Black), Output 1 x HDMI Type A Female (Black) or better</p> <p>Control RS-232 Connector: 1 x DB-9 Female (Black), Baud Rate and Protocol: Baud Rate: 19200, Data Bits: 8, Stop Bits:1, Parity: No, Flow Control: No or better</p>				
15	<p>Supply, Installation, Testing and Commissioning of HDMI Repeater Plus Audio De-embedder:</p> <p>Video Input: Interfaces 1 x HDMI Type A Female (Black) or better</p> <p>Impedance 100 Ohm or better</p> <p>Video Output: Interfaces 1 x HDMI Type A Female (Black) or better</p> <p>impedance 100 Ohm or better</p> <p>Video: Max. Data Rate 6.75 Gps (2.25 Gbps Per Lane) or better</p> <p>Max. Pixel Clock 225. MHz or better Compliance HDMI (3D, Deep Color) , HDCP Compatible or better</p> <p>Max. Resolution Up to 1920 x 1080 or better</p> <p>Audio Output 1 x HDMI Type A Female (Black); 1 x Toslink (Black); 1 x RCA (Orange); 2 x RCA (Red/White) or better</p>	No	1		
16	<p>Supplying installation, testing, programming and commissioning of Video equipment HDMI HDBaset Lite Extender (4K@40m)(HDBaset</p>	Pair	2		

	Class B): Video Max. Data Rate 10.2Gbps (3.4Gbps per lane) 10.2Gbps (3.4Gbps per lane) or better Max. Pixel Clock 340 MHz 340 MHz or better Compliance HDMI (3D, Deep Color, 4K) HDCP Compatible, HDMI (3D, Deep Color, 4K) or better Max. Resolutions / Distance Up to 4K@35m (Cat Se/6) / 40m (Cat 6a/ATEN 2L-2910 Cat6); 1080p@60m (Cat Se/6) / 70m (Cat 6a/ATEN 2L-2910 Cat6) 4K supported: 4096 x 2160 / 3840 x 2160 @ 60Hz (4:2:0); 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4) or better				
17	Supply and Installation of 17U Floor Mounted Equipment Rack with castor wheels, PDU and Exhaust Fan	No	1		
18	Supply and Installation of Speaker Cable	M	300		
19	Supply and Installation of Audio Signal Cable	M	400		
20	Supply and Installation of Audio Connectors like XLR, RCA, Speakon, EP Jack, Mono Jack etc Amphenol/ Neutrik	Lot	1		
21	Supply and Installation of PVC Conduits	Lot	1		
22	Supply & Installation of 6KVA Online UPS with Isolation Transformer including 16 Nos 28AH Batteries and MS Battery Rack	Set	1		
23	Supply and Installation of HDMI to HDMI Cables of Length 15 M	Nos	4		
24	Supply and installation of HDMI to HDMI Cables of Length 10 Mtr	Nos	3		
25	Supply and Installation of HDMI to HDMI Cables of Length 1 Mtr	Nos	6		
26	Supply and Installation of HDMI to HDMI Cables of Length 3 Mtr	No	1		
27	Supply and installation of 8 Core Audio Snake Cable	M	50		



Total for A Audio visual system

B. Video Conferencing System

1	Supply, Installation, Testing and Commissioning of 65" LED Display:	No	1			
	Screen Size (Diagonal) / Aspect ratio:- 165.1 cm / 16:9 or better Panel Type:- IPS Panel / ID- LED or better Effective Display Area (W x H):- 142.85 cm x 80.35 cm or better Resolution (H x V):- 3840 x 2160 pixels or better Brightness:- 500 cd/mi or better Viewing Angle (Horizontal/Vertical):- 178° / 178° or better Response time:- 6ms (G to G) or better					
2	Supply and Installation of Video Conference System: Video up to: 1080p, 720p or better Data up to: 1080p/ WUXGA 30fps or better Full band audio Dual screen support 12 Mbps bandwidth Support or better H.264,H.263++ and other video standards or better Full HD camera with pan, tilt and zoom features Digital Mic array with automatic echo cancellation and noise suppression and speakers with 1 (One) year or better	No	1			
3	Supplying installation, testing, programming and commissioning of Audio equipment, Compact 2 way full range surface-mount loudspeakers with line transformer: Dual 5" LF driver, dual 1"HF soft dome driver or better	Nos	2			

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	Power 120 Watts rms or better Impedance 8 ohms, 70V/100V taps of 120W, 60W, 30W (and 15 at 70V) or better Frequency response 43 Hz-20 kHz (-10 dB), 100° x 70° coverage, 90 dB or better Sensitivity, SPL 111 dB continuous, 117 dB peak or better					
4	Supply and Installation of Ultra-Lightweight, High-Density Power Amplifier: Delivers 2 x 500 Watts, into 2 Ohms; 2 x 300 Watts into 4 Ohms, 1000 Watts into 4 Ohms (bridge mode) or better Distortion 145 @ 8 Ω >155 @ 8 Ω or better Signal-to-noise >100 dB or better USB Rear panel USB connector type B for remote control of DSP section	No	1			
Total for B Video Conferencing System						

C. Live Streaming and Recording						
1	Supply, Installation, Testing and Commissioning of USB PTZ Camera: Equipped with a 1/2.8 inch image sensor or better USB 3.0 and HDMI video output interface or better Full HD 1080p signal output format with a high frame rate of 60 fps, 12x optical zoom or better Applicable for a medium size conference room or better Viewing Angle: 74°(H) 82°(D) or better Wide range Pan/Tilt/Zoom actions Pan angle from -100° to +100°; tilting angle from -30° to +30° or better	No	1			
2	Supply, installation, Testing and Commissioning of HDMI/VGA to HDMI Live Video Streamer with Recording Function: 1 HDMI input, 1 VGA input and 1 HDMI output	No	1			

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(for local monitoring) are supported HDCP 1.x and HDCP 2.2 compliant or better. HDMI input/output supports resolutions up to 4K UHD (18Gbps, 4K@60Hz 4:4:4, 8-bit) or better VGA input supports resolutions up to WUXGA (1920x1200@60Hz) or better Advanced H.264 video streaming and recording is provided at QVGA (320x240), VGA (640x480), 720p, or 1080p at up to 60fps or better					
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Total for C Live Streaming and Recording

Total: A + B + C

Date:

Signature of the bidder

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