Department of Computer Science and Engineering INDIAN INSTITUTE OF TECHNOLOGY MADRAS Chennai – 600 036.

Announcement No: CS /VC studios/ 001 dated: 04-12-2017

Quotations are invited from Original Equipment Manufacturers or their authorized Dealers with Service support for Chennai region (Dealers should attach authorized dealership certificate from the OEM Manufacturers), for the following equipment as per specifications mentioned below.

The pre-qualifying condition is that the vendor should have previous experience of having sold and installed atleast 5 Nos of identical or higher version systems to Premier Educational Institutions / well known IT companies / MNCs / reputed broadcasting companies etc., in the past 1 year with evidence, to be attached in the technical bid.

Please note that the 2 bid system given below has to be followed.

- a) Two quotes (bids) namely technical bid and commercial bid have to be given in separately sealed envelopes with clear marking on the envelope.
- b) The technical bid should not contain any commercial terms failing which the bidder will be disqualified. All technical details including specifications, prequalification condition indicated above, must be clearly given in the technical bid. Type of warranty without indication of commercial terms should also be indicated in the technical bid.
- c) The commercial bid should contain all commercial terms including, delivery of equipment at Computer Scienceand Engineering office, Installation and those related to warranty and other costs.

Quotes (two bid format separately sealed and also put into a single envelope and sealed) should reach the office of,

"The Head,

Department of Computer Science and Engineering

Indian Institute of Technology Madras,

CHENNAI - 600 036",

Last date for receiving of the tenders at the Department of Computer Science& Engineering office is 5.00pm on 27th December 2017.

1. <u>Video Conferencing System</u>:- 1Nos - Following are the specifications.

S.No	Description	Specifications
1	Video conferencing system	Full HD1080p camera,codec with necessary
	Package	cables&connectors, wall mount kit, Remote control,
	3.	adjustable ceiling mount kit, Additional microphones.
2	Video Standards and	It should support H.323,SIP standardsfor
	Resolutions	communications.
		It should support H.261, H.263, H.263+, H.264
		It should support,1080p at 30fps,720p at 60fpsand
		720p at 30fps.
3	Content Standards and	It should support content sharing using standard
	Resolutions	based H.239 and BFCP over SIP
		It should support content resolution at
		HD1080p@30fps
		It should transmit both people and content
		simultaneously to the far end
		location at1080p@30fps
4	Audio Standards and	It should support G.711, G.728, G.729, G.722,
	Features	G.722.1 or better
		It should support 15kHz bandwidth with crystal clear
		audio and stereo sound.
		Automatic Gain Control and Automatic Noise
		Reduction
5	Video and Audio Inputs	3xHD input for connecting main and additional HD
		cameras.
		1*DVI/HDMI input for connecting PC/Laptop/HD
		device to share HD content
		Microphone Input
	10.1	1x3.5mm stereo line-in
6	Video and Audio Outputs	3xHDMI/DVI output for connecting main monitor,
		recorders etc., 1x3.5mm stereo line-out
7	Other Interfaces	
′	Other Interfaces	1x 10/100 LAN port
8	Comoun	1xRS-232 mini-DIN8-pin
0	Camera	It should support 1080p at 60fpswith minimum 10x optical zoom and min 70° field of view.
		· · · · · · · · · · · · · · · · · · ·
		½"CMOS, Auto focus, Auto-Iris, minimum 50 lux, with IR Detectors
		It should support PANRange of minimum +/-85°, and
		Tilt of +/-30°
9	Network Features	H.323 and SIP bandwidth support min 6Mbps
	Network reduces	IPv4 and IPv6 support from day one
		Auto Gatekeeper Discovery
		IP Precedence
10	Security	Media Encryption (H.323,SIP): AES-128,AES-256
	Jecurity	Authenticated access to admin menus, web interface
		and TelnetAPI
		Local account password policy configuration
		H224/H.281, H.323AnnexQ, H.225, H.245, H.241,
		H.239, H.460
		It should support native Lync server integrations
		Auto sensing power 50/60Hz
	M III C	• From day one the codec should support optional
11	MultiConferencing	feature of multiconferencing capability to connect

		minimum - 1+5 video sites.
		Dial In and Dialout Modein IP networks should be supported
		• Capability to mix IPDial In & Dialout participants in the same call.
		 The multi-point call can be encrypted (AES/DESencryption)
		•Any of the end points should be able to show presentation in addition to the main video in a Multipoint call.
12	Warranty	3 years Premium Partner warranty.

2. Multi party License for Video conferencing equipment - 1Nos

S.No	Description	
1	Multi party Video	Specify the number of Licenses for package.
	conferencing License for the	
	above Video Conferencing	
	eguipment package.	

3. Cables and Connectors - 1 sets.

S.No	Description	
1	Cables and connectors	Complete range of cables and connectors to integrate
		the above mentioned Video conferencing system

4. Full-HD - 55" LED Display Monitor for Video Conferencing System: 1Nos

S.No	Description	Specifications
1	Full-HD - LED Display	Full-HD - LED Display Monitor – Slim LED backlit module.
	Monitor for Video Conferencing System	Screen size = $55'' = 139$ cms.
		With Remote control. Video / audio - input/ outputs: HDMI - 3 Nos USB 2.0 - 3 Nos Composite Video + audio Component Video + audio Headphone / RCA analog out.
		rieauphone / RCA analog out.

5. HDMI Video Recorder : - 1Nos -

S.No	Description	Specifications
1	HD (High Definition) video Recorder	HDMI Video Input: <u>Progressive</u> 1920x1080 @ 60/59.94/50/30/29.97/25/24/23.98 Frames per second
		1280x720@ 60/59.94/50 Frames per second. Interlaced 1920x1080i 29.97/25 frames per second Video Input Format Auto-Detectable.

	HDMI Video output :
	Preview output of video input signal.
	Recording File FoRecor
	Recording File Format: F
	File Type i- Industry Standard MP4 and MOV files with two channels of embedded AAC audio.
	Recording Lengths – Minimum file length of 300 Minutes.
	Storage types for file recording : To SupportSD and SDHC cards (Class 10) And USB 2.0
Warranty	3 Years warranty.

6. Wireless Lapel Microphone - 1 Nos.

S.No	Description	
1	Wireless Lapel Microphone	consisting of Lapel Mic, wireless transmitter and
	set.	compact receiver. The system should be UHF and of
		Broadcast audio quality. Microphone should be
		Cardoid - Unidirectional.

7. Interactive Tablet for PC / laptop: - 1Nos -

S.No	Description	Specifications
1	Interactive Tablet for PC /	22" Touch creative Pen display.
	laptop	Full HD – 1920 X 1080.
		Multiple levels of Pen pressure.
		Should be compatible with Windows and Mac.
		Ergonomic rotating stand.