

Sub: INVITATION OF QUOTATIONS FOR SUPPLY OF VIDEO CONFERENCING EQUIPMENT

1. You are invited to submit your most competitive quotation for the following goods:

Sr.No.	Brief Description & Specifications of Goods	Quantity
1.	A High Definition Visual Communication Solution with HD Camera Codec, HD Microphone array (upto 3 mics), cables and remote	01 No.
2.	An additional HD Camera with 12x Optical Zoom	01 No.
3.	HD Ceiling Microphone Arrays	03 Nos.
4.	LCD Tablet Monitor with Software for annotation and control	01 No.
5.	DVR for recording Video output	01 No.

(Detailed specifications as per list attached)

2. Necessary literature of the goods may please be sent to facilitate to take decision.
3. All duties taxes and other levies payable by the Institute shall be included in the total price. This Institute does not issue Form C or D.
4. Payment is normally made by Cheque drawn on State Bank of India within 30 days after receipt of material in good condition and according to specifications.
5. The goods are not required exclusively for Research Purpose. The Custom & Excise Duties are payable by the Institute.
6. The quotation should remain valid for a period not less than 45 days from the date of submission.
7. The right of accepting or rejecting any quotation without assigning any reason is reserved with the Institute.
8. The due date for receipt of quotation is 17.2.2009 and will be opened on next working day. Please quote on the top of the envelope our Ref. No. and due date of opening.


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Specifications of a High Definition Video Conferencing System for Library Conference Hall

List of equipment:

Sr. No.	Equipment	Quantity	Approx Amt. (in lac)
1	A High Definition Visual Communication solution with HD camera, codec, HD microphone array (up to 3 mics), cables and remote	1	8.8
2	An additional HD Camera with 12x Optical Zoom	1	3.6
3	HD Ceiling Microphone Arrays	3	2.1
4	LCD Tablet Monitor with software for annotation and control	1	0.7
5	DVR for recording Video output	1	0.6
	TOTAL Solution Cost		15.80

General requirements:

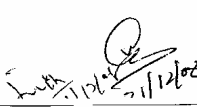
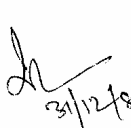

1. All equipment to be installed and commissioned at Library conference Hall as per drawing attached.
2. All equipment should not only be fully compatible with each other but also with the existing audio and video facility at Library Conference Hall
3. The system should deliver HD video, HD voice, and HD content for an overall HD experience
4. It should be possible to see both near and far end on one screen thus making most efficient use of a single display area.
5. It should be possible to switch from content to presenter and vice versa easily and also have presenter and content on same screen.
6. There should be necessary hardware and software support for connecting two display monitors and two HD PTZ cameras to codec.

7. *Successful demonstration after installation.*

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Detailed Specifications:

Item No. 1	
A High Definition Visual Communication solution with HD camera, codec, HD microphone array (up to 3 mics), cables and remote	
Video Standards and Protocols Supported	H.264, H.263++, H.261, H.239, H.263 and H.264
People Video Resolution	720p, 30fps at 1-4 Mbps 4SIF/4CIF, SIF, CIF, QSIF, QCIF
Content Video Resolution	HD continuous presence multipoint Up to 720p
Camera	1280x720p CCD imager 12x Optical Zoom 72 deg FOV at minimum zoom +/- 100 deg pan range +/- 20 deg tilt range SMPTE 296M 1280x720p, 50/60fps output
Audio Standard and protocol supported	Stereo Surround Sound G.728, G.722, G.711 Automatic Gain Control Automatic Noise Suppression Instant Adaptation Echo Cancellation
Network	Interface: 2-port 10/100 auto NIC switch, RJ4 Connector, RJ11 analog phone connector H.323 up to 4 Mbps SIP/H.323 dual Stack Re-configurable MTU Size Auto SPID detection and line number configuration QoS by Lost Packet Recovery and Priority Scheduling
User Interface	Directory service Web based System Management CDR API Support
Security	Embedded AES FIPS 197, H.235 V3 and H.233/H.234 Secure Password authentication FIPS 140
Content Sharing	Facility to switch from content to presenter and vice versa easily and also have presenter and content on same screen.
Additional I/O Support	Software and Hardware for supporting 2

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Upgradability	HD camera inputs, 2 HD video outputs Upgradeable to support ISDN PRI up to 2 Mbps Upgradeable to support multiparty up to 4 sites
Item No. 2	
An additional HD Camera with 12x Optical Zoom	
Camera Type	1/3" CCD
Output	720p @ 60/50 fps
Zoom	12x Optical
FOV	72 deg at min zoom
Pan Range	+/- 100 deg
Tilt Range	+/- 20 deg
Item No. 3	
HD Ceiling Microphone Arrays	
Micro phone features	360 deg directional pickup Each array should cover at least 15' radius area
Audio features	Dynamic microphone steering Full duplex digital audio Instant adaptation echo cancellation Automatic noise suppression Automatic gain control
Additional requirements	All interface cables and fixtures to be provided as per drawing Compatibility with Codec and other equipment
Item No. 4	
LCD Tablet Monitor with software for annotation and control	
LCD Specifications	17" display area SXGA 1280x1024p resolution 16 ms response time 16.2 M colours 220 cd/m ² brightness 450:1 contrast ratio Anti-scratch protective screen display Win XP, 2000, Mac OS support
Tablet Specifications	Electromagnetic Hand writing Tablet 17" active area 2000 lpi resolution ± 0.05 mm accuracy USB interface 200 reports/sec data report rate 6 mm reading height
Wireless Pen	1024 pressure levels
Software support	On screen annotations

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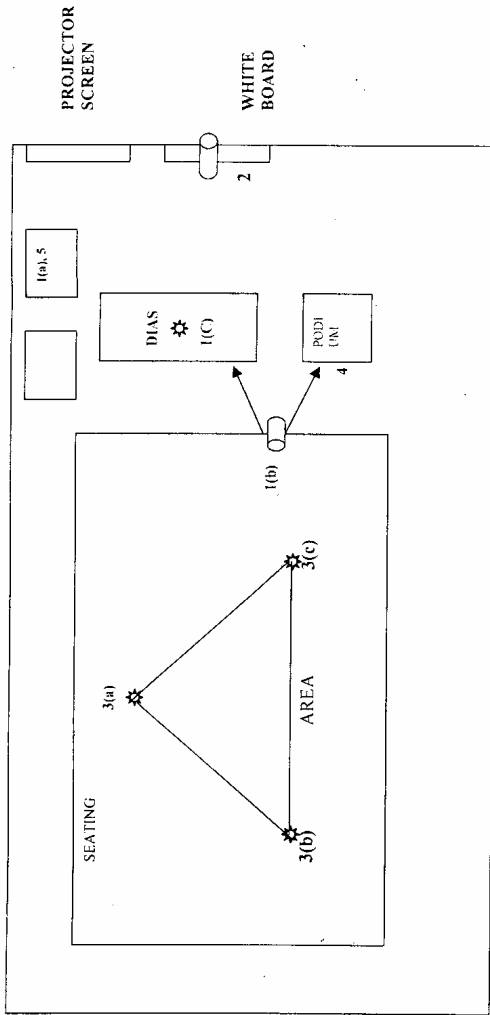
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	Pen presenter Pen commander Mouse control Pen mail Whiteboard option Pen signer Annotations for Word
Item No. 5	
DVR for recording Video output	
Video Specifications	PAL-NTSC System Regions 1-6 250 GB HDD Progressive Scan Output HD Up-conversion
Format compatibility	Recording Media DVD-RW, DVD-R, DVD+R, DVD-RAM Playback Media DVD-RW, DVD-R, DVD+R, DVD-RAM, DVD+RW, DVD Video, VCD Dolby Digital /DTS MP3 Playback
Audio Specification	Built-in Decoder 96 kHz/ 24-bit audio D/A converter
Additional features	TV Tuner Remote control SD/ SDHC Digital Media slot

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Library AVA Hall



1. Video Conferencing System
 - 1(a) Codec
 - 1(b) HD Camera 12x
 - 1(c) Microphone Array
 - HD Camera
2. HD Camera
3.
 - a. HD Ceiling Microphone Array 1
 - b. HD Ceiling Microphone Array 2
 - c. HD Ceiling Microphone Array 3
4. Tablet LCD Monitor 17"
5. DVR

Handwritten notes:
 3/11/18
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