



केन्द्रीय माध्यमिक शिक्षा बोर्ड

(मानव संसाधन विकास मंत्रालय, भारत सरकार, के अधीन एक स्वायत्त संगठन)

शिक्षा सदन, 17, इन्सटिट्यूशनल क्षेत्र, राउज एवेन्यु, दिल्ली-110002.

CENTRAL BOARD OF SECONDARY EDUCATION

(An Autonomous Organization under the Union Ministry of Human Resource Development, Govt. of India)
"Shiksha Sadan", 17, Institutional Area, Rouse Avenue, Delhi-110002

No.CBSE/RO(T)/VCE./2013/

Dated: 01.01.2014

Sub : BID FOR AUDIO VISUAL CONFERENCING SYSTEM – reg.

Responding to the challenge of improving the quality of school education in India, CBSE has decided to establish the National Institute of Continuous Professional Development for empowering teachers for improving the quality of school education at Gurgaon and its regional centres at Kakinada, Kolkata, Chandigarh, Kochi, Sitapur, Rai Bareilly, Pune etc. All these centers will be connected to each other through Audio-Video conferencing link.

The CBSE plans to establish training centres in Kakinada, Kolkata, Kochi, Sitapur, Rai Bareilly, Pune etc. Following material is required on an urgent basis. The technical details and experience in the field of video conferencing as per Annexure-II along with EMD of Rs.2,00,000/-(in the form of A/c payee Demand Draft, Fixed Deposit Receipt, Banker's cheque or Bank Guarantee) favouring "Secretary, CBSE, Delhi" and rates as per Annexure-III may please be furnished, duly sealed separately in two different envelopes superscribing "Technical Details" and "BID FOR AUDIO VISUAL CONFERENCING SYSTEM" respectively and both these envelopes be sealed in one envelope superscribing "BID FOR AUDIO VISUAL CONFERENCING SYSTEM".

The quotation should be completed in all respects and be clearly mentioned that all the terms and conditions as per Annexure-I are acceptable. The quotation(s) received without earnest money or in an incomplete manner in any respect will suo motto be rejected. The tender should be placed in the Tender Box kept at ground floor near security guard counter, CBSE, 17, Rouse Avenue, New Delhi on or before 15th January 2014 up to 10.00 AM. For any clarification please call on 011-23211575.

Yours faithfully,

(Navin Maini)
Research Officer (Tech.)

Encl as above

Sealing and Marking of Bids

The Bidder shall submit the Bid in the format specified in the Tender and seal it in an envelope and mark the envelope as “BID FOR AUDIO VISUAL CONFERENCING SYSTEM”

1. The documents accompanying the Bid shall be placed in a separate envelope and marked as “Technical Details”. The documents shall include:
 - a) Bid Security & Cost of Tender Document;
 - b) Supporting documents; and
2. The Bidder shall submit the financial Bid in the format specified at Annexure III, and seal it in an envelope and mark the envelope as “FINANCIAL BID FOR AUDIO VISUAL CONFERENCING SYSTEM”
3. The envelope specified in s.no.1 above and another envelope for S.No.2 shall be placed in an outer envelope, which shall be sealed. Each of the three envelopes shall clearly bear the following identification: “BID FOR AUDIO VISUAL CONFERENCING SYSTEM” and shall clearly indicate the name and address of the Bidder. In addition, the Bid Due Date should be indicated on the right hand top corner of each of the envelopes.
4. Each of the envelopes shall be addressed to so as to reach latest by 15.1.2014 by 10.00 am:

Mr Navin Maini
Research Officer (Tech.)
Central Board of Secondary Education
Shiksha Sadan 17 Rouse Avenue Delhi 110002

- If the envelopes are not sealed and marked as instructed above, the Board assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted.
- While TENDERS are under consideration, bidders and their representatives or other interested parties, are advised to refrain from contacting by any means bidders' personnel or representatives, on matters relating to the TENDERS under study. CBSE, New Delhi if necessary will obtain clarification on TENDERS by requesting such information from any or all the bidders either in writing or through personal contact as may be necessary. The bidder will not be permitted to change the substance of his offer after the TENDERS have been received in CBSE, New Delhi. Any attempt by any bidder to bring pressure of any kind, may disqualify the bidder for the present TENDER and the bidder may be liable to be debarred from bidding for CBSE, New Delhi TENDERS in future for a period of two years. CBSE, New Delhi reserves all rights to cancel the TENDER without assigning any reason thereof.
- Govt. Levies like service tax shall be paid at actual rates applicable on the date of delivery. Rates should be quoted accordingly giving the basic price, Service Tax etc.
- The proposal should be submitted in English Language and prices quoted in INR.
- Bidder shall sign all pages of TENDER.
- In case of any discrepancy between rates mentioned in figures and words, the latter shall prevail.
- Any attempt to influence directly or indirectly on the part of the TENDER with the authority to whom he has submitted the TENDER or authority who is competent finally to accept it after he has submitted his TENDER or any endeavour to secure any interest for an actual or prospective bidder or to influence by any means the acceptance of a particular TENDER will render the TENDER liable to be excluded from consideration.

- The bidder should have an office in the Delhi state/ NCR and at other places with offices across India manned with their own qualified professionals.

The Technical Evaluation Committee will examine all of the technical pre-requisites for the conduct of the services. Each Bidder will be awarded a Technical Score (TS) out of 100 points by the Committee based on the parameter given in the table below. The bidders are required to submit documents to establish their capability.

S.NO.	CRITERIA	Marks
1.	Proposed solution.	30
2.	Financial capability information	15
3.	Details of similar works under execution or awarded during last 3 years	15
4.	Details of similar completed works during last 3 years	10
5.	Details of Technical manpower to be employed for this project work (Name, Qualification, Total Experience Years, Experience in Exam related software Years)	10
6.	Hardware and Infrastructural availability for the work.	10
7.	ISO Equivalent/Higher certification.	10

Financial bid of only those bidders who get more than 70% marks in the table above will be opened on 15/1/2014 at 3.00 PM in presence of any bidders who may wish to be present.

Technically qualified bidder quoting the lowest total unit price as per Annexure III will be awarded the contract.

Terms and Conditions

- a) AMC of the complete system for 1 year is included. Coordination with the manufacturer will be the responsibility of the vendor.
- b) Scheduled preventive maintenance once in every month.
- c) Unscheduled, on-call corrective and remedial maintenance service from 09.30 hrs. to 17.30 hrs.(Monday to Saturday) excluding public holiday.
- d) Standard force majeure conditions shall apply.
- e) Complaints shall be attended to on the same day. Replacement and/or repair of the hardware equipment shall be carried out within 24 hours of registering the complaints. It is the whole & sole responsibility of the firm to arrange the part, repairs/replacement of equipment & stand-by device failing which the earnest money to the firm will be forfeited.
- f) The firm agrees to maintain the equipments specified in this Agreement in accordance with terms and conditions mentioned above.
- g) The rates should be quoted without Taxes and Taxes should be quoted extra.
- h) It should be clearly understood that CBSE can call the Engineers on holidays also.
- i) The Professor & Director (ART&I), CBSE reserves the right to accept or reject any or all the tender without assigning any reason.
- j) The jurisdiction in legal matter will be Delhi/New Delhi.
- k) **Material will be delivered and installed within 7 days from date of issuance of the order for a particular centre. Otherwise tender will be cancelled/Payment may be deducted.**
- l) Payment terms: 50% delivery, 40% on installation, 10% on completion of 1 year AMC
- m) The vendor should have OEM Authorization. Also one principal cannot authorize two distributors/suppliers to quote on their behalf in the same tender.
- n) **The cost of tender document Rs 2000/- should be submitted as a DD along with the tender.**
- o) The vendor should have turnover of at least 1 Crore and documentation (balance sheet etc.) to support.
- p) The requirement at different centers will be different. Therefore CBSE is asking for unit cost of the material required. The Professor & Director (ART&I) may vary the quantity of material required.

An agreement on Non-Judicial Stamp Paper is to be signed which will have the details of service levels required from the selected vendor.

**CENTRAL BOARD OF SECONDARY EDUCATION
SHIKSHA KENDRA, 2, COMMUNITY CENTRE,
PREET VIHAR, DELHI-110 310**

(To be sealed separately along with the DD for Earnest money)

1. ABOUT THE FIRM :

- (a) Name & Profile of the firm
- (b) Activities of the organisation
- (c) Man power profile of the firm
- (d) References from customers where similar work is being done.
- (e) Turn over for the period : 2011-2012
2012-2013

2. Technical Solution: Details of the services. Please use additional pages as necessary.

3. Documentary evidence of the following:

- (i) Length of Experience
- (ii) Financial Statements of the firm for the last 02 years
- (iii) Similar work done for government ministries/educational boards
- (iv) Technical and Administrative manpower available for the work.

Authorised Signatory
(with full name, designation and stamp)

Mobile No.: _____

Phone No.: _____

1. The system should be compatible with AVIEW software at aview.in.

2. All Equipment has to be from leading manufacturer brands.

S.No.	Original requirement	Detailed Description of proposed equipment	Comments	Unit Price
1. a	360° Movable Camera	Signal system 1080P60/50/30/25 Lens zoom 18 optical zoom , f=4.7~84.6mm Angle of view (H) 3.8° (tele) --55° (wide) Minimum illumination 1.8Lux White balance Auto / Manual Focus system Auto / Manual Iris system Auto / Manual Shutter speed Auto / Manual Back light compensation On/Off S/N ratio >50dB Input/Output interfaces HD interface USB 3.0	This is a PTZ camera to be mounted on ceiling/wall.	
1. b	Option for 1.a in AV Room	Media Storage Type: 220 GB HDD Image Sensor: 1/3.91 "Exmor R" CMOS Sensor Zoom: 12x Optical, 160x Digital Screen: 3.0 (7.62 cm) Xtra Fine LCD Display, Touch Screen, 16:9 Inbuilt Projector Inbuilt GPS Face Detection & Smile Shutter Auto Backlight Compensation HDMI & USB Interface External Microphone Input Mass: 0.405 Kg	This is handycam which shall be installed on an adjustable tripod.	
		32BG Memory card		
		OEM manufactured Tripod Stand		
2	HD Camera (Webcam)	<ul style="list-style-type: none"> • HD 1080p video quality at 30 frames-per-second • H.264 with scalable video coding (SVC) and UVC 1.5 encoding technology • 90-degree diagonal field of view • 4X digital zoom in Full HD • Pan, tilt and zoom option controlled by software • compatible with most UC and web conferencing applications • Carl Zeiss® glass lens • Convenient privacy shutter • Plug-and-play USB connectivity • Multiple mounting options 	This is a full HD webcam	

3	Video Switcher	<p>Scaled Outputs – HDMI & RGBHV (5 BNC, & 15-pin HD)</p> <p>Output – Up to 1920x1200 or 1080p</p> <p>Audio Outputs – Stereo & S/PDIF.</p> <p>Embeds Audio on the HDMI Output.</p> <p>Multi-Standard – PAL & NTSC.</p> <p>Audio Delay – 40ms, 110ms, 150ms or Disable.</p> <p>Built-in Proc-Amp</p> <p>Control – RS-232 & IR</p> <p>Size - 19" (1U)</p> <p>Audio - U/D/E</p>	To switch between various video sources	
4	(Wireless) Tabletop Mike	<ul style="list-style-type: none"> • 30.5 MHz tuning range. • Automatic setup function designed for less experienced operators • Up to 16 pre-programmed frequencies per group • Pilot Tone to prevent unexpected start-up noise • Infrared link of all frequency and setup data to the transmitter • Transmitter battery status monitoring • Programmable warning functions using a two-color display backlighting to indicate critical operation conditions (low battery, audio peak, RF low) • Compatible with antenna splitters, power supplies, and high quality directional and omni-directional antennas. Switching bandwidth <= 30.5 MHz <p>Sensitivity 6.3 dB\squareV / -100 dBm</p> <p>Diversity System Microprocessor-controlled diversity Modulation Wideband FM</p> <p>Audio bandwidth 35 – 20 000 Hz (\pm 3 dB)</p> <p>T.H.D. <= 0.3 %</p> <p>SNR (A-weighted) typ. 120 dB(A)</p> <p>Audio outputs 1 x XLR sockets balanced 1 x TS \square" / 6.3 mm jack sockets unbalanced</p>	These are Wireless mics that shall be installed on stands. This would provide flexibility without compromising on the performance.	
4.a	Processor	<p>12 analog mic/line input, 8 analog output, networked signal processor with fault-tolerant bus completa as required. The analog inputs of the processor to provide software configurable gain in 6dB steps</p> <p>up to +48dB per channel and software selectable Phantom</p> <p>Power per channel. Phantom Power, Signal Present and Clip</p> <p>information per channel should easily be accessible, without the requirement for a PC from front panel.</p>		

4.b	Amplifier	<p>Amplifier Power 2 x 50 W @ 4 Ω, 2 x 25 W @ 8 Ω Frequency Response - 40 Hz - 20 kHz (+0/-3 dB, @ 1 W reference 1 kHz). THD+N - ≤0.3 % (at full rated power). Channel Separation (Crosstalk) - ≤-60 dBV (below rated power, 1 kHz) Dynamic Range 88 dB Integrated DSP. Audio Latency 10.4 ms</p>		
4.c.ii	Speakers (for mid size rooms)	<p>System Performance Frequency Response (+/-3 dB) 80 Hz - 17 kHz Frequency Range (-10 dB) 170 Hz - 19 kHz Nominal Dispersion 125° H x 125° V Recommended High-Pass Filter 70 Hz high-pass filter Loudspeaker EQ Recommended Overload Protection PTC/Resistor Long-Term Power Handling 40 W (160 W peak) Sensitivity (SPL / 1 W @ 1 m) 3 87 dB SPL Maximum SPL @ 1 m 4 103 dB SPL (109 dB SPL peak) Nominal Impedance 8 Ω (transformer bypassed) Transformer Taps (70/100 V) 70 V: 2.5 W, 5 W, 10 W, 20 W, 40 W 100 V: 5 W, 10 W, 20 W, 40 W Driver 4.5" (114 mm) full-range driver</p>		
4.c.ii	Speakers (for small sized rooms)	<p>Frequency Response (+/-3 dB) 95 Hz - 17 kHz Frequency Range (-10 dB) 180 Hz - 19 kHz Nominal Dispersion 170° H x 160° V Recommended High-Pass Filter 80 Hz high-pass filter Long-Term Power Handling 16 W (64 W peak) Sensitivity (SPL / 1 W @ 1 m) 3 84 dB SPL Maximum SPL @ 1 m 4 96 dB SPL (102 dB SPL peak) Nominal Impedance 8 Ω (transformer bypassed) Transformer Taps (70/100 V) 70 V: 1 W, 2 W, 4 W, 8 W, 16 W 100 V: 2 W, 4 W, 8 W, 16 W Driver - 2.25" (57 mm) full-range driver</p>		

4.d	Wireless Mics	Switching bandwidth \square 30.5 MHz RF output power 10 or 50 mW Modulation Wideband FM Audio input TB3M / 3-pin mini-XLR socket (max. 2.5 Vrms) Audio bandwidth 35 – 20 000 Hz (\pm 3 dB) T.H.D. \square 0.7 % SNR (A-weighted) > 120 dB(A) Battery life \square 7 hours with one 1.5 V LR6 AA alkaline battery \square 8 hours with one 1.2 V HR6 AA rechargeable battery (min. 2100 mAh) \square 14 hours with one 1.5 V FR6 AA lithium battery Dimensions 60 mm (2.4 in.) \square 73.5 mm (2.9 in.) x 30 mm (1.2 in.) Net / Shipping Weight 90 g (3.2 oz.) without batteries Standard Accessories 1 AA size LR6 batteries, belt clip	This is similar to the above wireless mic. However, this would be worn by the presenter. Giving him flexibility with comfort and high performance.	
5	Audio Mixer	8 Channel Mixer with True, professional +48V phantom power, Universal internal power supply Frequency Response Mic / Line Input to any Output \pm 1.5dB, 20Hz – 20kHz T.H.D. Mic Sensitivity -30dBu, +14dBu @ Mix output < 0.02% @ 1kHz Noise Mic Input E.I.N. (maximum gain) -127dBu (150 Ω source) Aux, Mix and Masters (@ 0dB, faders down) < -85dBu Crosstalk Channel Mute > 96dB (@ 1kHz) Aux Send Pots Offness > 86dB EQ HF 12kHz, \pm 15dB (Mono inputs) MF (swept) 150Hz – 3.5kHz, \pm 15dB LF 80Hz, \pm 15dB Q - 1.5 EQ HF1 - 2kHz, \pm 15dB (Stereo inputs) MF (EFX Only) - 720Hz, \pm 15dB LF - 80Hz, \pm 15dB Q (MF) - 0.8 Temperature Range - 5°C to +40°C Input & Output Mic Input - +15dBu max. Levels Line Input- +30dBu max. Stereo Input.- . +30dBu max. Mix Output.- +20dBu max. Headphones (@150 Ω)- 300mW Input & Output Mic Input. - 2k Ω Impedances Line Input- 10k Ω Stereo Input- 65k Ω (stereo), 35k Ω (mono) Outputs- 150 Ω (balanced), 75 Ω (unbalanced) • Simple rack mounting options.		

6	TV Size 46"	<p>Screen Size 46 (117cm), 16:9 TV System 1 (Digital/Analog): B/G, D/K, I, L, M Colour System PAL, SECAM, NTSC 3.58, NTSC 4.43 Video Signal 480/60i, 480/60p, 576/50i, 720/50p,576/50p, 720/60p, 1080/50i, 1080/60i, 720/24p (HDMI™ only), 720/30p (HDMI™ only), 1080/24p (HDMI™ only), 1080/30p (HDMI™ only), 1080/60p (HDMI™ / Component), 1080/50p (HDMI™ / Component). MPEG Noise Reduction Yes Advanced Contrast Enhancer (ACE) Yes PhotoTV HD Yes Viewing Angle 178° (Right/Left), 178° (Up/Down) Screen Format TV: Auto Wide/ Full/ Normal/ Wide Zoom/ Zoom/ Caption/ 14:9/ PC: Full 1/ Full 2/ Normal Picture Mode Vivid, Standard, Custom, Photo-Vivid, Photo-Standard, Photo-Original, Photo-Custom, Cinema1, Cinema2, Game-Standard, Game-Original, Graphics, Sports, Animation CineMotion/Film Mode/Cinema Drive Yes 3D Comb Filter Yes Sound Mode Standard, Cinema, Sports, Music, Game, Compressed Audio Sound Enhancer Yes S-Force S-Force Front Surround 3D Dolby® Dolby® Digital, Dolby® Digital Plus, Dolby® Pulse Simulated Stereo Yes Audio Output Power 10W+10W HDMI™ Connections 4 USB 2.0 2 port, Ethernet Connection 1 (Vertical) Composite Video Input(s) 2 (1 Rear/1 Rear Hybrid w/Component), Component Video (Y/Pb/Pr) Input(s) 1 (Rear/Hybrid)</p>		
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7	Interactive White Board	<p>Active Size: Minimum 77" diagonal Active Area: Minimum active area 156 cm W × 117cm H Resolution: Digitizing resolution is approximately 32767 × 32767 Aspect Ratio: 4:3 Board Surface: Durable Hard-coated steel surface, optimized for projection, maintenance free, compatible with dry-erase markers and easily cleaned with whiteboard cleaner or isopropyl alcohol (IPA) Operating System: Windows XP SP3, Windows Vista® SP2 or Windows 7 operating system and Linux Writing Tools: Both finger and pen touch without any special tools, supports multi touch and use of non mechanical and battery free objects. Power Options: Power consumption is less than 0.5 W (100 mA at 5 V). Must obtain power from the computer through the USB cable for Windows® and Linux® computers. Technology: Touch technology. No interference from Electromagnetic sources/sunlight and other external influences Data Ports: 12 Mbit /s USB connection (full-speed USB 1.1 or USB 2.0). Storage: Saving of files in PC Software: Must include a complete version of the white boarding software application on a CD or DVD. Software must also be available online for download. Users must be able to access the software without having to register for an online community. Software must be available for update via a product updating service that can automatically scan for new updates and alert users to their availability. Must support Windows® / Linux® operating systems Should have interactive features like palm touch, image gallery, image enlarge; snap shots, recording lectures, reveal option, focus to specific part of content, zoom etc. Must supply additional software to collaborate external content and facilitate teachers to create new content and manage and deliver other content. Must supply an application for remote collaboration to work on the same content simultaneously and write directly into each other's documents. Minimum 100 to maximum 500 users can concurrently use the facility. Accessories: Stylus/ Pens, USB Cable, Software CD, user manual etc. to be a part of standard supply.</p>		
8	Multiple VGA Card	<ul style="list-style-type: none"> •External (PC) for PC •Video Analog-to-Digital Converter •TV Recording in MPEG-4 (H.264) format •Audio In, Audio L/R In, S-Video In, S-Video Out, USB 		

9	Ultra Short Throw Projector for Interactive Board	<p>Projection System 3 LCD panels, 1 lens projector system Lamp UHP lamp, 210W Light Output 3,000 lm Screen Size 60" to 110" (measured diagonally) Panel 0.63" x 3 LCD panel Projector Lens Approx. 1.05 times manual zoom/manual Focus, F=1.78~1.83, f= 4.92~5.18mm, TR=0.34~0.36:1 Keystone Correction Range Max. Vertical : +/- 5 degrees Lens Shift Vertical ±4% (Manual), Horizontal ±3% (Manual) Throwing Distance (4:3 Screen Aspect Ratio) From the center of projection window to screen 60" Screen 0.424 to 0.436m, 70" Screen 0.495 to 0.509m, 80" Screen 0.566 to 0.581m, 90" Screen 0.636 to 0.654m, 110" Screen 0.778 to 0.800m</p>	Included Ceiling Mount Kit and cabling.	
10	Multimedia Projector for projection on Screen	3700 lm WXGA, HDMI, LAN, USB, 16 W Spk, with Wi-Fi Dongle.		
	Motorized screen	Motorized screen. High Gain glass beaded. 120" diagonal.		
	Rack	24 U rack with castor wheels (Front glass / 3 sides perforated metal) Grey Color, 4 Fans, Trays as per requirement, Cable manager	VALRACK or equivalent	
	Speaker Cable	<p>Conductors : 16AWG, (26/30) bare copper conductors Insulation : PVC color coded: red, black. Center Conductor : 1.478mm (0.058in). PVC Insulation : 2.0mm (0.079in). Outer Jacket : 5.2mm (0.205in). DC Resistance : 13.7Ω/km (4.17Ω/1000ft). Temperature : -20° to 75°C (-4° to 167°F). RoHS : compliance with European directive 2002/95/IEC.</p>		
	Audio & Microphone Cable	<p>Conductors : 20AWG, (10/30) tinned copper conductors. Insulation : PVC color coded: red, black Drain Wire : 20AWG (10/30) tinned copper Shield : Aluminum Mylar foil 25% overlap rate Conductor : 0.916mm (0.036in). PVC Insulation : 0.44mm (0.071in) nominal thickness, 1.8mm diameter Impedance : 40 to 100Ω. DC Resistance : 34.6Ω/km (10.5Ω/1000ft). RoHS : compliance with European directive 2002/95/IEC CSA : C(UL) FT4.</p>		

	VGA Cable	<p>High-resolution multi-conductor containing 3 mini coaxes, 2 shielded pairs, and 7 single strands. for 15-pin HD (VGA/UXGA) cables. Conductor: 26AWG 7/34 tinned copper. Jacket: HD polyethylene. Diameter: 0.88mm (0.34in). Jacket Colors: Red, orange, brown, yellow, black, red/black. Shield: (A) 85% spiral 36AWG tinned copper. (B) Aluminum Mylar foil 25% overlap rate. Outer Jacket: PVC. Outer Jacket Color: Dark gray with white lettering. Outer Diameter: 10.0mm (0.393in). UL: CL2. CSA: C(UL) FT4. RoHS: In compliance with European directive 2002/95/IEC.</p>		
	HDMI Cable	<p>High-speed HDMI cables. RESOLUTIONS SUPPORTED : 480i, 480p, 720p, 1080i, 1080p. SHIELD : Dual overall shield against EMI/RFI interference, (a) Al-Mylar, (b) tinned copper CABLE OD : 3-25ft: 7.6 mm; 35 & 50ft: 8.3mm. MOLDED CONNECTORS 19 pin GOLD-PLATED CONNECTOR HDCP COMPLIANT Should be FLAME TEST.</p>		

Terms & Conditions as per Annexure – I, are accepted.

Authorised Singnatory
(with full name, designation and stamp)

Mobile No.: _____

Phone No.: _____